CORPORATE RESILIENCE FACING GRAND CHALLENGES: A GLOBAL RESEARCH PERSPECTIVE.

1 INTRODUCTION

The current global environment is marked by an unprecedented surge in crises, encompassing pandemics, climate change, resource scarcity, geopolitical conflicts, and socioeconomic disparities. These "Grand Challenges" are complex, uncertain, and evaluative phenomena, exposing systemic vulnerabilities that need conceptual advancements to grasp the nature of organizational interdependencies and collective actions that can yield transformative solutions (George et al., 2016; Ferraro et al., 2015). Complexity arises from their multiplicity and their interdependent interactions that shape adaptive systems, generating nonlinear effects and unforeseen consequences. This uncertainty is radical in nature, as it makes it impossible to reliably anticipate both the future states of the system and the implications arising from the current actions of the actors involved (Ferraro et al., 2015). The evaluative dimension highlights the lack of consensual definitions or objective criteria to characterize the problem, as different stakeholders mobilize divergent values, interests, and interpretations (Ferraro et al., 2015).

In this context, organizational resilience becomes a fundamental competency for long-term institutional survival and relevance, even expanding the role of organizations in responsibilities previously attributed to governments (Ballesteros et al., 2017). However, despite its growing relevance, the literature connecting organizational resilience and Grand Challenges remains fragmented, scattered across areas and levels of analysis, with conceptual inconsistencies that limit an integrative framework (Bundy et al., 2017; Dorado et al., 2022). Thus, there is a lack of understanding of how management science can effectively contribute to addressing problems of high social and organizational complexity that guides our research question: How has the field of research connecting organizational resilience to Grand Challenges evolved, in terms of publication trends, main thematic currents, influential actors, and knowledge gaps, and what opportunities emerge for future research? Based on this, our study aims to map the global panorama of research on the topic, highlighting influential actors, high-impact works, relevant journals, collaboration networks, and emerging frontiers of knowledge, to consolidate a still dispersed field and guide future research agendas.

2 METHODS

This research used the Web of Science (WoS) database as its primary source of literature, selected for its established reputation for data reliability and minimal redundancy. The search was conducted using the following precise strings to identify relevant publications: TS = (("resilien*" AND ("organiz*" OR "compan*" OR "firm*" OR "business*" OR "enterpris*" OR "corporat*")) AND ("grand challenge*" OR "wicked problem*" OR "systemic risk*" OR "global challenge*" OR "crisis" OR "climate change" OR "disruption*" OR "shock*" OR "disaster*" OR "turbulence*")). The initial search results were refined through specific criteria to ensure the quality and relevance of the articles included in our analysis. These filters restricted the selection to: (a) peer-reviewed original articles and reviews; (b) publications in the English language; (c) articles published within the period of January 1, 2000, to December 31, 2024; and (d) journals indexed in the Social Sciences Citation Index (SSCI), Emerging Sources Citation Index (ESCI), and Science Citation Index Expanded (SCI-E) within subject categories relevant to the field.

This rigorous selection process resulted in a final corpus of 784 articles for analysis. The methodological framework for this study combines established bibliometric techniques with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol, following the approach of Sanchez-Garcia et al. (2024). This integrated approach ensures the systematicity, replicability, and qualitative depth of our literature analysis. Data analysis was performed using the Bibliometrix®/Biblioshiny software package for R to map the intellectual

