

HOW TO ACHIEVE FINANCIAL RESILIENCE? BIBLIOMETRIC ANALYSIS AND VISUALIZATION SMALL AND MEDIUM-SIZED FIRMS (SMEs)

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Abstract

Small and medium-sized firms (SMEs) make major contributions to a country's economic development by increasing employment possibilities, bringing technological changes, establishing social stability, stimulating entrepreneurship, and fostering industrialization. The COVID-19 pandemic has made survival difficult for the majority of micro, small, and medium-sized firms (SMEs) due to their tiny size, low financial resources, and inability to deal with unexpected scenarios. A total of 207 Scopus articles were selected and synthesized using a qualitative approach. The study applies novel visualization techniques (Global Citation Score and Co-Occurrence Networks of Keywords) to map the scientific structure of SMEs financial resilience research, including the clusters of the leading research topics based on citation networks, the most cited articles, and the keywords with the most substantial citation and co-occurrence. The findings contribute to a more comprehensive understanding of the evolution of SMEs' financial resilience research, highlighting the potential directions for further research in the field. This paper also provides insights for policymakers and SME managers to make informed decisions.

Keywords: SMEs; Financial Resilience; Bibliometric Analysis; Visualization Analysis.

JEL Codes: G01; O31, O32, M13.

1. INTRODUCTION

Small and medium-sized firms (SMEs) are often seen as capable of driving a country's economic growth, competitiveness, and innovation (Sastararuji et al., 2022; Suryanto et al., 2020). In early 2020, A small business is a productive economic business that operates on its own and is run by individuals or business organizations that are not subsidiaries or branches of a Medium or Large Business, either directly or indirectly (Suryanto et al., 2020). In most countries, SMEs account for over 90% of all private sector enterprises, more than 50% of private sector employment, and up to 40% of private sector turnover (World Bank, 2019).

The COVID-19 pandemic in early 2020 caused widespread disruption in all parts of society, and it is expected to have a long-term influence on the operations of SMEs. The pandemic has made survival difficult for most micro, small, and medium-sized firms (MSMEs) due to their tiny size, low financial resources, and inability to deal with unexpected scenarios (Sharma & Rai, 2023). Some SMEs, particularly in the tourist, trade, education, transportation, and health sectors, have been grappling with declining revenue and a changing economic landscape (Sastararuji et al., 2022). In today's global competitive environment, SMEs are expected to add more value to goods/services delivered in higher quality or more efficiently on goods/services

that are more appropriate than competitors (Dura, 2022). Due to a lack of management expertise and restricted working capital management, this is tough for SMEs. Despite these constraints, SMEs are more resilient (have stable financial performance) to changes in the business and economic climate. They can use their financial capabilities to make numerous appropriate decisions on the aims and sustainability of their firm if they have proper financial literacy.

Finance-savvy businesses grasp the financial aspects of strategic challenges better. As a result, they perform better. According to Wise (2013), financial literacy is critical to the survival of SMEs in both developed and developing countries. Poor financial management practices and frequent financial mistakes are the result of low financial literacy (Lusardi & Mitchell, 2014). According to Huston (2010), financial literacy is required to cope with rapid economic change. Financial literacy and company success have also been linked by Davidson, Xie, and Xu (2004). Furthermore, financial literacy is seen as an important part of generating wealth and improving the success of a firm (Behrman, Mitchell, Soo, & Bravo, 2012).

We add to the literature by merging several criteria that have previously been studied independently. Because SMEs are the engines of the economy, determining the primary elements influencing their performance will have significant significance for managers as well as government officials (Bilgin et al., 2012). Several studies have linked financial literacy to increased corporate success (Dura, 2022). We investigate how financial literacy, technology adoption, and financial technology influence the financial resilience of SMEs. The goal of this study is understanding how to achieve financial resilience for SMEs. We will combine several theories related to solving the problem we are researching so that we can create a framework for the relationship between financial technology, technology adoption, financial literacy, and financial resilience, especially in SMEs. One of them we will use the contingency theory in times of change and uncertainty produced by COVID-19 on SMEs and discover measures to improve its resilience and continue the growth of this sector (Sharma & Rai, 2023). It is also possible that we will find other theories in the literature that will support this research. There is little empirical research investigating the different effects of various organizational capabilities, unifying resource-based views, dynamic capabilities, and organizational learning to explore their relationship in crises to support resilience development.

2. MATERIALS AND METHODS

Scopus was chosen for the study since it is a well-known resource for literary research. Scopus is useful for determining the impact of articles (Paoloni et al., 2020). This academic database contains nearly all of the articles found in the Web of Science database. Furthermore, it included more articles in the domains of business and management, as well as the humanities and social sciences, that were directly relevant to SMEs and, in particular, to our RQs. Furthermore, the Scopus bibliographic database was chosen for its scale and variety of publications. Indeed, when compared to its competitors, Scopus includes a broader selection of publications and provides the option for citation analysis, particularly for papers published after 1995 (Falagas et al., 2008).

The literature was identified and assessed using a Systematic Literature Network Analysis (SLNA)(Ejismont et al., 2020). This SLNA approach consists of two primary components (figure 1). The first step is to undertake a Systematic Literature Review (SLR), followed by a bibliographic network analysis. The first stage is to conduct a systematic literature review (SLR). The SLR technique for additional data analysis ensures that the best papers are chosen for further research.

