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# Scientometric Analysis of Research in Document Management

#### Abstract

Document management plays a crucial role in the management and protection of information in organizations in the modern era. Document management encompasses the processes from the creation of various types of documents to the irr storage and retrieval. The integration of document management and scientometric analysis leads to the implementation of new approaches and strategies in the management of academic and scientific information. This report will discuss the combined use of document management and scientometric analysis, research evaluation methods, and studies related to scientific indicators. The focus will be on research productivity, citation count, journal impact, and other metrics through scientometric analysis. Document management is one of the key activities related to the proper management, storage, protection, and utilization of information by organizations and academic institutions. This field is aimed at applying appropriate methods and technologies to better organize and facilitate the retrieval of information within organizations or scientific environments.

**Keywords:** Document management, scientometric analysis, scientific indicators, academic performance



# Belge Yönetimi Alanındaki Araştırmaların Bilimsel Analizi

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Öz.

Belge yönetimi, modern çağda kurumlarda bilginin yönetimi ve korunmasında önemli bir rol oynamaktadır. Belge yönetimi, çeşitli belge türlerinin oluşturulmasından depolanmasına ve geri alınmasına kadar olan süreçleri kapsar. Belge yönetimi ve bilimetrik analizin entegrasyonu, akademik ve bilimsel bilginin yönetiminde yeni yaklaşım ve stratejilerin uygulanmasına yol açmaktadır. Bu raporda, belge yönetimi ve bilimetrik analizin birlikte kullanımı, araştırma değerlendirme yöntemleri ve bilimsel göstergelerle ilgili çalışmalar ele alınacaktır. Odak noktası, scientometrik analiz yoluyla araştırma üretkenliği, atıf sayısı, dergi etkisi ve diğer ölçütler olacaktır. Belge yönetimi, kuruluşlar ve akademik kurumlar tarafından bilginin uygun şekilde yönetilmesi, depolanması, korunması ve kullanılmasıyla ilgili temel faaliyetlerden biridir. Bu alan, kuruluşlar veya bilimsel ortamlar içinde bilginin daha iyi organize edilmesi ve erişiminin kolaylaştırılması için uygun yöntem ve teknolojilerin uygulanmasını amaçlamaktadır.

Anahtar Kelimeler: Belge yönetimi, scientometrik analiz, bilimsel göstergeler, akademik performans Introduction

Document management is one of the key aspects that ensure the effective operation of any organization and academic environment. For organizations and academic institutions, the efficiency of document management is crucial for protecting information, organizing it properly, and ensuring its accessibility at any time. This process involves aligning document management with modern technologies and implementing relevant systems and software solutions. Scientometric analysis, on the other hand, utilizes statistical data to evaluate scientific research. These indicators, which measure the impact of researchers and academic journals, are useful for monitoring developments in the scientific community and assessing the performance of organizations and scholars. When scientometric analysis is integrated with document management, it enables organizations and researchers to assess their activities more accurately, analyze existing data, and guide future developments. This integration also fosters the adoption of new technologies in library and information services. The integration of scientometric analysis into research on document management holds significant potential for advancement, particularly in the analysis and management of big data. These approaches will provide valuable contributions to modern library and information services, scientific journals, research institutes, and other related organizations. This broad explanation provides a general understanding of the topic and clarifies how document management can be integrated with scientometric analysis. These approaches highlight the

importance of enhancing academic and research activities and improving the evaluation of scientific work. Scientometric analysis methods are highly useful for evaluating scientific activities. Various scientometric methods are employed to assess the performance of researchers and scientific institutions, track scientific collaborations, and identify future research areas. However, these methods have certain limitations, such as evaluating only specific fields and inadequately measuring social impact. Therefore, alongside the application of scientometric analysis, the use of additional methods is also recommended.

#### 1. The main part

Methods of scientometric analysis: The following methods of scientometric analysis exist:

- -Citation Analysis: Analyzing the number of citations and networks of researchers and academic journals. Citations are significant indicators of scientific impact and productivity.
- -H-Index: This metric evaluates a researcher's productivity and the number of cited scientific works. The H-index is also used to assess a researcher's scientific influence.
- -Citation Circulation: The analysis of connections between journals and articles cited by researchers is essential for identifying trends and developments in scientific fields.
- -Publication Frequency of Articles: The frequency of journal publications and the number of citations each article receives are crucial components of scientometric analysis (Gardashev, 2013).

