

Scientific Mapping of Organizational Resilience Research: Evidence from Global Publications

Loso Judijanto

IPOSS Jakarta, Indonesia dan losojudijantobumn@gmail.com

ABSTRAK

Makalah yang dibahas ini menawarkan peta saintometrik studi ketahanan organisasi, yang dilakukan melalui tinjauan ekstensif terhadap semua literatur akademis yang ada tentang subjek tersebut di seluruh dunia. Ketahanan organisasi didefinisikan sebagai kapasitas organisasi untuk meramalkan, menyesuaikan diri, mengatasi, dan pulih dari kondisi yang tidak menguntungkan sambil memenuhi tugas-tugas mendasar mereka. Sebagai hasil dari meningkatnya minat dari para sarjana untuk mengeksplorasi fenomena ini, ketahanan organisasi telah menjadi bidang penelitian akademis yang signifikan dalam beberapa tahun terakhir. Bibliometrik digunakan sebagai metodologi untuk melakukan penelitian ini. Penulis menggunakan teknik analisis bibliometrik yang meliputi kepenulisan bersama, sitasi bersama, dan kemunculan bersama kata kunci untuk membangun struktur intelektual disiplin ilmu ini, mengidentifikasi tema-tema yang paling menonjol, dan menelusuri perkembangannya dari waktu ke waktu. Perlu ditekankan bahwa ketahanan organisasi menjadi semakin interdisipliner selama periode yang dipertimbangkan. Misalnya, tema-tema seperti manajemen krisis, transformasi digital, dan keberlanjutan menjadi populer dalam konteks studi ketahanan organisasi. Namun, praktik manajerial yang lebih tradisional, termasuk manajemen sumber daya manusia dan pengetahuan, tetap relevan dalam hal ketahanan organisasi.

Kata Kunci: Ketahanan Organisasi, Analisis Bibliometrik, Transformasi Digital, Manajemen Krisis, Keberlanjutan

ABSTRACT

The paper under discussion offers a scientometric map of organizational resilience studies, conducted through an extensive review of all the existing academic literature on the subject matter across the globe. Organizational resilience is defined as the capacity of organizations to foresee, adjust to, cope with, and recover from unfavorable conditions while fulfilling their fundamental tasks. As a result of increased interest from the part of scholars to explore this phenomenon, organizational resilience has become a significant area of academic inquiry in recent years. Bibliometrics was used as the methodology for conducting this research. The author employed bibliometric analysis techniques that included coauthorship, cocitation, and keyword co-occurrence to construct the intellectual structure of this scientific discipline, identify its most prominent themes, and trace its development through time. It should be emphasized that organizational resilience became increasingly interdisciplinary during the period under consideration. For instance, themes such as crisis management, digital transformation, and sustainability became popular within the context of organizational resilience studies. However, more traditional managerial practices, including human resource and knowledge management, continue to be relevant when it comes to organizational resilience.

Keywords: Organizational Resilience, Bibliometric Analysis, Digital Transformation, Crisis Management, Sustainability

INTRODUCTION

In recent decades, the global business environment has become increasingly characterized by volatility, uncertainty, complexity, and ambiguity (Gittell et al., 2006; Pina Taylor, 2023). Organizations are continuously exposed to disruptions such as economic crises, technological changes, geopolitical instability, and global health emergencies. These conditions have intensified the need for organizations to develop resilience as a strategic capability (Xu et al., 2023). Organizational resilience refers broadly to the capacity of firms to anticipate, adapt to, and recover from adverse events while maintaining core functions. As such, resilience has evolved into a critical

determinant of organizational survival and long-term sustainability in dynamic environments (Reynolds, 2024). The concept of organizational resilience has gained significant scholarly attention across multiple disciplines, including strategic management, organizational behavior, and risk management. Researchers have examined resilience from diverse perspectives, emphasizing adaptive capacity, learning mechanisms, and dynamic capabilities. Over time, resilience has been recognized not only as a defensive mechanism but also as a source of competitive advantage that enables organizations to thrive amid disruptions. Empirical and theoretical studies suggest that resilient organizations are better positioned to respond effectively to crises, reorganize resources, and sustain performance in turbulent contexts (Tjahyono et al., 2024).

