

A Bibliometric Study on the Evolution of Innovative Work Behavior Literature (2013-2023)

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Abstract

This study used bibliometric analysis to provide a comprehensive overview of research on innovative work behavior (IWB). We examined a total of 411 publications from the Scopus Database, spanning the years 2013 to 2023, using the VOS viewer. The analysis revealed a noticeable increase in the volume of academic studies on IWB over the past decade. We also observed that a significant portion of these papers involved collaborative efforts among multiple authors, highlighting a trend toward interdisciplinary research. We identified notable collaboration between institutes in Asia and developing nations, underscoring the global nature of IWB research. The annual research data indicated that IWB research gained significant attention and recognition, particularly following the COVID-19 pandemic, and the trend of increasing annual publication in the field of IW continues over time. These insights into the trends and trajectories of IWB research serve to facilitate a better understanding of current and future research directions for both academics and practitioners, offering a valuable starting point for future studies in this area. Bibliometric techniques have proven to be an effective tool in providing a comprehensive overview of the field of innovative work behavior.

Keywords: Annual Research Data, Bibliometric Analysis, Innovative Work Behavior, IWB, VOS Viewer.

Introduction

Over the past decade, research on innovative work behavior (IWB) has seen a significant increase and has become a major focus in numerous academic studies. The research looks at the causes and effects of innovative work behavior, with many quality articles indexed in the Scopus database showing an upward trend in this domain. Bibliometric analysis (BA) of literature is becoming an important tool for understanding research developments in this field, like its usefulness in other domains such as entrepreneurship (1), financial services (2), and the economy (3). Some previous studies have involved bibliometric analysis to uncover various aspects of IWB research, including publication trends in specific journals (4). Researchers have identified the most cited articles (5), the impact of notable authors (6), and the contributions made by universities (7). Such studies not only help strengthen scientific communication but also provide an important foundation for future information retrieval procedures, which are essential for advancing science (4). Meanwhile, using new methods to create products and

services is at the heart of the innovation concept. We expect modern organizations to continue innovating amidst global competition and business uncertainty (8). In a fast-changing environment, employees' innovative work behavior (IWB) is considered the foundation of many types of innovation because it is these individuals who generate new ideas (9). Therefore, developing and maintaining employee IWB becomes a major challenge for organizations (10). IWB includes all individual actions aimed at creating, introducing, and implementing new ideas (11, 12). Therefore, one approach that can be used by companies to increase innovation is to leverage the innovative capabilities of employees (13). Woods SA *et al* demonstrates that individual ideas play a crucial role in the innovation process (14); consequently, companies are increasingly fostering innovation among their employees to create new products and services, enhance business processes, and introduce innovative working methods (15). The current consensus of academics and business practitioners holds that

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individual innovation contributes to organizational success (16).

The rapid growth of studies on innovative work behavior (IWB) and the overwhelming popularity of bibliometric analysis (BA) raise questions about performance trends and intellectual structure in current IWB research. Recent meta-analyses have provided comprehensive insights into the antecedents and outcomes of IWB, highlighting the critical role of leadership styles, job characteristics, and individual traits in fostering innovative behaviors (17). These studies have also revealed the complex interplay between organizational culture, team dynamics, and individual innovative performance (18).

The theoretical underpinnings of IWB research are diverse, drawing from social cognitive theory, self-determination theory, and the job demands-resources model (19). These frameworks have been instrumental in explaining how personal and contextual factors influence employees' innovative behaviors, yet there is a need for more integrative theoretical approaches that can account for the multifaceted nature of IWB (20).

As a result, the primary purpose of this research is to investigate and contribute considerably to the existing literature on IWB. We will accomplish this by performing a complete statistical analysis and critically examining the trends and coverage of this field from 2013 to 2023, leveraging BA and the Scopus Database. This study aims to address several gaps in the current literature, including the underrepresentation of research from developing countries (21), the limited exploration of IWB in non-traditional work settings such as gig economy platforms (22), and the emerging patterns of IWB in virtual and hybrid work environments that have not been adequately explored (23).

The selection of the period 2013-2023 for this investigation is based on several key considerations. Firstly, this decade marks a significant era of digital transformation and rapid technological advancements, which have profoundly impacted work environments and innovation processes (24). Secondly, this period encompasses the pre-pandemic, pandemic, and post-pandemic phases, allowing for a comprehensive analysis of how global disruptions influence IWB (25). Lastly,

preliminary data indicates a substantial increase in IWB-related publications during this timeframe, with over 70% of all IWB research being published within these ten years.

Our research will conduct a comprehensive analysis of IWB trends across various sectors, including manufacturing, services, healthcare, and education. Preliminary findings suggest that while innovation processes share common elements across industries, sector-specific factors significantly influence the manifestation and impact of IWB (26). For instance, IWB in healthcare settings often focuses on patient care improvements, while in the technology sector, it may emphasize product innovation (26).

Understanding the evolution of IWB literature is crucial for identifying patterns and gaps in our knowledge. By mapping the intellectual landscape of IWB research, we can uncover emerging trends, methodological advances, and theoretical developments that shape our understanding of how employees innovate in the workplace (27). This comprehensive view allows researchers to build on existing knowledge more effectively and practitioners to implement evidence-based strategies for fostering innovation.

