

A Bibliometric Review on Readiness for change

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Abstract

This research aims to determine the development of readiness for change research trends both at the individual and organizational levels published in leading Scopus-based journals. The search process with the categories "title, abstract and keyword": "readiness AND change" in 2014-2023 found 7.988 articles, then using the keyword "organi*ation*" got 2.009 articles and with the keyword "employee" OR "individual" got 636 articles. In the subject areas of Social Sciences, Psychology, and Business, Management and Accounting, there were 255 final articles in English published. VOSviewer software is used to analyze the citation, and co-citation of articles extracted from the database. Research using the bibliometric method found that Mohamed Haffar wrote the most about dynamic capability. The institutions that publish the most papers related to readiness for change are Al-balqa Applied University, Salt, Jordan dan Business school, University of Birmingham, Birmingham, United Kingdom. Moreover, the country that publishes the most papers related to readiness for change is the United States. All keywords and the most widely used keywords by authors in journals with readiness for change dan organizational change in index

Keywords: Readiness for Change, Organizational Change, Bibliometric, VOSviewer.

1. Introduction

Change is an inevitable phenomenon in both life and organizations. The world continues to evolve rapidly. Globalization and accelerating technological advancements have led to shifts in the speed and nature of organizational change (Wylson & Chesley, 2016). In addition to globalization, technological advancements and economic turbulence collectively drive increasingly fast-paced dynamics of change within organizational contexts, requiring organizations to adapt swiftly to new conditions. Among the changes are technological innovations occurring in fast-moving environments, often creating significant disruptions and the need for innovation in organizational structures and decision-making processes (Donald, 2022).

Many organizations also undergo restructuring, such as departmental changes, mergers with other organizations, or the separation of business units. These restructuring processes can affect roles, responsibilities, and relationships among organizational members. Furthermore, organizations must be prepared to respond to shifts in market trends and demands, as well as adapt to changing customer needs (Terlutter & Ninaus, 2022). To survive in the midst of such dynamic change, organizations must develop responsive and sustainable strategies. It is crucial for them to understand and design appropriate strategies to manage change in order to remain relevant and competitive by leveraging their ability to identify opportunities and challenges arising from these changes (Brauns, 2015).

The readiness of organizational members to change is critical for the successful implementation of changes, as it can reduce potential resistance (Talaja & Dumanić, 2023). According to Armenakis *et al.*, (1993), *readiness for change* refers to individuals' beliefs, behaviors, and intentions regarding change, which relate to their perceptions of both personal and organizational ability to succeed in the change process. Armenakis *et al.*, (1993) further define *readiness for change* as a cognitive action, either in the form of rejection or support for the change. Meanwhile, Holt *et al.*, (2007) define *readiness for change* as the degree of acceptance demonstrated by individuals, both cognitively and emotionally, and the level of effort exerted to implement the change. Holt *et al.*, (2007) also state that *readiness for change* represents a comprehensive attitude that is simultaneously influenced by content (what is changing), process (how the change is implemented), context (the environment in which the change occurs), and individuals (the

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characteristics of those involved in the change). Additionally, Bouckennooghe *et al.*, (2009), describe *readiness for change* as reflecting the beliefs, feelings, and intentions regarding the extent to which change is needed, as well as perceptions of the ability of individuals and organizations to successfully carry out the change.

Although much research has been conducted on *readiness for change*, relatively few studies have specifically analyzed this topic through a bibliometric approach. Bibliometric analysis is an analytical method used to measure and assess the quantity, quality, and patterns of scientific publications, utilizing bibliographic data from journal articles, conference proceedings, books, and other scholarly sources. Bouckennooghe *et al.*, (2021) conducted a bibliometric analysis related to research on attitudes toward organizational change, but their study did not specifically address *readiness for change* as the central theme.

This study aims to explore the trends in research on *readiness for change*, both at the individual and organizational levels, as published in leading Scopus-indexed journals. Bibliometric analysis of *readiness for change* is crucial for understanding the trends, patterns, and contributions of research in this field. By analyzing the existing literature, researchers and practitioners can identify knowledge gaps, recognize effective approaches, and gain insights into the variables associated with *readiness for change*.

