

Mapping the knowledge structure of leadership research: Trajectory, turning points, and emerging frontiers

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Abstract

The leadership reflects competencies that drive, stimulate, and uplift individuals or teams in the organization, navigating the core path-goal by embracing sustainable strategies. Effective accomplishment through leadership ensures escalating outcomes with innovation, crafting compatibility and strength in a dynamic business atmosphere. Despite the evolution of leadership literature and its empirical exploration, a rare bibliometric study exists mapping the trajectory, direction, and future study of the theme. Therefore, this study attempts to analyze the structure of leadership research, scanning trajectory, turning points, and emerging frontiers through a bibliometric lens. This research involves a 525-item Scopus dataset representing the time from 2006 to 2025. The analysis comprises yearly publication, citation status, three-field plot, source, prolific contributors, affiliation, sources' impact, manuscript-producing states, cited nations, corresponding authors' countries, highly occurring terms, thematic map, trend topic, co-occurrence, coupling of countries, and co-citation. The findings of the study revealed an escalating trajectory of leadership research and a manifested rise in citation status. Similarly, outcomes extracted from the three-field plot, occurring terms, thematic map, and trend topic exhibit the most popular terms: leadership, transformational leadership, leadership style, and performance. Next, the diverse countries, affiliations, and sources involved in the investigation of the leadership theme during the study period. This exploration contributes to a better understanding of the leadership research landscape and expands the compiled evidence that supports the existing literature. Also, the academic community and research scholars can orient their future research to investigate relevant themes.

Keywords: Biblioshiny, Leadership, Performance, Transformational Leadership, VOSviewer, Scopus

JEL Classification: L20, M12, M54

1. Introduction

Leadership reflects the competency that influences individuals and groups navigating the strategic goals of the organization, which elevates perpetual success (Riaz et al., 2026). Leadership facilitates and exerts collective effort to accomplish the goals of entities (Sousa & Van Dierendonck, 2017). Similarly, it motivates and empowers personnel, embraces appropriate decisions, exhibits the right path, and nurtures collaboration and progress in the organization (Yudiatmaja et al., 2023). Distinct forms of leadership comprising interpersonal and strategic leadership adopt supportive roles to cultivate effective interpersonal behavior for hierarchical relationships and construct the strategic path determining organizational destinations (De Vries et al., 2010; Du et al., 2013). Additionally, effective employee performance relies on leaders that became indispensable within an organization, driving the firm toward sustainability; the best leaders create a positive organizational atmosphere by stimulating employees, crafting dynamic teams with a strategic roadmap, and ensuring overall organizational productivity (Arabiun et al., 2024; Cai et al., 2026; Chughtai & Khan, 2024; Sipe, 2018). Moreover, gaining the maximum employee accomplishment and ensuring the organizational sustainability with competitive advantage require a supportive mechanism for workforces through adequate leadership styles for boosting employees' commitment (Astuty & Udin, 2020). Next, the leadership style exerts its influence on multiple dimensions, consisting of the innovative behavior of employees at work to pursue positive actions and behavior and enhance willingness among employees, in which transformational and transactional leadership styles play a vital role (Günzel-Jensen et al., 2018; McCann & Sparks, 2019; Yudiatmaja et al., 2023; Zheng et al., 2019). Moreover, the present era of organizations emphasizes leadership development, whereas dynamic leaders are essential to create a compatible, resourceful, collaborative, and prosperous position for the firm in a changing workplace facing a tremendous shift in organizational culture (Kaur Bagga et al., 2023).

Transformational leadership is one out of several dimensions of leadership styles which advocates that a transformational leader acts as a driver of change in the organization, develops awareness among the subordinates concentrating on collective advantages, and enhances favor for the team to achieve the core goals of the organization (Busari et al., 2020; Islam et al., 2021). Another form of leadership, 'transactional leadership', is also in practice and reveals the doctrine of swapping incentives for excellent work accomplishment, implements disciplinary control, and inspires to achieve better performance (Abdelwahed et al., 2023; Howladar et al., 2018). The bibliometric exploration manifests a landscape of the leadership theme areas, discovering the existing scenario of the scientific publication and researchers involved in the field; depicts the profile of participation of distinct institutions, citation of academic papers, and a trajectory of knowledge; reveals the theme cluster; and depicts leading key terms (Keivani et al., 2026). Furthermore, the bibliometric analysis reflects the nature and structure of scholarly production, relying on the statistical exploration comprising the authors, publishers, scientific documents, and citation position (Maditati et al., 2018). Moreover, the bibliometric analysis offers meaningful information through

quantitative analysis (Capobianco-Uriarte et al., 2019; Piwowar-Sulej & Iqbal, 2023; Zhang et al., 2017).