Despite its growing importance, the literature on organizational resilience remains conceptually fragmented. Scholars have proposed various definitions and frameworks, reflecting the multidimensional nature of the concept. Some studies focus on organizational processes and structures, while others emphasize leadership, culture, and innovation (De Matteis et al., 2023; Duchek, 2020; Tjahyono et al., 2024). This diversity has contributed to a lack of consensus regarding the core dimensions and measurement of resilience. Furthermore, research is often conducted within disciplinary silos, limiting the integration of knowledge across fields and reducing the potential for cumulative theoretical development (Do et al., 2022; Kesebi, 2019; Ortiz-de-Mandojana & Bansal, 2016). In response to these challenges, bibliometric and scientometric approaches have emerged as valuable tools for systematically analyzing and synthesizing large bodies of academic literature. These methods enable researchers to map the intellectual structure of a field, identify key themes, influential authors, and collaboration networks, and trace the evolution of research over time. Bibliometric studies on organizational resilience have revealed important trends, including the increasing volume of publications, the prominence of themes such as crisis management and sustainability, and the growing interdisciplinary nature of the field (Barasa et al., 2018; Kesebi, 2019; Lengnick-Hall et al., 2011).

Furthermore, recent studies highlight that organizational resilience research is still in a developmental stage, with expanding scholarly participation and emerging research hotspots. The application of visualization tools such as VOSviewer and CiteSpace has facilitated deeper insights into co-authorship networks, keyword co-occurrence, and citation patterns. However, there remains a need for more comprehensive and updated mapping of global publications to better understand the knowledge structure and identify future research directions. Such scientific mapping is essential for advancing theoretical clarity and guiding empirical investigations in this evolving domain. Although the body of literature on organizational resilience has grown rapidly, it remains fragmented, multidisciplinary, and lacking in integrative synthesis. Existing studies often focus on specific aspects or contexts, resulting in dispersed knowledge that is difficult to consolidate into a coherent framework. Moreover, there is limited comprehensive scientific mapping that systematically captures global research trends, influential contributors, and thematic evolution within the field. This gap hinders the ability of scholars and practitioners to fully understand the development, structure, and future trajectory of organizational resilience research. This study aims to conduct a scientific mapping of organizational resilience research based on global publications.

RESEARCH METHODS

This study employs a bibliometric research design to systematically analyze the development of organizational resilience literature based on global academic publications.

Bibliometric analysis is a quantitative approach widely used to evaluate patterns in scientific research, including publication trends, citation structures, and intellectual linkages among scholars. This method is particularly suitable for mapping the evolution of a research field and identifying its key contributors, influential works, and emerging themes. By adopting this approach, the study aims to provide an objective and comprehensive overview of organizational resilience research, minimizing subjective bias often associated with traditional literature reviews. The data for this study are collected from Scopus which ensures high-quality and peer-reviewed sources. The search process is conducted using relevant keywords, including “organizational resilience,” “organizational adaptability,” and “resilient organizations,” applied to titles, abstracts, and keywords of publications. To ensure consistency and relevance, inclusion criteria are established, such as limiting the dataset to journal articles written in English and published within a specific time frame. The retrieved records are then exported in compatible formats and subjected to a cleaning process to remove duplicates, incomplete entries, and irrelevant documents, thereby ensuring the accuracy and reliability of the dataset. For data analysis, this study utilizes VOSviewer. Several analytical techniques are applied, including co-authorship analysis to examine collaboration networks, co-citation analysis to identify influential references, and keyword co-occurrence analysis to detect major research themes and trends. Network visualization maps are generated to illustrate the structure of the field, highlighting clusters of related topics and the evolution of research over time.

