

# A bibliometric analysis of university administration in scientific literature

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## ABSTRACT

**Objective.** This paper identifies the key characteristics of university administration as an object of study, a subject of analysis, and a focus of research.

**Design/Methodology/Approach.** The study employed a bibliometric methodology that utilized indicators of bibliographic elements. The Scopus platform served as the data source, from which a comprehensive selection of published works on university administration was obtained. Additionally, a thorough bibliographic review was conducted to describe the main identified research fronts.

**Results/Discussion.** University administration, as a subject of study, encompasses a wide range of topics. There is a noticeable lack of specialized bibliographic production and a limited presence of publications in high-impact journals. Recent topics primarily focus on postcoital mental health studies and the role of university administration in this context. Notably, the United States, Canada, and China are at the forefront of research in this field. It is important to emphasize the significant increase in scientific output since the early 2000s.

**Conclusions.** Research in university administration has seen a significant rise in the quantity of scientific publications indexed in Scopus.

**Originality/Value.** The study's originality is manifested in the absence of precedents for similar results in the thematic area under study.

**Keywords:** university administration; Scopus; bibliometrics; scientific production; research trends.

## INTRODUCTION

AS A FIELD of study, university administration has an intrinsically multidisciplinary nature, reflected in the diverse perspectives of analysis it offers. Moreover, it is contextual as a

pattern of analysis, implying that its functioning, management, and systemic elements conform to the guidelines, laws, and resolutions established for that purpose. However, this does not minimize the object of study but rather highlights the need to understand current

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research and shared experiences to improve university management.

Indeed, terms such as quality, management, strategic direction, and university governance are closely related to administration. The evolution of societies poses challenges for improving educational quality (Sito and Vargas, 2025). In this sense, technology development and the contextualization of best practices for administrative management, leadership, and sustainability of universities are fundamental elements in these topics (Castañón *et al.*, 2024). In the current context, higher educational institutions must exhibit demonstrable resilience, adapting to the transformations of the contemporary world. Consequently, university administration and management face significant challenges (Yasmings, 2024; Ganga-Contreras *et al.*, 2024; Cervantes Muñoz, 2025). The phenomenon of university transparency is also a core issue. Consequently, the scope of governance of higher education institutions is widening to include the challenges of managing sustainable development and considering disseminating their practical achievements (Guilherme *et al.*, 2023).

Although bibliometric studies on administration are rare, some literature reviews provide insights into phenomena related to inter-professional collaboration in university settings (Witt Sherman *et al.*, 2020). In Taiwan, there is a profound reflection on social aging and the current crisis facing universities. This situation presents immediate administrative challenges for these institutions (Hu, 2020). Similarly, the topic of university administration has been discussed, focusing on the difficulties and risks encountered by universities and medical school departments in response to COVID-19 (Mohammad, 2020; Tomás & Martínez, 2024; Rubilar Medina & Quintana Figueroa, 2025). Another review study highlights the connection between information systems studies and their integration with military veterans' faculty regarding university administration (Silo, 2020). A significant study by Hernandez and Gomez (2021) explores bullying at a public university in Mexico. The issue of harassment towards both male and female students and professors remains sensitive; yet, these practices persist in society. Furthermore, cuts in funding for Australian universities directly affect the quality

of the university system. In this context, decision-making and administration play vital roles (Harris, 2022).

Given the above and considering the diversity of studies that explore university administration from various perspectives, it is essential to carry out a thorough analysis of the published literature on this topic. This study aims to identify the key characteristics of university administration as reflected in the scientific literature available in Scopus.

## MATERIALS AND METHODS

This section outlines the primary methods and techniques employed, along with the various stages that constitute the methodological design.

### Study design, approach, and methodology

The study design is both quantitative and descriptive. The quantitative approach relied on a combination of documentary analysis and bibliometric techniques to identify the main characteristics of the topic in question. Furthermore, bibliometric techniques, which are mathematical methods used for analyzing scientific literature, along with social network analysis and multivariate representations, were employed. The core methodology used was based on bibliometric techniques and included four essential stages: determining the object of bibliometric study, searching for, retrieving, and processing information, defining indicators, and conducting quantitative and qualitative analyses of the resulting data.

