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MAPPING THE INTELLECTUAL LANDSCAPE OF DECISION MAKING IN EDUCATIONAL LEADERSHIP: A BIBLIOMETRIC ANALYSIS FROM 2015 TO 2025

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Abstract:

This bibliometric analysis explores the intellectual landscape and research trends in educational leadership decision-making, aiming to map the scholarly output and identify influential patterns from 2015 to 2025. The study addresses a significant research gap by systematically examining how decision-making processes have been conceptualized and applied in leadership and management contexts across educational settings. Using the Scopus database as the primary data source, a search was conducted with the keywords "decision-making," "leadership," and "management," refined to focus on relevant subject areas, including social sciences, decision sciences, and the arts and humanities. This process yielded 953 scholarly documents. The dataset was cleansed and standardized using OpenRefine to ensure consistency in keyword terminology. Bibliometric analysis was conducted using the Scopus built-in analyzer and VOSviewer software to visualize co-authorship networks, keyword co-occurrence, and citation patterns. The results reveal a growing trend in publications after 2018, with significant contributions from countries such as China, India, Australia, and the United States. Thematic clusters strongly focus on strategic decision-making, instructional leadership, and participatory governance models. Highly cited authors and journals were identified, offering insights into influential contributors and platforms within the field. The study concludes that research on educational leadership decision-making is gaining momentum, particularly in the context of complex educational reforms and the increasing demand for evidence-based leadership. These findings offer valuable implications for policymakers, academic leaders, and researchers by highlighting emerging themes and collaboration opportunities that can shape future investigations and leadership practices.

Keywords:

Decision-Making, Leadership, Management

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Introduction

Decision-making in educational leadership is a critical area of research that significantly impacts the effectiveness of academic institutions. Effective decision-making processes are essential for shaping teacher performance, fostering innovation, and enhancing student outcomes (Flores, 2023). The significance of this research topic lies in its potential to inform and improve leadership practices, thereby contributing to the overall quality of education. This introduction provides an overview of the current state of research in decision-making within educational leadership, highlighting recent developments and emerging trends in the field.

Educational leadership entails complex decision-making processes that impact various aspects of school management, including teacher evaluation, curriculum development, and student achievement (Somerville, 2016). The importance of decision-making in educational leadership cannot be overstated, as it directly affects the quality of education and students' success (Bush & Sargsyan, 2020). Effective decision-making is crucial for optimizing educational outcomes and fostering student success (Hisamuddin & Faisal, 2024; Meng, Zhang, Yang, Yang, & Liu, 2024). Leaders in educational settings are expected to make informed decisions based on data, ethical considerations, and collaborative processes (Fernandes, 2021; Park & Datnow, 2009). Making well-informed decisions is essential for addressing the challenges and complexities of modern educational environments (Sun & Chen, 2016).

Recent research has focused on various aspects of decision-making in educational leadership, including the role of participative decision-making, the use of data, and the ethical dimensions of decision-making (Kurilovas, 2020). Participative decision-making, where leaders involve teachers and other stakeholders in the decision-making process, has enhanced teacher performance and creativity, resulting in improved academic outcomes (Meng et al., 2024; Stosich, 2023). Data-Driven Decision-Making (DDDM) has gained prominence, with leaders increasingly relying on data to inform their decisions and enhance student outcomes (Fernandes, 2021; Park & Datnow, 2009; Van Geel, Keuning, Visscher, & Fox, 2019). This approach requires leaders to develop new data analysis and interpretation competencies, highlighting the need for ongoing professional development (Baldwin, 2018; Hisamuddin & Faisal, 2024).

Ethical decision-making is another critical area of research, with studies examining the moral frameworks and reasoning processes of educational leaders (Feng, 2013). Ethical considerations are integral to educational decision-making, as leaders must navigate complex dilemmas involving students, teachers, and broader societal issues (Catacutan & de Guzman, 2015; Duignan, 2007). Integrating ethical principles into decision-making ensures that decisions are fair, just, and in the best interests of all stakeholders (Shapiro & Stefkovich, 2005).

Recent developments in the field of educational leadership have highlighted the importance of collaborative and data-informed decision-making processes. The continuous school improvement approach emphasizes collaboration, communication, and organizational trust, enabling leaders to make better decisions in the face of ongoing change and complexity (Fernandes, 2021). The rise of data-driven decision-making has led to the development of new models and methods for effectively using data in educational settings (Hisamuddin & Faisal, 2024; Park & Datnow, 2009). These models emphasize the

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importance of creating a culture of continuous improvement and learning, where data is used not for blame but to enhance educational practices (Park & Datnow, 2009).