Importance of scientometric analysis in research. Scientometric analysis involves applying statistical methods to measure and evaluate scientific activity. The primary goal of scientometric analysis is to assess the productivity, scientific impact, and position of research in the academic environment. This method analyzes the influence, popularity, and recognition of researchers, journals, articles, and other scientific resources.

One of the main indicators used in scientometric analysis is citation analysis, which is based on how often researchers and journals are cited. This indicator reflects how well research is valued and its influence in the academic field. Additionally, metrics such as the H-index play a crucial role in scientometric analysis. The H-index measures the number of productive articles a researcher has published that have received a certain number of citations. This metric is used to assess the quality and impact of a researcher's scientific work.

Integration of scientometric analysis and document management. The integration of document management and scientometric analysis brings new approaches to research evaluation and information management. While document management deals with the proper and secure

storage, organization, and presentation of information, scientometric analysis focuses on assessing the quality of researchers' work. Combining these two fields enables a deeper evaluation of academic research, more accurate analysis of scientific indicators, and the identification of directions for future research.

Modern technologies and automated systems allow for a more efficient integration of document management and scientometric analysis. This integration not only ensures researchers have fast and reliable access to data but also enables precise analysis of their scientific contributions and impact (Kazimi, Abdullayeva & Ismayilov, 2020). Using scientometric analysis in research evaluation, particularly in measuring the impact of scientific journals and articles, leads to more effective research and high-quality outcomes. The results of this analysis can also be applied in shaping academic policies, promoting scientific work, and implementing improved training programs for researcher development. The integration of document management with scientometric analysis is essential for evaluating and optimizing the research process. Academic institutions, libraries, and scientific research institutes can benefit from this integration. Proper document management enhances the ability to provide better services to researchers and evaluate their performance more accurately.

This study and presentation explain the fundamental concepts of document management and scientometric analysis, examine developments in these fields, and highlight the application of these methods in academic research evaluation. If you have any further questions on this topic, feel free to ask (Qasımlı & Məhəmmədli, 2024a).

Importance of document management. Document management is a vital activity in modern information society for any organization. Managing, storing, securing, and properly organizing information is one of the highest priorities for every institution. This field enables organizations to efficiently access their data and retrieve it whenever necessary (Gardashev, 2013).

### 2. Document Management

Document management involves organizing, archiving, securing physical and digital documents, and entering relevant data into systems, which accelerates work processes in organizations and ensures better control. This process also plays a significant role in properly managing an organization's legal, financial, and operational matters. Documents are not only sources of information but also serve as legal and economic foundations for an organization's key operations.

*Proper management of information*. For an organization to function effectively, proper information management is essential. Document management provides the primary methods and technologies used to achieve this goal. These methods simplify the creation, storage, sharing, and updating of documents within organizations. This optimizes overall operations, reduces the risk of document loss, and speeds up decision-making processes.

Digital document management systems ensure that data is collected and monitored in one place. Additionally, document protection, backup creation, and information security are crucial aspects. Modern document management systems track the origin, history, and users of each document, creating a more transparent and controlled working environment (Kazimi & Mahammadli, 2021).

Reducing legal and organizational risks. Many organizations are required to store and present documents in compliance with various legal and regulatory requirements. For example, financial documents, contracts, and employment records must be stored and protected for specific periods. A well-organized document management system ensures the proper storage of these documents and their easy retrieval when needed.

At the same time, proper document storage and timely updates minimize the legal risks organizations may face. Document management also assists organizations in organizing their defense during disputes and legal issues. This plays a significant role when organizations are required to present documents and information in a relevant manner.