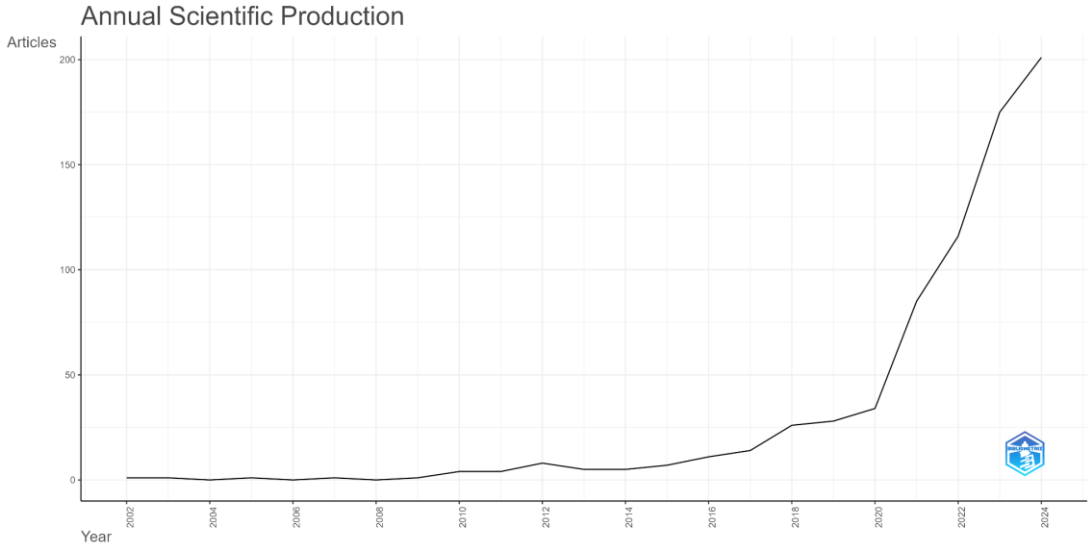
structure of the field, identifying key trends, emerging research themes, the most influential journals and authors, and the structure of scientific collaboration networks.

3. RESULTS AND DISCUSSION

The final dataset encompasses a wide scholarly landscape, including 362 academic journals, 2,040 authors, 28,438 cited references, and 2,141 author-provided keywords. A temporal analysis presents an increase in scholarly interest, with annual publications on organizational resilience to grand challenges growing from just 8 in 2012 to 201 in 2024. This reflects a compound average growth rate of 30.08% per annum. Furthermore, the collaborative and international scope of the field is highlighted by the finding that 38.19% of the publications involve international co-authorship. Collectively, these data affirm the emergence and consolidation of this research domain as a significant frontier in management scholarship.

The study encompassed findings from 79 countries, with a strong concentration in the United States (261), the United Kingdom (181), and China (172), which together account for nearly half of the articles. Italy (120), France (74), Germany (70), and Australia (84) also rank among the leading centers, confirming the dominance of the Global North in shaping agendas and trends. Brazil stands out among the most productive countries on the topic (32 publications) with active scientific capacity, yet still constrained by scale and resources, reinforcing the need to expand investments and strengthen its international presence. The analysis of scientific production reveals growth in the literature mainly after 2020. The number of publications accelerated sharply with the COVID-19 pandemic, surpassing 200 articles in 2024 (Figure 1). This pattern confirms that the field has evolved reactively to disruptive events, supporting Ferraro et al.'s (2015) argument regarding the uncertain and unpredictable nature of Grand Challenges, while also reinforcing George et al.'s (2016) thesis that global crises act as catalysts for new research agendas in management.