This bibliometric analysis holds significant importance within the broader field of innovation management and organizational studies. By systematically examining the IWB literature, we contribute to a more nuanced understanding of how individual-level innovation processes interact with organizational-level outcomes. This analysis can serve as a bridge between micro and macro perspectives on innovation, potentially informing more holistic theories of organizational innovation (20).

To illustrate the practical significance of this research, consider the case of a multinational technology company that struggled with declining innovation rates despite substantial R&D investments. By applying insights from recent IWB studies identified in our analysis, the company implemented a multi-faceted approach that included leadership training focused on supportive behaviors, redesigning work processes to allow for more autonomy, and creating cross-functional innovation teams.

This study contributes to the existing knowledge by systematically analyzing and visualizing the

evolution and key themes of IWB research over the past decade. By providing a comprehensive overview of the field, we not only synthesize current knowledge but also identify critical areas for future investigation. This analysis serves as a valuable resource for researchers seeking to position their work within the broader context of IWB studies and for practitioners looking to implement evidence-based strategies to enhance innovation within their organizations (28). BA improves comprehension of enormous amounts of unstructured data by connecting scientific facts with acknowledged field results (4). By employing advanced bibliometric techniques, including co-citation analysis and keyword co-occurrence mapping, this study will provide a nuanced understanding of the intellectual structure and evolution of IWB research (29). We anticipate that this research will assist researchers in gaining a comprehensive perspective, identifying knowledge gaps, developing concepts, and placing predicted outcomes in those areas of study.

Methodology

In the face of a rapidly evolving global marketplace, proper management is required throughout the organization, emphasizing the importance of employees' ability to continuously innovate more than ever (5,30). Modern organizations recognize the need to be proactive in their approach to innovation (31). Organizations must prioritize employee work behavior innovation (IWB) to produce innovative products and processes that are efficient in terms of time and cost, ensuring their competitiveness (32). In 1994, Scott and Bruce made an important breakthrough by presenting their measurement tool for measuring work behavior innovation (IWB), which later became the foundation for further empirical research on this topic. The increasing number of paper publications each year reflects their contribution and the growing interest in this domain. Then, Jensen UT *et al* presented high-impact research by developing the latest measurement tools (33), which are significant in advancing our knowledge of IWB. Meanwhile, Hussain R *et al*, broadened the scope of this research through their important contributions (34), which not only accelerate the development of this field but also link IWB

variables to service-oriented leadership. These important efforts have substantially contributed to the growth of this field. Therefore, bibliometric analysis is necessary to understand its performance and intellectual structure. According to De Jong J *et al*, their significant contributions have expanded the research domain (30) and significantly influenced the advancement of the study of IWB. This, in turn, has stimulated the need for additional research by examining research trends and applying bibliometric methods to map performance and intellectual structure.

A bibliometric technique was used in the investigation, and VOS viewer software was utilized to help build and visualize the bibliometric network. The initial step of the analysis involved searching through publications related to information systems in infection prevention and control that were published in the Scopus database during the ten years from 2013 to 2023. For the selection of articles to be included in our analysis, we have established rigorous criteria to ensure the quality and relevance of the data. We will focus on peer-reviewed articles published in English-language journals indexed in the Scopus database. The articles must explicitly address innovative work behavior or closely related constructs such as employee innovation or workplace creativity. To capture the multidisciplinary nature of IWB research, we will include studies from various fields, including management, psychology, human resources, and organizational behavior. Additionally, we will employ a combination of keyword searches and citation analysis to identify seminal works and emerging research streams (29). This comprehensive approach will allow us to capture both the breadth and depth of IWB research, providing a holistic view of the field's evolution and current state. The field of infection prevention and control information systems has made great strides, especially after the three-year COVID-19 pandemic ended. The researchers used this as further motivation for their choice to screen databases over ten years to get a complete view of the evolution of articles and publications about information systems in infection prevention and control. Several factors, including affiliation, year, document type, and keywords, are used to filter articles. The filtering

results are saved in CSV file format and then analyzed using VOS viewer software. This

research uses a systematic approach to compile bibliometric analysis, as depicted in Figure 1.