### Data collection

For the relevant analysis, the Scopus database was utilized. Given the coverage of this resource, it was chosen to conduct the bibliometric analysis. The search strategy was developed using advanced search options and field codes that facilitate the retrieval of information on a specific theme or research topic. The exact formulation of the term was applied without temporal limitations for the study. In this case, the analysis encompasses the entire period during which documents on this topic have been published. The sample is defined according to documentary

typology based on the following equation: *TITLE-ABS-KEY ("university administration") AND PUBYEAR > 1904 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "cp") OR LIMIT-TO (DOCTYPE, "ch") OR LIMIT-TO (DOCTYPE, "re") OR LIMIT-TO (DOCTYPE, "cr"))*.

Information retrieval, processing, and visualization

The retrieval of information from the database has generated a total of 1005 documents published between 1905 and 2023, as shown in Figure 1. CSV and RIS files were utilized for data and information management, which were exported and imported into bibliographic managers and information visualization tools such as Vosviewer and Bibliometrix. These tools optimize the use of the information contained in the bibliographic repertoires. Indicators were calculated to determine the scientific

performance in the subject area, as well as the presence of authors, institutions, and countries. Additionally, indicators have been represented to illustrate the main thematic areas of university administration research as a multi-dimensional phenomenon.

RESULTS AND DISCUSSION

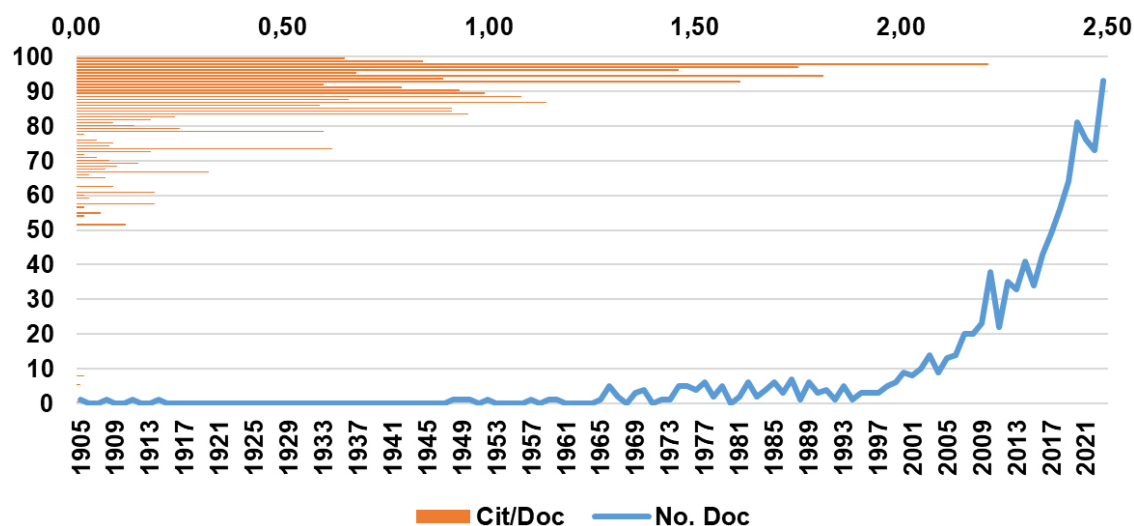
Figure 1 displays key information regarding scientific production in university administration as indexed in Scopus. This data is directly obtained from Bibliometrix during the initial analysis of imported records. The analysis reveals a limited body of research on this topic, spanning from 1905 to 2023, with a total of 1005 published works recovered. This finding is corroborated by the annual growth rate of scientific production, which is 3.92 %. Additionally, there are 2382 recorded authors, indicating a lack of significant specialized contributors in this area of study.



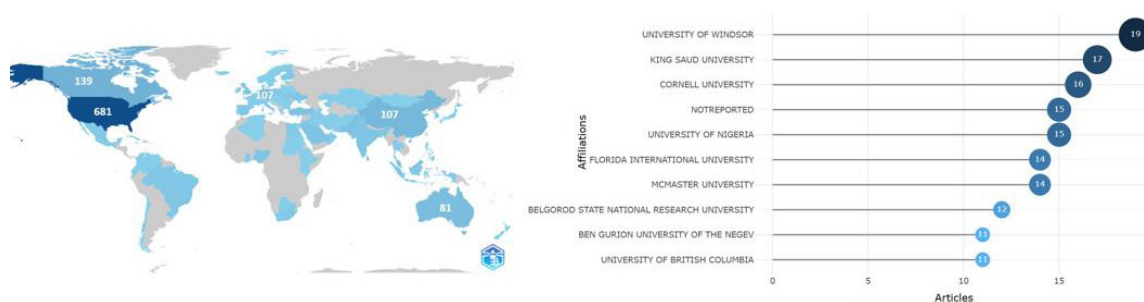
Figure 1. Primary information on scientific production in University Administration (Scopus 1905-2023).