Figure 1 – Annual Scientific Production

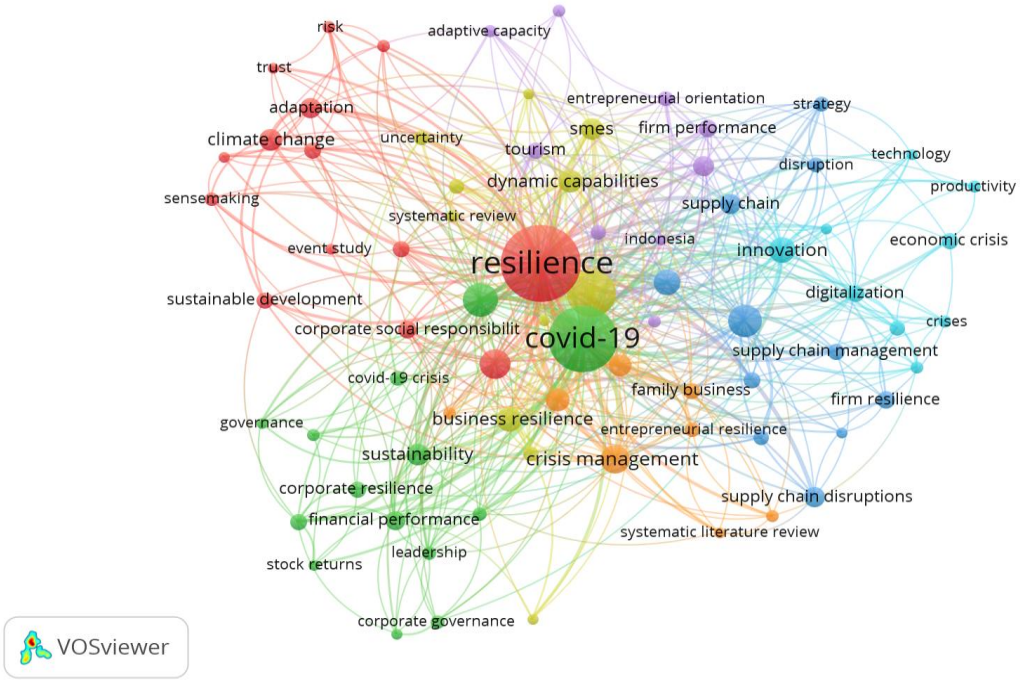


Source: Authors (2025).

The keyword co-occurrence map (Figure 2) deepens this analysis by highlighting the existence of partially overlapping research clusters. The cluster led by the terms resilience and COVID-19 concentrates the highest density of publications, articulating themes such as crisis management, sustainability, and supply chain. Other clusters associate resilience with innovation, dynamic capabilities, SMEs, and digitalization. Although there are relevant interconnections, the overall configuration confirms the fragmentation of the field already pointed out by Dorado et al. (2022): multiple agendas coexist, but an integrative conceptual

framework capable of articulating organizational adaptation mechanisms to different types of global challenges is still lacking.

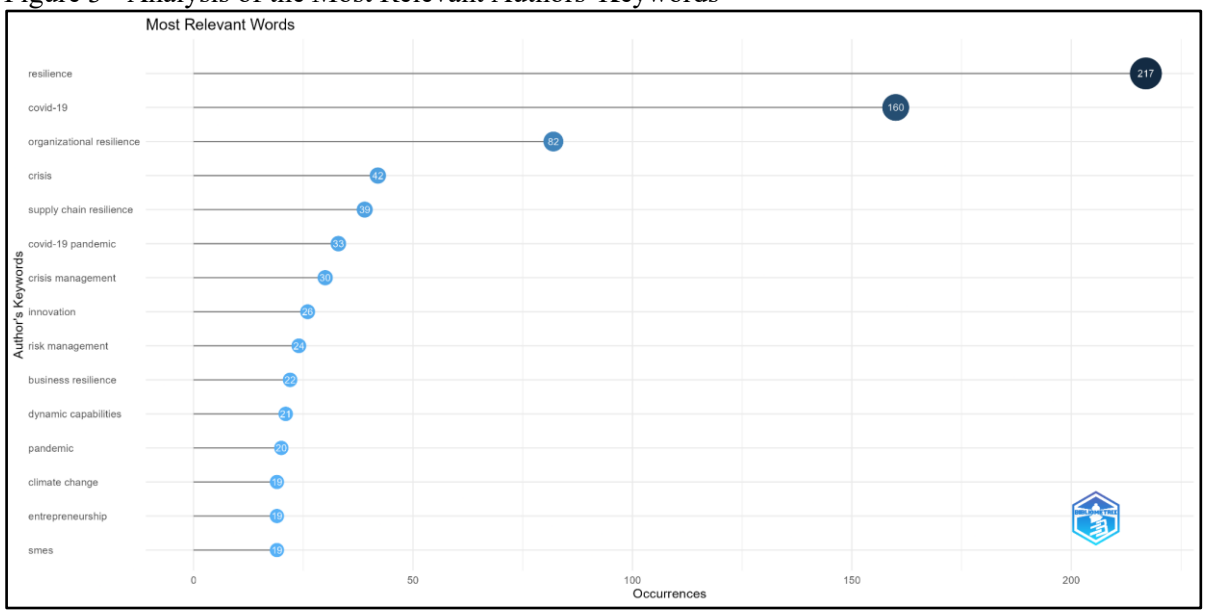
Figure 2 - Keyword Co-occurrence Map



Source: Authors (2025).

The analysis of the most relevant keywords (Figure 3) confirms the centrality of the pandemic in the recent research agenda: COVID-19 (160 occurrences) is the second most recurring expression, behind only resilience (217). Despite the increasing occurrence of extreme events and the central role of "climate change" as a Grand Challenge, the term appears in only 19 instances, highlighting the need for more in-depth research on the topic.

