



Mapping and advancing employee resilience research: a bibliometric analysis

Joana Ramanauskaitė¹ · Eglė Staniškienė¹ · Asta Daunorienė¹ · Živilė Stankevičiūtė¹

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Abstract

Employee resilience refers to a developable capacity to bounce back from adversity, to adapt and even thrive in response to challenging events. As a result of economic, social and environmental challenges organizations are facing and given the turbulent work environment, interest in employee resilience has been increasing, leading to a growth in the number of publications. The aim of this paper is to reveal how this literature on employee resilience is currently structured. For this, a bibliometric analysis of documents collected from Scopus database, including performance analysis, co-citation analysis, and co-word analysis, was conducted. Such analysis provided an overview of the construct and allowed to identify thematic clusters. After that, a qualitative analysis of TOP20 most cited articles was carried out to define future research avenues. The results revealed the existence of five thematic clusters: (1) employee resilience as a capacity of positive organizational behaviour and dimension of psychological capital (green cluster); (2) Job Demands-Resource theory as a lens for understanding employee resilience (purple cluster); (3) Conservation of Resources theory as a lens for understanding employee resilience (red cluster); (4) leadership as a driver of employee resilience (blue cluster); and (5) deeper disclosure of employee resilience: the fundamental question requires further elaboration (yellow cluster). Turning to future research avenues, seven were disclosed: digital transformation and employee resilience; demographics shaping employee resilience; improvements in research design and measurement; bringing employee resilience into the domain of HRM; linking employee resilience with organizational resilience; antecedents of employee resilience; and outcomes of employee resilience. The current paper is expected to guide a new wave of research by providing an overview of the current status of the knowledge base.

Keywords Employee resilience · Job Demands-Resource (JD-R) theory · Conservation of Resources (COR) theory · Psychological capital · Bibliometric analysis

1 Introduction

Pandemic outbreaks, geopolitics, weather disasters, and changing demographics, coupled with economic crises and, recently, an enormous spread of artificial intelligence (AI) tools usage pose challenges to both organizations and their employees (Liang & Cao, 2021; Wut et al., 2022; Simón et al., 2024; Schwaeke et al., 2025). To remain viable, business entities need to rethink their processes and systems while responding to resource scarcity, including that of skilled employees, new legal regulations, or pressure from external stakeholders (Tonkin et al., 2018). Consecutively, certain demands are placed on employees leading to work intensification and work stress (Cooke et al. 2019b). Additionally, given competitive and partially disruptive work environments (Schilbach et al., 2021), employees might feel job

✉ Živilė Stankevičiūtė
zivile.stankeviciute@ktu.lt

Joana Ramanauskaitė
joana.ramanauskaite@ktu.lt

Eglė Staniškienė
egle.staniskiene@ktu.lt

Asta Daunorienė
asta.daunoriene@ktu.lt

¹ School of Economics and Business, Kaunas University of Technology, Kaunas, Lithuania

insecurity, a sense of meaninglessness at work and finally might experience a decline in well-being (Al Nahyan et al., 2024; Molnár et al., 2024). Earlier studies claim that some employees are more successful in responding to unexpected, challenging, complex events at work than others under similar circumstances (Caniëls & Hatak, 2022; Dalgic et al., 2023). This can be explained by the concept of employee resilience (Britt et al., 2016; Cooke et al., 2019a).

Employee resilience is seen as a positive emotion, a developable capacity to bounce back from adversity (Luthans, 2002b), and a capacity to continually adapt and flourish at work (Kuntz et al., 2016). It refers to employee strength, perseverance, and recovery in the face of adversity (Linnenluecke, 2017). More precisely, it implies successful coping and adaptation despite experiencing difficulties and potential loss (Dalgic et al., 2023).

Lately, the topic of employee resilience has gained increased attention due to several reasons. On the one hand, seeing the priority for employee well-being (Guest, 2017) it is highly essential to address the employee capacities, including resilience, allowing for the restoration of their equilibrium while encountering difficulties. On the other hand, in the light of intensive global competition, the contribution of resilient staff to higher organisational performance is also well documented (Wang et al., 2014). As such, employee resilience is viewed as an important source of competitive organizational advantage (Zhu et al., 2019) increasing general interest in it.

Previous studies on employee resilience focused their attention mainly on greater definitional clarity (Fisher et al., 2019), job demands that trigger adversity (Plimmer et al., 2023), resilience outcomes (Ojo et al., 2021; Shoss et al., 2018), and the way employee resilience could be developed (Tonkin et al., 2018). The attempts to explore the concept in depth resulted in systematic literature reviews (Fisher et al., 2019; Hartmann et al., 2020) or fundamental theoretical papers (Galy et al., 2023). However, for employee resilience to be a useful and valid concept, a call for solid understanding of the construct must be answered (Klein et al., 2003; Linnenluecke, 2017). This gap is further amplified by the World Economic Forum (2025), underscoring the need for resilience as one of the core competencies in the job market in 2030. Gathering knowledge of the existing literature and recognising trends, patterns, and research prospects can help close this gap. Bibliometric analysis is well fit for such purposes.

Thus, the current paper aims to reveal how the literature on employee resilience is currently structured. This was done using bibliometric analysis and later performing a qualitative analysis of TOP20 most cited articles.

The paper contributes to the scientific literature in several ways. First, based on a bibliometric analysis, the paper

describes the intellectual structure of the employee resilience literature by identifying five thematic clusters. This corresponds to the previous calls in the literature (Fisher et al., 2019; Hartmann et al., 2020) to better understand employee resilience and its connection in the organizations. Second, the paper introduces seven research avenues that fit the new economic, technological, and social landscape of the business environment. These research avenues have the potential to inspire fruitful future studies and add value to further understanding of employee resilience.

The paper is structured as follows. It begins with a brief overview of employee resilience construct. Next, the research methodology is explained. The paper then delves into results of bibliometric and future trends' analyses before concluding with final remarks and limitations.

2 Literature review

The term “resilience” is not a recent discovery; it is rooted in the physical sciences with intention “to describe the capacity of a material to return to its initial state after being exposed to a force or an impact” (Galy et al., 2023, p. 2). While introducing the concept to the social sciences, more specifically in psychology and management fields, the initial core principle has been preserved (Galy et al., 2023).

Turning to the management field, employee resilience started to gain its popularity in the 1990s (Wang et al., 2014). Earlier definitions highlighted the ability to bounce back in the face of adversity (Britt et al., 2016). Following Luthans (2002b, p.702), employee resilience implies “the positive psychological capacity to rebound, to ‘bounce back’ from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility”. Recent studies have extended this definition by including growth and development referring to resilience as the capacity “to utilize resources to continually adapt and flourish at work, even when faced with challenging circumstances” (Kuntz et al. 2016, p. 460). Such modern view claims that resilience is a behavioral capacity which can be developed over the time (Kuntz et al. 2017a). It is demonstrated not only in response to major crises but also while dealing with work-related challenges (Näswall et al., 2019). In other words, employee resilience is a developable day-to-day capacity (Franken et al., 2020).

Scholars argue that employee resilience is a multifaceted and multilevel construct (Liu et al., 2019) and, accordingly, different views on it are not mutually exclusive but complementary. For instance, in scientific literature, employee resilience is viewed as a stable personality trait, a state-like developable capacity, or a process (Kossek & Perrigino, 2016). Each view contributes to the knowledge

by underlining distinct aspects: from the process perspective, resilience mechanisms and resilience-promoting factors are at the centre of attention, while representatives of “a state-like developable capacity” approach see resilience as a capacity that can be enhanced and is malleable in the long run (Hartmann et al., 2020). Still, despite the diverse understanding of the construct, at least two general points of consensus are evident (Fisher et al., 2019). First of all, adversity is needed, as without the experience of difficulties or hardship, there is nothing to be resilient against. The second point of consensus refers to the occurrence of positive adaptation in the face of adversity.

Building on different views, Kuntz (2020) argues that employee resilience encompasses three core aspects: (1) a protective factor evolving from a set of personal attributes that enables individuals to restore a state of well-being after experiencing adversity’ (2) a dynamic cognitive-emotional process of utilizing personal, social, and environmental resources in order to adapt to different stressors; and (3) the capability to proactively develop resources as preparedness factors not only to cope with but also to thrive while dealing with significant challenges at work. As such, employee resilience can be seen as a ‘must-have’ capability in order to successfully navigate the contemporary work environment. Furthermore, it should also be noted that resilience might be context-based, (Kuntz, 2020) meaning that context may play a critical role in demonstrating this capacity. This presents additional challenges for practitioners, as the nature of resilience - being context-dependent and a capacity that can be progressively developed (Franken et al., 2020) -requires both exceptional and individualized attention within organizational settings.

Summing up, employee resilience is seen as a relevant factor in maintaining psychological functioning of employees under stressful conditions (Kunzelmann & Rigotti, 2021; Britt et al., 2016).

Based on the review of the relevant literature, four research questions were formulated:

RQ1. What are the volume, growth trajectory, and regional distribution of scholarship on employee resilience?

RQ2. Which journals, subjects, and authors form the core on employee resilience and what are co-author affiliation countries?

RQ3. What is the intellectual structure of employee resilience literature, such as its underlying themes (thematic clusters)?

RQ4: What are the main research streams and fruitful paths for future research in employee resilience field?

By reviewing a field of research and its influential publications the paper broadens the scope of the knowledge base regarding employee resilience and sheds the light on future research avenues.

3 Methodology

Bibliometric analysis has become increasingly prominent in recent decades (Kainzbauer & Rungruang, 2019; Zhang et al., 2024a). It refers to a systematic study carried out on previously published scientific literature for the identification of patterns, trends, and impact within a certain field (Passas, 2024). The popularity of bibliometrics stems from two aspects, namely its applicability in handling large volumes of scientific data and its significant contribution to research impact (Donthu et al., 2021; Passas, 2024). Researchers employ this analysis for multiple purposes, including uncovering emerging trends in article and journal performance (for instance, number of total publications, most productive authors, journals with higher number publications within the field), collaboration patterns (for instance, co-authorship analysis), and research constitutes, and finally, to explore the intellectual structure of a specific domain within the already-existing literature (Donthu et al., 2021; Passas, 2024). While engaging in bibliometric analysis, a couple of aspects should be taken into consideration. First, data is often extensive with respect to the number of publications. Second, even when data itself is objective in nature (for instance, occurrences of keywords), its interpretation might be subjective or objective, depending on techniques and procedures (Donthu et al., 2021; Passas, 2024).