RESULTS AND DISCUSSION

A. Co-Authorship Analysis

The co-authorship analysis was performed to study the collaboration patterns of scientific works in the domain of organizational resilience. The co-authorship network provides an insight into the degree of interconnection between the authors, affiliations, and countries of research activities in this field. Bibliometric visualization created using VOSviewer has helped to build a co-authorship network graph. This network graph shows the groups of co-authors and prominent researchers that shape the growth of organizational resilience research worldwide.

1. Author-level Visualization

Visualization presented below reflects the co-authorship network among the prominent scholars within the research domain of organizational resilience. As one can see from this graph, there are interconnections between different authors that result from their collaboration. Nodes in this network represent particular authors, whereas lines linking nodes reflect co-authorship ties between scholars, which become stronger depending on the level of cooperation.

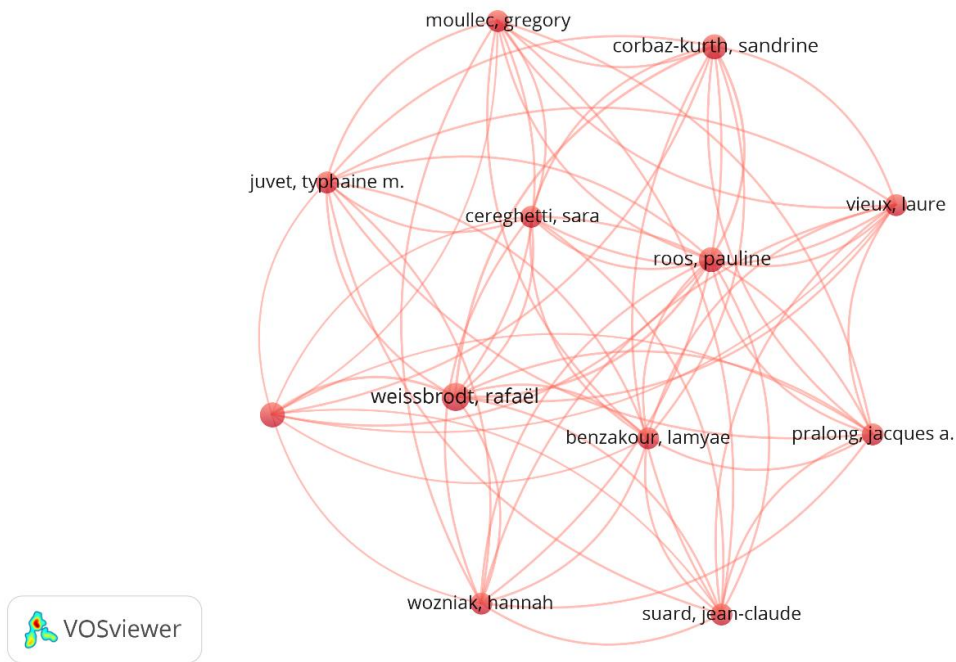


Figure 1. Author-level Visualization
 Source: Data Analyzed

Through the network, one can clearly observe that there is a close-knit group of scholars who have been engaged in a lot of collaborations pertaining to the subject of organizational resilience. The names such as Weissbrodt, Rafael and Roos, Pauline seem to be key players in the network. It can be inferred from their positions in the network that these scholars have formed considerable collaborations with a number of other scholars leading to the emergence of this field of research. Furthermore, through the network, many other scholars like Cereghetti, Sara and Vieux, Laure emerge who are equally influential within a particular sub-group in terms of collaboration. The close ties formed among these scholars can perhaps point towards a trend of specialization in certain themes.

2. Institution-level Visualization

Below is a visualization that shows the collaboration network of research institutes studying organizational resilience. This visualization depicts how different departments collaborate, with each node representing a particular research institute or department. The connection lines depict the degree to which the departments collaborate with each other, with the colors depicting the type of interaction.