Emerging trends in decision-making research include exploring the impact of Artificial Intelligence (AI) on leadership practices. AI technologies are transforming decision-making processes by providing leaders with new tools for data analysis and interpretation (Aldighrir, 2024). Integrating AI into educational leadership requires leaders to develop new skills and consider the ethical implications, ensuring that AI is utilized responsibly and effectively (Aldighrir, 2024). Additionally, the focus on self-efficacy and strategic thinking in decision-making underscores the importance of leaders cultivating these attributes to enhance their decision-making capabilities (Ishak, Arshad, & Husin, 2024).

Decision-making in educational leadership is a multifaceted and dynamic area of research that plays a crucial role in shaping the quality of education. The current state of research underscores the importance of participative, data-driven, and ethical decision-making processes. Recent developments and emerging trends, such as the integration of AI and the emphasis on self-efficacy, provide new opportunities for enhancing decision-making practices in educational settings. This research has significant implications for policymakers, practitioners, and scholars, providing valuable insights into effective leadership practices that can enhance academic outcomes and promote student success.

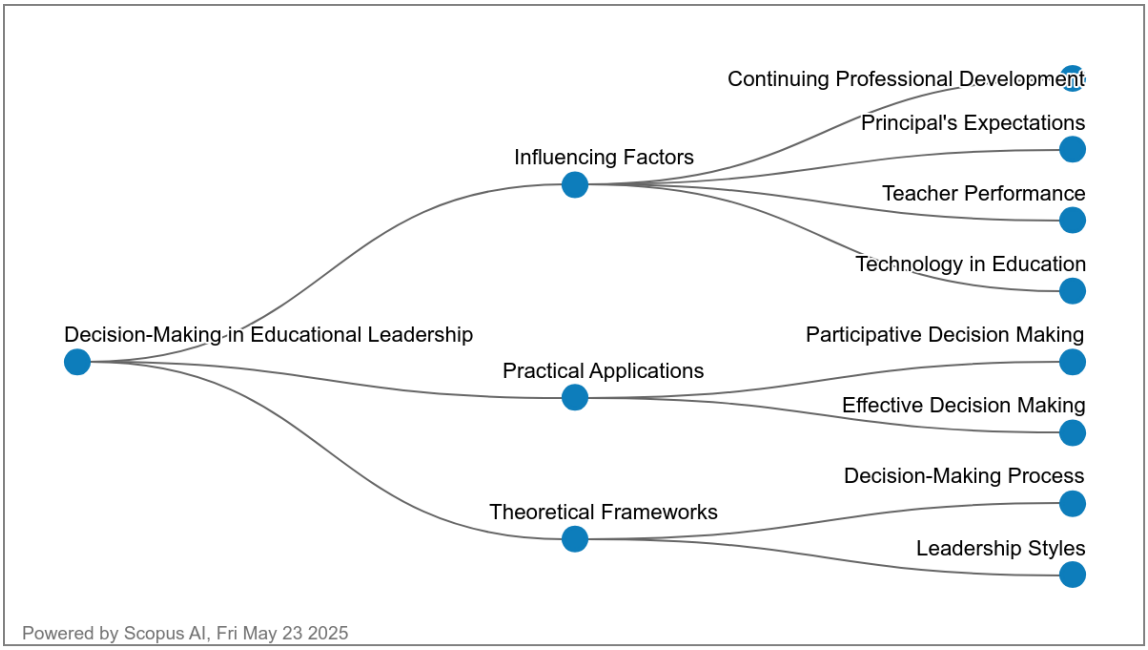

Figure 1: Concept Map for Decision-Making in Educational Leadership
Source: Scopus AI

Research Questions

RQ1 : What are the temporal publication trends in the field of decision-making within educational leadership from 2015 to 2025?

RQ2: Which scholarly articles on decision-making in educational leadership have received the highest citation impact?

RQ3: Which ten countries contribute the most publications to the field of decision-making in educational leadership?

International Journal of Modern Education
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RQ4: What are the most frequently occurring keywords associated with decision-making in educational leadership research?

RQ5: How do patterns of international collaboration manifest in co-authorship networks across countries in this research domain?

Methodology

Bibliometrics involves gathering, organizing, and analyzing bibliographic data from scientific publications (Alves, Borges, & De Nadae, 2021; Assyakur & Rosa, 2022; Verbeek, Debackere, Luwel, & Zimmermann, 2002). Beyond basic statistics, such as identifying publishing journals, publication years, and leading authors Wu & Wu (2017) bibliometrics encompasses more sophisticated techniques, including document co-citation analysis. Conducting a successful literature review requires a careful, iterative process to select suitable keywords, search the literature, and perform an in-depth analysis. This approach facilitates the compilation of a comprehensive bibliography and yields reliable results (Fahimnia, Sarkis, & Davarzani, 2015). With this in mind, the study focused on high-impact publications, as they provide meaningful insights into the theoretical frameworks that shape the research field. To ensure data accuracy, Scopus served as the primary source for data collection (Al-Khoury et al., 2022; Di Stefano, Peteraf, & Veronay, 2010; Khiste & Paithankar, 2017). Additionally, to maintain quality, the study only considered articles published in peer-reviewed academic journals, deliberately excluding books and lecture notes (Gu, Li, Wang, Yang, & Yu, 2019). Using Elsevier's Scopus, known for its broad coverage, publications were collected from 2015 through May 2025 for further analysis.