The current paper employed bibliometric analysis as it enabled exploring what has already been published in relation to employee resilience and what the future holds for the development of the topic. Additionally, a qualitative analysis was conducted on the suggestions for future research and limitations of TOP20 most cited publications of the sample, further strengthening the understanding of the prospects of the research field (Ferrigno et al., 2023). Such methodological approach effectively supports attainment of the aim of this research.

The search was conducted in the Elsevier Scopus database as it is the largest database, providing thorough and reliable coverage (Dastane & Haba, 2023). “Employee resilience” was mapped out throughout the whole database within article titles, abstracts, and keywords, without excluding any disciplines as the concept is still encapsulated in people management areas. The only limitations were the document type (article, book chapter, conference paper, review, book) and language (English) which excluded 10 articles from the original 431, leaving 421 as the sample for analysis:

TITLE-ABS-KEY (“employee resilience”) AND (LIMIT-TO (LANGUAGE, “English”)) AND (LIMIT-TO (DOCTYPE, “ar”) OR LIMIT-TO (DOCTYPE, “ch”)

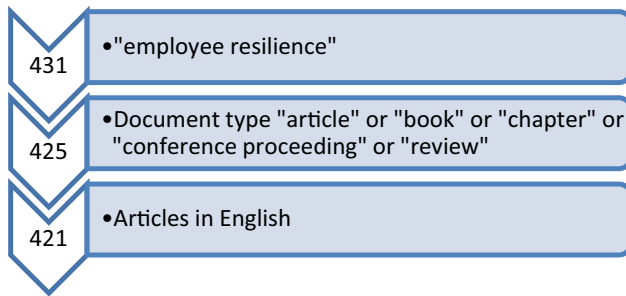


Fig. 1 Scopus search logic. Source: Authors' own creation

OR LIMIT-TO (DOCTYPE, "cp") OR LIMIT-TO (DOCTYPE, "re") OR LIMIT-TO (DOCTYPE, "bk")).

Given that employee resilience is not a broad concept, the timeline of publications was not limited. This research includes every publication in scope, excluding the above-mentioned limitations only. The search and initial data analysis of the documents were performed in December 2025 and are depicted in Fig. 1.

This research used two main blocks for conducting bibliographic data analysis, namely performance analysis and science mapping. As regards performance analysis, it examines the contribution of research constituents to a given field and is descriptive in nature. Meanwhile, science mapping analyzes the relations between research constituents and focuses on intellectual interaction and structural connections (Donthu et al., 2021).

Turning to the current paper, performance analysis was employed using the sources available on Scopus after performing the document search. Analysing different constituents of the data enriches the research by highlighting the top researchers, journals, and geographic areas in focus. This research included the following metrics: documents by year, source, source normalized impact per paper (SNIP) by year, documents by author, affiliation and its country, and subject area.

Further, descriptive research was strengthened by examining the relationships between the above-mentioned different research constituents, i.e. by conducting science mapping. Science mapping techniques used in this research included co-author analysis, co-author country analysis, co-word analysis, co-citation analysis, and topical bibliographic coupling. VOSviewer was selected as the main tool for data manipulation and analysis in science mapping as it provides flexibility and is easy to use (Arruda et al., 2022). This approach enables visualising and defining the trends in employee resilience research.

The employed methodology allows researchers to explore employee resilience in depth. The results in the following section offer a structured overview of the field by examining publication trends, scholarly sources and contributors,

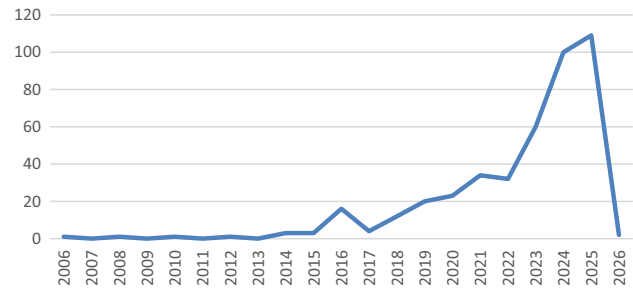


Fig. 2 Documents per year. Source: Authors' own creation

conceptual frameworks, and the future research agenda on employee resilience. This approach is well-suited to identifying key theories of the field and strengthening them by highlighting major research patterns and gaps to inform future academic progress.

4 Results

The results are further presented with respect to the research questions.

4.1 RQ1. Volume, growth trajectory, and regional distribution of scholarship on employee resilience

The following figures and analyses reveal clear trends in increasing interest in exploring employee resilience. In the Scopus database, the term "employee resilience" was first used in 2006. From 2006 to 2013, there was 1 research including "employee resilience" published every two years. Year 2016 spiked with 16 documents and since 2018, the term has been gaining increasing interest with a slight dip in 2022. Years 2024 and 2025 appear to be the most productive with over 100 articles published every year. Currently (December 2025), there are 421 documents in the research scope that mention "employee resilience", out of which there 375 are articles, 21 book chapters, 15 conference papers, 7 reviews, and 3 books. The growth trajectory is revealed in Fig. 2.

The heat map (Fig. 3) visualizes the territories where the knowledge on employee resilience is produced. Most publications are affiliated with Chinese (74), Indian (51), and USA (51) institutions. Overall, Asia is predominant in research on the topic with 236 institution affiliations in the scope of publications, European context is the second (132), followed by Middle East (75), Oceania (65), North America (64), Africa (23) and Latin America (8). Thus, the topic appears to be inherent mostly to the northern hemisphere, however, is distributed across the conventional East and West researchers.

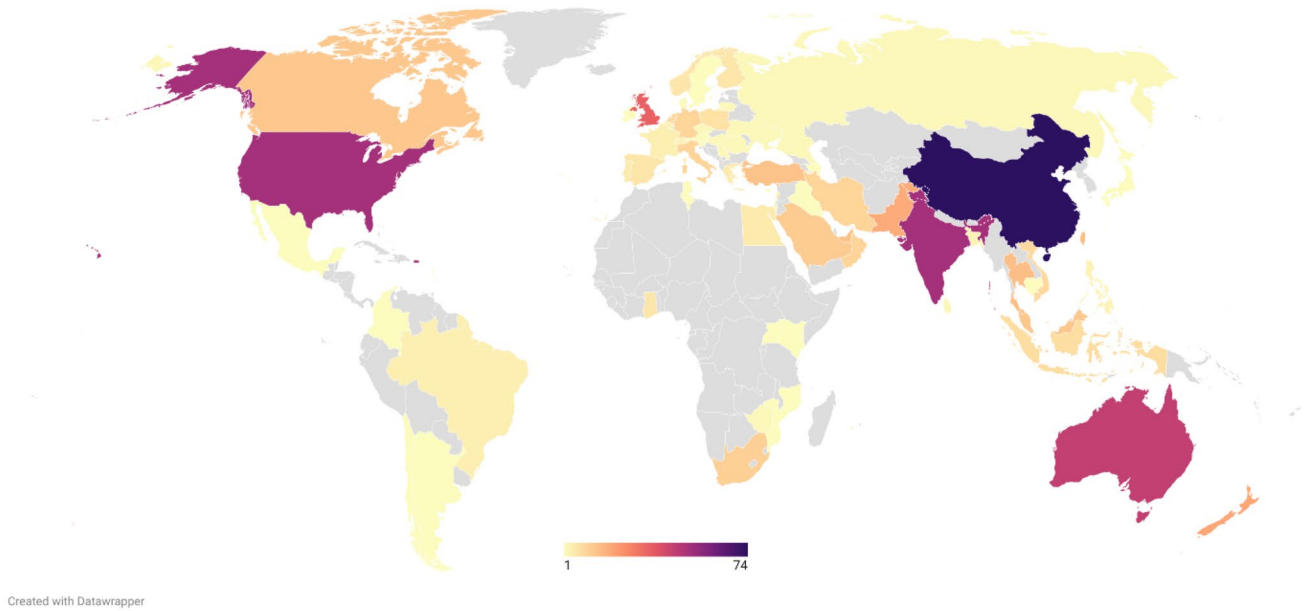


Fig. 3 Geographic affiliation of publications. Source: Authors’ own creation

Fig. 4 Sources on “employee resilience”, publication count TOP9. Source: Authors’ own creation



Seeing that the prior research has indicated that resilience might be context-dependent (Kossek & Perrigino, 2016; Hartmann et al., 2020), there is a call to expand empirical studies to other regions globally in order to develop a more comprehensive understanding of employee resilience itself, as well as its antecedents and outcomes, which may be influenced by economic, political, legal, and other factors at the country or regional level. RQ2. The core journals, subjects, and authors working with employee resilience, as well co-author affiliation countries.

4.2 RQ2. The core journals, subjects, and authors working with employee resilience, as well co-author affiliation countries

Looking retrospectively, 2016 was the year that started the avalanche of “employee resilience” after which the snowball rolled down, and an increased interest is still visible. In 2016, Industrial and Organizational Psychology journal (Volume 9, Issue 2) attracted 8 publications directly related to the concept of “employee resilience”. Most relevant sources for “employee resilience” research are: Frontiers in Psychology (14 articles), Current Psychology (9),

International Journal of Human Resource Management (9), Sustainability (Switzerland) (9) (see Fig. 4). Additionally, the source normalized impact per paper (SNIP) by year reveals that the most cited source is International Journal of Human Resource Management (see Fig. 5).