Using, for example, the Global Citation Score (GCS) and Co-Occurrence Networks of Keywords, bibliographic network analysis and visualization enable the identification of current and reliable topics as well as emerging research trends. Furthermore, it allows for a thorough description of qualitative components suitable for bibliometric analysis. The title, abstracts, and keywords have all been reviewed.

According to content analysis, the technique decreases study bias while increasing the validity and repeatability of the predefined constructs. VOSviewer (1.6.18) gives unrestricted access to Scopus bibliometric mapping data that can be used for analysis.

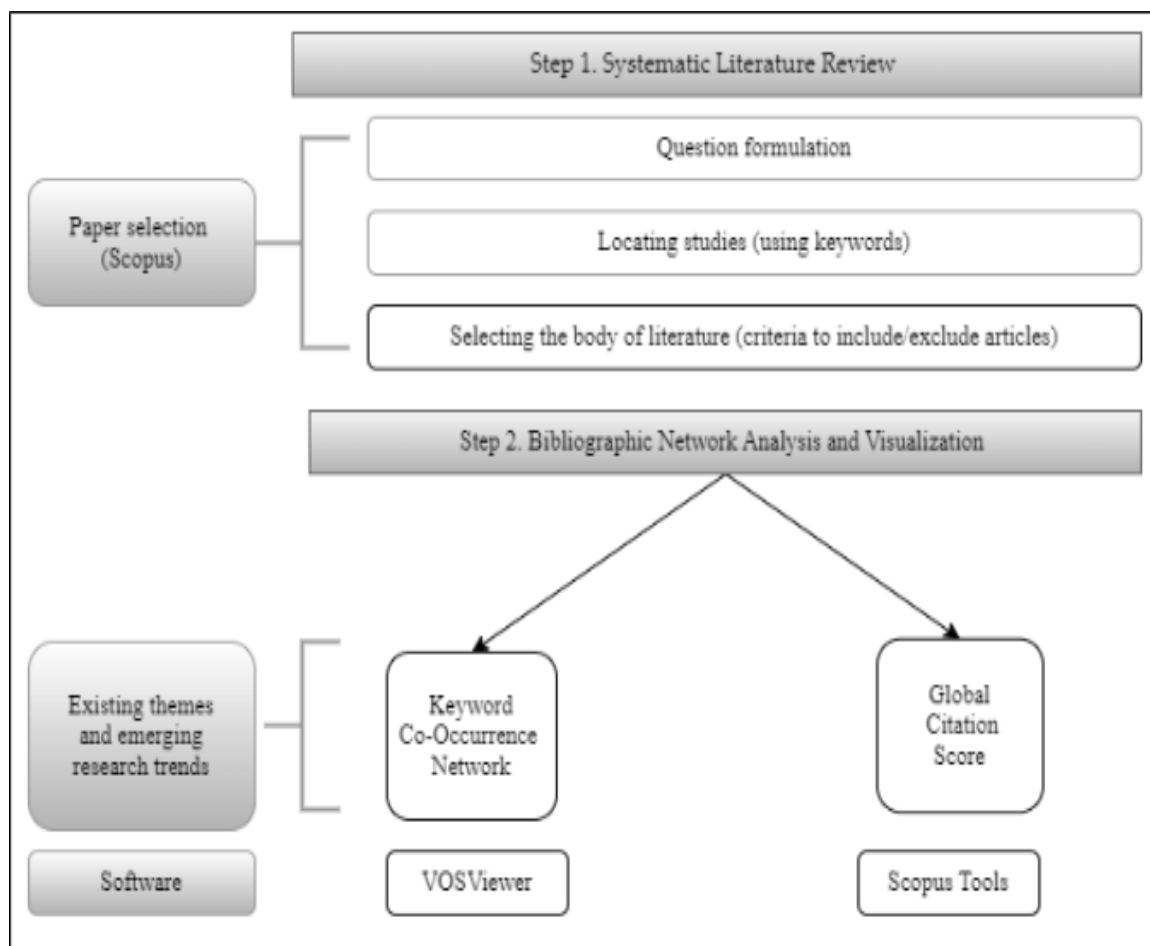


Figure 1: Research methodology based on SLNA

3. RESULTS

3.1. Systematic Literature Review

3.1.1. Research Question Formulation

Based on the available literature reviews on the relationship between “financial resilience”, “financial literacy”, “financial technology” and “technology adoption”, the following two research questions (RQs) were formulated, which have not yet been fully answered on scientific grounds:

RQ1. What is the research trend related to financial resilience, financial literacy, financial technology, and technology adoption?

RQ2. What are the main approaches/methodologies/frameworks/tools that should be considered for integrating financial resilience, financial literacy, financial technology, and technology adoption?

3.1.2. Locating Studies and Inclusion/Exclusion Criteria

Based on the keyword considerations above, the search query was formulated as follows (Equations (1)):

(Finance* AND (resilience OR literacy OR technology AND adopt*) AND (“small medium enterprise” OR SMEs))..... (1)

The identified query was introduced in Scopus including search: title, abstract, and keywords on September 2023 (27.09.2023).