Accelerating and enhancing business processes. Proper management of documents in organizations makes business processes faster and more efficient. Document management systems ensure that employees have quicker access to information, facilitate data searches, and gradually make collaboration on documents easier. This helps organizations reduce their workload and become more productive. At the same time, digital document management allows for the storage of documents in cloud-based systems without the need for physical storage. This ensures that documents are stored more securely and provides organizations with access to information without being tied to specific physical locations.

Improving customer services. Document management not only improves internal operations but also helps enhance customer services. Providing faster and more accurate responses to customer inquiries and managing customer data accurately and reliably increases customer satisfaction. Document management enables the protection of customer data and the creation of a complete

history for each customer. Improving customer services elevates the quality of service provided by organizations and strengthens customer relationships (Kushzhanov & Dashqin, 2019).

Archiving and storing data for future use. Document management enables organizations to retain their data over long periods. An archiving system ensures that documents that have not been used for a certain period are still preserved and that data needed for future use is not lost. For example, retaining historical data and archival documents helps organizations in research, strategic planning, and improvement efforts. Additionally, the proper archiving and storage of documents assist organizations in utilizing their resources effectively and ensuring that data is protected correctly (Qasımlı & Məhəmmədli, 2024b).

Effective digitization and technological integration. In response to the demands of the digital age, the technological development of document management is also gaining importance. Modern document management systems improve the operations of organizations by enabling the digital storage and easy global sharing of data. Digitization, the application of automation processes in document management, data analysis, and the integration of new technologies give organizations a competitive edge in the modern business environment (Kushzhanov & Dashqin, 2019). Bibliometric Analysis is a field that uses statistical methods aimed at measuring, evaluating, and analyzing scientific activities. Bibliometric analysis is used for measuring and evaluating scientific literature, articles, journals, and other scientific works. Bibliometric methods are widely applied to assess the productivity and impact of researchers and organizations in their scientific activities. This approach is used to measure the impact and productivity of research, identify the areas of concentration in scientific resources, and improve the efficiency of scientific activities.

Key principles of bibliometric analysis. The main goal of bibliometric analysis is to measure and analyze various aspects of scientific activities. The key indicators and principles of this analysis include:

- Citation count and impact. One of the primary indicators of bibliometric analysis is the citation count of articles. Citations indicate how widely research has spread and been accepted. Articles with a high citation count are generally considered more impactful in their fields and attract more attention in the scientific community. Citations are also seen as an indicator of the assessment given by other researchers.
- *H-index*. The H-index (Hirsch index) is a metric used to assess the productivity and impact of a researcher or journal. The H-index is a measure where a researcher has at least "h"

number of articles that have received "h" or more citations. For example, if a researcher has an H-index of 10, it means they have 10 articles, each cited at least 10 times. The H-index is a better measure of researchers' scientific influence and is frequently used in the scientific environment.

- Citation chains and weight indicators. Bibliometric analysis is also aimed at analyzing citation chains. A citation chain shows how articles are connected to one another and provides information about the development of research. Weight indicators, in addition to citation counts, show how impactful an article is, for example, which journal it was published in and how prestigious that journal is (Karabalina, Maydangalieva, Satygalieva, Ahmetalina, & Mahammadli, 2018).
- Impact factor of scientific journals. The impact factor is an indicator that shows the average number of citations received by articles published in a specific journal. It is used to evaluate the scientific influence of journals. Journals with a high impact factor generally have higher prestige and receive more citations. The impact factor determines the standing of the articles published by journals in the scientific community.
- Analysis of article and journal reputation. Bibliometric analysis also helps in analyzing the
  reputation of articles and journals. The number of citations received by articles, books, and
  journals provides information about the areas where they have the most impact. Researchers
  and journalists can use this data to assess and track the development of their scientific
  activities.
- Measuring Research Efficiency. Bibliometric analysis is very useful for measuring the
  productivity and impact of researchers. For instance, citation counts and the H-index show
  how a researcher's scientific activities are assessed and their standing in the community.
  This is important for researchers to evaluate their scientific activities and identify directions
  for better outcomes in the future.
- Tracking the reputation of journals and articles. Bibliometric analysis is also used to track
  the reputation of journals and articles in the scientific environment. A journal's impact
  factor indicates how widely it is spread and accepted. Such indicators are useful for
  researchers to determine where to publish their articles and which fields to promote
  themselves in more.