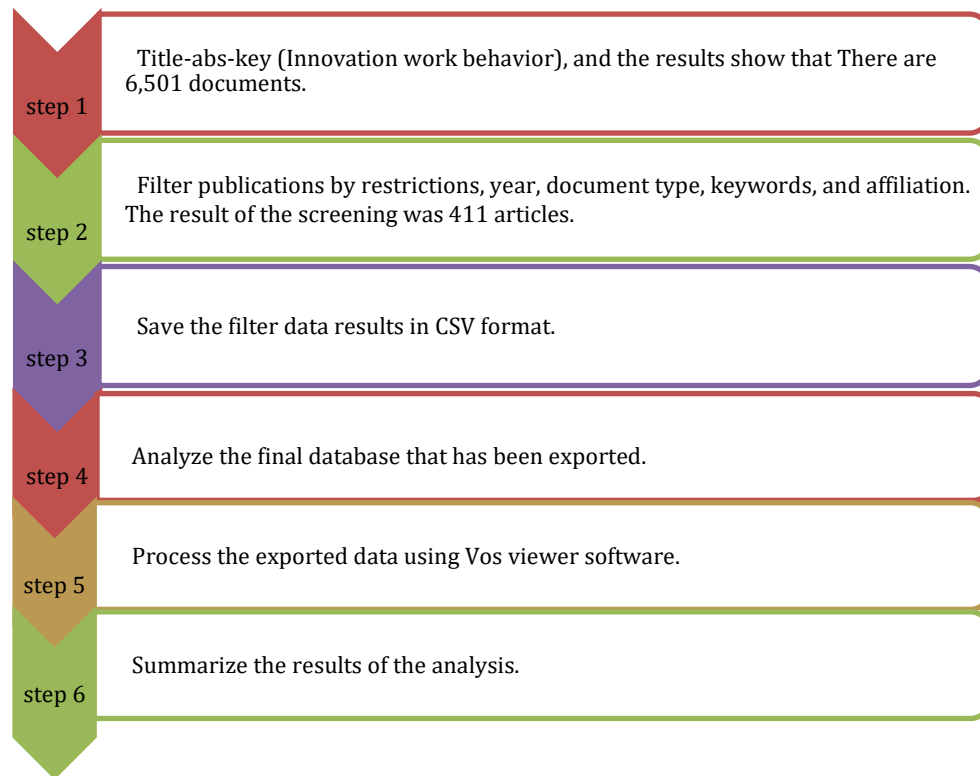


Figure 1: Research Methods

Results

Performance Analysis

Year-wise publications on innovative work behavior: The evolution of research on Innovative Work Behavior (IWB) can be monitored and appraised by reviewing papers published within a certain time window. This allows for the analysis of trends, shifts in focus, and emerging themes within the field over time. Analyzing research trends in the context of innovative work behavior (IWB) can be discerned by examining the number of papers published during a certain timeframe, as depicted in Figure 2, from 2013 to 2023. During 2013–2016, we witnessed a relatively lower volume of publications. However, the number of papers published has steadily increased since 2017. Notably, there was a large increase in IWB research between 2019 and 2020, with 53 and 59 publications published, showing a growing research trend. In 2022, 78 articles represented the apex of IWB research.

The COVID-19 crisis, which compelled several sectors to prioritize innovation, may have contributed to this surge. The pandemic provided an appropriate environment for innovative answers and approaches, and research on innovation-related behaviors is no exception. This indicates that researchers persist in acknowledging the significance of theoretical and research-based innovation.

Most Productive and Influential Authors

Figure 3 shows information on the 10 most prolific IWB authors: Bilal Afsar of Hazara University, Pakistan, with 15 publications. The second-most prolific author is Odoardi of the University of Florence, who has nine publications. Then in third place is Adalgisa Battistelli from the University of Bordeaux, with seven publications, and Montani from the University of Bologna, with six publications. In fifth place is Agarwal, Upasna A, from Mumbai, India, with four publications.