A total of 326 authors of single-authored papers were identified, indicating a predominance of co-authorship in publications related to this topic, where at least 86 % of the authors publish collaboratively, which aligns with the co-authorship index (2.48). Conversely, international co-authorship appears in only 8.6 % of the authors of the scientific production. As shown in Figure 2, since the 2000s, there has been an increase in the number of citations, papers, and documents published. Notably, there has been a significant rise in subject matter, particularly in the last five years. It is essential to recognize that the increase in scientific production is closely linked to the

rise in the average number of citations per document. Out of a total of 1005 documents, an average of 9.2 citations per document has been achieved. Figure 3 illustrates the countries with a notable presence in research on this subject. Five countries stand out for their substantial representation: the United States, Canada, China, Germany, and Australia. Conversely, the institutions with the most significant presence present a different scenario. The University of Windsor in Canada leads in productivity, with 19 published papers. It is followed by King Saud University in Saudi Arabia with 16 papers and Cornell University in the United States with 15.



**Figure 2.** Evolution of the number of published papers and citations received (Scopus 1905-2023).



**Figure 3.** Productivity by country and most representative institutions (Scopus 1905-2023).

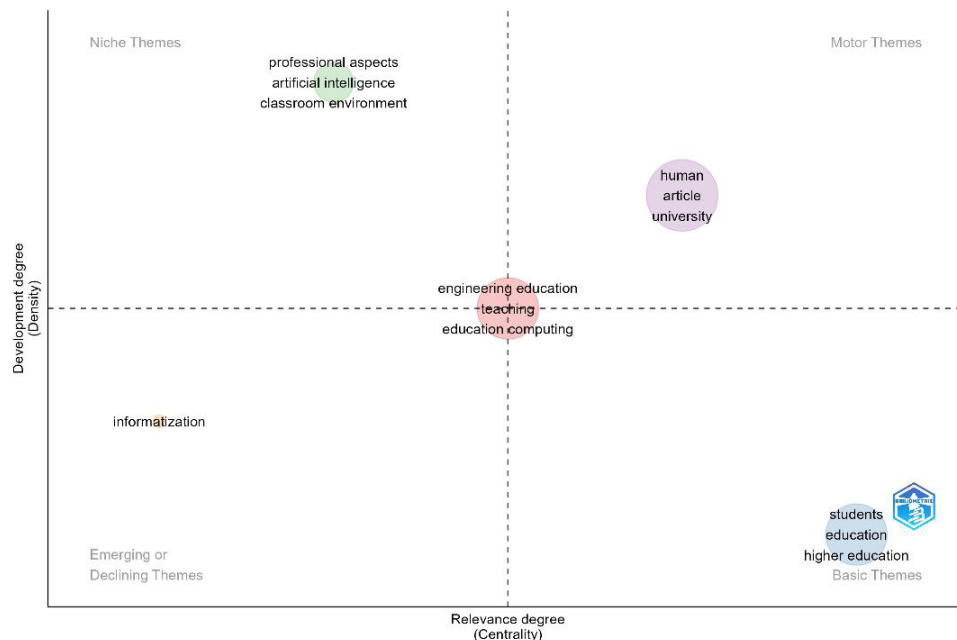
Overall, institutional representation does not indicate a significant concentration of results among a few institutions, suggesting a more equitable distribution of expertise on the topic across a total of 694 institutions and organizations. In terms of countries, a total of 80 nations are identified as having published at least one paper with international visibility in Scopus regarding university administration.