Only articles in English from articles, conference papers, book chapters, reviews, book, conference reviews were considered for further analysis. There were 419 in Scopus.

The search results from the Scopus database were chosen for further analysis. The objective was to select studies that concerned the relationship between financial resilience, financial literacy, financial technology, technology adoption, and small medium enterprises.

The selection of papers is restricted to specific field areas found in the Scopus database search: business, management, and accounting; economics, econometrics, and finance: and multidisciplinary. 207 relevant publications (figure 2) were selected after screening titles, abstracts, and keywords of the identified documents.

Then, the full version of the text was read if there was any doubt whether the paper concerned the relationship between financial resilience, financial literacy, financial technology, technology adoption, and small medium enterprises. And helped find answers to the formulated research questions.

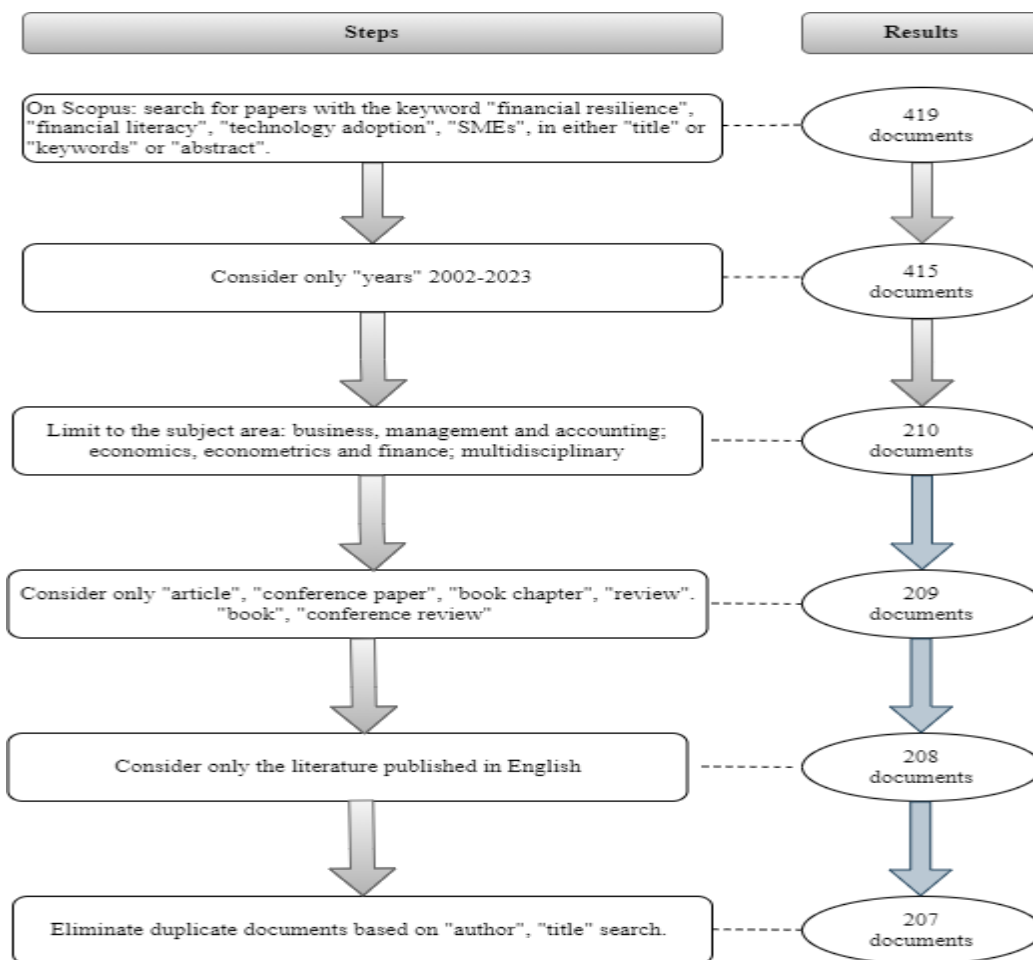


Figure 2: Paper selection procedure and result

3.1.3. Paper Selected for the Analysis

Figure 3 shows that the interest in the topic was not significant in the period 2002-2015. In 2016, there was started increase in interest in the topic (12 papers), but experienced a sharp drop in the year 2017 (4 papers) and experienced a drastic increase of almost two times in 2017 (23 papers). The highest number was in 2022 and 2023 were 30 and 47 papers, respectively.

According to Figure 4, Malaysia and United Kingdom produced the majority of the papers (24), followed by India, China, the United States, and Italy with 22, 19, 18, and 14 papers, respectively. Overall, 44% of paper is produced in the European region, 33% in American, 40% in Asian, 10% in Africa, 6% in Australia, New Zealand, and Oceania, and 1% in an undetermined location. A spread of research across continents and nations may indicate that the subject under discussion is significant on a worldwide scale. A further justification is the fact that several nations (such as the United Kingdom, Malaysia, India, and Indonesia) are seeking to explore the factors that influence the financial resilience of small and medium enterprises.