Data Search Strategy

The data for this bibliometric analysis were collected using the Scopus database, which is known for its extensive indexing of peer-reviewed literature. A targeted search was conducted using the string mentioned in Table 1. This search strategy was designed to retrieve articles that specifically focus on decision-making within the contexts of leadership and management, as indicated by the presence of key terms in the title. The publication years were restricted from 2015 to 2025 to capture the most recent and relevant literature, while the subject areas were limited to Social Sciences, Decision Sciences, and Arts and Humanities to ensure disciplinary alignment, as stated in Table 2. After filtering and refinement, a total of 953 documents were identified, which form the final dataset for analysis.

Table 1: The Search String

Scopus	TITLE (("decision making" OR "decision-making") AND (leadership OR management)) AND PUBYEAR > 2014 AND PUBYEAR < 2026 AND (LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "DECI") OR LIMIT-TO (SUBJAREA, "ARTS")) Retrieved on 23 May 2025

Table 2: The Selection Criterion Is Searching

Criterion	Inclusion	Exclusion
Timeline	2015 – 2025	< 2015
Subject Area	Social Science, Decision Science, Art and Humanities	Besides Social Science, Decision Science, Art, and Humanities

International Journal of Modern Education
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Data Analysis

VOSviewer is a user-friendly bibliometric software developed by Nees Jan van Eck and Ludo Waltman at Leiden University, Netherlands (Van Eck & Waltman, 2010, 2017). Widely utilized for visualizing and analyzing scientific literature, the tool specializes in creating intuitive network visualizations, clustering related items, and generating density maps. Its versatility allows for the examination of co-authorship, co-citation, and keyword co-occurrence networks, providing researchers with a comprehensive understanding of research landscapes. The interactive interface, coupled with continuous updates, ensures efficient and dynamic exploration of large datasets. VOSviewer's ability to compute metrics, customize visualizations, and its compatibility with various bibliometric data sources make it a valuable resource for scholars seeking insights into complex research domains.

One of the standout features of VOSviewer is its capacity to transform intricate bibliometric datasets into visually interpretable maps and charts. With a focus on network visualization, the software excels in clustering related items, analyzing keyword co-occurrence patterns, and generating density maps. Researchers benefit from its user-friendly interface, enabling both novice and experienced users to explore research landscapes efficiently. VOSviewer's continuous development ensures it remains at the forefront of bibliometric analysis, offering valuable insights through metrics computation and customizable visualizations. Its adaptability to different types of bibliometric data, such as co-authorship and citation networks, positions VOSviewer as a versatile and indispensable tool for scholars seeking deeper understanding and meaningful insights within their research domains.

Datasets comprising information on the publication year, title, author name, journal, citation, and keywords in PlainText format were procured from the Scopus database, spanning the period from 2004 to December 2024. These datasets were then analyzed using VOSviewer software version 1.6.19. Through the application of VOS clustering and mapping techniques, this software facilitated the examination and generation of maps. Offering an alternative to the Multidimensional Scaling (MDS) approach, VOSviewer focuses on situating items within low-dimensional spaces, ensuring that the proximity between any two items accurately reflects their relatedness and similarity (Van Eck & Waltman, 2010). In this respect, VOSviewer shares a similarity with the MDS approach (Appio, Cesaroni, & Di Minin, 2014). Diverging from MDS, which primarily engages in the computation of similarity metrics like cosine and Jaccard indices, VOS utilizes a more fitting method for normalizing co-occurrence frequencies, such as the Association Strength (AS_{ij}), and it is calculated as (Van Eck & Waltman, 2007):

$$AS_{ij} = \frac{C_{ij}}{w_i w_j},$$

which is “proportional to the ratio between the observed number of co-occurrences of i and j, and the expected number of co-occurrences of i and j under the assumption that their co-occurrences are statistically independent” (Van Eck & Waltman, 2007).

Findings

This study employed a bibliometric approach to systematically map and analyze the landscape of scholarly publications related to decision-making in educational leadership over the past decade. Drawing data from the Scopus database, the analysis focused on identifying key trends, influential contributions, thematic patterns, and collaborative networks. Through descriptive and network-based metrics, the study highlights the field's evolution, identifies its major

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contributors, examines the conceptual themes that have emerged, and locates the areas of scholarly influence that are most concentrated. The following subsections present the core findings in response to the five research questions posed.

What Are The Temporal Publication Trends In The Field Of Decision-Making Within Educational Leadership From 2015 To 2025?