The sources publish the research on “employee resilience” under the areas presented in Fig. 6. The majority of research was conducted under Business, Management and Accounting (33%) subject area. Social Sciences (17%) and Psychology (14%) were also among the core subject areas for analyzing “employee resilience”. This finding demonstrates that resilience, being a “common phenomenon resulting from normal or basic human adaptation processes” (Bardoel et al., 2014, p. 281) and originating from clinical psychology field (Wang et al., 2014) has been receiving increasing attention on business and society level.

The most productive authors were S. Malinen with 10 publications and K. Näswall with 8 publications, both affiliated with the University of Canterbury, Christchurch, New Zealand (see Fig. 7). The main institutions with which authors working on “employee resilience” were affiliated were University of Canterbury (18 documents), Monash

Fig. 5 SNIP by year. Source: Scopus analysis function for the research results

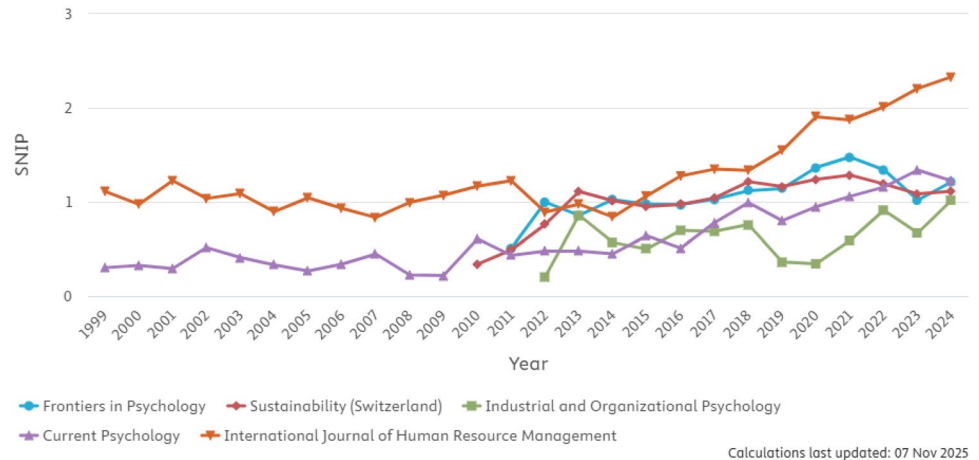


Fig. 6 Documents by subject areas. Source: Authors' own creation

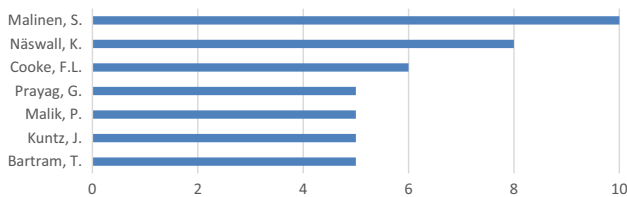
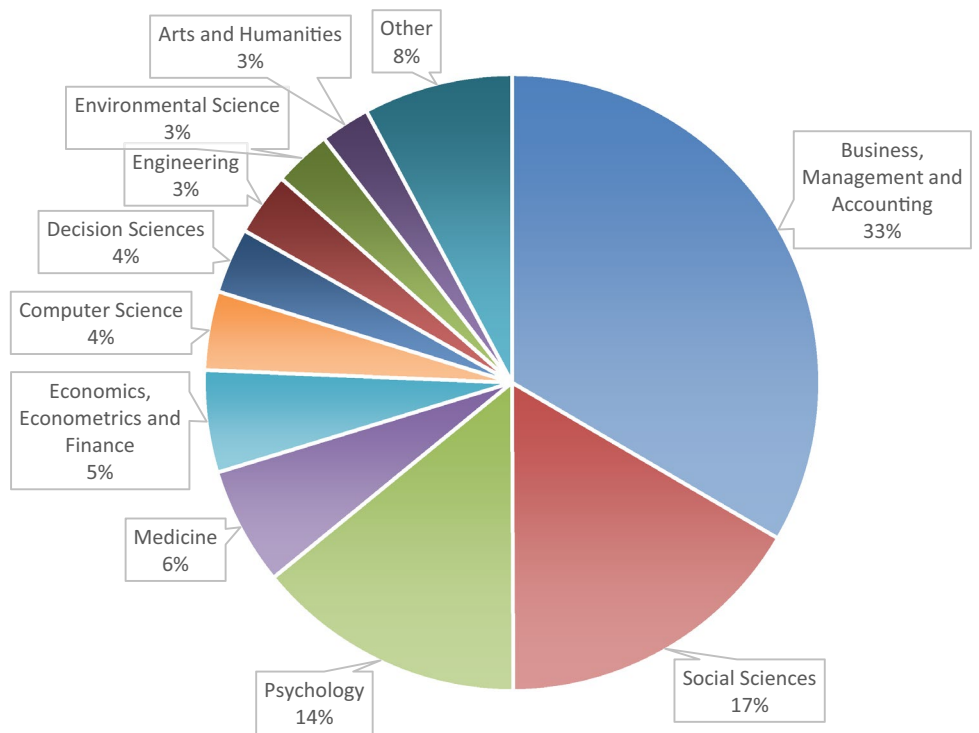


Fig. 7 Documents by author. Source: Authors' own creation

University (15 documents), and RMIT University (11 documents).

Building on the information from the performance analysis, it is worthwhile exploring the relationships among countries. Figure 8 presents the co-authorship analysis and reveals that employee resilience is not an isolated topic. It

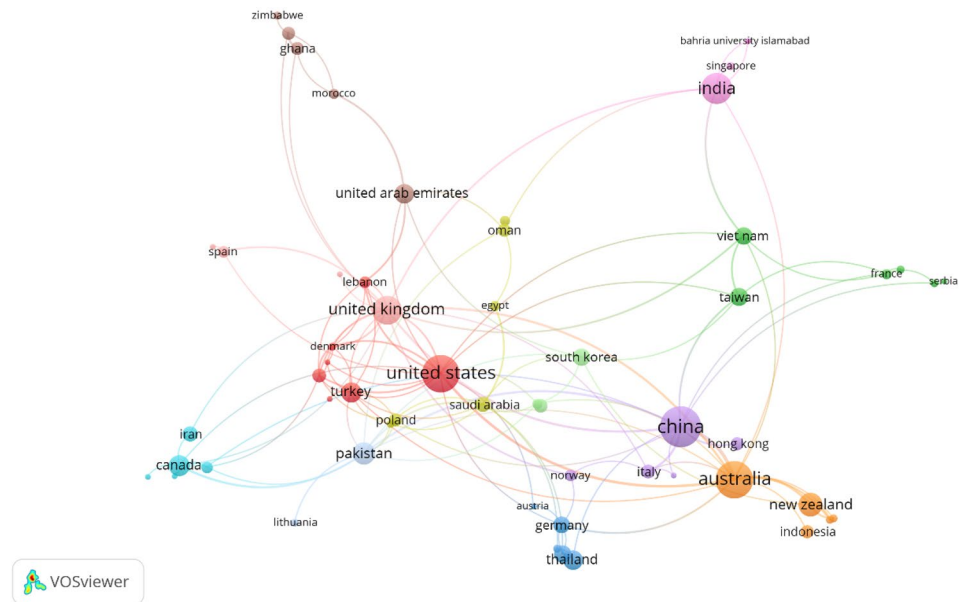
stems throughout the globe, with authors cooperating to understand and build a more resilient workforce, analyzing it from different scientific perspectives (see Fig. 6).

4.3 RQ3. The intellectual structure of employee resilience literature: thematic clusters

With the aim to reveal the underlying themes, the two techniques of science mapping were used: co-word analysis and co-citation analysis.

Co-citation analysis allows not only to find the most influential publications, but also makes it possible to discover thematic clusters. Meanwhile, a co-word analysis could be used as a supplement to enrich the understanding

Fig. 8 Co-author affiliation countries. Source: Authors' own creation



about the previously discovered thematic clusters as the themes formed through the commonalities in publications tend to be relatively general, and thus, the use of co-word analysis can help elaborate on the content of each thematic cluster (Donthu et al., 2021).

Thus, to examine the variety of areas that “employee resilience” concerns, a co-word analysis was deployed. It included keywords (minimum 5 occurrences of keywords are considered) to explore the existing and define future relationships among topics. A temporal dimension was considered to analyze the trends in “employee resilience” research (see Fig. 9). It is clear that “employee resilience” gained increased momentum in 2022. The most current publications in the sample concentrated on crisis management in relation to the COVID-19 pandemic. Additionally, new terms are emerging, such as “job crafting”, “authentic leadership”, “psychological empowerment”, “artificial intelligence”, “digital transformation”, “employee agility”, “innovative performance”, “transformational leadership”, “anxiety”, “epidemiology”, “sars-cov-2”, “severe acute respiratory syndrome”, “psychological stress”, “workload”, “nurses”, and “self-concept”. Moreover, a strategic approach of HRM is under revival in the contemporary literature where the role of females is highlighted (e.g. Anastopoulou et al., 2023; Bridges et al., 2023).

Co-citation analysis (unit of analysis – cited authors with a minimum number of 20 citations) was performed to analyze the interconnectedness among topics and research areas of the most prominent authors in the field (Fig. 10). This is most suited to analyzing the research that has been impactful, though might not reveal future areas strongly.

The analysis of “employee resilience” revealed the following thematic clusters: (1) employee resilience as a

capacity of positive organizational behavior (POB) and dimension of psychological capital (green cluster); (2) Job Demands-Resource (JD-R) theory as a lens for understanding employee resilience (purple cluster); (3) Conservation of Resources (COR) theory as a lens for understanding employee resilience (red cluster); (4) leadership as a driver of employee resilience (blue cluster); and (5) deeper disclosure of employee resilience: fundamental question requires further elaboration (yellow cluster). These clusters are described further in the paper.

