# Analyzing the Landscape of Education Management Research: A Bibliometric Analysis of Scholarly Publications on Education Management

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#### ABSTRACT

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Bibliometric Education Management Education management is a critical aspect of educational systems, encompassing policies, planning, organization, and leadership. Understanding the research landscape in education management is essential to inform evidence-based practices, guide policymaking, and enhance educational outcomes. This research employs a comprehensive bibliometric analysis using VOSviewer to examine scientific publications on education management. The analysis quantifies scholarly output, identifies influential works and authors, and explores collaboration patterns within the field. Key findings highlight the significance of leadership, education management, and entrepreneurship education as prevalent themes. Moreover, the analysis underscores the growing interest in promoting selfmanagement skills and sustainability in educational contexts. These insights can guide researchers, educators, and policymakers in shaping the future of education management practices and policies.

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#### 1. INTRODUCTION

Education management plays a pivotal role in shaping the quality and effectiveness of educational systems worldwide. It encompasses a wide range of activities, including policy formulation, strategic planning, resource allocation, curriculum development, leadership, and governance [1]. As educational institutions face evolving challenges and opportunities, research in education management becomes increasingly essential to inform evidencebased practices and policy decisions [2]-[5].

The dynamic nature of education management research necessitates а comprehensive understanding of the current state of the field, including its trends, key contributors, and areas of focus. Bibliometric analysis, a powerful quantitative method, offers a systematic approach to analyze and evaluate scholarly output, authorship patterns, citation networks, and collaborative efforts within a specific domain of knowledge. This research method aims to apply bibliometric techniques to investigate the education management research landscape, providing valuable insights into the field's

evolution and identifying crucial areas for further exploration [6]–[9].

Bibliometric analysis is a quantitative method used to assess the inter-relationships and impacts of publications within a given area of research. Several studies have applied bibliometric analysis to various aspects of education management. Bibliometric analysis on research trends in education and cultural management based on Web of Science (WoS) publications [10]. This study aimed to identify the most influential authors, institutions, and countries in this field, as well as the main research topics and trends. Bibliometric mapping and analysis to examine the impact of COVID-19 on scientific activity in education, business, economics, and management [11]. The study found a lack of peer-reviewed publications on this topic, highlighting the need for more research on the effects of the pandemic on scientific research and teaching/education.

Bibliometric analysis of pedagogical leadership in the Web of Science database from 2017 to 2021 [12]. The study aimed to identify the trend of pedagogical leadership in published articles and found that it is an emerging theme in WoS databases, mostly cited from Nordic and European countries. Bibliometric analysis to describe the concentration of topics on Islamic education management in the future [13]. The study aimed to provide future views on the topic of Islamic education management and found that there are still few related writers discussing the management of Islamic education.

Author co-citation analysis to identify the intellectual structure or key theoretical themes that comprise the emerging field of sustainability leadership in higher education [14]. The study found that the intellectual structure of scholarship on sustainability leadership in higher education is composed of four dominant "schools of thought": sustainability leadership, managing campus greening, managing change and system integration, and education for sustainable development. A bibliometric review focused on the management of physical education based on the Scopus database [15]. The study aimed to analyze the productivity of publishing management in physical education papers on Scopus, the most prestigious journals, authors, and articles, and the analysis of keywords that frequently appear in management in physical education articles published on Scopus.

These studies provide valuable insights into various aspects of education management research. They highlight the importance of bibliometric analysis in understanding research trends, identifying influential authors and institutions, and uncovering emerging themes in the field.

The evolution of education management as a distinct area of research can be traced back to the growing complexities of educational institutions and the need for efficient and effective management practices. With the globalization of education and the advent of digital technologies, educational systems have become more interconnected and interdependent. As a consequence, educational institutions must adapt to changing environments, demanding innovative and adaptive management strategies [16]-[19].

Historically, educational administration and management research emerged as a response to address the challenges of administering educational institutions [20]. However, over time, the focus shifted from mere administration to a more strategic approach encompassing leadership, organizational behavior, policy analysis, and educational governance. As the field expanded, scholars from diverse disciplines started contributing their expertise to education management, resulting in a multidisciplinary and interdisciplinary research landscape.

#### 2. LITERATURE REVIEW

#### 2.1 Evolution of Education Management Research

Educational management research has evolved significantly over the years, reflecting the changing nature of educational institutions and wider social, economic and the technological context. Historically, education management has mainly focused on administrative functions, organizing such as resources, managing budgets and supervising staff. However, with the recognition of the importance of effective leadership and governance, the field expanded to encompass a wider range of management practices and policies [2], [4], [21]-[23].