2. Research Method

2.1. Method

This research consists of five stages: the preparation stage, data collection stage, bibliometric analysis stage, content analysis stage, and conclusion stage. The data source for this research was derived from the Scopus database. Scopus offers a broad coverage of academic literature and includes a higher percentage of total scholarly publication output compared to Web of Science (Aksnes & Sivertsen, 2019). Scopus has been shown to be more effective in meeting information needs for indexing by authors compared to Web of Science (Noblejas & Rodríguez, 2014). It is widely used for research assessment, scientific policy evaluation, and university rankings, making it a reliable bibliometric data source for large-scale analysis (Baas *et al.*, 2020).

In the search queries, Scopus utilizes Boolean operators to combine terms (AND, OR, NOT). The pre-determined keywords were entered into the search box, using the string: “readiness AND change” AND “organi*ation” AND “employee” OR “individual”. The research was limited to the period from 2014 to 2023. The subject areas selected were Social Sciences, Psychology, and Business, Management, and Accounting. The document type was limited to articles, and only final publication stages were included, with the language restricted to English. After gathering the data, a bibliometric analysis was conducted.

The topic data for articles on readiness for change was analyzed using Microsoft Excel 2016. Publication trends on readiness for change were examined using VOSViewer software, which employs bibliometric analysis methods. Bibliometric analysis is a quantitative method used to assess and understand the status and trends of a particular topic through the analysis of scientific publications. VOSViewer is a popular software tool for conducting bibliometric analysis, providing visualization and analysis of bibliographic data. The software is available for free to the bibliometric research community (see www.vosviewer.com).

2.2. Data Collection

Data collection was conducted through a search of articles indexed in the Scopus database. This research utilized data from documents sourced from various journals between 2014 and 2023, focusing on *readiness for change*. The data from Scopus was gathered and filtered using pre-determined keywords and criteria. In the search queries, Scopus employed Boolean operators to combine words (AND, OR). The pre-established keywords were then entered into the search box. The initial search under the category "title, abstract, and keyword" using the query “readiness AND change” resulted in 7,988 articles. Narrowing the search with the keyword "organi*ation" yielded 2,009 articles, while using the keywords "employee" OR "individual" produced 636 articles.

Subsequently, several criteria were applied to filter the articles for analysis. First, the subject areas selected were *Social Sciences, Psychology, and Business, Management, and Accounting*, resulting in 342 articles after filtering. Second, the document type was limited to *articles*, reducing the total to 286 articles. Third, the publication stage was set to *final*, which further refined the results to 279 articles. Fourth, the publication language was limited to *English*, bringing the final count to 255 articles. These 255 articles were then subjected to bibliometric and content analysis.

3. Results and Discussions

3.1. Annual Publication

The selected metadata consists of 255 articles published over the last 10 years, from 2014 to 2023. The annual number of articles is presented in Figure 1. Between 2014 and 2018, research on readiness for change showed a significant upward trend. This steady increase continued, with a noticeable rise in publications in 2019, culminating in a peak of 44 publications in 2021. Although the number of publications declined in 2022 and 2023 compared to 2021, the topic remains of interest to researchers. This indicates that despite the slight decrease, readiness for change continues to be a relevant and actively researched area.