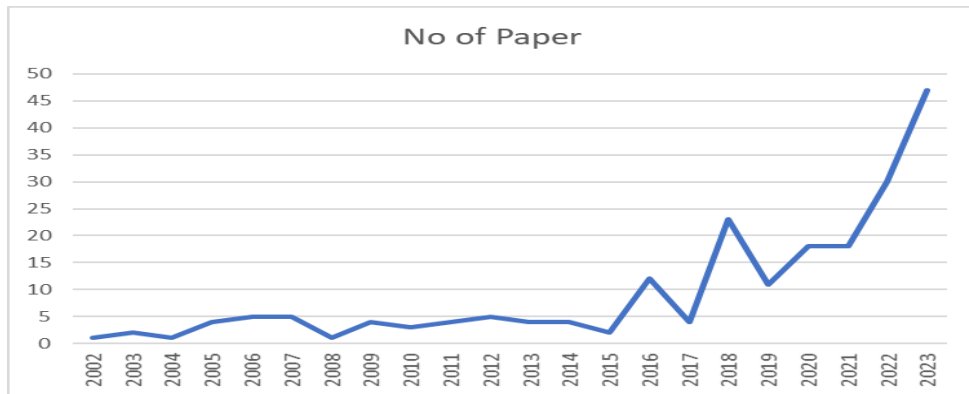


Figure 3: Number of selected papers in Scopus

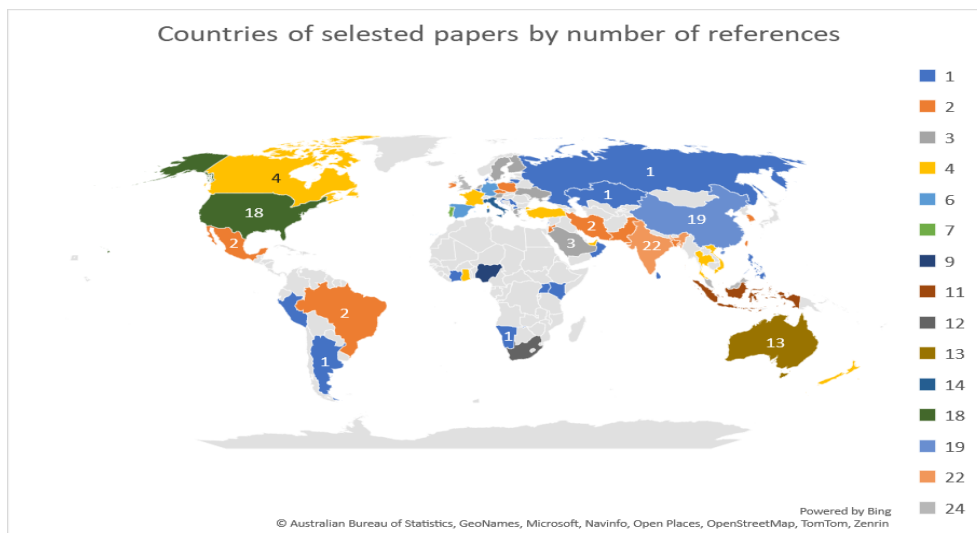


Figure 4: Countries of selected papers

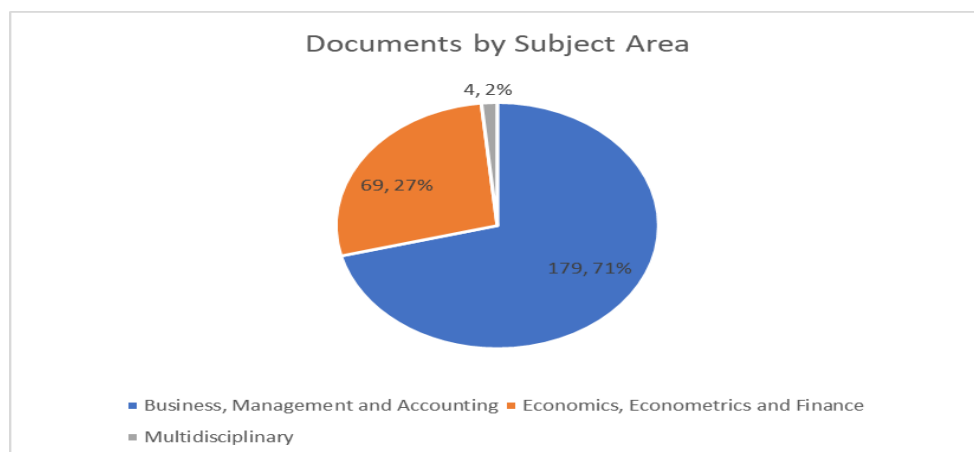


Figure 5: Research Subjects of the selected papers according to Scopus

The selected paper is dominated by one subject area: business, management, and accounting with numbers 179 papers (71%). The next most subject areas in a row are Economics, econometrics, and finance 69 papers (27%); multidisciplinary 4 papers (2%). It indicates that most of the authors' articles focus on aspects related to business, management, and accounting in which relationships of financial resilience at small and medium enterprise.