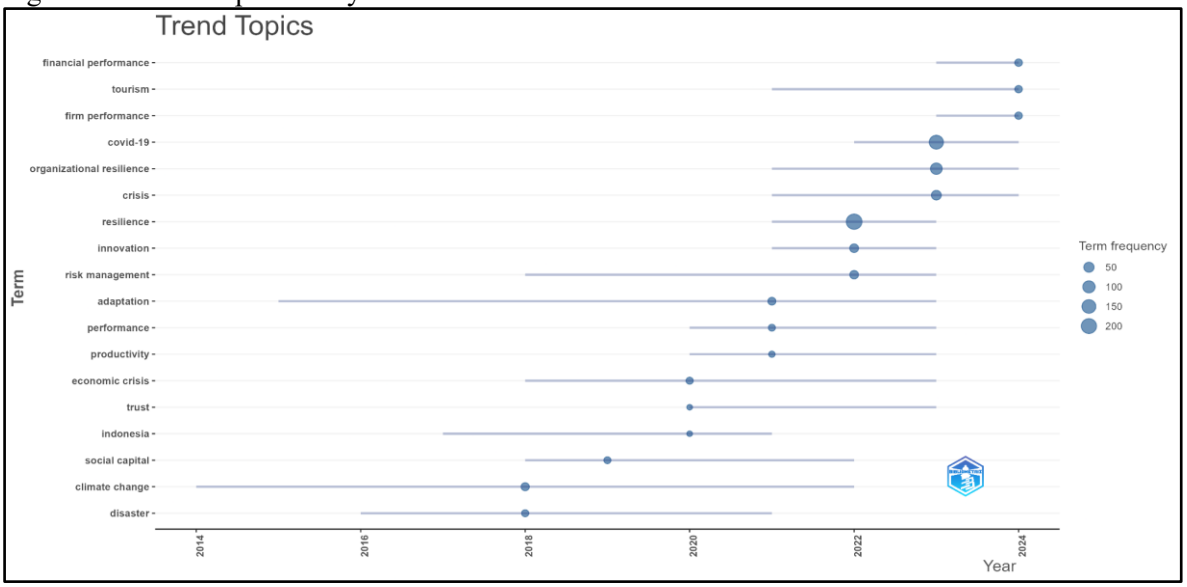
Figure 3 - Analysis of the Most Relevant Authors' Keywords



Source: Authors (2025).

The analysis of trend topics (Figure 4) reveals changes in the literature's focus over time. Terms such as adaptation, climate change, and disaster were predominant until mid-2018, despite the low volume of publications, reflecting an initial concern with environmental risks and natural disasters. However, after 2020, expressions such as COVID-19, organizational resilience, risk management, and performance emerged more frequently, indicating a shift in attention towards the immediate consequences of the pandemic and, more recently, to the relationship between resilience and organizational performance. This thematic transition suggests that resilience has come to be interpreted not only as a survival capability but also as a strategic resource capable of sustaining competitiveness in crisis scenarios. (Williams et al., 2017).