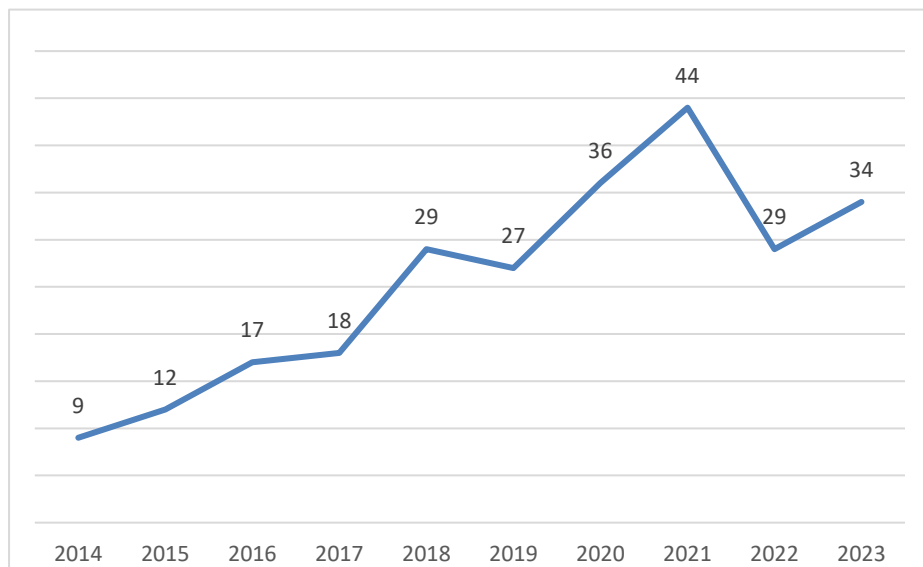


Figure 1. Numbers of Publications on Readiness for Change based on Year of Publications

The data indicates that research related to readiness for change has evolved over time, with an overall trend showing a steady increase in the number of publications. Initially, discussions on readiness for change were linked to the sources of change, particularly focusing on organizational changes such as restructuring and business process transformations. During the early period (2014-2016), there was a relatively consistent rise in the number of publications, starting with 9 in 2014, increasing to 12 in 2015, 17 in 2016, and 18 in 2017. This growth reflects the increasing interest and relevance of the readiness for change topic, corresponding with the growing complexity and dynamics of organizational, technological, and global economic changes, which necessitate studies on organizational adaptation.

Between 2017 and 2020, there was a significant surge in the number of publications, especially in 2018, with 29 publications, followed by a slight decrease to 27 in 2019, and then a notable rise to 36 publications in 2020. This increase likely relates to global trends forcing organizations to adapt more rapidly to changes, such as digital transformation, globalization, and increasing workforce demands. The outbreak of the COVID-19 pandemic in 2020 may also have been a major driver behind the rise in research during this period, as organizations worldwide faced an urgent need to change. The year 2021 saw the highest number of publications in the analyzed period, with 44 publications. This surge is likely linked to the ongoing impact of the pandemic, where many organizations emphasized readiness for change to navigate uncertainty and accelerate transformation.

In 2023, the number of publications rose again to 34, indicating that the topic of readiness for change remains relevant, especially as organizations strive to recover from the pandemic and prepare for future challenges, such as continued technological advancements and shifts in work patterns.

Over the past 10 years, research on readiness for change has continued to attract interest from scholars and has evolved in line with the global dynamics of change. This suggests that understanding and applying readiness for change is still seen as crucial in managing transitions and adaptations across various sectors. Looking forward,

research on readiness for change is expected to continue growing, driven by global trends and organizational needs to respond to increasingly complex and rapid changes.