3.2. Bibliographic Network Analysis

3.2.1 Co-Occurrence Analysis

The selected terms were analyzed using a co-occurrence network. The nodes in this network represent the authors' chosen keywords, while the linkages illustrate how frequently the words appear together across numerous publications (Ejsmont et al., 2020). 23 nodes were produced by VOSviewer and organized into 6 clusters, shown in Figure 6. The complete keywords, clusters, total link strength, occurrence, and major research areas of each cluster can be seen in Table 1. Forty-four linkages comprised the co-occurrence network, with 144 total link strengths. The higher the number, the more important the keyword is to the network and the more often it appears in conjunction with other phrases.

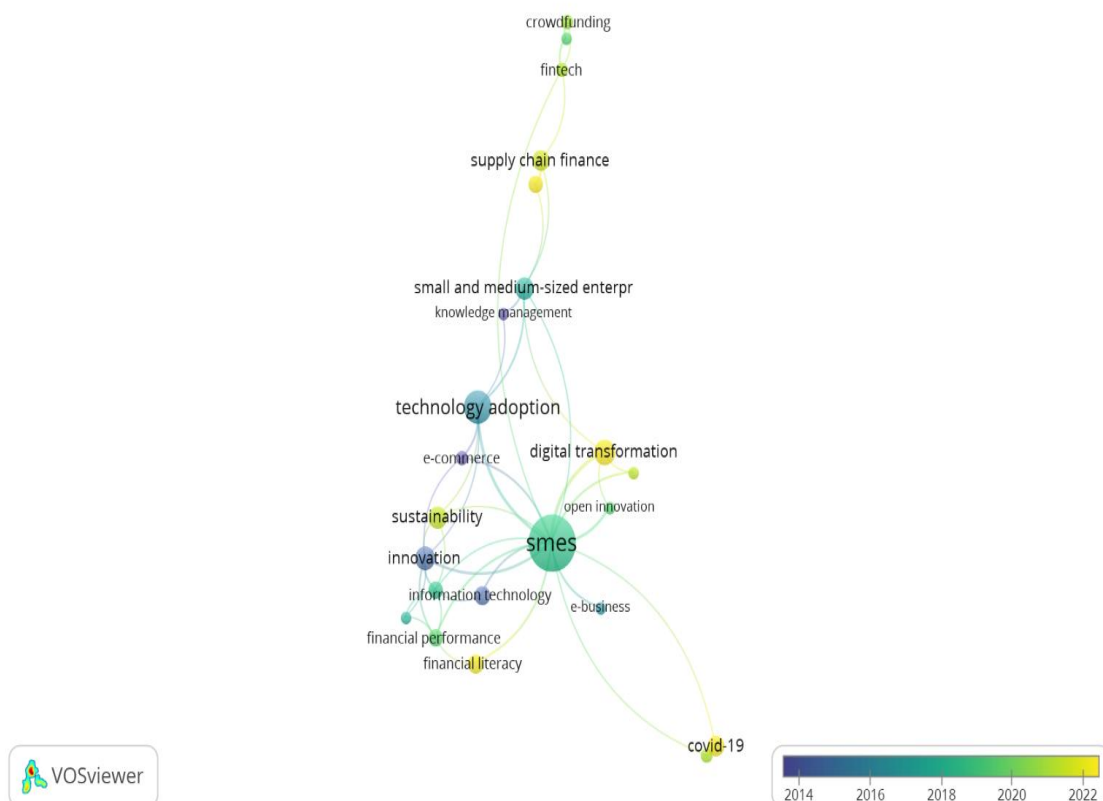


Figure 6: Co-occurrence overlay visualization author keyword

Table 1: Research topic in clusters based on author keyword by co-occurrence analysis

Cluster	Keyword	Total Link Strength	Occurrences	Main Research Topic
1	Entrepreneurship	7	5	Focused on innovation and financial performance
	Financial literacy	3	6	
	Financial performance	7	5	
	Information technology	3	6	
	Innovation	11	9	
	Innovativeness	3	3	
	Sustainability	4	8	
2	Digital technologies	3	3	Focused on fostering digital transformation for SMEs
	Digital transformation	8	10	
	E-business	2	3	
	Open innovation	4	3	
	SMES	33	44	
3	Blockchain technology	4	5	Focused on supply chain management for SMEs
	Knowledge management	3	3	
	Small and medium-sized enterprises	8	8	
	Supply chain finance	5	7	
4	Crowdfunding	3	4	Focused on the impact of financial technologies (FinTechs) on SME growth.
	Fintech	5	4	
	P2p lending	4	3	
5	Covid-19	4	7	Focuses on the impact of COVID-19 on MSMEs, opportunities, and influence on resilient and sustained growth of small firms
	Resilience	4	4	
6	E-commerce	5	4	Focuses on accepting internet and e-business technologies on SMEs, the factors that influence e-commerce adoption
	Technology adoption	11	16	

Table 1 provides extensive details about keywords and clusters. Six separate study areas are included in the retrieved clusters. Furthermore, study subjects are arranged in order of co-occurrence of keywords, or the frequency with which keywords occur in the data set.