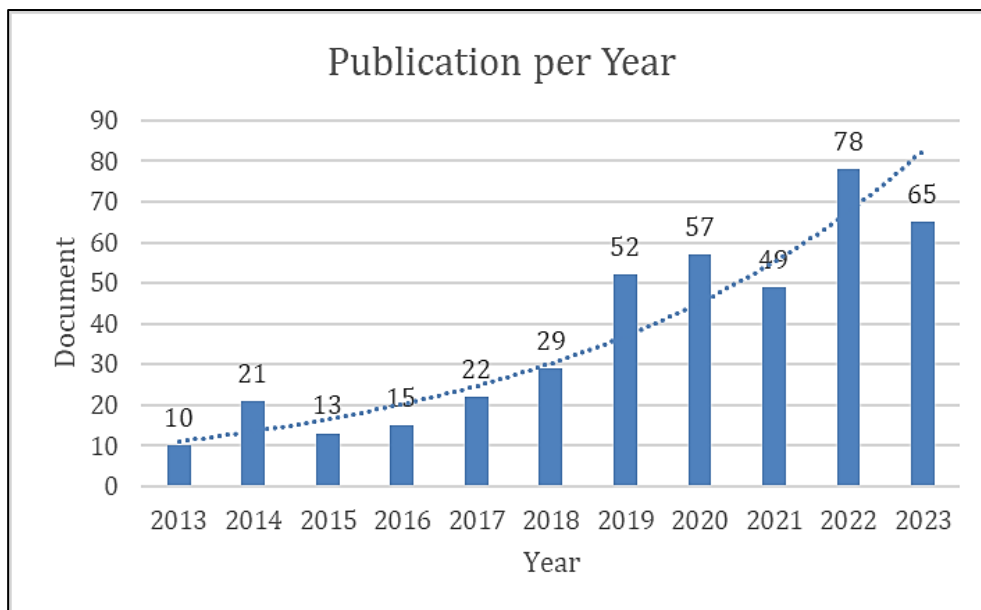


Figure 2: Annual Publications

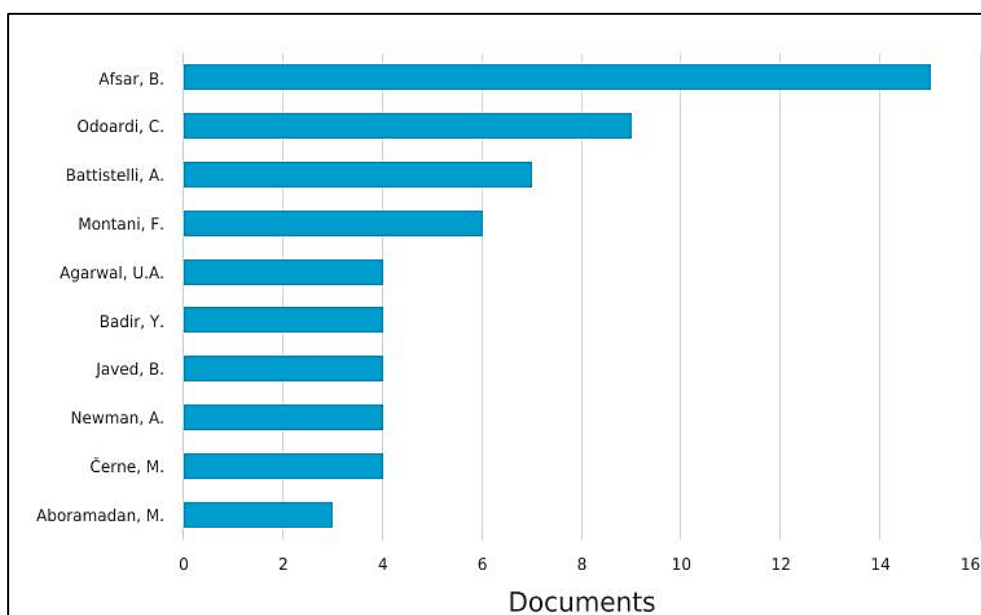


Figure 3: Documents by Authors. Source: Scopus Database

Most Cited Papers

164 journals have published a total of 411 articles related to this topic. Table 1 lists the top 10 articles with citations exceeding 100. Moreover, Table 1 presents the first five most cited journals by author Bilal Afsar from Hazara University, Pakistan, who received 900 citations for his work on "transformational leadership, motivation to, task complexity, and innovation climate." The study showed that employees display innovation in their behavior because of variations in sentiments of empowerment, respect, autonomy,

meaning, self-determination, and competence when working with their leaders (15). measures in their workplace. In other words, the findings show that elements like a sense of value, autonomy, meaning at work, and individual empowerment are significant in encouraging employees to be more inventive. Employees who feel encouraged by their managers are more inclined to contribute to fresh ideas and take innovative. In second place are Badir, Yuosre F. from the Asian Institute of Technology Thailand,

and Amphoe Khlong Luang, Thailand, with a total of 373 citations about "workplace spirituality, perceived organizational support, and innovative work behavior "This is one of the first studies to look at the mediating role of P-O fit, giving us a better understanding of how spirituality in the workplace affects IWB." The study discovered that views of spirituality in the workplace have a beneficial influence on how an employee feels about the work environment and organizational schema, and how these feelings affect employee involvement in IWB (33). According to Newman and Alexander of Deakin Business School in Melbourne, Australia, with 359 citations, entrepreneurial leadership has a higher moderating influence on the link between CSE and innovative behavior than transformational and participatory leadership behavior (35). This suggests that executives who demonstrate entrepreneurial behaviors, such as role models and directing staff to seek and take entrepreneurial chances, are more likely to inspire innovative behaviors among employees with high levels of CSE. The next position is Javed

Basharat from Al Ghazali University, Karachi, Pakistan, with a total of 345 citations to this research on inclusive leadership and innovation. National Institute of Industrial Engineering in 295 findings from this study. These findings indicate a positive correlation between procedural justice, interactional justice, and psychological contract fulfillment, with trust serving as an element of mediation. As a result, the most referenced research studies demonstrate that innovative work behavior has a positive link with most of the variables investigated. This suggests that IWB has a significant impact on workplace behavior. Agrawal, A. Upasna, from Mumbai, India, is ranked sixth for having been mentioned in an organizational setting. However, more research should be conducted on other aspects that could have a favorable impact on the IWB. Furthermore, studies must consider elements that may have a negative link with IWB, such as workplace bullying, information concealment, a lack of support from leaders or organizations, and other pertinent aspects.

Table 1: Most Cited Paper

Rank	Authors	Cited by
1	Afsar, Bilal	900
2	Badir, Yuosre F	373
3	Newman, Alexander	359
4	Javed, Basharat	345
5	Agarwal, A	295
6	Montani, Francesco	267
7	Odoardi, Carlo	247
8	Battistelli, Adalgisa	244
9	Aboramadan, Mohammed	111
10	Černe, Matej	104

Most Prolific Journals

Another important feature of bibliometric analysis is paying attention to the most productive journals. Some journals publish more research on innovative work behavior (IWB) than other journals. Table 2 displays the top 10 most productive journals in terms of IWB publications out of a total of 164 journals that publish papers

on IWB. The European Journal of Innovation Management is the most prolific journal, with 16 IWB publications out of 411 total. In addition, Personnel Review has published 13 publications on IWB, followed by Employee Relations, which has published 12 works. The table shows that journals focused on innovation or psychology and sustainability have published the majority of IWB papers.