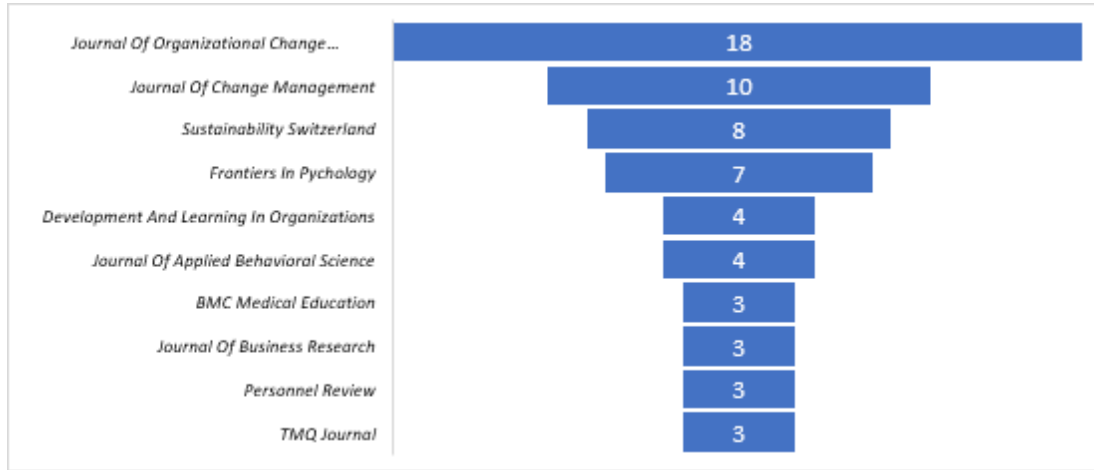


Figure 2. Ten Top Publishers with Most Publications

Furthermore, when analyzing the publication sources for research on readiness for change, the distribution of scholarly articles across various journals is depicted in Figure 2. The Journal of Organizational Change Management leads with 18 articles, reaffirming its position as the primary forum for academic discussion on readiness for change within organizational contexts. The diversity of other journals, such as the Journal of Change Management, Sustainability Switzerland, Frontiers in Psychology, Development and Learning in Organizations, Journal of Applied Behavioral Science, BMC Medical Education, Journal of Business Research, Personnel Review, and TMQ Journal, demonstrates the wide and interdisciplinary relevance of the concept of readiness for change. Journals from various fields—ranging from management, psychology, and social sciences to health, technology, and environmental studies—contribute significantly to the advancement of knowledge on readiness for change.

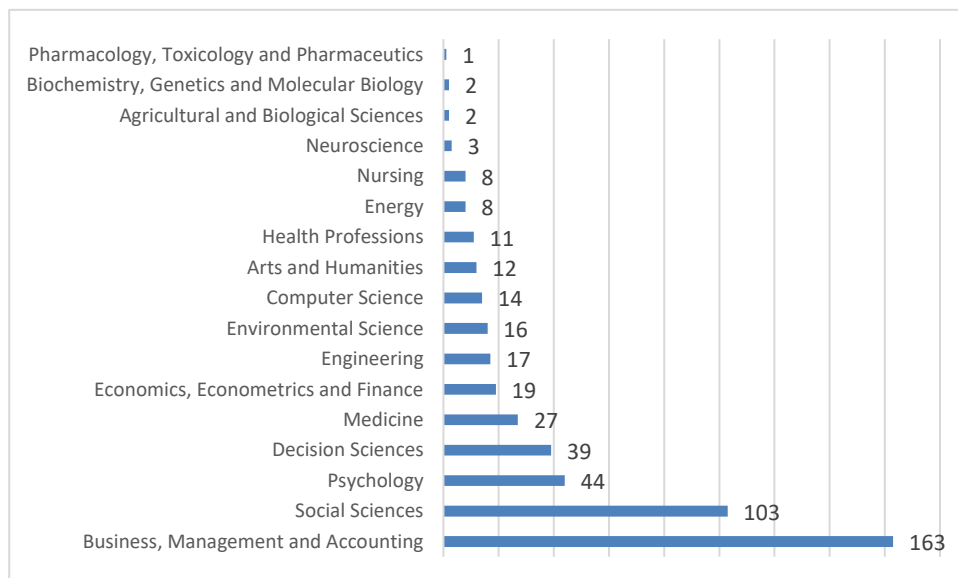


Figure 3. Numbers of Publications on Readiness for Change based Subjects

Furthermore, when examined more closely, the distribution of publications by field of study is presented in Figure 3. Some publications may fall into more than one field of study, resulting in a total of 489 publications. The distribution of publications on readiness for change across various fields of study shows that Business, Management, and

Accounting constitutes 33.3%, Social Science represents 21.1%, and Psychology accounts for 9%. The dominance of the Business, Management, and Accounting field in research on readiness for change can be explained by the relevance of this concept within organizational contexts. Readiness for change is a crucial aspect of organizational change management, which is a primary focus in business and management studies.