The location by quadrants of the topics that frequently represent published research on university administration converges in density and centrality regarding engineering education, teaching as an administrative process, and computer education. Additionally, the position of the upper right quadrant indicates a higher volume and greater centrality (importance or relevance) in general topics related to the human phenomenon, particularly within the university context. Topics related to human behavior and administrative management are also explored. Furthermore, a predominance of articles analyzes the consequences of the 2019

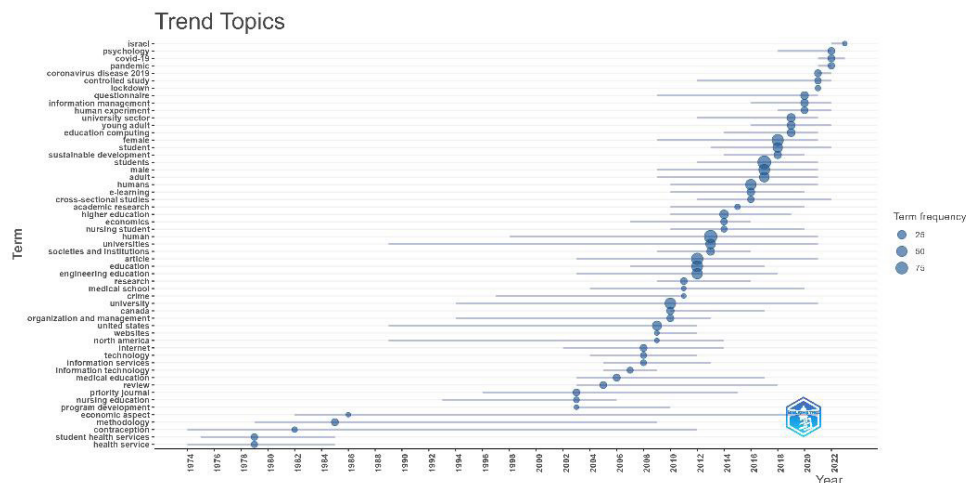
pandemic and its impact on education in such circumstances, including considerations about the future of humanity (Yehudai, 2023; Rusli, 2023).

The phenomenon of computerization, digitalization, the development of technologies for the teaching and learning process, and the evolution of e-learning are presented as some thematic aspects addressed. In this digital era, the development of artificial intelligence is integral to all human phenomena, so the training of professionals and universities is immersed in its development and ethical integration.

As illustrated in Figure 5, research trends in this field have evolved, reflecting the primary research topics of each period. Prior to the 2000s, studies on university administration primarily concentrated on methodologies, economic factors, and university health services. In the 2000s, research shifted towards issues related to curriculum development, information technologies, medical education, and the legal and ethical aspects of university hospitals,



**Figure 4.** Thematic map on university administration (Scopus 1905-2023).



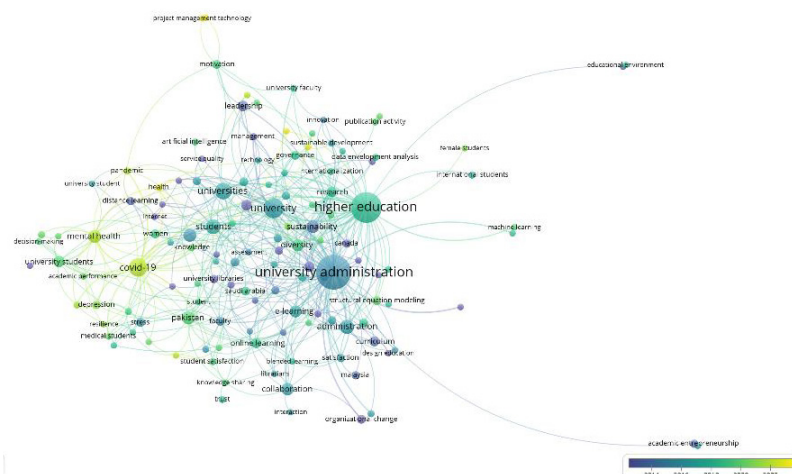
**Figure 5.** Trends in university administration research (Scopus 1905-2023).

which function as learning environments. Furthermore, during the first decade of the 21st century, there was an increase in the number of studies dedicated to analyzing university management and organization. Canada and the United States have emerged as key contributors in discussions surrounding these issues. In the last decade, topics in university administration have focused on engineering education, the challenges of distance education, and research aimed at developing technologies for documenting the outcomes of university science, technology, and innovation.

Based on the analysis in Figure 5, a keyword concurrence network for the last two years of the period (2014-2023) was developed, and the main research fronts highlighting thematic trends were identified (Figure 6). Studies on the topic of COVID-19 in the university context reveal a strong presence, particularly in papers addressing the issues of mental health and learning during the pandemic. Thus, elements of psychology and treatment in university teaching are addressed toward the end of the study period.