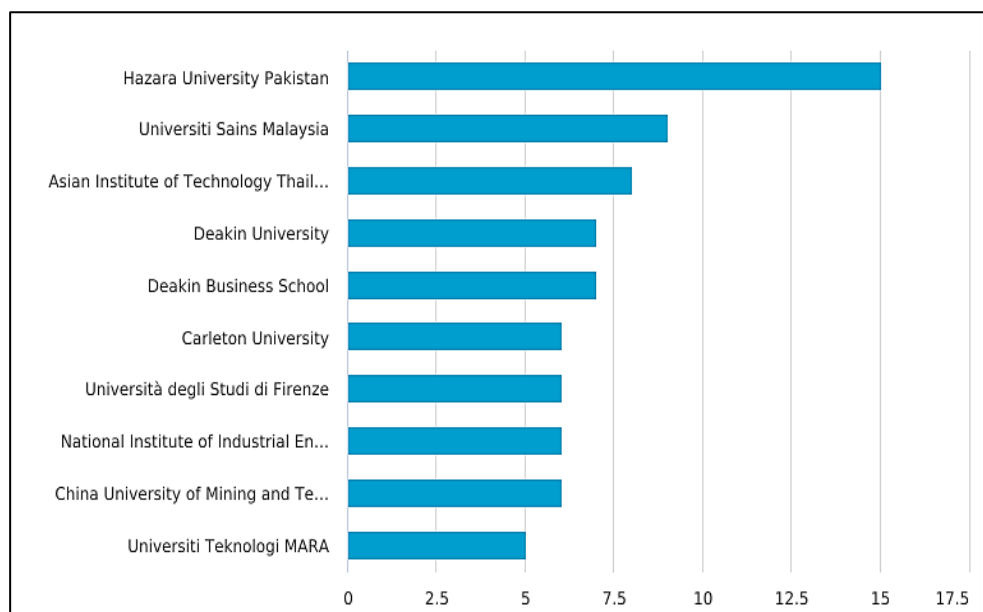
Table 2: Most Journal Publication

Journal titles	No. of Publications
European Journal of Innovation Management	16
Personnel Review	13
Employee Relations	12
Leadership And Organization Development Journal	9
Problems And Perspectives in Management	8
Quality Access to Success	8
International Journal of Innovation Management	7
Journal Of Knowledge Management	7
Journal Of Managerial Psychology	7
International Journal of Contemporary Hospitality Management	6

Institution-wise Publication on Innovative Work Behavior

According to Scopus data, ten institutions contribute to the field of innovative work behavior (IWB), as seen in Figure 4. This study, however, only evaluated institutions that had published three or more publications in the IWB field. Hazara University, Pakistan, leads in terms of the number of IWB publications, with a total of 15 papers, which makes Bilal Afsar the

researcher with the highest number of publications in this field. University Sains Malaysia came in second with nine papers, followed by the Asian Institute of Technology Thailand in third with eight papers. From 2013 to 2023, Deakin University and Deakin Business School took fourth place with seven publications on IWB.

**Figure 4:** Institution-wise Publications

Leading Countries in Innovation Work Behavior

In this analysis, the most productive country is Pakistan, with 59 publications. This reinforces the above findings from the most prolific

authors, and it also shows that Pakistan is becoming a country that is more interested in IWB development than any other country. Figure 5 reveals that a country with 52 publications holds the second position. With 45

publications, the US takes the third spot. The next position is India, with a total of 43. In the 20th century, innovation was generally considered the dominant domain in developed countries (36). However, in the 21st century, we are starting to see a geographical shift in innovation. Developing countries, including China, Pakistan, and India, are increasingly

publications. Then, Indonesia became the fifth-most productive country in IWB writing, gaining international recognition for their role in generating innovative ideas (37, 38). Furthermore, researchers from these countries have also begun to actively investigate related topics, including innovative work behavior (IWB).

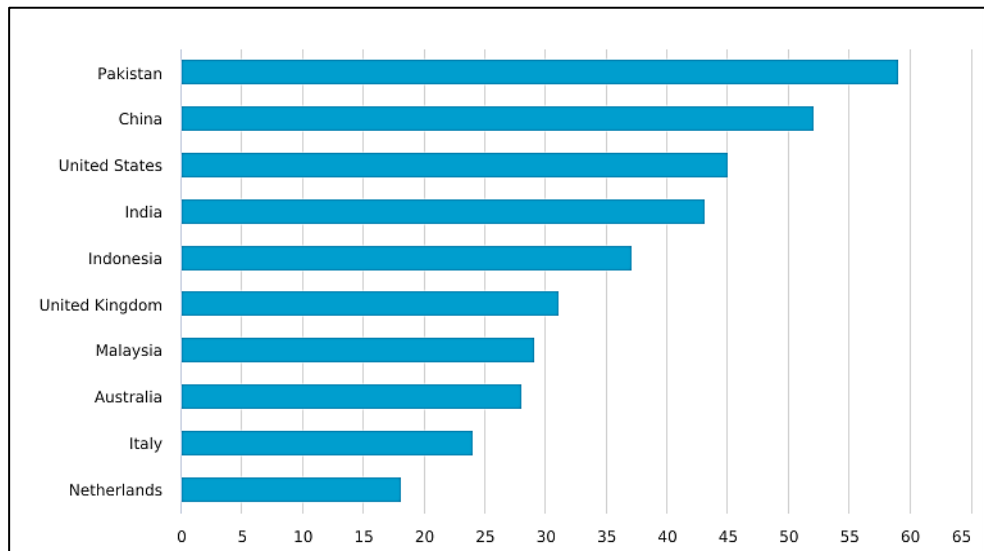


Figure 5: Documents by country. Source: Scopus Database

Scientific Mapping Co-citation Analysis

The researcher uses co-citation to identify significant groups of themes by citing two documents together in a third document. The frequency of citations between two documents indicates their close relationship. Figure 6 visualizes the five main groups of publications based on their relationships, and publications in different groups have strong shared citation links.

If we focus on the green color group, we can see that publications by Scott and Bruce, as well as (30), have the same research domain as other research. On the other hand, publications in the blue group, such as (16, 30), focus on different IWB research groups. In other words, the green and blue groups represent different studies within related themes.