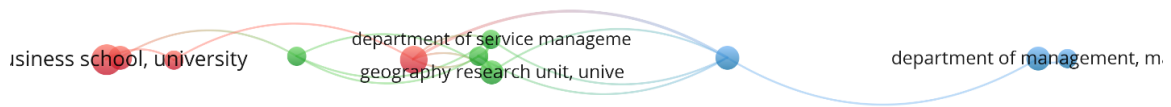


Figure 2. Institution-level Visualization

Source: Data Analyzed

It is evident from this graph that certain academic departments, including the Business School and University, the Department of Service Management, have established effective collaboration with other departments, such as the Department of Management, M and Geography Research Unit. The links in the graph indicate effective research collaboration, while the change in colors denotes the existence of these institutions in more than one theme or area of organizational resilience. It is clear from the graph that the Department of Management, is involved in only one area of organizational resilience, either due to specialization or fewer collaborators. On the other hand, it is clear that the collaboration among the Business School and other academic departments reflects an important role in interdisciplinary research.

3. Country-level Visualization

The below visualization provides the network of co-authorship at the country level for research conducted on organizational resilience. Every country is represented by a single node, and edges between nodes depict co-authorship ties between two countries. The size of each node is determined by the contribution of each country, and clustering through colors depicts country clusters with similar research networks among themselves. The map has been produced using the VOSviewer software tool.

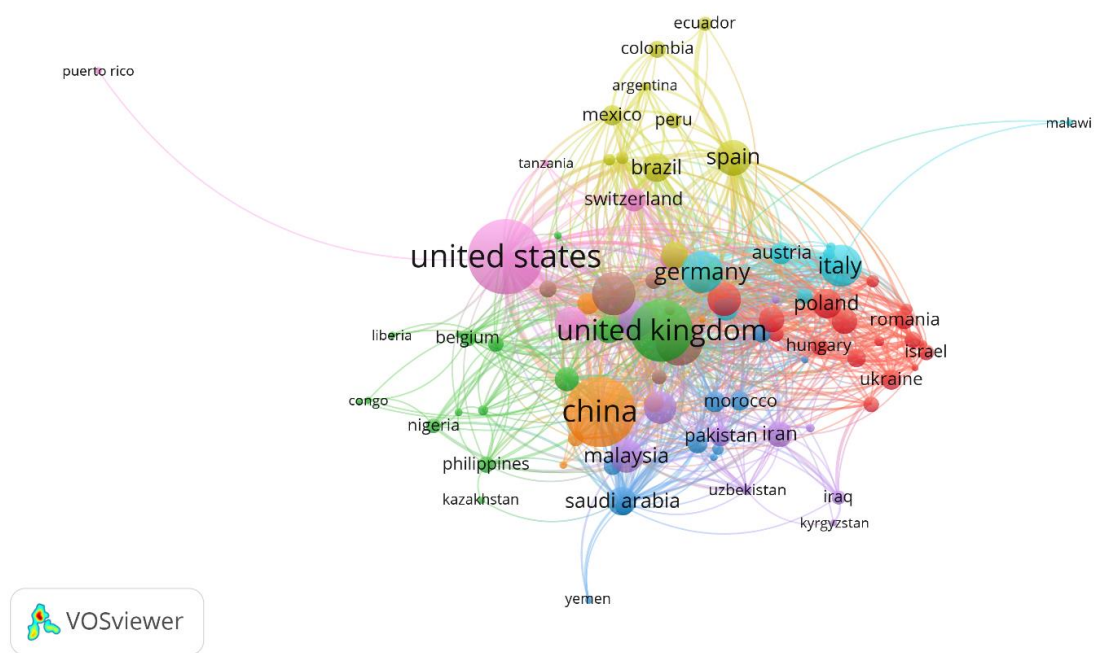


Figure 3. Country Visualization
 Source: Data Analyzed

The network highlights that nations like the USA, UK, and China have a very central location within the map, thereby signifying that these countries have major influences in the research process at the global level. The large nodes coupled with many connections among these nations clearly imply that apart from contributing many publications, they participate in international partnerships. In fact, the case of the UK becomes especially important because it operates as an intermediary nation, thereby linking various clusters and playing a crucial role in bridging collaborations between different parts of Europe, Asia, and the world. Moreover, the clustering within the map highlights clear regions and topics which have come forward as collaborating areas for conducting research. European countries like Germany, Italy, and Spain have established a cluster among themselves due to the presence of strong cooperation among each other. On the other hand, there are countries emerging as contributors from the regions of Asia, Middle East, and Africa like Malaysia, Saudi Arabia, and Nigeria.