Green cluster: Employee resilience as a capacity of positive organizational behavior (POB) and dimension of psychological capital. Actually, the concept of resilience has been embedded in the field of positive psychology in general, and positive organizational behavior in particular (Luthans 2002b; Luthans et al., 2007a, b, 2024). According to Luthans (2002a, p. 59), POB refers to “the study and application of positively-oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace”. Building on the POB definition, only the psychological construct that meets the five criteria can be included in POB, namely: theory-and evidence-based, positively-oriented, validly and reliably measurable, open to development and management, and related to desired and measurable work attitudes, behaviors, and performance criteria (Luthans 2002a, b; Luthans et al. 2007a, b). Only four constructs, including hope, resilience, optimism, and self-efficiency meet the inclusion criteria and have been termed psychological capital or PsyCap or the HERO within (Luthans & Youssef, 2007; Youssef & Luthans, 2007; Luthans & Youssef-Morgan, 2017).

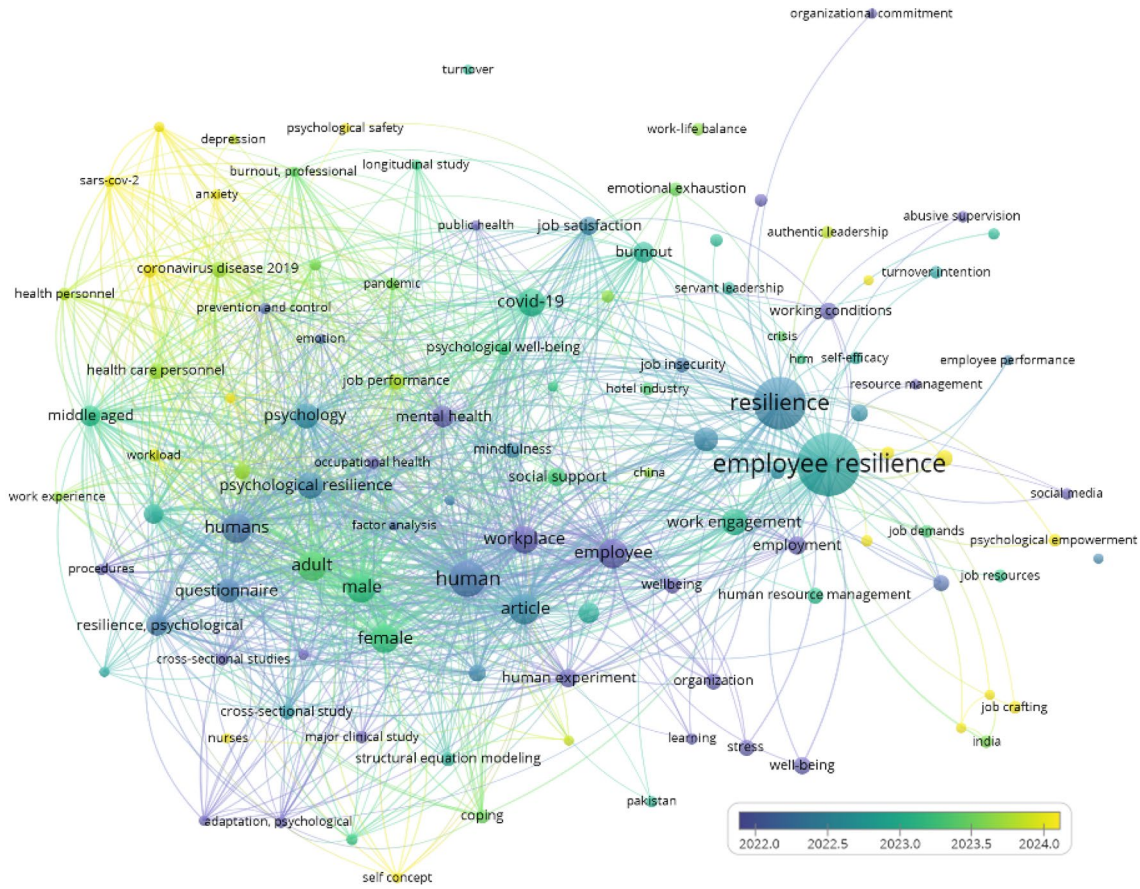


Fig. 9 Temporal co-word analysis. Source: Authors’ own creation

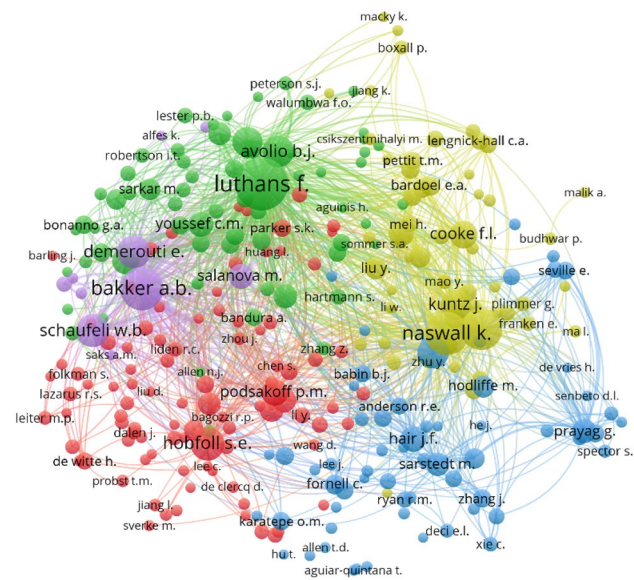


Fig. 10 Co-citation analysis. Source: Authors’ own creation

Studies grouped in this cluster view resilience as one of the PsyCap constructs. Building on the definition provided by Luthans (2002b) (see the literature review part), resilience is viewed as a positive capacity with the intention to bounce back from adverse events. Resilience is not seen as an extraordinary, special gift that only a few people possess; on the contrary, it refers to a learnable capacity that can be developed (Luthans, 2002b). Moreover, employee resilience is not only about reactive recovery but also about proactive learning and growth through overcoming challenging events, which might be negative and positive but potentially overwhelming (Youssef & Luthans, 2007). Additionally, individuals may become more resilient each time they effectively bounce back from a previous setback (Luthans et al., 2007a). Going further, Masten and Wright (2009) underlined that resilience arose from many processes and interactions – not only personal features were relevant, but environment aspects, such as social support, also might enhance resilience. This means that resilience can be developed through asset-focused, risk-focused, and process-focused strategies (Youssef & Luthans, 2007). Avey et al. (2009, p. 682) claimed that resilience was “the most important positive resource to navigating a turbulent and stressful

workplace” due to its capacity to restore other HERO states (self-efficacy, hope, and optimism) after something challenging has happened (Luthans et al., 2007b).

Purple cluster: Job Demands-Resource (JD-R) theory as a lens for understanding employee resilience. Relying on the JD-R theory, all job-related attributes can be classified into two categories: job demands and job resources (Bakker & Demerouti, 2007, 2017; Bakker et al., 2023; Demerouti, 2025). Demerouti et al. (2001, p. 50) defined job demands as “those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” (p. 501). Examples could include a high work pressure, emotionally demanding interactions with customers or role ambiguity. In the meantime, job resources can be characterized as “those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth and development” (Demerouti et al., 2001, p. 501). Examples of job resources are autonomy, skill variety, constructive feedback, and social support from colleagues.

JD-R theory in relation to employee resilience is applied in several ways. First, resilience is viewed as a psychological resource that may “buffer” the negative effects of job demands and accordingly allow to maintain or enhance some positive attitudes of employees. For instance, Cooke et al. (2019a) and Lu et al. (2023) used the JD-R model as a theoretical framework to examine the process through which employee resilience affected employee engagement as individual resource. Second, various job resources, triggering motivational process, are seen as relevant aspects for nurturing resilience (Bakker et al., 2023). As stated by Maley et al. (2024, p. 76), “resources provide individuals with the opportunity to both lessen the likelihood of adversity and support recovery from, growth beyond, and adaptation to, challenging events”. Among such resources, the prior studies identified sustainable human resource management practices (Lu et al., 2023) or high performance work systems (HPWS) (Cooke et al. 2019a). Finally, job demands, especially hindrance demands, are seen as undermining employee resilience (LePine et al., 2005). For instance, Plimmer et al. (2023) found that job insecurity, unclear job and organizational goals, and interagency collaboration negatively affected resilience.

Red cluster: Conservation of Resources (COR) theory as a lens for understanding employee resilience. Developed by Hobfoll (1989, 2011), COR theory claims that “people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources” (Hobfoll, 1989, p. 513). COR theory has

two basic assumptions: people have to invest their resources in order to deal with stressful situations and prevent themselves from having negative consequences; and people must invest resources in order to protect against future resource loss, recover their resources, and gain new resources (Sala-nova et al., 2010). Moreover, resource losses have a more acute impact than resource gains (Hobfoll, 1989).

COR theory in relation to employee resilience is applied in several ways. First, resilience as an individual resource can be used to reduce the strains and stresses. Cooke et al. (2019b) claimed that COR theory was beneficial in understanding the role resources, including resilience, could play in mitigating the effects caused by the stressor. Second, COR theory provides an explanation for the value of resilience-enhancing practices. Based on COR theory, Bardoel et al. (2014, p. 283) argued for need to identify a set of HRM practices that “will enable employees to develop and maintain resources and enhance employee resilience”. Cooke et al. (2009 b) demonstrated that supportive leadership behavior and co-worker support served as antecedents of higher employee resilience.

Blue cluster: leadership as a driver of employee resilience. The studies within this cluster mainly focus on the relationship between different types of leadership and employee resilience. Incidentally, this cluster is characterized by additional three key features. First, some studies were conducted in particular industries reflecting the claim in the literature that resilience may be context-dependent (Kossek & Perrigino, 2016). Second, couple of studies were conducted in the face of “significant adversity” (Britt et al., 2016) it being a COVID-19 pandemic or earthquakes. Third, the cluster includes general papers on methodological techniques given that the objectives of several studies on resilience were attained through the application of sophisticated research methods (Sarstedt et al., 2022).