3.2. Co-Authorship Analysis

Subsequently, a visual mapping of 173 journals that have published articles on the theme of readiness for change was conducted using VOSViewer to explore the results of the bibliometric analysis. The mapping results from the keywords provide a foundation for identifying important or unique terms found in specific articles. Bibliometric mapping is a method used to visually represent the structure and development of a research field based on bibliometric data. Scopus metadata was stored in CSV format for analysis in VOSViewer using the full counting method. The maximum number of authors per article was set to 6, with a minimum of 1 article per author, resulting in the bibliometric mapping shown in Figure 4 below.

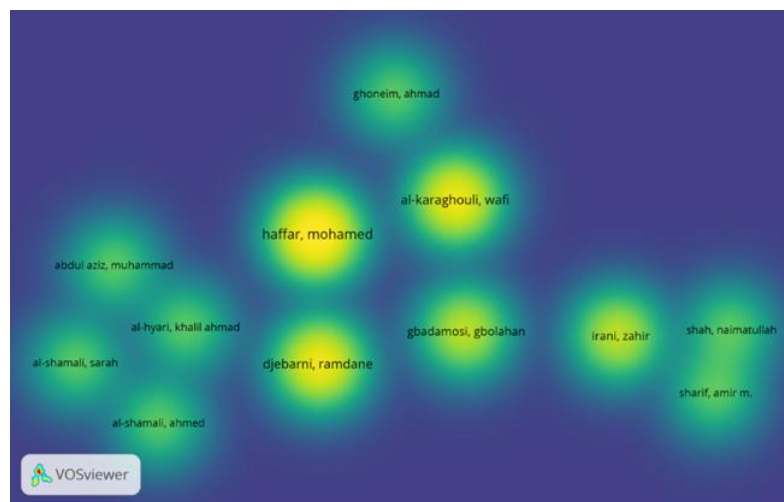


Figure 4. VOSViewer result for Co-authorship authors

The larger and brighter the shape, the more writings the author has published related to readiness for change. The presence of densely packed clusters depends on the brightness of the yellow color. This indicates that the yellow color on the map corresponds to the number of items that are interconnected. This section provides an overview of the bibliometric map structure, with special attention given to the bright areas that are considered significant for analysis. From this map, we can interpret which authors have published the most works on the topic.

Some researchers are listed as single authors, while others collaborate with multiple researchers, leading to the formation of different clusters with varying levels of density. Authors with higher density indicate that they have published more research on readiness for change compared to those with lower density. Therefore, these results can serve as valuable references for future researchers. According to this analysis, the larger and brighter an author's name appears, the more papers they have published. Figure 4 reveals that Mohamed Haffar has the brightest density, indicating that he is the author with the highest number of publications on this topic. Mohamed Haffar has authored six articles related to readiness for change. His research focuses on individual readiness for change, particularly examining how employee readiness dimensions can influence the successful implementation of Total Quality Management (TQM) in manufacturing organizations. TQM is a management approach focused on improving quality across all aspects of an organization.

In bibliometric analysis, an author's institution can also be identified based on their affiliation. The bibliometric mapping in Figure 5 illustrates the number of institutions per document, with a maximum of 25 and a minimum of 1 institution. The mapping results indicate that institutions with glowing circles represent those with a high level of productivity, contributing significantly to the publication of articles related to readiness for change. The number of institutions is calculated based on their publication output and collaboration with other institutions, where a single author may contribute multiple articles across different journals.