B. Citation Network

Analysis based on citations was conducted in order to establish the most cited papers and authors from the set of organizational resilience literature. This method can help understand the structure of knowledge in the area through the works which have made substantial contributions to theories and empirical studies.

Table 1. Top Cited Literature

Number of Citations	Author'(s)	Title
1417	(Lengnick-Hall et al., 2011)	Developing a capacity for organizational resilience through strategic human resource management
1208	(Duchek, 2020)	Organizational resilience: a capability-based conceptualization

1145	(Bhamra et al., 2011)	Resilience: The concept, a literature review and future directions
952	(Ortiz-de-Mandojana & Bansal, 2016)	The long-term benefits of organizational resilience through sustainable business practices
649	(Hillmann & Guenther, 2021)	Organizational Resilience: A Valuable Construct for Management Research?
620	(Vogus & Sutcliffe, 2007)	Organizational resilience: Towards a theory and research agenda
579	(Lee et al., 2013)	Developing a tool to measure and compare organizations' resilience
572	(Ouyang & Duenas-Osorio, 2014)	Multi-dimensional hurricane resilience assessment of electric power systems
568	(Gittell et al., 2006)	Relationships, Layoffs, and organizational resilience: Airline industry responses to september 11
550	(Barasa et al., 2018)	What is resilience and how can it be nurtured? A systematic review of empirical literature on organizational resilience

Source: Scopus Database, 2026

C. Keyword Co-Occurrence Network

Keyword co-occurrence analysis is a technique used to reveal the underlying conceptual framework and identify the dominant research themes in organizational resilience research. Through keyword co-occurrence analysis, one can identify the important themes and how they relate to each other, thus gaining an understanding of the whole research field. Visualizing the research field through VOSviewer will help in recognizing clusters of themes, where different concepts such as resilience capability, crisis management, and sustainability are connected to each other.

1. Network Visualization

Below is a visualization that shows the co-occurrence network of key terms on the topic of organizational resilience. The visualization shows how key concepts like organizational resilience, resilience, and crisis management interact with other important topics. Through this network, a wide range of topics ranging from digital transformation, sustainability, leadership, to human resource management can be seen to relate to organizational resilience. Below is the co-occurrence network visualization of the topic created using VOSviewer.