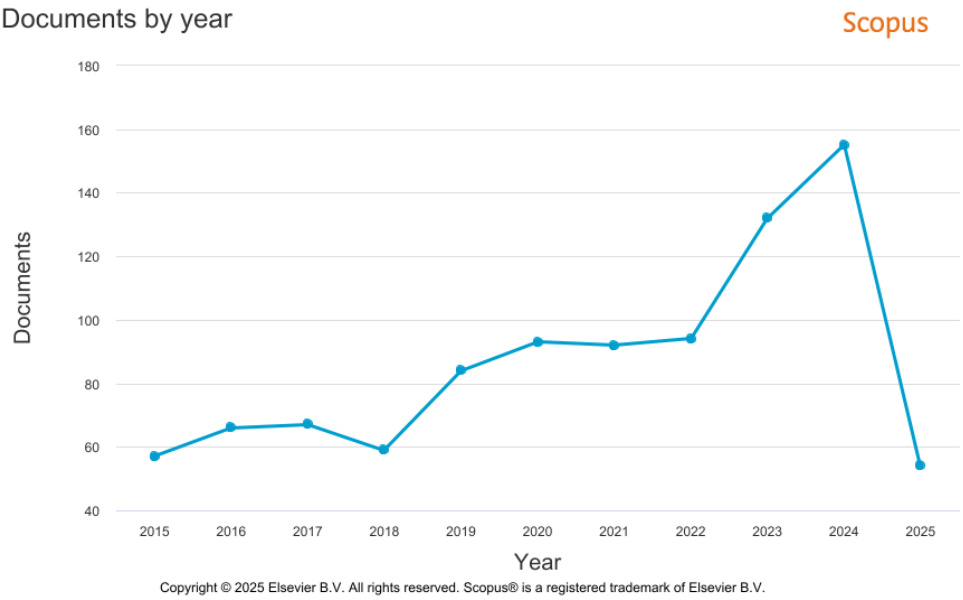

Figure 2: Publication Trends of Decision-Making in Educational Leadership

Table 3: Total Publications and Percentage by Year

Year	Total publication	Percentage (%)
2025	54	5.67
2024	155	16.26
2023	132	13.85
2022	94	9.86
2021	92	9.65
2020	93	9.76
2019	84	8.81
2018	59	6.19
2017	67	7.03
2016	66	6.93
2015	57	5.98

The bibliometric data on publications related to decision-making in educational leadership from 2015 to 2025 reveals a clear upward trajectory in scholarly interest over the decade, peaking in 2024 with 155 publications, representing 16.26% of the total. This spike suggests an intensified focus on leadership decision-making in recent years, potentially influenced by global shifts in educational priorities following the pandemic, as well as increased research funding and academic demand in addressing complex leadership challenges in schools. The consistent rise from 2015 (57 publications) to 2023 (132 publications) underscores the growing recognition of this research area as crucial in improving educational outcomes and governance.

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The period from 2020 to 2023 represents a particularly active phase, with each year contributing more than 9% of the total publications, likely driven by the educational disruptions caused by the COVID-19 pandemic. Scholars during this period may have concentrated on exploring adaptive and strategic decision-making among educational leaders during times of crisis. Notably, the years 2021 (9.65%), 2022 (9.86%), and 2023 (13.85%) depict a sustained interest, suggesting that the global crisis did not merely spark momentary curiosity but rather established long-term scholarly engagement with the topic.

However, a sharp decline in 2025 (5.67%) compared to 2024 (16.26%) is evident. Although 2025 is still ongoing, and more publications may still be indexed, this drop may also indicate a possible thematic saturation or shift in academic interest to other emerging themes within educational leadership. It could also reflect delays in indexing or redirection of research efforts toward practical implementation rather than theoretical exploration. Overall, the data demonstrates the dynamic nature of academic focus in response to contextual changes and highlights the relevance of decision-making research in shaping future educational leadership practices.

Which Scholarly Articles On Decision-Making In Educational Leadership Have Received The Highest Citation Impact?

The citation analysis of the top 10 most-cited authors in the field of decision-making, based on Scopus data, reveals a strong interdisciplinary influence where decision-making intersects with data management, safety science, vocational behavior, and educational leadership. The most cited work is by Shamim, Zeng, Shariq, & Khan (2019), with 272 citations, which focuses on big data management in Chinese firms, highlighting the critical role of technological capabilities in enhancing decision-making processes. This is followed closely by Yazdi, Khan, Abbassi, & Rusli (2020), who developed an improved Decision-Making Trial and Evaluation Laboratory (DEMATEL) methodology for safety management, garnering 270 citations, which reflects the academic demand for refined decision-making models in high-risk environments.

The work of Lent, Ezeofor, Morrison, Penn, & Ireland (2016) and Lent, Ireland, Penn, Morris, & Sappington (2017) stand out for their contribution to career-related decision-making through the application of the social cognitive model. Two of their publications from 2016 and 2017 collectively garnered 460 citations, demonstrating the sustained relevance of psychological theories in understanding individual decision-making behavior. These studies emphasize internal cognitive factors, such as self-efficacy and outcome expectations, thereby bridging the gap between educational psychology and practical career development. Similarly, Zhang, Gao, & Li (2020), with 231 citations, introduce leadership and social network perspectives into group decision-making, highlighting the increasing recognition of sociocultural dynamics in the decision-making literature.