Cluster 1 focuses on research related to innovation and financial performance. This research (Bigliardi & Galati, 2016) identified four primary barriers to SMEs from adopting open innovation (OI): "knowledge," "collaboration," "organizational," and "financial and strategic." Additionally, this study identified three firm profiles, each with varying levels of innovation within their respective industries (knowledge-intensive, medium-innovative, and less innovative), as well as perceived hindrances related to "knowledge," "financial and strategic," and "collaboration" and "organizational" barriers. The empirical findings confirm (Bigliardi, 2013) that an increase in the innovation level increases financial performance. Specifically,

they underline the relevance of the innovation developed to meet the customers' needs as well as of those developed to differentiate from the competitors in improving the financial performance. Moreover, according to the research (Bag et al., 2022) results, the following factors have a major impact on SMEs' blockchain technology adoption (BCA): relative advantage, compatibility, organizational readiness, top management support, competitive pressures, external support, regulations, and laws. SMEs' BCA is, however, adversely affected by complexity. The analysis's findings also showed that financial and market performance (MAP), rather than BCA, has a substantial impact on SMEs' financial performance.

Cluster 2 focuses on fostering digital transformation for SMEs. Based on this research (Garzoni et al., 2020), the results introduce a four levels approach to engagement of SMEs in the adoption of digital technologies, namely, digital awareness, digital enquirement, digital collaboration, and digital transformation. Additionally, each degree of participation is covered in detail by the study, along with some pertinent criteria that managers and entrepreneurs may find useful in determining how prepared a company is to employ digital technologies and how to digitalize certain operations. Inter-organizational information systems (IOISs) support innovation in services and are thus a strategic tool for SMEs to obtain competitive advantage (Chaparro-Peláez et al., 2014). This research (Skare et al., 2023) discovered that SMEs' capacity and adaptability to handle key business challenges are strengthened by digital transformation. Additionally, research shows that SMEs that have undergone digital transformation are less worried about changing regulations, disruptions to the market, difficulties obtaining funding, difficulties reaching both new and existing clients and rising input costs. Digital transformation does, however, come with risks. These include a loss of intrinsic competitiveness and a shortage of experienced managers and trained workers. The results of another study (Awa et al., 2015) revealed an adoption barriers model that captures location factors and non-transparency in government support programs and attempted to unveil why certain locations offer more adoption opportunities than others.

Cluster 3 explains supply chain management, supply chain finance, and the appropriation of blockchain technology for SMEs. Due to their critical role in driving a country's economy, it is critical to increase the efficiency and performance of small and medium-sized firms (SMEs) (Soni et al., 2022). For SMEs, the limited capital available for investment is a barrier to growth. However, optimizing financial flows in the supply chain can improve the operating and investment potential of SMEs, with Industry 4.0 technologies having significant promise for improving the efficiency of an industry's supply chain, within which SMEs work (Babu et al., 2021; Soni et al., 2022). Furthermore, financial technology (FinTech) innovation has aided in the adoption of supply chain finance (SCF) by delivering financial services via information technologies (IT) and streamlining SMEs' loan and transaction processes (Alora & Barua, 2019). As a result, Industry 4.0 technologies such as the Internet of Things (IoT), cloud computing, big data, and analytics are vital to the development and impact of FinTech. In this regard, SMEs can improve their working capital and competitiveness by implementing Industry 4.0 technologies for sustainable supply chain financing (SSCF). On the contrary, the main argument of this article (Ilbiz & Durst, 2019) is that SMEs should be skeptical while evaluating the appropriation of blockchain technology for their business needs and they should

follow a tailored approach whilst adopting it. Otherwise, there is a strong possibility that a short-term and unstructured knowledge management strategy to embrace blockchain will result in a waste of resources.

Cluster 4 concerns on the impact of financial technologies (FinTechs) on SMEs growth. This paper (Abbasi et al., 2021) examines the impact of financial technologies (FinTechs) on SME efficiency and this study also recommends that countries should implement policies that encourage FinTech firms to enhance SME efficiency. Furthermore, if SME managers want to increase business efficiency, FinTechs could be a way to accomplish so. Furthermore, while considering cross-border investments, it may be necessary to take into account both FinTechs and culture. Continuing the previous research, the findings of the study (Suryanto et al., 2020), the existence of the fintech industry would easily overcome some of the challenges that SMEs frequently confront.

SMEs were rapidly growing and thriving because they could tailor the fintech platform to their requirements. This study demonstrates how fintech companies' services can act as a catalyst for the growth of their enterprises. The peer-to-peer (P2P) lending platform, equity crowdfunding (ECF), e-wallet, and personal finance are all services that specifically promote SMEs growth. On the other hand, this study (Bavoso, 2020) focuses on the structure and operation of the key FinTechs platforms, acknowledging that while some are functionally banks with a technology-based business strategy, many platforms operate under the P2P business model.

Cluster 5 focuses on the impact of COVID-19 on MSMEs, opportunities, and influence on resilient and sustained growth of small firms. This research (Pal et al., 2014) focuses on determining the antecedents and their various degrees of influence on economic resilience. It also enhances awareness of the underlying patterns in the antecedents identified in SMEs, which favor or impede resilience due to their significance or deficit, respectively. Based on the "social-cognitive," "stakeholder," and "consumer culture" theories, this study (Kholaf et al., 2023) shed light on the optimistic side of the COVID-19 pandemic, as it also brings the concepts of social responsibility, resilience, and green practices back into the spotlight, which aids in the resolution of customer issues and the attainment of customer resilience. According to the findings of this study (Saura et al., 2023), SMEs have employed several digital tools and tactics to adapt to the changing market conditions caused by the pandemic, and they have been proactive in adopting new technologies to continue operating and reaching clients in a connected world.