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- Determining the importance of research topics. Bibliometric analysis helps in determining the relevance and significance of scientific topics. The number and type of citations show how much research is done on a specific topic and which topics draw more attention in the scientific community. This information is very useful for identifying new research areas and directions.
- Developing scientific collaboration and networks. Bibliometric analysis also helps identify
  collaboration networks among researchers. Citations indicate which researchers have
  connections on a particular topic. This aids in the development of scientific collaborations
  and the establishment of international collaboration networks (Kushzhanov & Dashqin,
  2019).
- Improving academic management. Bibliometric analysis is also used for the development of academic management and policies. Through bibliometric metrics, research organizations, universities, and academic institutions can better evaluate research activities and make decisions on how resources should be allocated and which research directions to pursue. Bibliometric analysis is an invaluable tool in evaluating and measuring scientific activity. Citation counts, H-index, impact factors, and other bibliometric indicators allow researchers and organizations to monitor the productivity and impact of their scientific activities. This analysis provides a comprehensive approach to the collection and evaluation of scientific data and offers valuable insights aimed at improving scientific activities.
- Document management and bibliometric analysis are important tools for managing modern scientific research and organizational activities more efficiently. The combined application of these two fields is of great importance for managing research, systematizing data, evaluating scientific activities, and using resources more effectively.

At the same time, the proper storage and timely updating of documents minimizes the risks that organizations may face in legal matters. Document management also helps organizations organize their defense in disputes and legal problems. This plays a significant role in cases where organizations are required to present relevant documents and information appropriately (Kenzhebayeva, Urmurzina & Mahammadli, 2018).

Accelerating and streamlining business processes. Proper management of documents in organizations makes business processes faster and more efficient. Document management systems enable employees to access information more quickly, simplify data retrieval, and gradually

facilitate collaborative work on documents. This helps organizations reduce their workload and become more productive. At the same time, digital document management allows documents to be stored in cloud-based systems without the need for physical storage. This ensures that documents are stored more securely and provides organizations with access to data without being tied to specific physical locations.

Improving Customer Service. Document management not only enhances internal operations but also helps improve customer services. Faster and more accurate responses to customer inquiries, along with the proper and reliable management of customer information, increase customer satisfaction. Document management allows for the protection of customer data and the creation of a complete history for each customer. Improving customer service enhances the quality of service provided by organizations and strengthens customer relationships (Oqlu, 2021).

Archiving and Storing Data for Future Use. Document management allows organizations to retain their data over long periods. An archiving system ensures the preservation of documents that have not been utilized for a certain period and prevents the loss of information that may need to be used in the future. For instance, the storage of dated information and archival documents assists organizations in research, strategic planning, and improvement efforts. Additionally, proper archiving and storage of documents help organizations utilize their resources effectively and protect information correctly (İsmayılov & Məhəmmədli, 2024).

Effective digitization and technological integration. In response to the demands of the digital age, the technological development of document management has also increased in importance. Modern document management systems enhance organizational operations through the digital storage of data and ease of global sharing. Digitization, the implementation of automation processes in document management, data analysis, and the integration of new technologies give organizations a competitive advantage in today's business environment.

Bibliometric analysis is a field that uses statistical methods aimed at measuring, evaluating, and analyzing scientific activity. Bibliometric analysis is employed to measure and assess scientific literature, articles, journals, and other scientific works. Bibliometric methods are widely applied to evaluate the productivity and impact of researchers and organizations' scientific activities. This approach is used to measure the impact and productivity of research, determine which topics scientific resources are concentrated on, and enhance the efficiency of scientific activities.