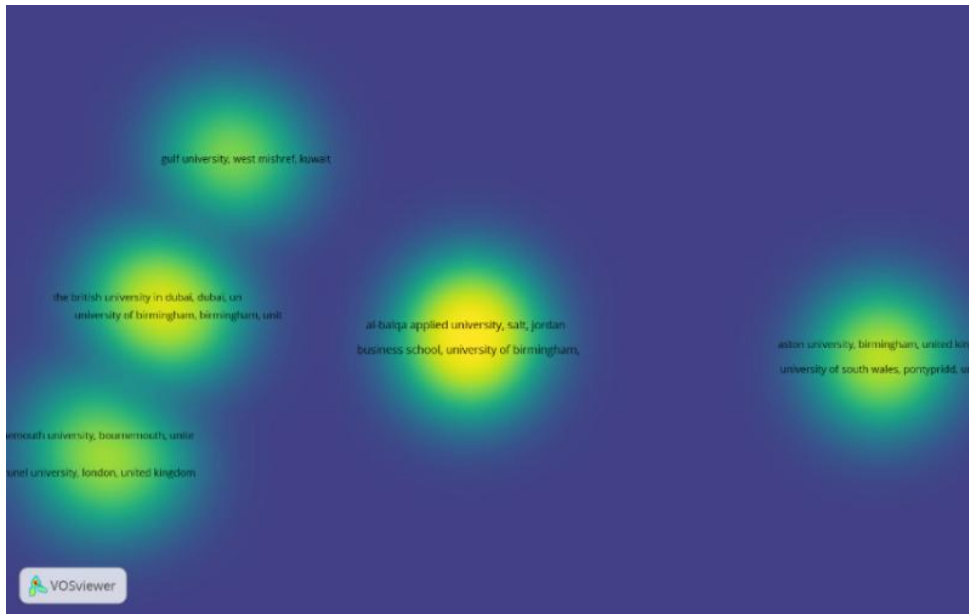


Figure 5. VOSViewer for Co-authorship Institution

The most prominent institutions, measured by the number of publications and their connections to other institutions, indicate that an author can publish multiple articles across different journals. Al-Balqa Applied University, Salt, Jordan, and the Business School at the University of Birmingham, Birmingham, United Kingdom, are two of the most notable institutions in the bibliometric analysis based on the number of publications and links to other institutions. This suggests that authors affiliated with these universities have contributed a significant number of articles across various journals. These findings highlight the critical role of these institutions in advancing research on readiness for change.

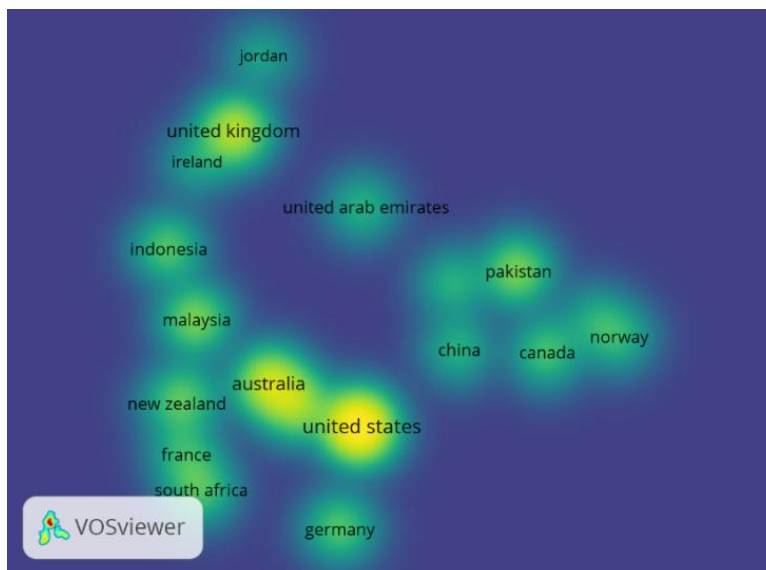


Figure 6. VOSViewer for Co-authorship Country

Additionally, Figure 6 provides a visual mapping of journal publishers. Based on the visual representation, several clusters of countries have emerged as the primary publishers of articles focused on readiness for change. The larger the circle representing a country, the greater the number of articles published by that country. It is evident that the United States has the largest and brightest circle, indicating that it is the leading country in publishing articles on the theme of readiness for change compared to other countries.

The ten countries contributing the highest number of articles on the theme of readiness for change are the United States with 48 articles, Australia with 25, the United Kingdom with 23, India with 18, Pakistan with 15, Malaysia with 15, Germany with 11, South Africa with 11, Indonesia with 11, and Canada with 10. This data indicates that, in addition to Western countries, a significant amount of research is also being conducted in Asia and Africa. This reflects a global awareness of the importance of readiness for change. Research on readiness for change in developing countries has gained attention, as it is crucial for assisting these nations in planning and implementing effective policies.