Turning to a concrete example, Prayag et al. (2024) investigated the link between the resilient leadership and employee resilience in tourism organizations and found that resilient leadership behaviors in the early stages of the pandemic enhanced both employee and organizational resilience. That said, a huge bulk of studies conducted by Prayag and colleagues addressed one specific industry, namely the tourism sector (Prayag, 2018; Prayag et al., 2020). Another example in this cluster refers to work of Li and Zhang (2022), where, based on a two-wave time-lagged data from 85 team leaders and 417 employees, it was demonstrated that authentic leadership positively affected resilience. More recently, Zhang et al. (2024b) found that resilient leadership impacted employee resilience during crises in tourism and hospitality firms. Moreover, felt responsibility, belief restoration, and calling played the role of mediators.

This cluster also encompasses the author Hodliffe (2014) who developed and validated the Employee Resilience Scale (EmpRes) in an unpublished doctoral dissertation and following an empirical study concluded that organizations enabled their employees to be more resilient by creating a learning-oriented culture and building empowering leadership (Hodliffe, 2014). Finally, in a similar way, Seville (2018) concluded that the prevailing culture and the behavior and capabilities of leaders could enhance or undermine the resilience of employees.

Yellow cluster: Deeper disclosure of employee resilience: the fundamental question requires further elaboration. This cluster involves studies of well-known authors in employee resilience field such as Katarina Näswall, Joana Kuntz, Fang Lee Cooke, and Anne E Bardoel (interestingly, Kuntz and Näswall are co-authors of some papers). Together with other researchers within the yellow cluster, they attempt to respond to fundamental questions concerning the conceptualization of the construct, its antecedents, and theoretical frameworks explaining links and related measurement issues. Näswall et al. (2019) presented the Employee Resilience Scale with 9 items, which has since become one of the main instruments for assessing employee resilience. Kuntz (2020) broadened the understanding on general and disaster-specific psychological risks and resilience-promoting factors shaping resilience trajectories. Kuntz et al. (2017a) investigated the independent and joint effects of regulatory focus on the relationship between job resources, such as support from co-workers and supervisors, and performance feedback and employee resilience. Building on the recognized significance of resilience, Cooke et al. (2019a, b) focused on antecedents of the construct, namely job resources and, more specifically, supportive leadership, co-worker support, and high-performance work systems as human resource practices designed to enhance employee skills, commitment, and performance. Addressing the question of how resilience can be nurtured, Bardoel et al. (2014) turned to human resource management (HRM) and proposed a set of resilience-enhancing practices defining them as: “HRM practices that are intended, implemented and perceived to offer employees opportunities to ‘spring back’ from adversity and to develop and maintain resources that strengthen the resilience dimension of psychological capital” (p. 283). Finally, by joining the discussions on resilience, well-being and HRM, Liu et al. (2019) suggested that analyzing resilience from a multidisciplinary perspective might enhance understanding of the phenomenon.

Overall, the topic of employee resilience is multifaceted and deeply embedded into the management literature, strengthening the knowledge base on mechanisms how to exploit it in advancing the practices. The already-existing networks among researchers provide a strong background to

further elaborate the concept, building on the existing focus areas and exploring new ones.

4.4 RQ4: Future research avenues in employee resilience field

Besides identifying the five above-mentioned clusters that represent the current topics of interest emerging from works on employee resilience, the intention is also to discuss the research avenues that could be investigated by future studies. For this reason, in this subchapter, the previous bibliometric data is supported with the insights of the future opportunities to build on “employee resilience” by engaging with TOP20 most cited articles from Scopus database that concern the topic (Appendix 1). After the researchers read these TOP20, future research avenues were provided through a qualitative analysis.

4.4.1 Research avenue: 1. Digital transformation and employee resilience

Rapid advancement of digital technologies, including Artificial Intelligence (AI), is fundamentally changing the nature of work and organizations (Yin et al., 2024; Schwaeye et al., 2025). As the transformation of human–technology relations are more than obvious, discussions on human augmentation or replacement are growing (Dégallier-Rochat et al., 2022). In this light, two core concerns need attention in further studies. The first one refers to “how to bolster employee and organizational resilience to disruption from new technologies” (Trenerry et al., 2021, p. 2). The second one is about the key factors important for an organization’s overarching digital transformation. Earlier studies demonstrated that digital transformation was influenced by multiple factors at the individual, group and organizational levels and, accordingly, workplace resilience and adaptability, and team adaptability and resilience were among them (Trenerry et al., 2021, p. 2). Therefore, there is a call to analyze employee resilience as antecedent and outcome of digital transformation.

4.4.2 Research avenue: 2. Demographic shaping of employee resilience

Previous studies concluded that employee resilience as a behavioral capability resulted from organizational factors along with individual ones, including demographic characteristics such as age, gender, education, managerial hierarchy, tenure, etc. (Lin et al., 2022; Plimmer et al., 2023). Gender gap in resilience literature is considered an especially important issue (Tabassum et al., 2019; Näswall et al., 2019). Temporal co-word analysis, provided in Fig. 9,

confirmed this and showed that terms “male” and “female” were among recent keywords. Thus, future research is needed on how to promote resilience in women in particular (Tabassum et al., 2019). Furthermore, there is a special call to investigate the link between resilience and age, seeing that, for instance, life goals and ability of older employees are changing (Cooke et al. 2019a; Cooper et al. 2019). Summing up, studies facilitating better understanding of the influence of individual factors on employee resilience would be in demand seeing their huge added value for practitioners working in the HRM area (Malik & Garg, 2020).

4.4.3 Research avenue: 3. Improvements in research design and measurement

Drawing on the prior studies, this research avenue is highly relevant as was mentioned in the bulk of TOP20 most cited articles from Scopus database and such words as “longitudinal study”, “questionnaire”, “cross-sectional study”, “structural equation modelling” were reflected in the temporal co-word analysis (Fig. 9). One of the most frequently mentioned calls concerned longitudinal research claiming that “it is critical for researchers to conduct longitudinal research to further our understanding of the dynamic processes under which resilience develops and influences workplace outcomes at different levels of analysis” (King et al., 2016, p. 785).

Another call supports the study result generalization (Cooke et al. 2019a; Cooper et al. 2019; Malik and Garg 2020; Senbeto and Hon 2020; Aguiar-Quintana et al. 2021; Lu et al. 2023) by encouraging studies in different geographical settings or through multi-industries. Moreover, this would enable data comparison, including comparisons between developing and developed economies and between public and private sector.

The next call is about mixed method and multi-level approach, arguing for the need to explore the complex relationship between people, process, and performance using multiple methods, including quantitative, qualitative, and mixed (King et al. 2016; Cooke et al. 2019a; Prayag et al. 2020).

4.4.4 Research avenue: 4. Bringing employee resilience into the domain of HRM

Only in the past decade, empirical studies on HRM-employee resilience nexus appeared confirming that a coherent set of HRM practices could strengthen employee resilience (Bardoel et al., 2014; Cooper et al., 2019; Lu et al., 2023; Trunk Širca et al., 2024). Wang et al. (2014) found that resilience could be enhanced through HRM practices such as training and development. Bardoel et al. (2014) proposed a set of

eight HRM practices, namely social support at work, work-life balance, employee assistance, employee development, flexible work arrangement, occupational health and safety systems, crisis management systems, and diversity management, that according to JD-R theory serve as forms of job resources that could be useful for nurturing resilience. More recently, studies by Lu et al. (2023) and Trunk Širca et al. (2024) have advocated exploring the role of sustainable HRM as a driver of employee resilience. Given the contemporary environmental challenges and the complexity of relations at the workplaces (Cooke et al., 2020), further studies could expand their focus to HRM practices, drawing from sustainability perspective. The role of HRM in overcoming adversity and developing other resources for being resilient is crucial in the light of future of work in particular (Renkema & Tursunbayeva, 2024).

4.4.5 Research avenue: 5. Linking employee resilience with organizational resilience

As stated by Liang and Cao (2021), the black box between employee resilience and organizational resilience is still uncovered. The request to do this was declared by Prayag et al. (2020) in a study exploring tourism organizations. Later, Prayag et al. (2024) analyzed the role of resilient leadership behaviors for both employee and organizational resilience. Nonetheless, the studies on why and how employee resilience affects organizational resilience and vice-versa are still much needed (Prayag, 2018; Senbeto & Hon, 2020).

4.4.6 Research avenue: 6. Antecedents of employee resilience

On the one hand, it seems that the literature on drivers of employee resilience has been blooming (Hartmann et al., 2020; Kuntz et al. 2017b; Kuntz, 2020). However, on the other hand, the recurring question particularly from practitioners of what predicts resilience calls for future research. For instance, Ojo et al. (2021) explored job resources, such as support from family and friends, supervisor support, facilitating conditions, and self-efficacy for handling stressful events. Tonkin et al. (2018) investigated the effect of well-being intervention, namely well-being game, on employee resilience. Finally, different types of leadership have been found to shape employee resilience (Zhang et al. 2024b) and a call to focus on career adaptability or psychological empowerment was announced (Ojo et al., 2021). Even though considerable progress is obvious, clear articulation of antecedents of resilience remains necessary in both cases – faced with “significant adversity at work” (Britt et al., 2016) or in a more stable environment (day-to-day work stressors) (Kuntz et al., 2017a).

4.4.7 Research avenue: 7. Outcomes of employee resilience

The story here is identical to that of the previous research avenue: although data are available, unresolved questions remain (Dai et al., 2019). As indicated by Hartmann et al. (2020), performance, mental and physical health, work-related attitudes, and change-related attitudes imply the outcomes of employee resilience. This conclusion aligns well with the temporal co-word analysis (Fig. 9) showing that work engagement, job satisfaction or work performance have a thematic relationship with resilience. Nonetheless, seeking to justify the added value of resilience to both employee and organizations, and contribute to the solving of current issues at workplaces (such as decreased engagement), further work on outcomes, including outcome-related job insecurity (Shoss et al., 2018) or interaction with customers (Al-Hawari et al., 2020; Senbeto & Hon, 2020), seems to continue.