In the early stages, researchers emphasized the application of business management educational principles to the environment, leading to the development of concepts such as planning, performance strategic evaluation and decision-making models. As educational systems became more complex, researchers adopted an interdisciplinary approach, drawing insights from fields such as organizational behavior, public administration, sociology, and psychology. This interdisciplinary perspective enables a deeper understanding of the diverse factors that influence education and facilitates management the development of innovative management strategies [5], [24], [25].

#### 2.2 Leadership and School Improvement

Leadership is a major theme in education management research, focusing on the role of educational leaders in shaping school culture and improving student learning outcomes. Researchers have explored different leadership styles, including transformational, instructional and distributed leadership, to understand their impact on student achievement and overall school performance. In addition, research has also examined the role of principals as instructional leaders and the importance of building professional learning communities to improve teacher collaboration and effectiveness [2], [26]–[28].

#### 2.3 Education Policy and Governance

The formulation and implementation of education policies play an important role in shaping the education system [29]. Researchers in the field of education management have investigated the impact of various policies, such as standardized testing, accountability measures and school choice initiatives. In addition, research has also explored the role of education governance structures in decision-making influencing processes and resource allocation at different levels of the education system [30]-[33].

# 2.4 Quality Assurance and Accreditation

Ensuring quality in educational institutions is an important concern for education managers. Research has investigated the effectiveness of accreditation and quality assurance processes in higher education institutions, K-12 schools, and vocational training centers. The focus is on identifying the impact of quality measures on institutional performance and student learning outcomes [34]-[36].

# 2.5 Technology Integration and Digital Learning

With the rapid advancement of digital technology, educational management research is increasingly exploring the integration of technology in educational settings. Research has investigated the effectiveness of digital learning platforms, the use of educational data analytics for decision-making, and the challenges and opportunities presented by online and blended learning models [37], [38].

#### 3. METHODS

This section outlines the research methodology employed for the bibliometric scientific publications analysis of on education management using VOSviewer, a powerful bibliometric analysis software. VOSviewer facilitates the visualization and exploration of bibliometric networks. enabling the identification of key trends, influential works, and collaboration patterns within a specific research domain.

Relevant academic databases, including Scopus, Web of Science, and Google Scholar, were selected to collect scientific publications related to education management. These databases were chosen for their extensive coverage of peer-reviewed journal articles, conference papers, theses, and other scholarly publications.

A comprehensive search strategy was developed using a combination of

relevant keywords and search terms related to education management. The search queries were designed to ensure the retrieval of a representative sample of publications from the selected databases. The inclusion and exclusion criteria defined in the research objectives were applied to filter the dataset.

The collected data were cleaned to remove duplicates, non-peer-reviewed publications, and irrelevant records. The remaining dataset was carefully curated to ensure the accuracy and reliability of the bibliometric analysis.

<b>Metrics</b> Data	Information	
Publication years	1912-2023	
Citation years	111	
Papers	980	
Citations	841153	
Cites/year	7577.95	
Cites/paper	858.32	
Authors/paper	2.13	
n-index	421	
g-index	915	
nI,norm	323	
nI,annual	2.91	
hA, index	102	

#### Table 1. Metrics Data

# 4. RESULTS AND DISCUSSION



The bibliometric analysis revealed a significant growth in the scholarly output on education management over the past decade. The number of publications related to education management has steadily increased, indicating a growing interest in the field. Figure 1 illustrates the trend in publication output over time. The increasing trend in publication output suggests that education management continues to be a prominent area of research and a subject of considerable interest to scholars, policymakers, and practitioners alike.



Figure 2. Cluster Mapping

The bibliometric analysis using VOSviewer has provided a comprehensive overview of the education management research landscape. The results highlight the increasing scholarly output, influential works, and collaborative efforts within the field. These findings can inform future research directions, support evidence-based policymaking, and contribute to the ongoing advancement of education management practices. By continuously monitoring and analyzing the research landscape, the education management community can work towards addressing current challenges and shaping the future of education management research and practice.

Cluster	Total Items	Most frequent keywords (occurrences)	Keyword
1	10	Academic (30), Knowledge Management (20), TQM (10)	Academic, community, education manager, governance, higher education institution, higher education manager, higher education sector, knowledge management, quality management, total quality management
2	7	Leadership (15)	Classroom management, education management, education administrative, education leadership, leadership, job satisfaction, teacher

#### Table 2. Keywords Analysis

3	5	Self-management education (10)	Diabetes education, diabetes self-management, patient education, self-management education, support
4	5	Education system (15)	Education system, higher education system, learning, management system, structure, teaching
5	3	Entrepreneurship education (20), Sustainability (10)	Business education, entrepreneurship education, sustainability
6	3	Adult (10)	Adult, assessment, guideline

The keywords analysis offers a comprehensive understanding of the key themes and research trends within the education management research landscape. It highlights the significance of leadership, knowledge management, quality management, and sustainability in shaping educational practices and policies. The identified clusters provide valuable insights for researchers, educators, and policymakers to inform their work and contribute to the advancement of education management practices. By addressing the cross-cutting themes and exploring emerging areas of education interest, the management foster community can continuous improvement and enhance the quality of education for learners worldwide.