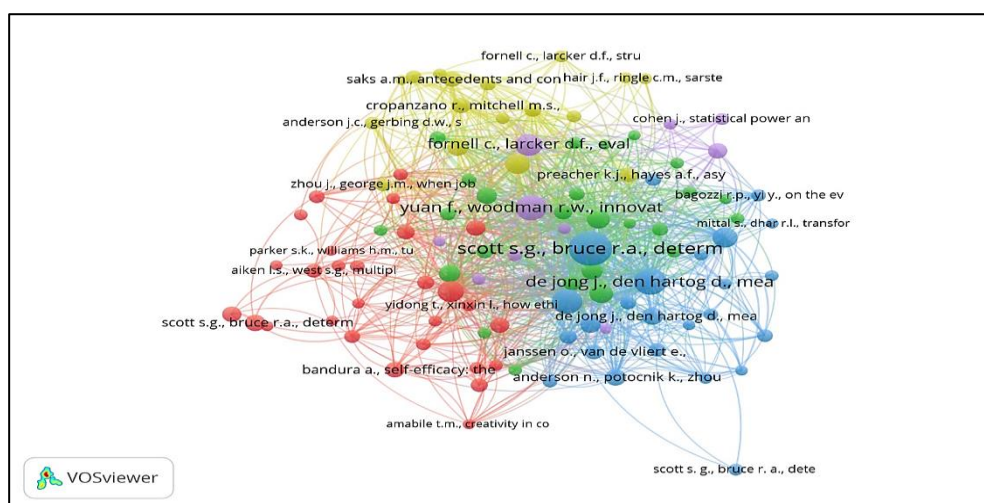


Figure 6: Co-citation Analysis

Bibliographic Coupling

This analysis aims to group articles based on similar themes and consider mainly the references used in a particular period (38). As a result, as described in Figure 7, new and specialized publications may become prominent through bibliographic coupling in citing works. The analysis of bibliographic coupling relies on each author's publications receiving at least 10

citations. Out of the total 411 documents, 198 have sufficient citations associated with them, provided that the document has at least 10 citations. Clusters in red indicate that publications such as (28) and the like focus on the same theme. Meanwhile, clusters in blue represent the research (39) and other studies that also emphasize similar themes.

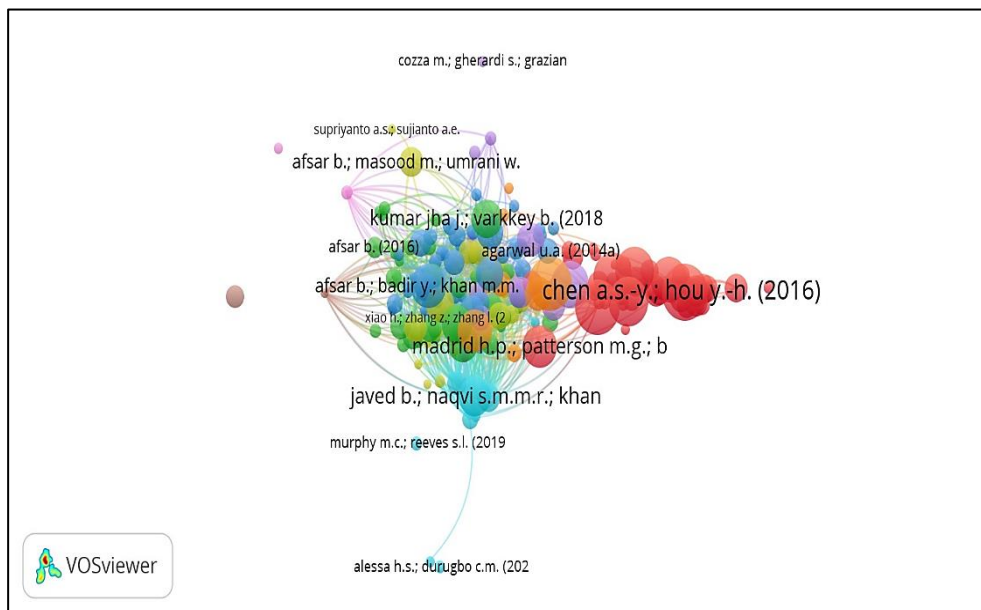


Figure 7: Bibliometric coupling

Keyword Occurrence Analysis/Co-word Analysis

To determine which terms are most used, the study employed shared keyword network analysis. Figure 8 displays a list of IWB-related keywords that were discovered in the Scopus database and appeared roughly five times per ten years. For the IWB study, 1,439 distinct keywords were utilized by researchers. Only 74 terms, though, made it beyond the software's cutoff following the screening procedure. As a result, the node's size indicates how frequently a keyword is spoken, and the connection between the two nodes shows how the two keywords are related. As a result, there were eight groups (clusters) in the IWB study that revealed a significant relationship between words in each group. It provides an initial view of various research methods, themes, and fields related to IWB. For instance, the combination of keywords such as "work engagement," "knowledge sharing," and "organizational culture" indicates extensive

research on these topics. Similarly, the presence of the keywords "mediation role" and "moderation role" indicates that researchers have used mediation and moderation techniques to build IWB-related models.