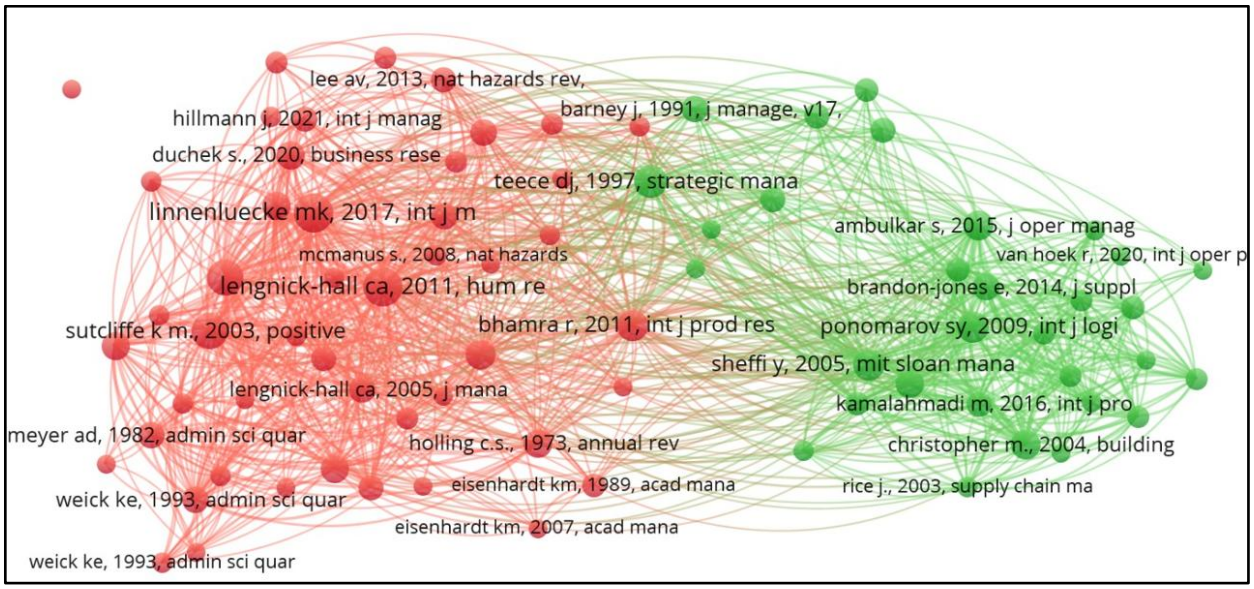
Figure 4 - Trend Topics Analysis



Source: Authors (2025).

The co-citation map (Figure 5) shows two major intellectual streams that structure the field of organizational resilience. On one hand, there is a conceptual core (red cluster), supported by authors such as Weick (1993), Lengnick-Hall et al. (2011), and Linnenluecke (2017), presenting resilience as an organizational and human phenomenon, articulating with social, cognitive, and cultural processes, with a strong emphasis on learning, dynamic capabilities, and sustainability. On the other hand, an applied axis emerges (green cluster), anchored by Sheffi (2005), Ponomarov & Holcomb (2009), Christopher & Peck (2004), and Ambulkar et al. (2015), associating resilience with risk and supply chain management, having a more instrumental, quantitative character, and being focused on business continuity. At the intersection of these blocks, authors like Teece (1997) and Barney (1991) act as theoretical references that connect strategic and operational approaches, revealing the influence of the resource-based view and dynamic capabilities. These results suggest that, although the field is developing along two parallel axes (one more conceptual and strategic, the other more pragmatic and applied), the convergence between them is still limited, indicating as a future agenda the need for theoretical integration capable of articulating strategic, operational, and societal levels, especially in dialogue with sustainability, innovation, and digital transformation.

Figura 2 - Authors' co-citation analysis



Source: Authors (2025).

This result reveals a gap in the literature, which excessively focuses on immediate shocks (like health crises) while neglecting long-term, structural risks such as climate change. This disparity highlights an opportunity for future research, especially in integrating organizational resilience and sustainable transition as key elements for corporate survival amidst global turbulence (Hällgren et al., 2018).

In the qualitative analysis of the main articles, the literature on organizational resilience presents a consolidated conceptual core, yet one that is still fragmented into different streams. Linnenluecke (2017) is a central reference for systematizing five research streams: responses to external threats, organizational reliability, individual strengths, adaptive business models, and supply chains, pointing out the need for theoretical integration. Recent trends highlight resilience in supply chains, with an emphasis on multi-level flexibility and the use of big data and artificial intelligence for monitoring and adaptation (Ambulkar, Blackhurst, Grawe, 2015; Pettit, Fiksel, Croxton, 2010; Singh, 2024). In parallel, the connection between resilience and sustainability is gaining ground, especially in the face of extreme climate risks, which require reorganization and innovation capabilities (Linnenluecke; Griffiths, 2010). Thus, the research agenda is shifting from the immediate response to shocks towards broader approaches based on organizational learning, collective sensemaking, and adaptive governance, articulating micro, meso, and macro levels in facing the Grand Challenges.

3 CONCLUSION

The study surveyed the global research on organizational resilience to Grand Challenges, highlighting a field that is rapidly expanding, yet remains fragmented and concentrated within a few Global North countries. The results indicate that the literature is mostly reactive, driven by crises such as COVID-19, and shows an imbalance between theoretical studies and practical applications, hindering the consolidation of a robust conceptual framework. Furthermore, structural and long-term risks, such as climate change, remain underrepresented in research agendas. The implications highlight the need for a managerial mindset shift: resilience must cease to be merely a response to immediate shocks and become a strategic resource integrated with organizational planning and the sustainable transition. Overcoming the current mismatch requires a proactive and interdisciplinary agenda, capable of articulating theory and practice, prioritizing chronic and systemic challenges, and thus strengthening academic relevance and contributing more effectively to organizations and societies that are better prepared for the 21st century.

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