Cluster 6 is concerned on accepting internet and e-business technologies on SMEs, the factors that influence e-commerce adoption. The study's (Ifinedo, 2011) findings indicated that perceived benefits, management commitment/support, and external pressure are significant predictors of internet and e-business technologies (IEBT) acceptance in SMEs; however, the results did not show that organizational information technology (IT) competence, information system (IS) vendor support, or the availability of financial support positively influence IEBT acceptance in the SMEs. Furthermore, organizational readiness has a great influence on e-commerce implementation, and managerial support, as well as financial, logistical, and

technological variables, play a significant role in determining whether an SME can pursue e-commerce implementation (Sutanonpaiboon & Pearson, 2006). In addition, this research (Chan et al., 2012) has discussed about implementing e-collaboration. It is one of the important technologies in facilitating the success of supply chain management (SCM), as it facilitates the integration of business operations and the sharing of information among supply chain partners.

3.2.2 Global Citation Score Analysis

According to Table 2, 8 of the 10 articles with the highest normalized GCS belong to the six largest clusters revealed during the citation co-occurrence analysis (Table 1). This illustrates those groundbreaking studies do not always need to be included in primary citation coexistence networks. It is worth noting, however, that the normalized GCS rankings derived by two independent methodologies would differ only a little. There are articles with low GCS (e.g., (Rodríguez-Espíndola et al., 2022)) and high normalized GCS values. Otherwise, there are papers with high GCS (e.g., (Bigliardi & Galati, 2016; Chan et al., 2012)) and low normalized GCS values. That demonstrates the accuracy of the selected technique.

The works (Rodríguez-Espíndola et al., 2022) that have a reasonably big number of normalized GCS despite their publication in 2022 are very remarkable. Furthermore, the second and third articles (Agostini & Nosella, 2020; Garzoni et al., 2020) are part of the most extensive citation cluster. Papers are more likely to be cited in the years after their publication. In this case, it may be interpreted that these articles are ground-breaking studies describing future research prospects.

The goal of this paper (Garzoni et al., 2020) is to examine how digital technologies influence the business processes of manufacturing small and medium-sized firms (SMEs). As SMEs play an important role in the process value creation of industries and countries, this article investigates the enablers of Industry 4.0 in regional contexts characterized by delays in research and development and innovation performances, where companies' competitiveness is based on limited knowledge and technological assets. The findings of this publication (Agostini & Nosella, 2020) show that SMEs with stronger internal and external social capital (SC) are more likely to adopt industry 4.0 (I4.0) technologies, and both management support and absorptive capacity (AC) strengthen these relationships, whereas investments in AMTs in the manufacturing area and internal SC have a positive relationship with the intensity of I4.0 adoption.

Only one paper in Table 2 (Pacheco et al., 2018) is a review or conceptual paper. The goal of this research is to investigate the characteristics that influence the effective adoption of eco-innovation in SMEs. The data reveal several similarities/differences as well as intersections/overlaps, yielding a list of sixteen key factors. The results also showed that eco-innovations in SMEs can be enabled by breaking away from the immediatism culture, by SMEs participating in cooperation networks, by taking into account the regulations affecting the sector in which the SME operates and the applicable legislation, by investing in R&D of innovative technologies in collaboration with external agents, by qualified professionals planning for and implementing eco-innovation, and by strengthening the financial condition.

Table 2: Top 10 most cited articles ranked by normalized GCS

Rank	Title	Authors	Publication Year	Journal	Appearance in Co-occurrence Cluster	GCS	Normalized GCS*
1	"The role of circular economy principles and sustainable-oriented innovation to enhance social, economic and environmental performance: Evidence from Mexican SMEs"	(Rodríguez-Espíndola et al., 2022)	2022	International Journal of Production Economic	No	70	28.00
2	"Fostering digital transformation of SMEs: a four levels approach"	(Garzoni et al., 2020)	2020	Journal of Management Decision	Yes	129	15.75
3	The adoption of Industry 4.0 technologies in SMEs: results of an international study	(Agostini & Nosella, 2020)	2020	Journal of Management Decision	Yes	88	9.25
4	"Antecedents of organizational resilience in economic crises - An empirical study of Swedish textile and clothing SMEs"	(Pal et al., 2014)	2014	International Journal of Production Economics	Yes	287	7.50
5	Supply chain finance: From traditional to supply chain credit rating	(Moretto et al., 2019)	2019	Journal of Purchasing and Supply Management	No	73	4.40
6	Leaders and Laggards in Environmental Innovation: An Empirical Analysis of SMEs in Europe	(Triguero et al., 2016)	2016	Journal of Business Strategy and the Environment	Yes	85	3.00
7	Eco-innovation determinants in manufacturing	(Pacheco et al., 2018)	2018	Journal of Engineering and Technology	Yes	78	2.83

	SMEs from emerging markets: Systematic literature review and challenges			Management			
8	"Network capability, innovativeness, and performance: a multidimensional extension for entrepreneurship"	(Parida et al., 2017)	2017	Journal of Entrepreneurship and Regional Development	Yes	83	2.57
9	"Which factors hinder the adoption of open innovation in SMEs?"	(Bigliardi & Galati, 2016)	2016	Journal of Technology Analysis and Strategic Management	Yes	126	1.88
10	An empirical investigation of factors affecting e-collaboration diffusion in SMEs	(Chan et al., 2012)	2012	International Journal of Production Economics	Yes	152	1.33

* Citation in 2023/Years since the adoption.