3.3. Co-occurrence Analysis

VOSViewer can also be used for bibliometric mapping of the most frequently used keywords related to the theme of readiness for change. The frequency of keyword occurrences can serve as an indicator of their more extensive usage in journals associated with readiness for change. This data is valuable for identifying keyword trends over a specific time period. Through bibliometric analysis, frequently used keywords in articles within the scope of the research can be identified. The greater the frequency of a keyword’s occurrence, the larger the circle representing it in the visualization. Lines connecting the keywords illustrate the degree of interrelation between them.

The bibliometric mapping with a minimum occurrence threshold of five keywords and a total of 60 selected keywords is visually represented in Figure 7. The mapping, using the network visualization mode, shows that keywords with the same color form a single cluster, indicating a strong relationship. Four clusters emerged, containing a total of 62 items, with 28 items found in Cluster 1. The themes in Cluster 1 include change management, readiness for change, organizational change, leadership, organizational culture, and resistance to change. Cluster 2 consists of 19 items, with themes such as health, human, organization, and management. Cluster 3 contains 9 items, with themes like psychology, female, male, motivation, and organizational climate. Cluster 4 consists of 4 items, with themes such as attitude, culture, employee, and human experiment. The most frequently used keywords in journals related to readiness for change are readiness for change and organizational change.

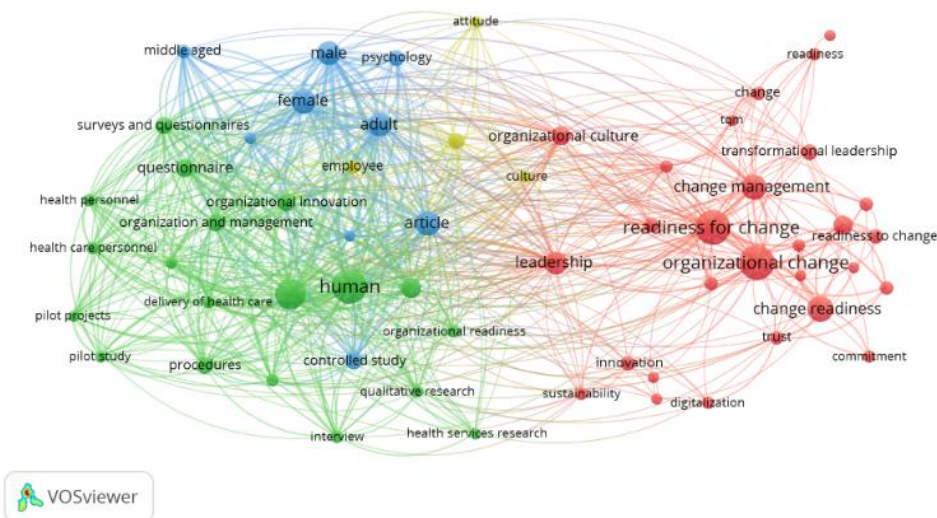


Figure 7. VOSViewer for Co-occurrence All Key Word

VOSViewer also enables the bibliometric mapping of the most frequently used keywords by authors in the theme of readiness for change. With a minimum threshold of five keyword occurrences and a total of 27 selected keywords, the bibliometric mapping of these keywords is presented in Figure 8. Based on the analysis using VOSViewer, five clusters emerged from the frequently used keywords in journals related to readiness for change, each interconnected with other keywords.

The themes in Cluster 1 include change, change management, commitment to change, industry 4.0, organizational change, organizational culture, readiness, and TMQ. Cluster 2 comprises six items, focusing on themes such as change readiness, commitment, culture, higher education, knowledge management, and leadership. Similarly, Cluster 3 contains six items, including digitalization, organizational change, perceived organizational support, readiness for change, resistance to change, and trust. Cluster 4 consists of four items, with themes including employee performance, knowledge sharing, and transformational leadership. Finally, Cluster 5 consists of three items, namely implementation science, motivational interview, and organizational readiness. The larger the keyword in the visual representation, the more frequently it has been used by authors in journals related to readiness for change. The most frequently used keywords by authors are readiness for change and organizational change.