5 Conclusion

Using bibliometric analysis (performance analysis and science mapping) and later performing a qualitative analysis of TOP20 most cited articles, the current paper aimed to reveal how the literature on employee resilience was currently structured. RQ1 focused on the volume, growth trajectory, and regional distribution of scholarship on employee resilience. It was found that in the last ten years, the research area has been undergoing significant changes: since the first use in 2006 of the term “employee resilience”, in 2021, the number of publications reached 119 following steady annual growth (with the exception of 2022). Years 2024 and 2025 could be characterized as the most productive with 100 and 109 publications, respectively.

In terms of regional distribution of these publications, China, India and USA were the countries with the highest number of contributions. Such trends warn about the potential risk that employee resilience might not be broadly generalizable, as the publications will be context-influenced (Kuntz, 2020). They will not fully reflect the countries, which differ in the social, economic and cultural aspects compared to northern hemisphere.

Regarding RQ1, it might be concluded that such increase in volume is associated with crises and transformations the organizations and their employees are facing (Cooke et al., 2020; Wut et al., 2022; Schwaeke et al., 2025). Meanwhile, the concept of resilience helps to understand the extent to which employees successfully handle adversity at work (Hartmann et al., 2020). Given that World Economic Forum included resilience in the core skills list (World Economic

Forum, 2025), it is likely that the number of studies will increase in the near future.

RQ2 focused on core journals, subjects, and authors in the field of employee resilience, as well as co-author affiliation countries. The most relevant source for “employee resilience” research was found to be *Frontiers in Psychology* (14 articles). In the meantime, SNIP by year revealed that the most cited source was *International Journal of Human Resource Management*. Turning to area, the majority of research was conducted under Business, Management, and Accounting subject areas followed by Social Sciences and Psychology, leading to the conclusion that having resilient employees was the wish and must for every business entity or society in general. The most productive authors were S. Malinen with 10 publications and K. Näswall with 8 publications, both affiliated with the University of Canterbury, Christchurch, New Zealand.

To answer RQ3, co-citation analysis was conducted revealing five thematic clusters, namely: (1) employee resilience as a capacity of positive organizational behavior (POB) and dimension of psychological capital (green cluster); (2) Job Demands-Resource (JD-R) theory as a lens for understanding employee resilience (purple cluster); (3) Conservation of Resources (COR) theory as a lens for understanding employee resilience (red cluster); (4) leadership as a driver of employee resilience (blue cluster); and (5) deeper disclosure of employee resilience: fundamental question requires further elaboration (yellow cluster). Identifying these five clusters improves understanding of the phenomenon and helps justify the antecedents, outcomes, or mechanisms of employee resilience. As detailed in the results, one example can be drawn from the JD-R theory. According to this theory, resilience is twofold. As a psychological resource, it may “buffer” the negative effects of job demands; on the other hand, employee resilience can be developed through other resources, such as HRM practices.

To answer RQ4, the data from co-word analysis together with the performed qualitative analysis of TOP20 mostly cited contributions in the domain of employee resilience was used. This analysis allows to identify a set of interesting and increasingly important research trajectories in the domain. Thus, the following research avenues were disclosed: digital transformation and employee resilience; demographic shaping of employee resilience; improvements in research design and measurement; bringing employee resilience into the domain of HRM; linking employee resilience with organizational resilience; antecedents of employee resilience; and outcomes of employee resilience. These research directions are aligned with and supported by current transformations in the business environment, emphasizing the need not only to explore resilience as a construct itself, but also

to pay attention to digitalization, as well as employee and organizational sustainability.

Summing up, the findings offer a useful research baseline for both scholars and practitioners interested in exploring the research area of employee resilience. The paper contributes to the literature by systemizing the published papers and by identifying thematic clusters that may help navigate the broad research landscape. Furthermore, the essential theories of POB, JD-R, and COR are identified, and their relationship to employee resilience is revealed. Additionally, the findings of this study offer a foundation for scholars to advance future research by engaging with the proposed research avenues for further investigation.

The paper offers some managerial implications for HRM practitioners and organizations in general. First, the paper highlights the HRM practice-employee resilience nexus, which results in HRM potential to enhance resilience. As such, the findings of this paper suggest that organizations should consider a set of HRM practices, including well-being-oriented (Cooper et al., 2019), resilience-oriented (Bardoel et al., 2014) or sustainable HRM practices (Trunk Širca et al., 2024) to be developed and implemented with the intention to support employees dealing with adversity. Moreover, these practices should be strategically aligned with organizational goals.

Second, the paper draws attention to digital transformation creating the ecosystem where employee resilience might experience a dual effect. From one side, technologies might help employees overcome workplace challenges, but from the other side they might create technology-induced stress (Trenerry et al., 2021). Seeing digital transformation as an “urgent imperative”, HRM practitioners are encouraged to create support culture for those less advanced in the use of AI or other tools.

Third, HRM practitioners are encouraged to take employee demographics into consideration when analyzing resilience. It is acknowledged that employee resilience is not a static capability, but a dynamic construct that evolves over time (Kuntz et al. 2017a). In light of demographic differences, a “one-size-fits-all” approach is therefore inappropriate for both resilience levels and the strategies used to develop them.

Fourth, the paper highlights the critical role of leadership, as it serves as a relevant antecedent of employee resilience (Prayag et al., 2024). Organizations are encouraged to implement training programs with the intention of fostering leadership, as effective leadership can create a supportive environment that enables employees to better cope with challenges and adapt to change.

The paper has several limitations, which might be addressed in the future. First, the dataset was collected through Scopus. For future, other databases, such as Web of Science, could be used to deepen the focus of bibliometric analysis. Second, the focus was only on one construct of employee resilience. For broader understanding of how this construct is related with other highly relevant topics in the management field, such as job design, performance or HRM in general, future studies are required.

Summing up, the interest in employee resilience has been growing during last decade. Being resilient and having resilient employees helps both employees and their organizations to address the challenges raised by a dynamic and unpredictable work environment.

6 Appendix No. 1

See Table 1.

Table 1 TOP 20 TOP20 most cited articles. Source: Authors' own creation

Rank	Authors	Title	Source	Year	Citation count
1	Trenerry, B. et al.	Preparing Workplaces for Digital Transformation: An Integrative Review and Framework of Multi-Level Factors	Frontiers in Psychology	2021	365
2	Britt, T. W. et al.	How much do we really know about employee resilience?	Industrial and Organizational Psychology	2016	341
3	Cooke, F. L. et al.	Mapping the relationships between high-performance work systems, employee resilience and engagement: a study of the banking industry in China	International Journal of Human Resource Management	2019	269
4	Aguiar-Quintana, T. et al.	Do job insecurity, anxiety and depression caused by the COVID-19 pandemic influence hotel employees' self-rated task performance? The moderating role of employee resilience	International Journal of Hospitality Management	2021	260
5	Bardoel, E. A. et al.	Employee resilience: An emerging challenge for HRM	Asia Pacific Journal of Human Resources	2014	258
6	King, D. D. Newman, A. Luthans, F.	Not if, but when we need resilience in the workplace	Journal of Organizational Behavior	2016	254
7	Cooper, B. et al.	Well-being-oriented human resource management practices and employee performance in the Chinese banking sector: The role of social climate and resilience	Human Resource Management	2019	232
8	Malik, P. Garg, P.	Learning organization and work engagement: the mediating role of employee resilience	International Journal of Human Resource Management	2020	224
9	Lu, Y. et al.	Sustainable human resource management practices, employee resilience, and employee outcomes: Toward common good values	Human Resource Management	2023	210
10	Prayag, G. et al.	Psychological resilience, organizational resilience and life satisfaction in tourism firms: insights from the Canterbury earthquakes	Current Issues in Tourism	2020	207
11	Prayag, G.	Symbiotic relationship or not? Understanding resilience and crisis management in tourism	Tourism Management Perspectives	2018	204
12	Al-Hawari, M. A. Bani-Melhem, S. Quratulain, S.	Do Frontline Employees Cope Effectively with Abusive Supervision and Customer Incivility? Testing the Effect of Employee Resilience	Journal of Business and Psychology	2020	183
13	Kuntz, J. R.C. Malinen, S. Näswall, K.	Employee resilience: Directions for resilience development	Consulting Psychology Journal	2017	196
14	Tonkin, K. et al.	Building employee resilience through wellbeing in organizations	Human Resource Development Quarterly	2018	150
15	Näswall, K.	Employee resilience: development and validation of a measure	Journal of Managerial Psychology	2019	149
16	Ojo, A. O. Fawehinmi, O. Yusliza, M. Y.	Examining the predictors of resilience and work engagement during the covid-19 pandemic	Sustainability (Switzerland)	2021	138
17	Cooke, F. L. Schuler, R. Varma, A.	Human resource management research and practice in Asia: Past, present and future	Human Resource Management Review	2020	136
18	Senbeto, D. L. Hon, A. H. Y.	Market turbulence and service innovation in hospitality: examining the underlying mechanisms of employee and organizational resilience [酒店環境下的市場動盪和服務創新: 以員工應變能力和組織彈性的機制研究]	Service Industries Journal	2020	124
19	Dai, Y.-D. Zhuang, W.-L. Huan, T.-C.	Engage or quit? The moderating role of abusive supervision between resilience, intention to leave and work engagement	Tourism Management	2019	122
20	Shoss, M. K. Jiang, L. Probst, T. M.	Bending without breaking: A two-study examination of employee resilience in the face of job insecurity	Journal of Occupational Health Psychology	2018	122

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Data availability The data that support the findings of this study are available from SCOPUS database.

Declarations

Competing interests The authors declare no competing interests.