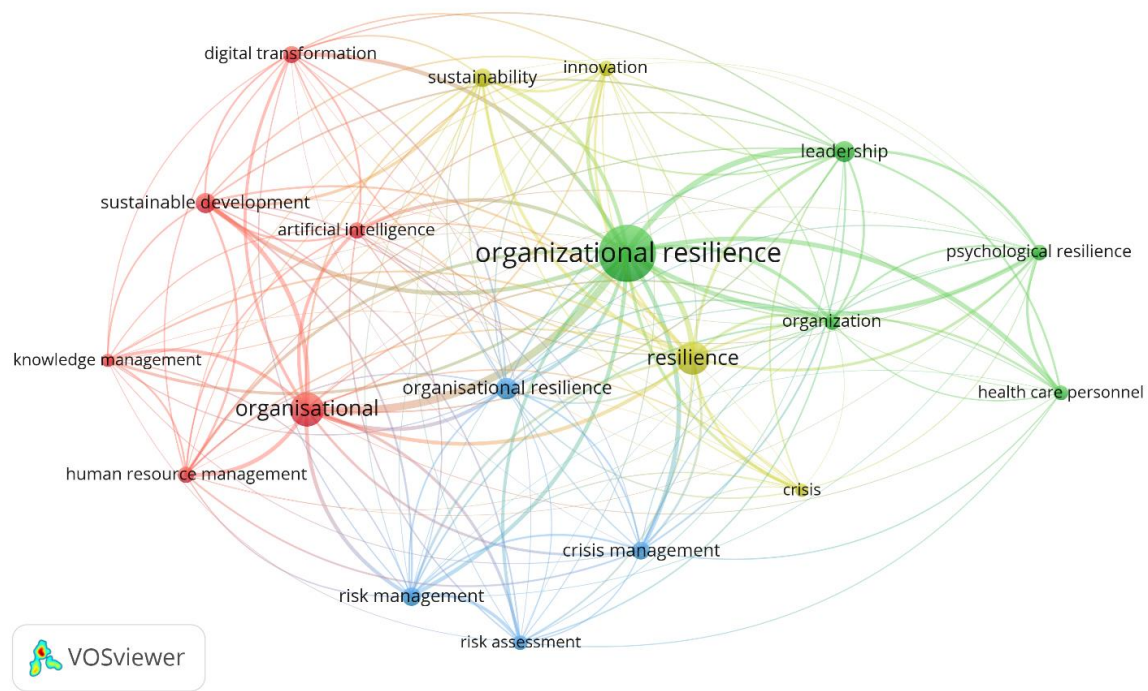


Figure 4. Network Visualization

Source: Data Analyzed

This network demonstrates that organizational resilience is the primary and most connected concept in this field, which means that this concept is vital in terms of its significance. The massive green node associated with the concept of organizational resilience is encircled by a cluster of other interconnected keywords, which shows that the concept has significance in several research domains. These include leadership, crisis management, and psychological resilience. The other nodes associated with crisis management and risk management demonstrate that a considerable amount of research is being conducted on how organizations deal with crises and how to recover from them. The proximity of these concepts to the concept of organizational resilience demonstrates the growing trend of developing the capabilities of organizations to endure disturbances and risks.

Furthermore, there is a strong relationship between organizational resilience and the topics of digital transformation, artificial intelligence, and innovation in the knowledge network. This relationship implies that the current academic literature is more inclined toward studying the role of innovation and technology in creating the capability for adaptation and thriving of an organization. Sustainable development and sustainability are other concepts that have found place in this knowledge network, reflecting their relevance to organizational resilience in that the contemporary studies consider sustainability and its dimensions as a part of organizational resilience. Keywords such as "health care personnel" and "psychological resilience" also seem relevant to the topic of organizational resilience, especially considering their application in certain industries, including the healthcare industry. This means that the research into organizational resilience is not limited to the general business environment but is equally important to those areas where the wellbeing of personnel matters to a greater extent. The emphasis on the health care personnel points to the need for organizational resilience in times of crisis and stress.

Human Resource Management (HRM) and Knowledge Management (KM) are aspects that can be seen in the network, thus suggesting the relevance of these internal processes within an

organization to create resilience. Both HRM and KM are necessary for building the adaptive capacity of an organization through resilient practices during any disruption. This aspect suggests the relevance of resilient organizational practices with human resources and knowledge sharing.

2. Overlay Visualization

The figure below shows a co-occurrence network of keywords found in organizational resilience literature. However, the timeline aspect, which has been integrated into the network, indicates the trend changes that occurred during the past few years in the topics related to organizational resilience literature. As you can see, the color scale used, where it moves from yellow to blue, indicates the progression of the keyword trends from yellow to blue, thus showing a recent topic trend.