Core principles of bibliometric analysis. The primary goal of bibliometric analysis is to measure and analyze various aspects of scientific activity. The main indicators and principles of this analysis include:

- Citations and impact. One of the main indicators of bibliometric analysis is the number of citations of articles. Citations indicate how widely accepted and disseminated the research is. Articles with a high citation count are generally considered more influential in their fields and attract more attention in the scientific community. Citations are also regarded as an indicator of the assessment provided by other researchers (Ismayilov, Mahammadli & Gasimli, 2023).
- *H-index*. The H-index (Hirsch index) is an indicator that assesses the productivity and impact of a researcher or journal. The H-index indicates that a researcher has at least "h" number of articles, each of which has been cited "h" or more times. For example, if a researcher has an H-index of 10, it means they have 10 articles, each cited at least 10 times. The H-index is a better measure of researchers' scientific impact and is frequently used in the scientific community (Ismayilov, Mahammadli & Gasimli, 2023).

Citation Chain and Weight Indicators. Bibliometric analysis also focuses on analyzing citation chains (Bilovus, Mudrokha, Pavliuk & Kazimi, 2020).

- The citation chain shows how articles are interconnected and provides information about
  the development of research. Weight indicators show not only the citation count but also
  how impactful the article is, for example, the journal in which it was published and its level
  of prestige.
- Impact factor of scientific journals. The impact factor indicates the average number of citations received by articles published in a particular journal. It is used to evaluate the scientific impact of journals. Journals with a high impact factor generally have a higher reputation and receive more citations. The impact factor determines the standing of articles published in the journals within the scientific community.
- Analysis of article and journal reputation. Bibliometric analysis also helps in analyzing the
  reputation of articles and journals. The number of citations received by articles, books, and
  journals provides information on which areas have a greater impact. Researchers and
  journalists can benefit from this data to evaluate and monitor their scientific activities
  (Ismayılov & Khudiyeva, 2023).

- Measuring research efficiency: Bibliometric analysis is very useful for measuring the productivity and impact of researchers. For example, the citation count and H-index show how a researcher's scientific activity is evaluated and their position in society. This is important for researchers to assess their scientific activities and determine directions for achieving better results in the future.
- Monitoring the reputation of journals and articles: Bibliometric analysis is also used to track the reputation of journals and articles in the scientific environment. A journal's impact factor indicates how widely disseminated and accepted it is. Such indicators are useful for researchers to determine in which journals to publish their articles and how to better promote themselves in their fields (Ismayilov & Khalafova, 2023).
- Determining the importance of research topics: Bibliometric analysis also helps in identifying the relevance and significance of scientific topics. The number and type of citations show how much research has been conducted on a particular topic and which subjects attract more attention in the scientific community. This information is very useful for identifying new research areas and directions.
- Developing scientific collaboration and networks: Bibliometric analysis helps identify collaboration networks among researchers. Citations indicate the relationships between researchers working on a particular topic. This facilitates the development of scientific collaboration and the establishment of international cooperation networks (Ismayilov & Aliyeva, 2023).
- Improving academic management: Bibliometric analysis is also used for the development of academic management and policies. Through bibliometrics, research organizations, universities, and academic institutions can better evaluate research activities and make decisions about how resources should be directed and research directions identified. Bibliometric analysis is an invaluable tool for the evaluation and measurement of scientific activity. Citation counts, H-index, impact factor, and other bibliometric indicators enable researchers and organizations to monitor the productivity and impact of their scientific activities. This analysis provides a comprehensive approach to the collection and evaluation of scientific data, offering useful information aimed at enhancing scientific activities.

Document management and bibliometric analysis. These are essential tools for managing modern scientific research and organizational activities more efficiently. The combined application

of these two fields is crucial for the management of research, the systematization of data, the evaluation of scientific activities, and the more effective use of resources.

The combination of both approaches further optimizes data analysis and the evaluation of scientific activities (Rashad & Parviz, 2023).

Impact of document management on bibliometric analysis. Document management encompasses all aspects of data management, from the creation of documents to their storage, protection, archiving, and utilization. This field allows for the proper and secure management of all types of data and documents in modern organizations. Bibliometric analysis, on the other hand, is an approach used to evaluate scientific activities, aiming to assess the productivity, impact, and outcomes of research (Rashad & Parviz, 2023).

The joint application of these two fields helps organizations and researchers manage their data more effectively and measure the impact of scientific activities more accurately.

#### \*Collection and management of scientific data

-Document management systems facilitate the processes of collecting, storing, and organizing scientific data. Articles written by researchers, projects they present, citations received, resources used, and other scientific documents should be properly stored in document management systems.