Notably, educational leadership is directly explored through the work of Truong, Hallinger, & Sanga (2017), which examines how Confucian values influence principal decision-making in Vietnam. Their study, with 144 citations, highlights the increasing scholarly interest in cultural influences on school leadership. Complementing this is Shapiro & Stefkovich (2016) widely cited book on ethical leadership in education, reinforcing the significance of theoretical and ethical frameworks in navigating complex educational dilemmas. Together, these works illustrate that while decision-making research is diverse and multidisciplinary, there is a growing integration of leadership, ethics, technology, and cultural context, particularly within

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the domain of educational decision-making. Table 3 below summarizes the most cited author on this topic:

Table 4: Highly Cited Scholarly Articles on Decision-Making in Educational Leadership (2015–2025)

Authors	Title	Year	Source Title	Cited by
Shamim S.; Zeng J.; Shariq S.M.; Khan Z. (Shamim et al., 2019)	Role of big data management in enhancing big data decision-making capability and quality among Chinese firms: A dynamic capabilities view	2019	Information and Management	272
Yazdi M.; Khan F.; Abbassi R.; Rusli R. (Yazdi et al., 2020)	Improved DEMATEL methodology for effective safety management decision-making	2020	Safety Science	270
Lent R.W.; Ireland G.W.; Penn L.T.; Morris T.R.; Sappington R. (Lent et al., 2017)	Sources of self-efficacy and outcome expectations for career exploration and decision-making: A test of the social cognitive model of career self-management	2017	Journal of Vocational Behavior	242
Zhang Z.; Gao Y.; Li Z. (Zhang et al., 2020)	Consensus reaching for social network group decision making by considering leadership and bounded confidence	2020	Knowledge-Based Systems	231
Lent R.W.; Ezeofor I.; Morrison M.A.; Penn L.T.; Ireland G.W. (Lent et al., 2016)	Applying the social cognitive model of career self-management to career exploration and decision-making	2016	Journal of Vocational Behavior	218
Truong T.D.; Hallinger P.; Sanga K. (Truong et al., 2017)	Confucian values and school leadership in Vietnam: Exploring the influence of culture on principal decision making	2017	Educational Management Administration and Leadership	144
Lăzăroiu G.; Androniceanu A.; Grecu I.; Grecu G.; Neguriță O. (Lăzăroiu,	Artificial intelligence-based decision-making algorithms, Internet of Things sensing networks, and sustainable cyber-physical management	2022	Oeconomia Copernicana	131

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 26 (September 2025) PP. 157-173
DOI: 10.35631/IJMOE.726011

Androniceanu, Grecu, Grecu, & Neguriță, 2022)	systems in big data-driven cognitive manufacturing			
Yazdani M.; Gonzalez E.D.R.S.; Chatterjee P. (Yazdani, Gonzalez, & Chatterjee, 2019)	A multi-criteria decision-making framework for agriculture supply chain risk management under a circular economy context	2019	Management Decision	131
Horita F.E.A.; de Albuquerque J.P.; Marchezini V.; Mendiondo E.M. (Horita, de Albuquerque, Marchezini, & Mendiondo, 2017)	Bridging the gap between decision-making and emerging big data sources: An application of a model-based framework to disaster management in Brazil	2017	Decision Support Systems	130
Shapiro J.P.; Stefkovich J.A. (Shapiro & Stefkovich, 2016)	Ethical leadership and decision making in education: Applying theoretical perspectives to complex dilemmas: Fourth edition	2016	Ethical Leadership and Decision Making in Education: Applying Theoretical Perspectives to Complex Dilemmas: Fourth Edition	130

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
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Which Ten Countries Contribute The Most Publications To The Field Of Decision-Making In Educational Leadership?