Co-authorship Analysis

Researchers recognize co-authoring in an academic setting as an important formal way to collaborate (40). It is crucial to understand the interaction between academics and their associated attributes, such as the institutions and countries where they conducted their research (2). Grouping research based on the experts' locations can stimulate and motivate future research in underrepresented areas. This study analyzed co-authorship by country (see Figure 9). The study's focus is on researchers from countries that have collaborated with many authors from other countries. The IWB publication data covers 78 countries, with 43 co-authors. For further analysis, we selected the 42 countries with the most active co-authoring collaborations.

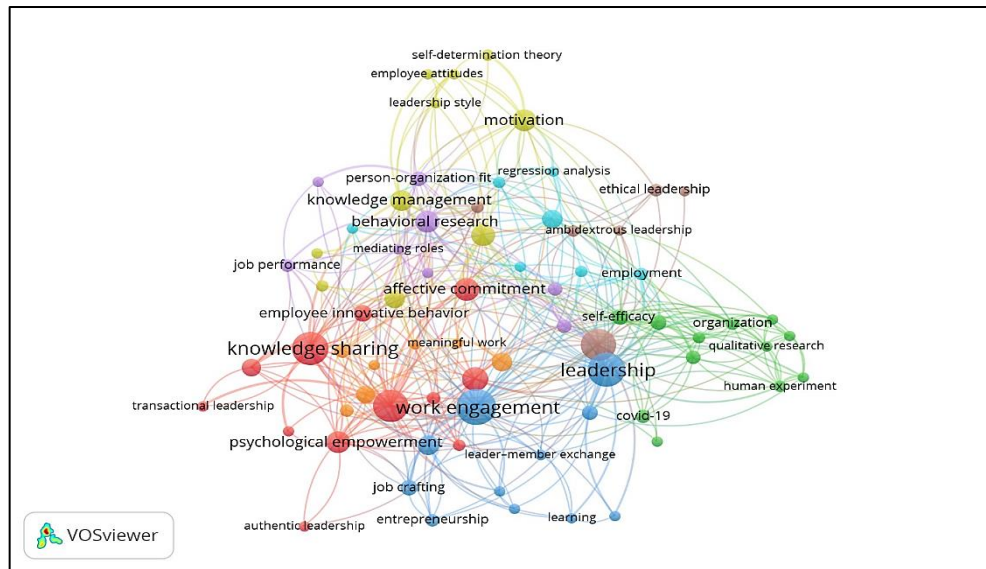


Figure 8: Keyword occurrence network

The results identified eight clusters: Cluster 1 (including Belgium, Canada, Finland, France, Israel, Japan, Netherlands, Norway, Slovenia, Turkey), Cluster 2 (including Denmark, Indonesia, Jordan, Malaysia, Morocco, Pakistan, Spain, Taiwan, United Arab Emirates), Cluster 3 (including Brazil, Chile, Colombia, Ecuador, Germany), Cluster 4 (including Australia, India, Saudi Arabia, United Kingdom), Cluster 5 (including Italy, Oman, Russia, Sweden), Cluster 6 (including China, Hong Kong, South Korea, United States), Cluster 7 (including Czech Republic,

Ireland, Thailand, Vietnam), and Cluster 8 (including Lesotho, South Africa). The results demonstrate the spread of IWB research across various countries, highlighting an interesting trend of significant collaboration between authors from developing and developed countries, particularly in Cluster 2, where researchers from Denmark, Indonesia, Jordan, Malaysia, Morocco, Pakistan, Spain, Taiwan, and the United Arab Emirates collaborated on IWB research, demonstrating positive cross-regional cooperation.

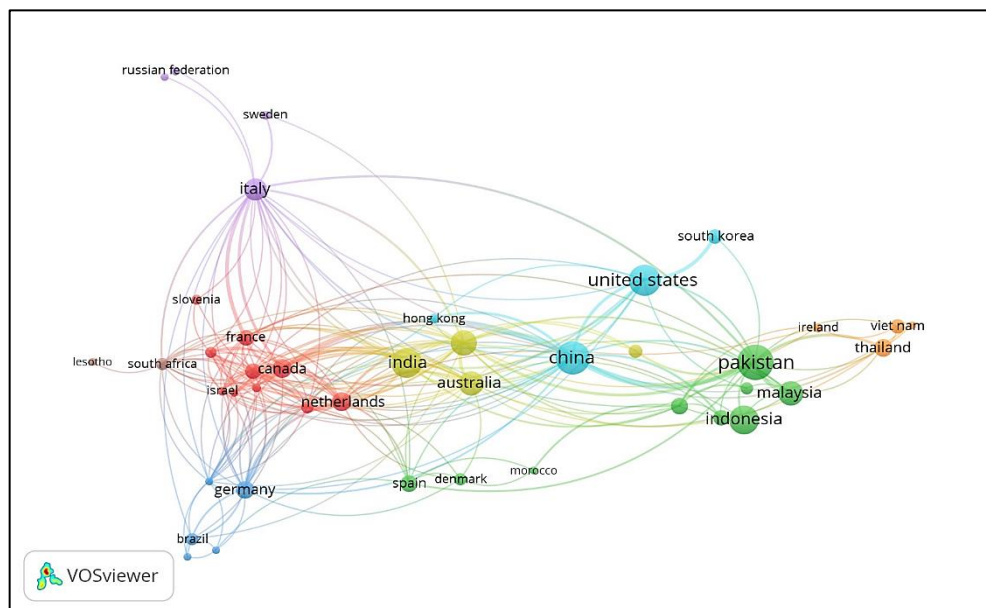


Figure 9: Inter-country co-authorship network

Discussion

The primary objective of this research is to delineate the publication trends in the field of innovative work behavior (IWB) from 2013 to 2023, aiming to provide a comprehensive understanding and insights into the interests and advancements within this domain. Given the fundamental need for innovation across various facets of life, IWB has garnered significant attention, leading to a substantial body of research on the subject. The widespread global acceptance of innovation has notably contributed to the expansion of knowledge in IWB, with increasing interest from researchers in recent years, particularly from the social science, administration, and psychology fields.