-Bibliometric analysis can evaluate the impact of research by analyzing this data. In doing so, document management systems enable more accurate analysis by directly utilizing the sources from which scientific data has been collected.

#### \*Tracking and analyzing articles and citations

-Bibliometric analysis measures the impact of scientific activities by tracking which articles are published in which journals and how many times they have been cited. At the same time, document management plays a significant role in managing this data (Ismayilov & Khalafova, 2022).

-Through document management systems, every article, citations received, and related information is stored in one place. Bibliometric analysis uses this data to evaluate researchers' scientific activities and provides recommendations for achieving better results in any field.

### \*Measuring organizational research performance

Bibliometric analysis measures the productivity of organizations or researchers. These measurements are based on indicators such as citation counts, H-index, and impact factor.

Document management ensures the centralized storage and easy retrieval of all these documents and data. Access to and analysis of this data helps understand an organization's or researcher's performance (Ismayilov, 2022).

-The centralization of data obtained through document management allows for the analysis of various indicators and trends, ensuring the strategic direction of scientific activities and optimal use of resources.

### \*Monitoring and developing research topics:

-Bibliometric analysis identifies the areas in which researchers and organizations are most active and which topics have seen the most research. Such data is stored in document management systems and shows researchers where they achieve better results.

-Researchers can use this information to make decisions about allocating more resources to certain areas and deepening their research on specific topics (Nadir & Oruj, 2022).

### \*Facilitating scientific collaboration:

-Bibliometric analysis helps identify collaboration relationships among researchers. Furthermore, the collaboration data, such as mutual citations, co-authored articles, and joint projects, are measured using bibliometric methods.

-Document management systems store this collaboration data in one place and promote the development of scientific networks. This integration facilitates new collaboration opportunities, helping researchers find each other more easily and work more effectively (Ismayilov, Mahammadli & Khudiyeva, 2022).

\*Advanced research management: The combination of document management and bibliometric analysis further enhances research management. This joint application creates better analytical opportunities for monitoring, evaluating, and increasing research efficiency. Tracking and recording research outcomes, as well as evaluating citation counts, article impact, and overall results, becomes more precise.

\*Effective resource utilization: When document management and bibliometric analysis are used together, resources can be allocated more optimally. By analyzing which topics receive more citations and which fields are developing, resources can be directed in the right direction.

\*Improving research performance: Bibliometric analysis identifies areas where researchers and organizations are making progress. This data is collected and analyzed through

document management, ultimately increasing the productivity of research activities (Khalafova & Ismailov, 2024).

\*Enhancing business processes: For more efficient management of research, document management systems centralize research data and facilitate tracking. This data, linked with bibliometric indicators, aids in making more informed decisions.

\*Methods of bibliometric analysis: Bibliometric analysis comprises various methods used for measuring and evaluating scientific activity. Bibliometric methods apply statistical and analytical approaches to assess the productivity, impact, popularity, and development of research. These methods enable researchers, academic organizations, and decision-makers in scientific fields to make more informed decisions (Kazimi, & Agamirzaev, 2021).

\*Impact of document management on bibliometric analysis: Document management encompasses the entire process of handling documents in organizations, from creation to storage, protection, archiving, and usage. It allows for the proper and secure management of all types of data and documents. Bibliometric analysis, on the other hand, is an approach used to evaluate scientific activities, assessing the productivity, impact, and outcomes of research.

Combining these two fields enables organizations and researchers to manage data more effectively and measure the impact of scientific activities more accurately.

### \*Collection and management of scientific data:

Document management systems facilitate the collection, storage, and organization of scientific data, including articles, project presentations, references, and resources.

-Bibliometric analysis assesses the impact of research by analyzing these data, allowing for more precise evaluations using data from document management systems.

#### \*Tracking and analyzing articles and references:

- -Bibliometric analysis measures the impact of scientific activity by tracking where articles are published and how often they are cited (Ismayilov, Ismayilov & Mammadova, 2019).
- -Document management systems consolidate all information related to articles and their references, allowing for better evaluation of scientific activities.