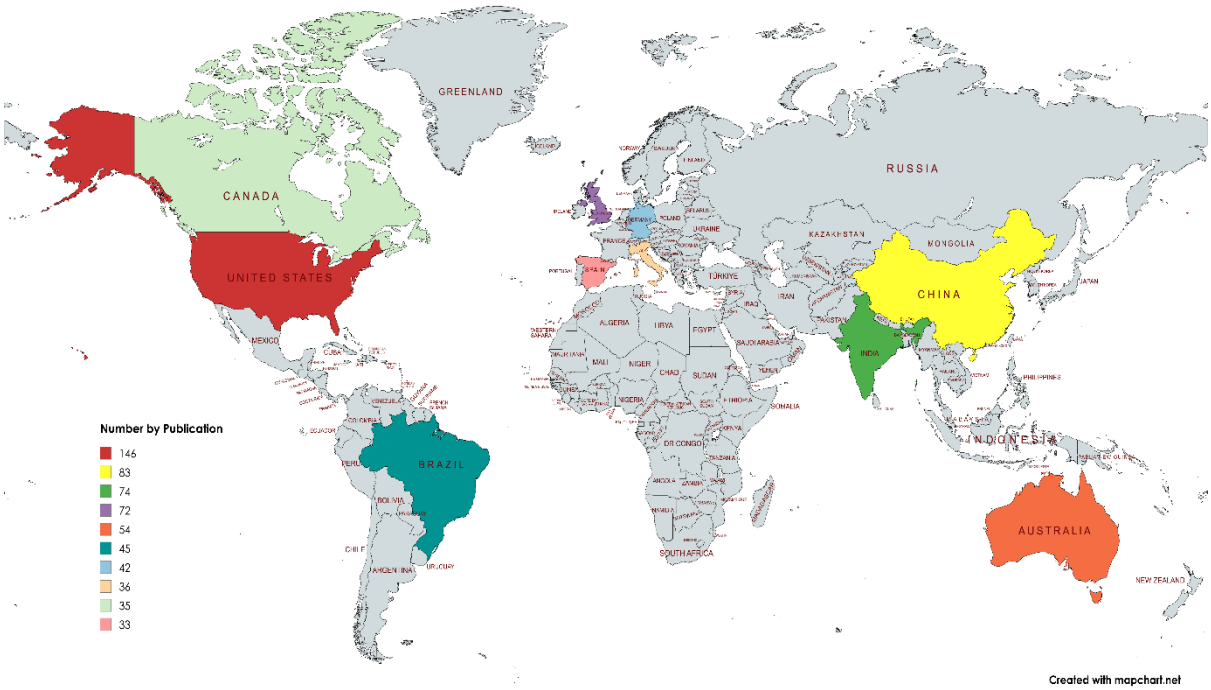

Figure 3: Top 10 Countries by Number of Publications in Decision-Making within Educational Leadership (2015–2025).

Source: https://www.mapchart.net/

The bibliometric data from Scopus highlights the global distribution of research output in decision-making within educational leadership, with the United States (U.S.) leading substantially with 146 publications. This dominance may be attributed to the country's robust higher education system, extensive funding opportunities, and strong academic emphasis on leadership and policy research. The prominence of the U.S. institutions also reflects the country's longstanding role in producing and disseminating educational leadership models, which are often adapted or referenced globally.

Following the U.S., China (83), India (74), and the United Kingdom (U.K.) (72) demonstrate significant contributions, indicating a growing academic engagement in decision-making research within large and diverse educational systems. China's strong performance is likely driven by its strategic educational reforms and emphasis on data-driven governance. Meanwhile, India's and the U.K.'s outputs may reflect increased research capacity and interest in educational management practices amid shifting policy environments. These countries, representing both developed and emerging economies, demonstrate a balanced interest across global contexts, signifying the universal importance of leadership decision-making in navigating complex educational challenges.

Australia, Brazil, Germany, Italy, Canada, and Spain round out the top 10, with each contributing between 33 and 54 publications. These figures suggest that while leadership decision-making is a global research theme, there is considerable variation in output, possibly linked to differences in national research agendas, funding availability, and policy priorities in

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education. The presence of both Western and non-Western countries in this list demonstrates a broad geographical scope. It validates the relevance of decision-making research in diverse educational and cultural contexts. This global engagement is crucial for promoting comparative studies and developing context-sensitive leadership frameworks in education.

What Are The Most Frequently Occurring Keywords Associated With Decision-Making In Educational Leadership Research?