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References

- Aguiar-Quintana, T., Nguyen, T. H. H., Araujo-Cabrera, Y., & Sanabria-Díaz, J. M. (2021). Do job insecurity, anxiety and depression caused by the COVID-19 pandemic influence hotel employees' self-rated task performance? The moderating role of employee resilience. *International journal of hospitality management*, 94, 102868. <https://doi.org/10.1016/j.ijhm.2021.102868>
- Al Nahyan, M. T., Ahbabi, A., Alabdulrahman, J. M., Alhosani, M. A., Jabeen, I., F., & Farouk, S. (2024). Employee job security and job performance: the mediating role of well-being and the moderating role of perceived organizational support and psychological capital. *European Journal of Management and Business Economics*. <https://doi.org/10.1108/EJMBE-01-2023-0011>
- Al-Hawari, M. A., Bani-Melhem, S., & Quratulain, S. (2020). Do frontline employees cope effectively with abusive supervision and customer incivility? Testing the effect of employee resilience. *Journal of Business and Psychology*, 35(2), 223–240. <https://doi.org/10.1007/s10869-019-09621-2>
- Anastasopoulou, A., Vraimaki, E., & Trivellas, P. (2023). Recovery for Resilience: The Mediating Role of Work–Life Balance on the Quality of Life of Women Employees. *Sustainability*, 15(17), 12877. <https://doi.org/10.3390/su151712877>
- Arruda, H., Silva, E. R., Lessa, M., Proença Jr., D., & Bartholo, R. (2022). VOSviewer and Bibliometrix. *Journal of the Medical Library Association*, 110(3), 392–395. <https://doi.org/10.5195/jmla.2022.1434>
- Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human resource management*, 48(5), 677–693. <https://doi.org/10.1002/hrm.20294>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of managerial psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: taking stock and looking forward. *Journal of occupational health psychology*, 22(3), 273. <https://doi.org/10.1037/ocp000056>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. (2023). Job demands–resources theory: Ten years later. *Annual review of organizational psychology and organizational behavior*, 10(1), 25–53. <https://doi.org/10.1146/annurev-orgpsych-120920-053933>
- Bardoel, E. A., Pettit, T. M., De Cieri, H., & McMillan, L. (2014). Employee resilience: An emerging challenge for HRM. *Asia Pacific Journal of Human Resources*, 52(3), 279–297. <https://doi.org/10.1111/1744-7941.12033>
- Bridges, D., Wulff, E., & Bamberry, L. (2023). Resilience for gender inclusion: Developing a model for women in male-dominated occupations. *Gender Work & Organization*, 30(1), 263–279. <https://doi.org/10.1111/gwao.12672>
- Britt, T. W., Shen, W., Sinclair, R. R., Grossman, M. R., & Klieger, D. M. (2016). How much do we really know about employee resilience? *Industrial and Organizational Psychology*, 9(2), 378–404. <https://doi.org/10.1017/iop.2015.107>
- Caniëls, M. C., & Hatak, I. (2022). Employee resilience: considering both the social side and the economic side of leader-follower exchanges in conjunction with the dark side of followers' personality. *The International Journal of Human Resource Management*, 33(2), 297–328. <https://doi.org/10.1080/09585192.2019.1695648>
- Cooke, F. L., Cooper, B., Bartram, T., Wang, J., & Mei, H. (2019a). Mapping the relationships between high-performance work systems, employee resilience and engagement: A study of the banking industry in China. *The International Journal of Human Resource Management*, 30(8), 1239–1260. <https://doi.org/10.1080/09585192.2015.1137618>
- Cooke, F. L., Wang, J., & Bartram, T. (2019b). Can a supportive workplace impact employee resilience in a high pressure performance environment? An investigation of the Chinese banking industry. *Applied Psychology*, 68(4), 695–718. <https://doi.org/10.1111/apps.12184>
- Cooke, F. L., Schuler, R., & Varma, A. (2020). Human resource management research and practice in Asia: Past, present and future. *Human Resource Management Review*, 30(4), 100778. <https://doi.org/10.1016/j.hrmmr.2020.100778>
- Cooper, B., Wang, J., Bartram, T., & Cooke, F. L. (2019). Well-being-oriented human resource management practices and employee performance in the Chinese banking sector: The role of social climate and resilience. *Human resource management*, 58(1), 85–97. <https://doi.org/10.1002/hrm.21934>
- Dai, Y. D., Zhuang, W. L., & Huan, T. C. (2019). Engage or quit? The moderating role of abusive supervision between resilience, intention to leave and work engagement. *Tourism Management*, 70, 69–77. <https://doi.org/10.1016/j.tourman.2018.07.014>
- Dalgic, A., Demir, M., & Ergen, F. D. (2023). Does Perceived Vulnerability Mediate the Effect of Hotel Employees' Resilience on Mental Health Perceptions? *Tourism: An International Interdisciplinary Journal*, 71(1), 77–97. <https://doi.org/10.37741/t.71.1.5>
- Dastane, O., & Haba, H. F. (2023). The Landscape of Digital Natives Research: A Bibliometric and Science Mapping Analysis. *FIIB Business Review*. <https://doi.org/10.1177/23197145221137960>
- Dégallier-Rochat, S., Kurpicz-Briki, M., Endrissat, N., & Yatsenko, O. (2022). Human augmentation, not replacement: A research agenda for AI and robotics in the industry. *Frontiers in Robotics and AI*, 9, 997386. <https://doi.org/10.3389/frobt.2022.997386>
- Demerouti, E. (2025). Job demands-resources and conservation of resources theories: How do they help to explain employee well-being and future job design? *Journal of Business Research*, 192(C). <https://doi.org/10.1016/j.jbusres.2025.115296>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and

- guidelines. *Journal of Business Research*, 133(May), 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Ferrigno, G., Del Sarto, N., Piccaluga, A., & Baroncelli, A. (2023). Industry 4.0 base technologies and business models: a bibliometric analysis. *European Journal of Innovation Management*, 26(7), 502–526. <https://doi.org/10.1108/EJIM-02-2023-0107>
- Fisher, D. M., Ragsdale, J. M., & Fisher, E. C. (2019). The importance of definitional and temporal issues in the study of resilience. *Applied psychology*, 68(4), 583–620. <https://doi.org/10.1111/app.12162>
- Franken, E., Plimmer, G., & Malinen, S. (2020). Paradoxical leadership in public sector organisations: Its role in fostering employee resilience. *Australian Journal of Public Administration*, 79(1), 93–110. <https://doi.org/10.1111/1467-8500.12396>
- Galy, A., Chênevert, D., Fouquereau, E., & Groulx, P. (2023). Toward a new conceptualization of resilience at work as a meta-construct? *Frontiers in Psychology*, 14, 1211538. <https://doi.org/10.3389/fpsyg.2023.1211538>
- Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human resource management journal*, 27(1), 22–38. <https://doi.org/10.1111/1748-8583.12139>
- Hartmann, S., Weiss, M., Newman, A., & Hoegl, M. (2020). Resilience in the workplace: A multilevel review and synthesis. *Applied psychology*, 69(3), 913–959. <https://doi.org/10.1111/apps.12191>
- Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *American psychologist*, 44(3), 513.
- Hobfoll, S. E. (2011). Conservation of resources theory: Its implication for stress, health, and resilience. *The Oxford handbook of stress health and coping*, 127, 147.
- Hodliffe, M. (2014). The development and validation of the employee resilience scale (EmpRes): The conceptualization of a new model (Unpublished doctoral dissertation). University of Canterbury, Christchurch, New Zealand.
- Kainzbauer, A., & Rungruang, P. (2019). Science Mapping the Knowledge Base on Sustainable Human Resource Management, 1982–2019. *Sustainability*, 11(14), 3938. <https://doi.org/10.3390/su1143938>
- King, D. D., Newman, A., & Luthans, F. (2016). Not if, but when we need resilience in the workplace. *Journal of organizational behavior*, 37(5), 782–786. <https://doi.org/10.1002/job.2063>
- Klein, R. J., Nicholls, R. J., & Thomalla, F. (2003). Resilience to natural hazards: How useful is this concept? *Global environmental change part B: environmental hazards*, 5(1), 35–45. <https://doi.org/10.1016/j.hazards.2004.02.001>
- Kossek, E. E., & Perrigino, M. B. (2016). Resilience: A review using a grounded integrated occupational approach. *Academy of Management Annals*, 10(1), 00–00. <https://doi.org/10.1080/19416520.2016.1159878>
- Kuntz, J. C. (2020). Resilience in times of global pandemic: Steering recovery and thriving trajectories. *Applied psychology= Psychologie appliquée*, 70(1), 188. <https://doi.org/10.1111/apps.12296>
- Kuntz, J. R., Näswall, K., & Malinen, S. (2016). Resilient employees in resilient organizations: Flourishing beyond adversity. *Industrial and Organizational Psychology*, 9(2), 456–462. <https://doi.org/10.1017/iop.2016.39>
- Kuntz, J., Connell, P., & Näswall, K. (2017a). Workplace resources and employee resilience: The role of regulatory profiles. *Career development international*, 22(4), 419–435. <https://doi.org/10.1108/CDI-11-2016-0208>
- Kuntz, J. R., Malinen, S., & Näswall, K. (2017b). Employee resilience: Directions for resilience development. *Consulting Psychology Journal: Practice and Research*, 69(3), 223. <https://doi.org/10.1037/cpb0000097>
- Kunzelmann, A., & Rigotti, T. (2021). Challenge demands and resilience. *Zeitschrift Für Arbeits-Und Organisationspsychologie A&O*, 66(2), 59–71. <https://doi.org/10.1026/0932-4089/a000363>
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of management journal*, 48(5), 764–775.
- Li, X., & Zhang, J. (2022). Authentic leadership, perceived insider status, error management climate, and employee resilience: A cross-level study. *Frontiers in psychology*, 13, 938878doi. <https://doi.org/10.3389/fpsyg.2022.938878>
- Liang, F., & Cao, L. (2021). Linking employee resilience with organizational resilience: The roles of coping mechanism and managerial resilience. *Psychology Research and Behavior Management*, 1063–1075. <https://doi.org/10.2147/PRBM.S318632>
- Lin, S. Y., Tan, J. H., Tay, B. X. H., Koh, J. P. C. S., Siew, L., Teo, M. C. H., & Hilal, S. (2022). Exploring the socio-demographic and psychosocial factors that enhance resilience in the COVID-19 crisis. *International Journal of Environmental Research and Public Health*, 19(19), 12580. <https://doi.org/10.3390/ijerph191912583>
- Linnenluecke, M. K. (2017). Resilience in business and management research: A review of influential publications and a research agenda. *International journal of management reviews*, 19(1), 4–30. <https://doi.org/10.1111/ijmr.12076>
- Liu, Y., Cooper, L., C., & Tarba, Y., S (2019). Resilience, wellbeing and HRM: A multidisciplinary perspective. *The International Journal of Human Resource Management*, 30(8), 1227–1238. <https://doi.org/10.1080/09585192.2019.1565370>
- Lu, Y., Zhang, M. M., Yang, M. M., & Wang, Y. (2023). Sustainable human resource management practices, employee resilience, and employee outcomes: Toward common good values. *Human Resource Management*, 62(3), 331–353. <https://doi.org/10.1002/hrm.22153>
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Perspectives*, 16(1), 57–72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior: The International Journal of Industrial Occupational and Organizational Psychology and Behavior*, 23(6), 695–706. <https://doi.org/10.1002/job.165>
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of management*, 33(3), 321–349. <https://doi.org/10.1177/0149206307300814>
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual review of organizational psychology and organizational behavior*, 4(1), 339–366. <https://doi.org/10.1146/annurev-orgpsych-032516-113324>
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007a). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel psychology*, 60(3), 541–572. <https://digitalcommons.unl.edu/leadershipfacpub/11>
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007b). Psychological capital: Investing and developing positive organizational behavior. *Positive organizational behavior*, 1(2), 9–24.
- Luthans, F., Luthans, K., Luthans, B., & Peterson, S. (2024). Psychological, physical, and social capitals: A balanced approach for more effective human capital in today's organizations and life. *Organizational Dynamics*, 53(4), 101080. <https://doi.org/10.1016/j.orgdyn.2024.101080>
- Maley, J. F., Mitchell, R., Boyle, B., McNeil, K., & Trau, R. (2024). Two sides of the same coin: Appraising job-related attributes as resilience enhancing or undermining. *Human Resource Management Journal*, 34(1), 74–90. <https://doi.org/10.1111/1748-8583.12507>