The keywords analysis provides valuable insights into the current research

landscape within education management. It identifies key themes and topics that are receiving significant attention, while also indicating potential gaps for future research. Scholars can use these findings to guide their research focus, explore emerging areas of interest, and contribute to the ongoing development of education management practices and policies.

policymakers Additionally, can utilize the identified themes to inform evidence-based decision-making and design strategies that address the evolving challenges and opportunities within the education system. For instance, the focus on leadership and job satisfaction highlights the importance of supporting and empowering educators to create a positive learning environment.

Citations	Author and Year	Title
100156	P Kotler, 2009	Marketing management: A south Asian perspective [39]
50722	J Dewey, 1986	Experience and education [40]
31014	J Harmer, 2001	The practice of English language teaching [41]
22980	KL Keller, MG	Strategic brand management: Building, measuring, and
	Parameswaran, I Jacob,	managing brand equity [42]
	2011	
10016	JK Liker, 2021	Toyota way: 14 management principles from the world's greatest
		manufacturer [43]
9169	LJ Mullins, 2007	Management and organizational behavior [44]
7601	AY Kolb, DA Kolb, 2005	Learning styles and learning spaces: Enhancing experiential
		learning in higher education [45]
7353	SP Robbins, 2012	Management [46]
5682	TH Davenport, DW De	Successful knowledge management projects [47]
	Long,, 1998	
5617	WE Deming, 2018	The new economics for industry, government, education [48]

#### Table 4. Author with the Most Citations

It is clear that the years 1972 through 2022 are the ones in which the documents

relating to the accounting environment are expressly quoted the most. This can be seen by looking at the graph. New information is less likely to be acknowledged, with the exception of works written by authors who have already conducted study in the topic and are quite well-known.

Most occurrences		Fewer occurrences	
Occurrences	Term	Occurrences	Term
124	Leadership	17	Education system
78	Education management	17	Self-management education
61	Entrepreneurship education	16	Guideline
53	Higher education institution	14	Sustainability
52	Learning	14	Classroom management
51	Self-management	14	Job satisfaction
46	Teacher	13	Higher education system
35	Education leadership	12	Entrepreneurship
25	Total quality management	10	Education administration

Table 5. Keywords results

The results of the keyword analysis highlight key themes and research trends within education management. The prominence of "Leadership" and "Education Management" underscores the significance of leadership management effective and practices in educational institutions. The "Entrepreneurship growing interest in Education" and "Sustainability" reflects the ongoing efforts to equip students with essential skills for the future while fostering environmentally conscious practices. Furthermore, the prevalence of "Self-Management" and "Job Satisfaction" signals the importance of empowering individuals, both learners and educators, to take ownership of their learning and well-being. The identified keywords can guide researchers and policymakers in addressing critical issues in education management and designing evidence-based interventions to improve educational outcomes. The keywords analysis reveals the most frequently occurring terms within the education management research landscape. Leadership, education management, entrepreneurship education, higher education institution, learning, and self-management emerge as prominent themes in the field. These keywords provide valuable insights into the current research trends and areas of interest, guiding researchers, educators, and policymakers in their efforts to enhance

education management practices and policies. By addressing the identified themes and exploring emerging areas of interest, the education management community can foster continuous improvement and advance the quality of education for learners worldwide.

#### 5. CONCLUSION

The bibliometric analysis has provided valuable insights into the education landscape. management research The examination of scholarly output, influential works, and collaboration patterns reveals key themes and trends shaping the field. Leadership emerges as a central focus, indicating its importance in driving educational reform and shaping school culture. Education management research, with its emphasis on effective governance and decision-making, continues to be a prominent area of interest. Additionally, the exploration entrepreneurship education and of sustainability signifies efforts to foster innovative skills and sustainable practices within the education system.

Furthermore, the prevalence of selfmanagement education and job satisfaction highlights the significance of empowering learners and educators to take an active role in their development and well-being. The identification of core journals and prolific authors provides valuable resources for researchers and practitioners seeking cuttingedge research and expertise in education management.

Overall, the bibliometric analysis serves as a comprehensive overview of the education management research landscape. The findings can inform evidence-based decision-making, guide future research directions, and support continuous improvement in educational practices. By leveraging these insights, the education management community can work collaboratively to address current challenges and shape the future of education management research and practice. Through ongoing monitoring and analysis, stakeholders can foster innovation, equity, and excellence in educational systems, ultimately benefiting learners and society as a whole.

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