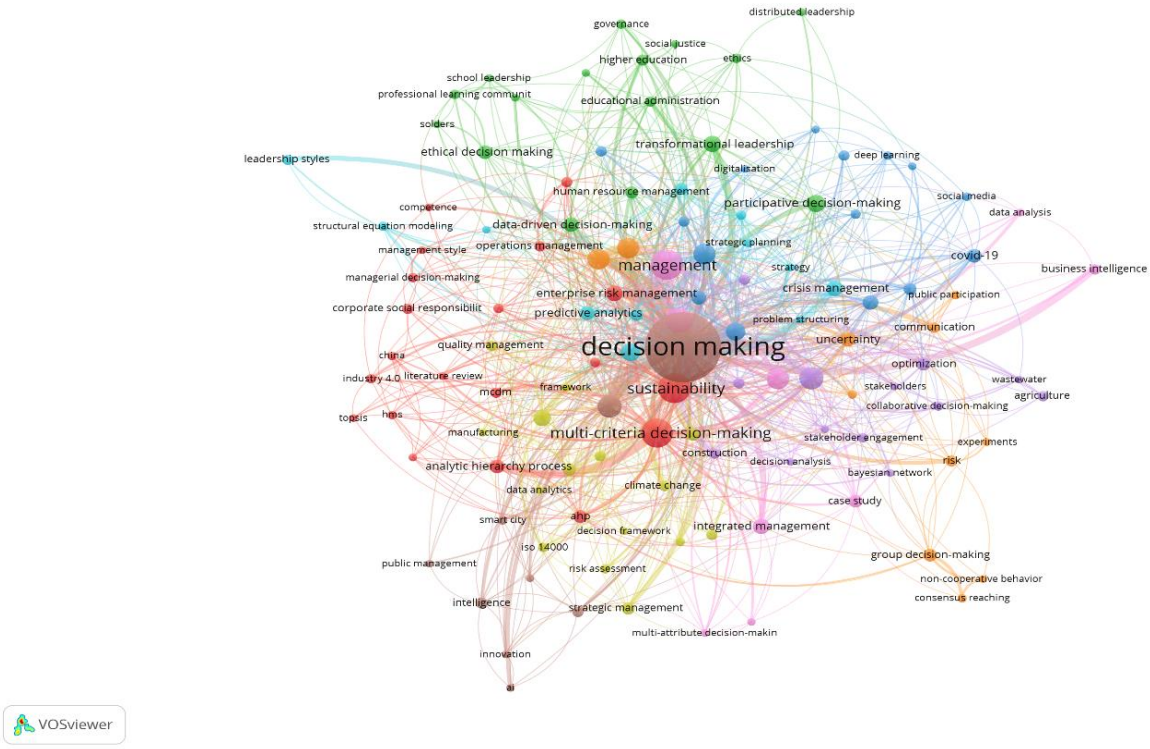

Figure 4: Keyword Co-occurrence Network in Decision-Making and Educational Leadership Research (2015–2025)

Source: VOSviewer 1.6.20

Table 5: Top Keywords in Publications on Decision-Making in Educational Leadership (2015–2025)

Keyword	Occurrences	Total Link Strength
Decision making	280	446
Management	59	117
Multi-criteria decision-making	55	114
Sustainability	58	103
Information system	41	88
Knowledge management	35	73
Artificial intelligence	29	65
Organizational change	30	61
Leadership	29	60
Decision support system	30	53

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The keyword analysis from VOSviewer reveals that "decision-making" is the most dominant term in this research landscape, with 280 occurrences and the highest total link strength of 446, underscoring its central role in the scholarly discussion. Closely associated with these keywords are "management" (59 occurrences, 117 link strength), "multi-criteria decision-making" (55, 114), and "sustainability" (58, 103), indicating a strong interrelationship between decision-making processes, managerial frameworks, and sustainability goals. The prominence of "information system" (41, 88) and "knowledge management" (35, 73) further underscores the critical role of technological integration and information flow in facilitating effective decision-making in educational and organizational contexts.

Leadership-focused keywords are also significant, with “leadership” (29 occurrences, 60 link strength), “transformational leadership” (20, 36), and “strategic decision-making” (23, 34) demonstrating that different leadership styles and strategies are central themes in decision-making studies. “Organizational change” (30, 61) and “participative decision-making” (22, 30) indicate a strong interest in how leadership adapts to change and incorporates stakeholder voices into the decision-making process. These patterns reflect a growing scholarly emphasis on inclusive, adaptive, and strategic leadership approaches that align with evolving organizational environments, especially in educational institutions.

Emerging themes such as “artificial intelligence” (29, 65), “machine learning” (23, 50), “predictive analytics” (14, 31), and “data-driven decision-making” (16, 22) indicate a technological shift in the field, where data science is increasingly shaping decision-making practices. The presence of keywords such as “COVID-19” (14, 25) and “crisis management” (17, 22) reflects the recent global challenges that have accelerated research into responsive and resilient leadership. Overall, the keyword network represents a multidisciplinary and evolving research field that combines classical decision theory, leadership, sustainability, and advanced analytics to address complex issues in organizational and educational leadership.

How Do Patterns Of International Collaboration Manifest In Co-Authorship Networks Across Countries In This Research Domain?

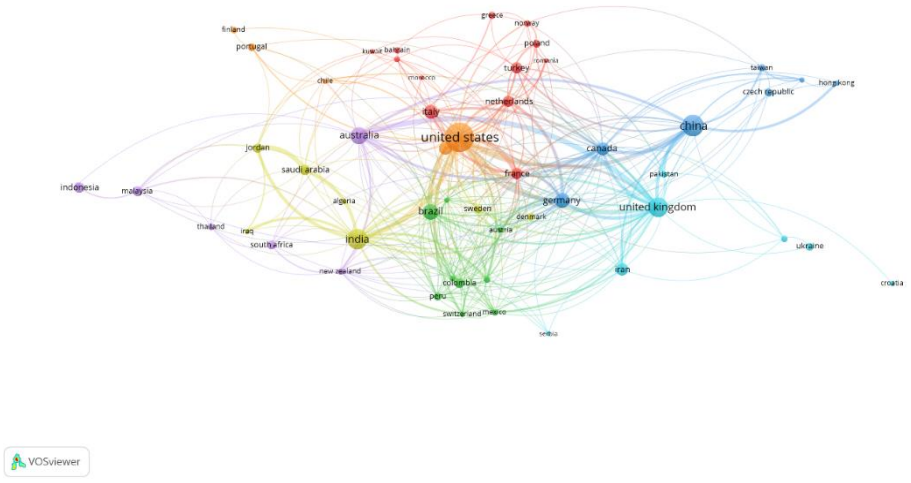

Figure 5: International Co-Authorship Network in Decision-Making in Educational Leadership Research (2015–2025)