Observations revealed a lower volume of papers between 2013 and 2017, but a consistent increase in publications from 2018 onward. Notably, the COVID-19 crisis has likely spurred various sectors to emphasize innovation, leading to a significant surge in IWB research over the last three years. Furthermore, extensively cited studies underscore the positive correlation of IWB with various studied variables, emphasizing its significance in organizational contexts. However, the relationship between innovation climate, performance, and peer and organizational support for innovation, among other factors, necessitates further exploration.

The analysis of author affiliations didn't showcase specific domains apart from the countries they belong to, highlighting the predominance of researchers from institutions in China and Pakistan, representing about one-third of the top authors and exerting substantial influence through their publications and citations. Bilal Afsar, affiliated with Hazra University, has emerged as the most prolific author in terms of the number of published papers. Concurrently, Hazra University stands out as the institution with the highest number of papers contributed. Additionally, following this pattern, China ranks as the second most productive country in terms of scholarly output in this field.

The findings of this study have far-reaching implications for scholars, practitioners, and policymakers interested in promoting innovation within organizations. For scholars, our analysis can guide future research directions by

highlighting understudied areas and promising theoretical frameworks. Practitioners can benefit from insights into effective strategies for fostering IWB across different contexts and industries. Policymakers may use these findings to develop more targeted initiatives that support innovation at both individual and organizational levels (41).

Conclusion

The publication achieved the highest number of citations (42). Moreover, innovation-specific journals, psychology journals, or sustainability journals publish most papers on IWB, with the European Journal of Innovation Management leading its portfolio. In terms of research methodology, structural equation modeling has been a popular choice among researchers for data analysis. Co-author analysis reveals the dispersion of Innovative Work Behavior (IWB) research across various countries. A notable trend observed in IWB research is the collaboration between authors from developing nations and their counterparts from developed countries.

This comprehensive analysis of IWB literature from 2013 to 2023 has provided valuable insights into the field's evolution, key contributors, and emerging trends. The increasing volume of publications, especially post-2018, underscores the growing importance of IWB in organizational contexts. The dominance of certain institutions and countries in IWB research highlights potential areas for increased international collaboration and diversification of perspectives. Future research should focus on addressing the identified gaps, particularly in understanding the complex relationships between IWB and various organizational factors. As the field continues to evolve, integrating insights from diverse disciplines and geographical contexts will be crucial in advancing our understanding of innovative work behavior and its impact on organizational success.

Limitations and Future Research Directions

Bibliometric analysis is a very useful tool for filtering and summarizing existing literature. However, our study must acknowledge the drawbacks of this technique. For example, scientific databases like Scopus don't always provide perfect bibliometric data. Errors in that data can affect insights that rely on it (6). We also limit the search to English-language articles only.

This implies that our analysis might overlook pertinent articles on our topic due to their non-English language.

In addition, when creating this study based on bibliometric data, we recognized the importance of not going to extremes. As a result, it is important to supplement the analysis with content reviews or other methods, if possible. In research, it is important to remember that although bibliometric analysis provides valuable insights, it still requires a critical and careful attitude when concluding to remain accurate and relevant to the topic discussed.

Our advice for future research is to conduct a systematic and subjective literature review, which can provide a more comprehensive understanding of a particular field. It is also recommended to not only focus on Scopus databases but also consider the use of other reputable databases such as WOS. It should be noted that domain details need to be considered as results can vary. We recommend comparing data obtained from different databases to get a broader perspective.

The study has applied several filters to data collection, including only English-language research articles and excluding conference papers, books, or other review articles. Therefore, involving languages other than English and different types of publications will be an interesting point for future research. Furthermore, the ongoing evolution of the information world may lead to the replacement of today's dominant key terms with more influential ones in the future. Therefore, conducting a more comprehensive search on keywords can yield interesting findings. Another aspect not addressed in this analysis is the type of research paper, whether qualitative, quantitative, or a combination of both. While the database reveals limitations in both quantitative and qualitative research, it remains unconfirmed and could potentially spark further discussion for future research. Furthermore, the analysis reveals that certain keywords, including "spirit of innovation," "deviant innovative behavior," "innovation failure," "exploratory innovation," "exploitative innovation," and others, have not received enough attention about IWB, which presents promising opportunities for future research. Overall, IWB has diverse properties and is difficult to measure because each research subject is unique.

Generalizing is challenging because of its complexity. Nonetheless, our research provides an overview of research trends and directions that can serve as a foundation for uncovering important information in IWB studies.

Abbreviation

RIS: Research Information Systems

VOS: Visualization of Similarities

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Author Contributions

EA wrote the manuscript and provided data, and Rahayu; M.K.P provided data and analysis. All authors reviewed the final manuscript.

Conflict of Interest

The authors declare no conflicts of interest.

Ethics Approval

Not applicable.

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