#### \*Measuring organizational research performance:

-Bibliometric analysis measures productivity using indicators like citation counts, H-index, and impact factor.

-Document management ensures centralized storage and easy access to this data, aiding in the assessment of an organization's or researcher's performance.

\*Tracking and developing research topics: Bibliometric analysis identifies which areas researchers focus on and where they achieve better results, allowing for resource allocation and deeper exploration of specific topics (Heydar, 2023).

\*Facilitating scientific collaboration: Bibliometric analysis helps identify collaboration between researchers, while document management systems store this information, promoting scientific networks and collaborative opportunities.

\*Enhanced research management: Integrating document management and bibliometric analysis improves research management by providing better analysis tools for monitoring and evaluating research efficiency (Balginova, Maydangalieva, Satygalieva & Mahammadli, 2018).

\*Effective resource utilization: The combination of these two fields allows for optimal resource allocation based on trends identified in research impact and development (Nadir & Sevda, 2022).

\*Improving Work Processes: Document management systems centralize research data, making it easier to track and analyze performance through bibliometric indicators.

Impact of bibliometric analysis in document management. Bibliometric analysis allows for a better understanding, measurement, and optimization of the activities of researchers and organizations. The combined application of these two fields simplifies data storage and management while providing more accurate indicators for assessing the impact and quality of research.

Effects of document management on bibliometric analysis:

# \*Systematization and Analysis of Scientific Data:

-Document management systems centralize researchers' various works, articles, projects, and other scientific documents, ensuring their proper and secure storage. This enhances the effectiveness of bibliometric analysis.

-Bibliometric analysis uses data obtained from document management to measure research productivity and quality, ensuring more accurate and reliable results (Muhammadli, 2023).

#### \*Evaluation of research performance:

-Bibliometric analysis employs various indicators such as citation counts, H-index, and impact factor to assess the performance of researchers and scientific organizations.

-Document management ensures the correct collection and storage of this data, facilitating the analysis process.

### \*Monitoring and analyzing researchers' Work:

- -Researchers utilize bibliometric analysis to track the productivity and impact of their work, with document management systems providing oversight of all scientific activities.
- -Bibliometric analysis evaluates this data to reveal the effectiveness and productivity of the researcher.

### \*Management of scientific organizations and resource allocation:

- -Bibliometric analysis evaluates the activities of scientific organizations and resource allocation, helping identify which areas have more research activity and citations (Məhəmmədli, 2024).
- -Document management centralizes this information, aiding organizations in optimizing their research activities and directing resources accordingly.

Key aspects clarifying the role of bibliometric analysis in document management:

## \*Tracking citations and articles:

- -Document management systems store information about citation counts and published journals. Bibliometric analysis uses this data to assess how widely articles are disseminated and their impact on society.
- -Bibliometric indicators help identify the areas where researchers have a more significant impact, guiding resource allocation to strengthen their work.

#### \*Evaluating the performance of researchers and organizations:

- -Bibliometric indicators enable the measurement of the performance of researchers and scientific organizations through metrics like H-index, impact factor, and citation counts.
- -Document management provides the necessary data for analyzing these indicators, helping researchers evaluate their scientific activities and identify strengths and weaknesses.

### \*Development of research networks:

- -Bibliometric analysis reveals the topics on which researchers and organizations collaborate, fostering new collaboration opportunities and the development of scientific networks.
- -Document management collects and stores information about collaborative projects and publications, which bibliometric analysis can then use to support the formation of new scientific collaboration networks (Mahammadi, 2024).

### \*Measuring the social impact of scientific research:

-Bibliometric analysis assesses not only the impact of articles published in scientific journals but also their reception on social and public platforms, utilizing altmetrics.

-Document management systems store this data, providing recommendations for researchers and organizations to enhance their social impact.