Source: VOSviewer 1.6.20

International Journal of Modern Education
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Table 6: Top Countries by Co-Authorship Strength in Decision-Making in Educational Leadership (2015–2025)

Country	Documents	Citations	Total Link Strength
United States	146	2393	92
United Kingdom	71	1164	78
India	74	705	61
China	82	1461	55
Canada	35	735	52
Germany	42	714	51
Australia	54	1214	47
France	26	291	46
Netherlands	24	527	29
Sweden	13	181	29

The co-authorship analysis by country, as illustrated in VOSviewer, highlights the U.S. as the leading contributor, with 146 documents and 2,393 citations and the highest total link strength of 92. This underscores the U.S.'s dominant role in generating scholarly output and in establishing collaborative research networks globally. The U.K. (71 documents, 1,164 citations, 78 link strength) and China (82 documents, 1,461 citations, 55 link strength) follow closely, reflecting their strong academic infrastructures and strategic investments in international research partnerships. These countries act as major hubs in the global research network, facilitating knowledge exchange and co-authorship across disciplines.

Other countries such as Australia (54 documents, 1,214 citations), Canada (35, 735), Germany (42, 714), and India (74, 705) also exhibit significant publication and citation numbers, supported by strong co-authorship link strengths (ranging from 47 to 61). Their positions indicate both robust domestic research capacity and active participation in international scholarly collaboration. Notably, countries such as Iran, Brazil, and Italy also exhibit considerable publication and citation counts despite having lower total link strengths, suggesting that they contribute meaningful research but may be less involved in global co-authorship networks compared to the top-tier collaborators.

At the mid-to-low end of the spectrum, countries such as Algeria, Indonesia, Ukraine, and Iraq exhibit limited engagement, characterized by both lower document counts and weaker link strengths. While some have notable citation counts, their minimal link strength suggests limited collaboration beyond national or regional boundaries. This gap highlights an opportunity to enhance global inclusivity and support for research infrastructure in underrepresented regions. In summary, the data reveal a concentrated core of highly collaborative countries driving global research on decision-making while also highlighting the varying degrees of integration among other nations.

Conclusion

This study aimed to analyze the intellectual landscape of decision-making in educational leadership systematically, uncover prevailing research trends, identify influential publications, and map international collaboration patterns over the period from 2015 to 2025. Utilizing Scopus-indexed data and analytical tools such as OpenRefine, Scopus Analyzer, and VOSviewer, the study addressed several core questions concerning publication output, citation impact, popular keywords, and co-authorship networks.

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Volume 7 Issue 26 (September 2025) PP. 157-173
DOI: 10.35631/IJMOE.726011

The findings indicate a substantial increase in scholarly interest, particularly after 2018, with a peak in 2024. Key themes dominating the discourse include strategic leadership, participative governance, and data-driven decision-making. Countries such as the U.S., China, India, and Australia emerged as major contributors, both in terms of publication volume and collaborative networks. The analysis also revealed strong connections between decision-making and emerging technologies, such as AI and knowledge management, as well as the ethical and psychological dimensions that influence leadership decisions.

This research contributes valuable insights by highlighting how the study of decision-making in educational leadership has evolved into a multidisciplinary and globally engaged field. It underscores the integration of technology, ethics, and organizational theory into leadership practice, offering a richer understanding of how leaders operate within dynamic educational environments. These contributions extend current literature by revealing trends and knowledge gaps that may not be immediately visible through traditional literature reviews.

In practical terms, the results have implications for policymakers, educational institutions, and leadership development programs by emphasizing the need to nurture strategic and collaborative decision-making skills. The study suggests that future leadership models should incorporate technological fluency, ethical reasoning, and adaptive strategies to meet complex educational challenges.

Despite its comprehensive scope, this analysis is limited by its reliance on a single database and predefined search parameters, which may exclude relevant studies outside the scope. Future research could expand the dataset to include other databases, explore longitudinal changes in citation networks, and investigate decision-making patterns at regional or institutional levels.

Ultimately, this bibliometric analysis affirms the value of data-driven methods in synthesizing vast academic landscapes and encourages continued scholarly exploration into leadership decision-making. The study reinforces the critical role of bibliometric research in informing, shaping, and guiding strategic and future-oriented educational leadership practices.

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