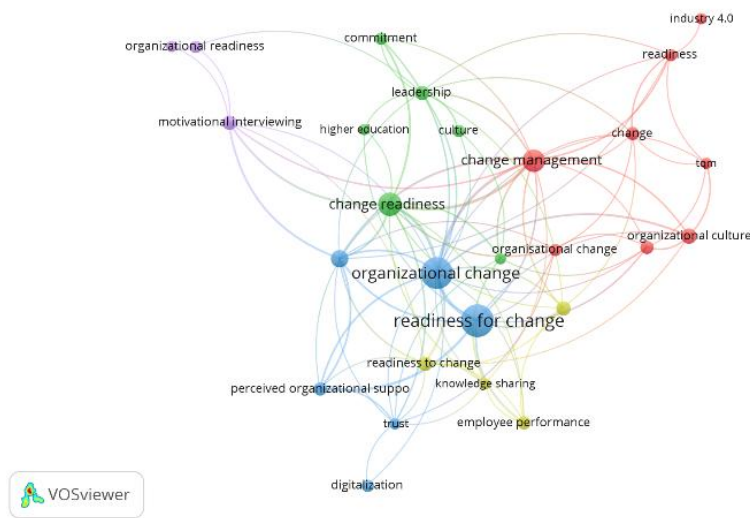


Figure 8. VOSViewer for Co-occurrence Authors Key Word

This study also produced results regarding the most frequently used indices by authors related to the theme of *readiness for change*, as illustrated in Figure 9. Indices with the same color indicate a strong correlation between them. Based on the results obtained, the brighter the color, the more frequently the index has been used. In the co-occurrence index of terms in articles with the theme *readiness for change*, one of the most frequently used terms is *human*.

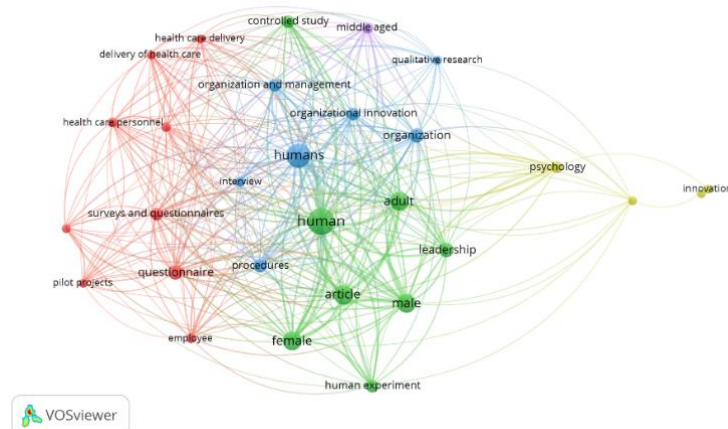


Figure 9. VOSViewer Results for Co-occurrence of Authors' Index

4. Conclusion

In this era of constant change and challenges, readiness for change has emerged as a critical factor for achieving success (Wang et al., 2023). This theme holds broad relevance across multiple disciplines, including management, social sciences, psychology, healthcare, technology, and environmental studies. Understanding and evaluating the factors that influence readiness for change are crucial, both for individuals and organizations, in order to achieve desired goals in a dynamic environment. As a result, this topic presents significant potential for research across various fields of study.

Furthermore, the findings from this bibliometric mapping offer insights into the research landscape related to readiness for change. The dominance of keywords such as "readiness for change" and "organizational change" reflects the primary focus within this area of study. The clustering of keywords reveals multiple aspects associated with readiness for change, which are closely related to change management and leadership, as well as psychological and organizational cultural factors.

This research not only identifies current trends but also provides valuable guidance for researchers and practitioners in identifying research gaps or areas that require further attention. However, the primary limitation of this study is that the analysis is based solely on documents published in the Scopus database. Therefore, future research aimed at achieving more comprehensive results could incorporate additional databases such as Web of Science. Moreover, subsequent studies could conduct a systematic literature review, taking into account the findings of this research to provide a more thorough exploration of the subject matter.

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