Finally, studies on the effects of illness are increasingly common among Israeli female



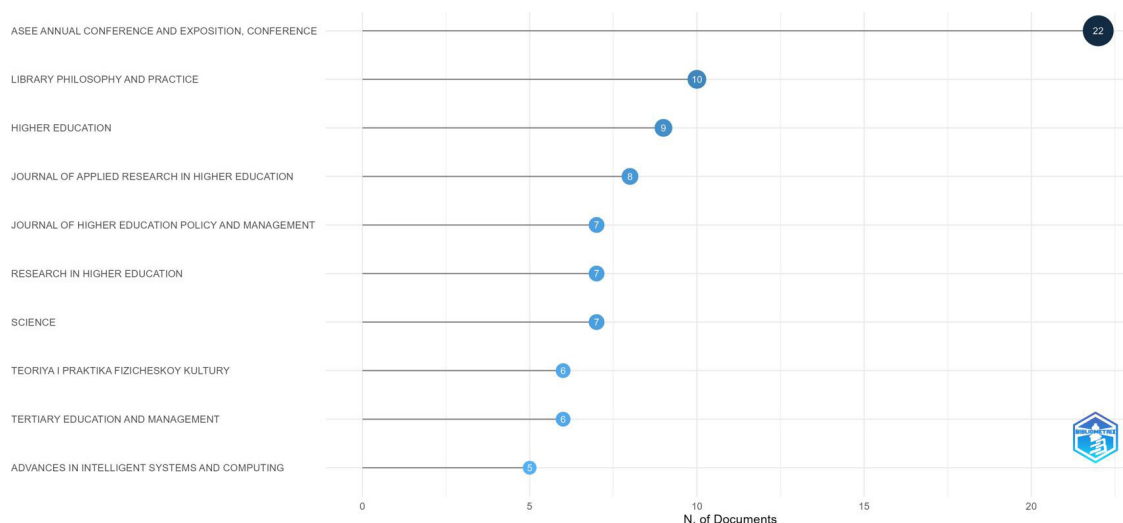


**Figure 6.** Keyword co-occurrence network for the last 10 years (Scopus 2014-2023).

students, particularly in cross-sectional research focusing on helping professions such as social work and psychology. The findings from these studies have garnered the attention of the university administration, which is implementing preventive measures in professions that demand high levels of resilience and significantly affect mental well-being. Additionally, Israeli researchers have been noted for exploring adult

self-determined learning (heutagogy) among faculty and examining the role of university administration in fostering these practices.

As shown in Figure 7, the primary publications on university administration are represented as follows. It is evident that the ASEE Annual Conference Proceedings is the most frequently occurring information resource that highlights the subject.



**Figure 7.** Top journals on university administration (Scopus 1905-2023).

As shown in Figure 7, the origins and profiles of the publications presented are varied and multidisciplinary, which supports the nature and approaches used in this research. Additionally, despite the lengthy period analyzed,

no journal specializing in university administration research has been identified. This situation is beneficial for research in this field, considering the extensive range of channels available for disseminating results.

## CONCLUSIONS

According to the analysis conducted in Scopus, the literature on university administration has been limited over a long period, although there is evidence of an increase in scientific production over the last 20 years. This growth aligns with the challenges of management during times of social and technological change, as well as those imposed by the COVID-19 pandemic. A predominance of the United States, Canada, and China in research on this topic is observed. The presence of authors distinguished by their prolificacy in producing research results is not noted; rather, there are works that are published occasionally. This situation is attributed to the lack of specialization in the subject, given that university management is a contextual phenomenon. The most frequently published resource is an event report (ASEE Annual Conference and Exposition), although the number of publications is not high. The journals that stand out in this analysis exhibit a wide range of profiles and include studies related to the multidimensionality and multidisciplinary with which these topics are approached.

## Conflict of interests

The authors should declare that there are no conflicts of interest.

## Contribution statement

Conceptualización, investigación, metodología: Abrahan Cesar Neri Ayala, Gabriel Alberto Manes Cangana.

Formal analysis, software: Daniel Alberto Oswaldo Valenzuela Narváez, Ender Ayala Huaynatte.

Project administration, supervision: Daniel Alberto Oswaldo Valenzuela Narváez, Vilma Rosario Cabillas Oropeza.

Writing-original draft, writing-review & editing: Abrahan Cesar Neri Ayala.

## Statement of data consent

The data generated during the development of this study has been included in the manuscript. ●

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