4. DISCUSSION AND IMPLICATIONS

The article provides a comprehensive summary of the numerous views and developments in small and medium-sized firms' (SMEs) financial resilience research during the 2000s. The systematic review process utilized in this study ensured that all relevant material was found and summarized. At the same time, the visualization analysis provided a unique view on the interconnection and trends of ideas in the sector.

According to the report, numerous essential elements contribute to the financial resilience of SMEs, including financial literacy, technology adoption, and financial technology. The visualization analysis revealed numerous relationships between these parameters, all of which are critical components of the financial resilience of SMEs.

In theory, this research will expand on previous discoveries from at least three research streams. The first research stream is fostering digital transformation for SMEs (Garzoni et al., 2020). The scope includes technology adoption for sustainability SMEs' performance (Bigliardi & Galati, 2016) and the effect of innovation on financial performance (Bigliardi, 2013). The current study is the first empirical attempt to determine which barriers SMEs feel while adopting the open innovation (OI) paradigm. The requirement to create an ad hoc dashboard or key performance indicators to assess SMEs' progress toward digital transformations. This provides another possibility for future investigations targeted at defining approaches and tools

for dynamic measurement and forecasting. The second research stream is the impact of financial technologies (FinTechs) on SMEs (Abbasi et al., 2021). For the future research, this study suggests the need for countries to introduce policies supporting FinTech startups in order to improve SME efficiency. Moreover, if the SME managers aim to achieve higher firm efficiency, then adopting FinTechs may act as a mechanism to attain this objective. Further, it may be important to consider both FinTechs and culture when evaluating cross-border investments.

The third research stream is financial literacy, resilience and sustainability SMEs' performance (Munyuki & Jonah, 2022; Pal et al., 2014; Sharma & Rai, 2023). The future study should also consider the personality traits of the entrepreneurs for the variable effect to resilient and sustained growth of small firms (Sharma & Rai, 2023). In addition, future research directions are left open. This can be related to either understanding the process of utilizing the available antecedents along a process of generating firms' crisis response repertoire, following pattern identification along the strategic and operational modes executed by firms, or it can be quantitative works related to investigation of combined effects of the antecedents in enabling resilience, or a comparative evaluation of resilience antecedents and their different effects for large corporations and SMEs (Pal et al., 2014).

The findings of this study have several implications for practitioners and researchers in the field of financial resilience of SMEs. First, the empirical findings confirm (Bigliardi, 2013) that an increase in the innovation level increased financial performance. For examples, innovative new products better satisfy customer wants, which increases willingness to pay and adoption likelihood. This indicates that adopting new products and/or processes based on consumer wants and requirements may boost competitiveness and total profitability, emphasizing the need of paying attention to client requests. Second, the result explained (Skare et al., 2023) discover that SMEs' capacity and adaptability to handle key business challenges are strengthened by digital transformation. Additionally, research shows that SMEs that have undergone digital transformation are less worried about changing regulations, disruptions to the market, difficulties obtaining funding, difficulties reaching both new and existing clients, and rising input costs. Third, this study recommends that countries should implement policies that encourage FinTech firms in order to enhance SME efficiency (Abbasi et al., 2021).

Overall, the bibliometric review and visualization analysis give significant insights for researchers, SMEs and policymakers interested in financial resilience. This research can assist to improve the financial performance, financial literacy, financial resilience, innovation and financial technology adoption of SMEs.

5. CONCLUSIONS

This bibliometric review and visualization analysis provide insight on the present state of financial resilience of SMEs views. We identified the important themes and trends in SMEs financial resilience research through a search and analysis of relevant literature. Furthermore, the visualization analysis provided a unique view on the relationships between distinct concepts in the literature and indicated opportunities for further investigation.

Between 2002 and 2023, this bibliometric study assessed the scientific field of SMEs financial resilience. The findings demonstrate how far the research of SMEs financial resilience has progressed. Rather than focusing on a single topic, the literature connects numerous, including business, management and accounting economic; econometrics and finance; and multidisciplinary. According to the bibliometric and graphical studies of SMEs financial resilience views, a more comprehensive strategies and changes are needed to help SMEs companies towards financial resilience so that they can survive even in crisis conditions. These strategies and changes include adopting new technologies, developing new innovations, and maximizing the potential of resources within the company. A major conclusion that emanates from this research is how firms can develop their resilience potential by tuning their strategic assets and capabilities.

There are some limitations to the study. First and foremost, the study is based purely on Scopus imports of bibliographic data. The results of bibliometric study may be influenced by the database used. As a result, the findings may differ depending on the database used. Second, the restricted access to the papers excluded some critical texts. Future researchers examining the subject may take it into account.

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