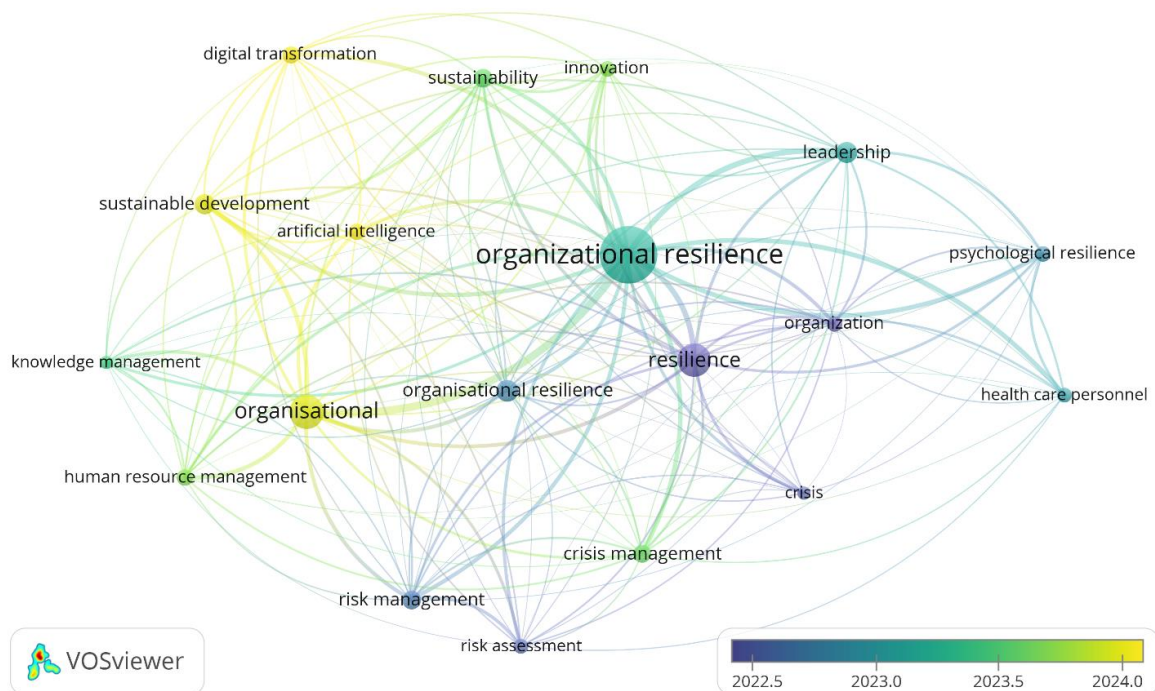


Figure 5. Overlay Visualization
 Source: Data Analyzed

Organizational resilience is the key concept that has continued to be one of the dominant keywords in the network due to its relevance across all the fields covered in the research. This can be attributed to the fact that it continues to form an integral aspect of resilience as well as being incorporated in other relevant concepts such as organizational leadership, psychological resilience, and crises management. The presence of these keywords within the later timeline (blue), shows that there has been an evolution of ideas whereby the study of resilience has shifted from the organization itself to also include human resilience. The gradient pattern indicates the emergence of new research domains like digital transformation, artificial intelligence, and sustainability in more recent years (highlighted in blue).

It can be noted that these terms have received considerable attention in recent years, which implies an understanding of the growing importance of technology and sustainability in contributing to organizational resilience. In the wake of digital disruption and sustainability

concerns, there has been substantial scholarly interest in the interconnections among these themes and organizational resilience. Further, the inclusion of knowledge management, human resource management, and organization related themes, shown by the green and yellow hues, implies that conventional theories and principles of management remain essential in developing resilience strategies. Although these fields have been significant since the inception of the theory, the increasing attention towards new subjects underscores the changing nature of research into incorporating new ideas with existing ones. In the future, both elements will remain critical in determining effective organizational resilience theories.

3. Density Visualization

The heatmap shown below is based on the co-occurrence of keywords related to organizational resilience in academic literature. It was created using bibliometric methods. The color intensity indicates the number of occurrences between two keywords, where hotter colors suggest greater numbers. The heatmap can be used to identify the prominence of different ideas and their connections to the core theme of organizational resilience.