- Malik, P., & Garg, P. (2020). Learning organization and work engagement: The mediating role of employee resilience. *The International Journal of Human Resource Management*, 31(8), 1071–1094. <https://doi.org/10.1080/09585192.2017.1396549>
- Masten, W., & Wright, M. O. (2009). Resilience over the lifespan. *Handbook of adult resilience*, 1, 213–237.
- Molnár, C., Csehne Papp, I., & Juhász, T. (2024). Organizational strategies and tools of employee well-being as perceived by employees. *Management & Marketing*, 19(2). <https://doi.org/10.2478/mcks-2024-0015>
- Näswall, K., Malinen, S., Kuntz, J., & Hodliffe, M. (2019). Employee resilience: Development and validation of a measure. *Journal of Managerial Psychology*, 34(5), 353–367. <https://doi.org/10.1108/JMP-02-2018-0102>
- Ojo, A. O., Fawehinmi, O., & Yusliza, M. Y. (2021). Examining the predictors of resilience and work engagement during the COVID-19 pandemic. *Sustainability*, 13(5), 2902. <https://doi.org/10.3390/su13052902>
- Passas, I. (2024). Bibliometric analysis: the main steps. *Encyclopedia*, 4(2). <https://doi.org/10.3390/encyclopedia4020065>
- Plimmer, G., Kuntz, J., Berman, E., Malinen, S., Näswall, K., & Franken, E. (2023). The negative relationships between employee resilience and ambiguity, complexity, and inter-agency collaboration. *Australian Journal of Public Administration*, 82(2), 248–270. <https://doi.org/10.1111/1467-8500.12587>
- Prayag, G. (2018). Symbiotic relationship or not? Understanding resilience and crisis management in tourism. *Tourism Management Perspectives*, 25, 133–135. <https://doi.org/10.1016/j.tmp.2017.11.012>
- Prayag, G., Spector, S., Orchiston, C., & Chowdhury, M. (2020). Psychological resilience, organizational resilience and life satisfaction in tourism firms: Insights from the Canterbury earthquakes. *Current Issues in Tourism*, 23(10), 1216–1233. <https://doi.org/10.1080/13683500.2019.1607832>
- Prayag, G., Muskat, B., & Dassanayake, C. (2024). Leading for resilience: Fostering employee and organizational resilience in tourism firms. *Journal of Travel Research*, 63(3), 659–680. <https://doi.org/10.1177/00472875231164984>
- Renkema, M., & Tursunbayeva, A. (2024). The future of work of academics in the age of Artificial Intelligence: State-of-the-art and a research roadmap. *Futures*, 163, 103453. <https://doi.org/10.1016/j.futures.2024.103453>
- Salanova, M., Schaufeli, W. B., Xanthopoulou, D., & Bakker, A. B. (2010). The gain spiral of resources and work engagement: Sustaining a positive worklife. *Work engagement: A handbook of essential theory and research*, 1, 118–131.
- Sarstedt, M., Radomir, L., Moisesescu, O. I., & Ringle, C. M. (2022). Latent class analysis in PLS-SEM: A review and recommendations for future applications. *Journal of business research*, 138, 398–407. <https://doi.org/10.1016/j.jbusres.2021.08.051>
- Schilbach, M., Baethge, A., & Rigotti, T. (2021). Do challenge and hindrance job demands prepare employees to demonstrate resilience? *Journal of Occupational Health Psychology*, 26(3), 155. <https://doi.org/10.1037/ocp0000282>
- Schwaeke, J., Gerlich, C., Nguyen, H. L., Kanbach, D. K., & Gast, J. (2025). Artificial intelligence (AI) for good? Enabling organizational change towards sustainability. *Review of managerial science*, 1–26. <https://doi.org/10.1007/s11846-025-00840-x>
- Senbeto, D. L., & Hon, A. H. (2020). Market turbulence and service innovation in hospitality: examining the underlying mechanisms of employee and organizational resilience. *The Service Industries Journal*, 40(15–16), 1119–1139. <https://doi.org/10.1080/13683500.2018.1546674>
- Seville, E. (2018). Building resilience: how to have a positive impact at the organizational and individual employee level. *Development and Learning in Organizations: An International Journal*, 32(3), 15–18. <https://doi.org/10.1108/DLO-09-2017-0076>
- Shoss, M. K., Jiang, L., & Probst, T. M. (2018). Bending without breaking: A two-study examination of employee resilience in the face of job insecurity. *Journal of occupational health psychology*, 23(1), 112. <https://doi.org/10.1037/ocp0000060>
- Simón, C., Revilla, E., & Sáenz, M. J. (2024). Integrating AI in organizations for value creation through Human-AI teaming: A dynamic-capabilities approach. *Journal of Business Research*, 182, 114783. <https://doi.org/10.1016/j.jbusres.2024.114783>
- Tabassum, N., Shafique, S., Konstantopoulou, A., & Arslan, A. (2019). Antecedents of women managers' resilience: Conceptual discussion and implications for HRM. *International Journal of Organizational Analysis*, 27(2), 241–268. <https://doi.org/10.1108/IJOA-07-2018-1476>
- Tonkin, K., Malinen, S., Näswall, K., & Kuntz, J. C. (2018). Building employee resilience through wellbeing in organizations. *Human resource development quarterly*, 29(2), 107–124. <https://doi.org/10.1002/hrdq.21306>
- Trenerry, B., Chng, S., Wang, Y., Suhaila, Z. S., Lim, S. S., Lu, H. Y., & Oh, P. H. (2021). Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. *Frontiers in psychology*, 12, 620766. <https://doi.org/10.3389/fpsyg.2021.620766>
- Trunk Širca, N., Riaz, Z., Hamid, S., Žuraské, G., & Stankevičiūtė, Ž. (2024). The interplay among employee resilience, sustainable HRM and work engagement. *Human Systems Management*, 43(4), 573–587. <https://doi.org/10.3233/HSM-230204>
- Wang, J., Cooke, F. L., & Huang, W. (2014). How resilient is the (future) workforce in China? A study of the banking sector and implications for human resource development. *Asia Pacific Journal of Human Resources*, 52(2), 132–154. <https://doi.org/10.1111/1744-7941.12026>
- World Economic Forum (2025). The Future of Jobs Report 2025. <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>
- Wut, T. M., Lee, S. W., & Xu, J. (2022). Role of organizational resilience and psychological resilience in the workplace—Internal stakeholder perspective. *International journal of environmental research and public health*, 19(18), 11799. <https://doi.org/10.3390/ijerph191811799>
- Yin, M., Jiang, S., & Niu, X. (2024). Can AI really help? The double-edged sword effect of AI assistant on employees' innovation behavior. *Computers in Human Behavior*, 150, 107987. <https://doi.org/10.1016/j.chb.2023.107987>
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of management*, 33(5), 774–800. <https://doi.org/10.1177/0149206307305562>
- Zhang, J., Ciupe, A., & Nguyen-Quoc, A. (2024a). Mapping Virtual Reality's Role in Cultivating Transversal Skills in Higher Education: A Bibliometric Analysis. *2024 IEEE Global Engineering Education Conference (EDUCON)*, 1–7. <https://doi.org/10.1109/EDUCON60312.2024.10578324>
- Zhang, J., Xie, C., & Huang, S. S. (2024b). The effect of resilient leadership on employee resilience during a crisis in tourism & hospitality firms: A self-determination perspective. *International Journal of Hospitality Management*, 122, 103886. <https://doi.org/10.1016/j.ijhm.2024.103886>
- Zhu, Y., Zhang, S., & Shen, Y. (2019). Humble leadership and employee resilience: exploring the mediating mechanism of work-related promotion focus and perceived insider identity. *Frontiers in Psychology*, 10, 673. <https://doi.org/10.3389/fpsyg.2019.00673>