#### Conclusion

The interconnection between document management and scientometric analysis ensures the more effective management and evaluation of research. Document management properly collects, stores, and manages information for researchers and scientific organizations, enabling scientometric analysis to produce more accurate and precise results. Scientometric analysis, in turn, measures the quality, impact, and productivity of research, helping organizations allocate resources more effectively. The joint application of these two fields allows for a more transparent, measurable, and optimized management of scientific activities. The proper establishment and implementation of document management systems are fundamental for obtaining accurate results from scientometric analysis. The centralization and secure storage of information related to the activities of researchers, organizations, and other scientific institutions facilitate the analysis process.

Well-organized document management enables the proper collection and analysis of scientometric indicators (such as journals used, citation counts of articles, H-index, etc.). This makes it possible to evaluate the quality and impact of research and researchers.

-Scientometric analysis has become a valuable tool for measuring research productivity and impact. Evaluating the academic activities of researchers and organizations ensures the more efficient use of resources. This method also helps track the development of both research and scientific networks.

-Scientometric indicators (e.g., H-index, impact factor, citation count) assess the performance of researchers not only in terms of productivity but also in their influence on society and the scientific community.

-Scientometric analysis helps track the collaborations between various researchers and organizations. This fosters new scientific partnerships and strengthens the development of scientific networks. The data provided by document management facilitates the monitoring and analysis of these collaborations.

-Through co-citations and co-authored papers, it is possible to identify and strengthen connections between researchers.

-Altmetrics analyze how research is received on social media and other non-traditional platforms. This approach helps assess the public impact of scientific results, making them more accessible to a broader audience.

-Document management also incorporates such non-traditional data, making it easier to track and evaluate social impact.

-In the future, artificial intelligence (AI) and automation tools are expected to be more widely applied in document management and scientometric analysis. Automated systems and algorithms will be used to track scientific activities more efficiently.

-AI and natural language processing (NLP) technologies can enable the automatic analysis and evaluation of research papers and other scientific documents. This will make document management and scientometric analysis processes faster and more accurate.

Big data technologies will enable the creation of broader databases for scientometric analysis. The analysis of researchers, journals, conferences, and other scientific activities using large datasets will become more detailed and accurate. Document management systems will not only collect and store this data but also enhance the quality of the insights derived through analytical tools.

-In the future, scientometric analysis will adopt more multidisciplinary and interdisciplinary approaches, linking research across different fields. Scientometric indicators will facilitate not only the evaluation of scientific results but also the analysis of various social, economic, and cultural aspects.

-Document management systems will streamline the tracking and analysis of these approaches, supporting the parallel development of scientific activities across multiple fields.

-In the future, the results of scientometric analysis will be more widely communicated to decision-makers and the public. This will enhance the transparency of scientific activities and help gain broader social support.

-Through document management, the social impact of scientific research will be more easily measured, allowing researchers and organizations to advance their activities transparently and purposefully.

Scientometric analysis will help establish better international collaboration networks among researchers and organizations. Document management systems will support the monitoring of global research projects and provide data to analyze the activities of researchers from different countries.

-Such collaborations will contribute to the global development of scientific activities and the improvement of scientific networks.

Document management and scientometric analysis are complementary and mutually reinforcing fields. They enable researchers and organizations to manage their activities in a more transparent, measurable, and optimized manner. Future advancements, particularly in artificial intelligence, big data analytics, and interdisciplinary approaches, will enhance the efficiency and impact of scientific and research activities. The broader application of scientometric analysis will improve scientific research and allow researchers to make better use of resources.

The combined implementation of document management and scientometric analysis creates new opportunities for academic and research institutions. By integrating these two fields, it becomes possible to evaluate research more effectively, manage documents more efficiently, and measure the outcomes of scientific activities more accurately. By utilizing scientometric indicators, researchers can track their performance and set goals for achieving better results in the academic environment.

The joint application of document management and scientometric analysis enables the systematic and efficient management of scientific activities, the measurement of research impact, and the making of informed decisions to achieve better future outcomes. The integration of these two fields accelerates the development of the scientific community and enhances researchers' productivity.

Document management plays a crucial role in all aspects of organizational operations. By ensuring proper document management through management systems, significant improvements can be achieved in reducing legal risks, accelerating work processes, and enhancing customer services. Additionally, the adoption of modern technologies and digital document management will enable organizations to operate more effectively and robustly in the future.

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