Figure 6. Density Visualization

Source: Data Analyzed

It can be observed from the figure above that the concept of organizational resilience is undoubtedly the main and most interconnected term in the network. It can be seen that the node for organizational resilience depicted in a bright yellow color is associated with many other keywords that have direct correlations with it. This proves that the concept of organizational resilience is a multi-dimensional phenomenon and is being investigated from different angles, including leadership, crisis management, psychological resilience, and innovation. Moreover, from the analysis conducted using the Word Cloud tool, it is evident that some of the new trends that are becoming prominent include sustainable development, digital transformation, and artificial

intelligence due to their brighter green circles. All these aspects have recently become important within the scope of research, and they reflect a growing focus on analyzing how organizations are using technology and sustainability for their resilience. On the contrary, conventional aspects of management such as human resource management and knowledge management are somewhat farther away from the main center.

Discussion

These results reflect an overall picture of the current state of research on organizational resilience as seen from the perspective of bibliometrics. First of all, the key status of organizational resilience within the co-word network shows that this concept plays an important part in both theoretical consideration and practical implementation in various industries. It also corresponds to the understanding of the need for organizational resilience as a major precondition of survival in the modern volatile world. In addition, the inclusion of such themes as risk management and crisis management reflects the idea that resilience is a multidimensional issue rather than a simple characteristic of an organization. This is also confirmed by the theme of leadership.

Among the most noticeable trends in organizational resilience research is the establishment of new research areas such as the connection between resilience and digital transformation, artificial intelligence, and sustainability. With the development of organizational resilience due to disruptions caused by digitalization, environmental issues, and changes in market requirements, it became crucial for organizations to include all the mentioned factors when devising strategies for building resilience. The popularity of sustainability and digital transformation research areas during the last few years proves that organizational resilience research is moving toward new trends and technologies-based approaches for dealing with risks.

Moreover, the interrelationships between psychological resilience and organizational resilience lead to another important aspect that has received significant attention in recent research efforts. The interrelationship between psychological and organizational resilience implies that the human element, such as leadership, the psychological well-being of employees, and the psychological infrastructure, is one of the crucial factors in the development of organizational resilience. Psychological resilience as an element of organizational resilience reveals the growing relevance of studying the ways in which organizations can promote psychological well-being and health among their workers in crisis conditions.

Nevertheless, regardless of the increasing interest in such new aspects, older concepts like human resource management and knowledge management remain very important within the organizational resilience discussion. Both of these concepts are crucial when it comes to making sure that an organization possesses all the necessary skills to adapt to any changes or manage knowledge within a crisis period. The continuous importance of such themes shows that even though the organizational resilience domain is changing, it continues to develop on the basis of some old management theories. As a result, companies should concentrate not only on implementing new concepts but also pay attention to old ones.

It appears that there is an increasing requirement for interdisciplinary research on organizational resilience. The interrelationship among various academic disciplines, such as management, psychology, technology, and sustainability, highlights the complexity of resilience as a construct. Interdisciplinary approaches are essential because researchers must combine various frameworks and theories used in these disciplines to provide a comprehensive understanding of

resilience. This way, scholars and practitioners will be able to gain insight into the complexity of organizational resilience and develop strategies that would enhance the ability of organizations to cope with disruptions and achieve success.

CONCLUSION

The paper offers several important conclusions related to the study of organizational resilience. First, the literature review revealed several major themes of organizational resilience, including its definitions, measurement techniques, and management tools. Second, bibliometric analysis demonstrated the current trends in organizational resilience research and uncovered the relationships between different publications. In particular, the results of the analysis confirmed that the topic of organizational resilience is at the center of the current research agenda. At the same time, there are several emerging topics in organizational resilience, including digital transformation, artificial intelligence, and sustainability. Finally, the findings of the study indicate that the role of human factors in creating resilient organizations should not be underestimated. As the complexity of challenges increases, organizations require a holistic approach to their development that involves both traditional management approaches and advanced technology-related solutions.

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