The previous investigation on leadership has evolved tremendously, with an expansion in scholarly exploration and the implementation of entities. Numerous earlier studies tend to empirical investigation. However, the bibliometric exploration limits that construct a foundation for knowledge mapping (Azhar & Ayobami, 2026). Next, the earlier bibliometric analysis existed in fragmented ways and concentrated merely on a single form of leadership, particularly with a focus on servant leadership, transformational and charismatic styles separately, which lacked a collective focus on leadership research (Canavesi & Minelli, 2022; Hu et al., 2023). Therefore, this research aims to analyze the trends and directions of leadership research and themes representing the period from 2006 to 2025, with a comprehensive exploration of scholarly publications, including those from the Scopus data source related to the leadership domain. This research identifies trends using a 525-record Scopus dataset. The analysis includes yearly publication, citation status, three-field plot, source, prolific contributors, affiliation, sources' impact, manuscript producing states, cited nations, corresponding countries, highly occurring terms, thematic map, trend topic, co-occurrence, country coupling, and co-citation. Therefore, this study particularly focuses on the following research objectives:

- To study the trajectory, turning points, and emerging frontiers of leadership research.
- To track the landscape of scientific publication and citation in relation to the development of leadership research.
- To assess the scholarly influence and contributions of leading sources, countries, authors, and institutions within the research domain.
- To examine the themes, keywords, trend topics, co-citation, and emerging areas in leadership research and potential directions for future study.

2. Literature Review

The previous investigation extensively explored leadership research across diverse fields. The paradigm shift in the leadership doctrine and implementation comprising transformational, adaptive, and authentic leadership styles contributed to shaping the leadership doctrines that advocate that an effective leadership role supports cultivating an innovative workplace, adopting customized performance, and optimizing overall productivity (Bass & Stogdill, 1990). Numerous research studies on leadership have been conducted; however, there is a lack of bibliometric studies (Bryman, 2007). Similarly, the contemporary organization increasingly emphasizes developing competencies among its leaders to mitigate the volatile and complex environment (Shahzad, 2024). However, earlier research emphasizes the link between leadership, agility, and digital approaches, revealing a comprehensive understanding of the leadership terms through bibliometric scanning (AlNuaimi et al., 2022).

The next study on “Do transformational leaders enhance their followers’ daily work engagement?” showed a favorable link with the engagement of employees, which depicted a vital role of transformational leaders in enhancing the engagement of the workforce, excluding a comprehensive investigation through the bibliometric lens (Tims et al., 2011). Moreover, several research projects investigated the leadership dimension, including virtual team leadership, leadership communication, the role of leadership in corporate social responsibility, and the influence of leadership styles on sustainable performance and workers. Eventually, these popular studies during the study period mostly focused merely on empirical investigation that lacked comprehensive bibliometric discovery (De Vries et al., 2010; McCann & Sparks, 2019; Piwowar-Sulej & Iqbal, 2023; Riaz et al., 2026).

Similarly, the earlier bibliometric research on "paradoxical leadership: a bibliometric analysis and research agenda reflected rising recognition and its importance in the areas of organizational behavior and management (Udin, 2025). Additionally, the findings of leadership competency research concentrated on a few theoretical foundations comprising the resource-based view and dynamic capabilities, alongside emerging themes in leadership competencies advocating leadership competency not considering the fixed construct (Azhar & Ayobami, 2026). Similarly, other bibliometric research discovered higher education leadership development (You et al., (2024), the power of language in leadership (Omair et al., 2025), toxic leadership (Udchachone & Udin, 2025), higher education leadership (Altynbassov et al., 2024), and the leadership development field (Vogel et al., 2021). This earlier research was diverse and focused on distinct areas of leadership studies.

Therefore, this research work attempts to analyze the leadership research covering the study period from 2006 to 2025 through a bibliometric lens to accumulate comprehensive research works, track the escalation of the previous studies, and scan the overall trajectory of the theme areas. Particularly, this study analyses the patterns and direction of leadership research and themes from 2006 to 2025 via a thorough examination of academic publications, including Scopus data sources connected to the leadership area. This study uses a Scopus dataset of 525 articles to identify patterns. The analysis includes annual publication, citation status, three-field plot, source, prolific contributors, affiliation, sources’ impact, manuscript producing states, cited nations, corresponding countries, highly occurring terms, thematic map, trend topic, co-occurrence, country coupling, and co-citation.

3. Methodology

This research primarily aimed to analyze the trajectory, turning points, and emerging frontiers of leadership research. A large number of publications existed during the study period and were integrated into the study to gain valuable perspectives and explore the theme areas of ‘leadership’ to enhance the understanding of the prevailing status of the research in the theme areas. Further, the research accomplished through bibliometric analysis facilitates tracking the escalating

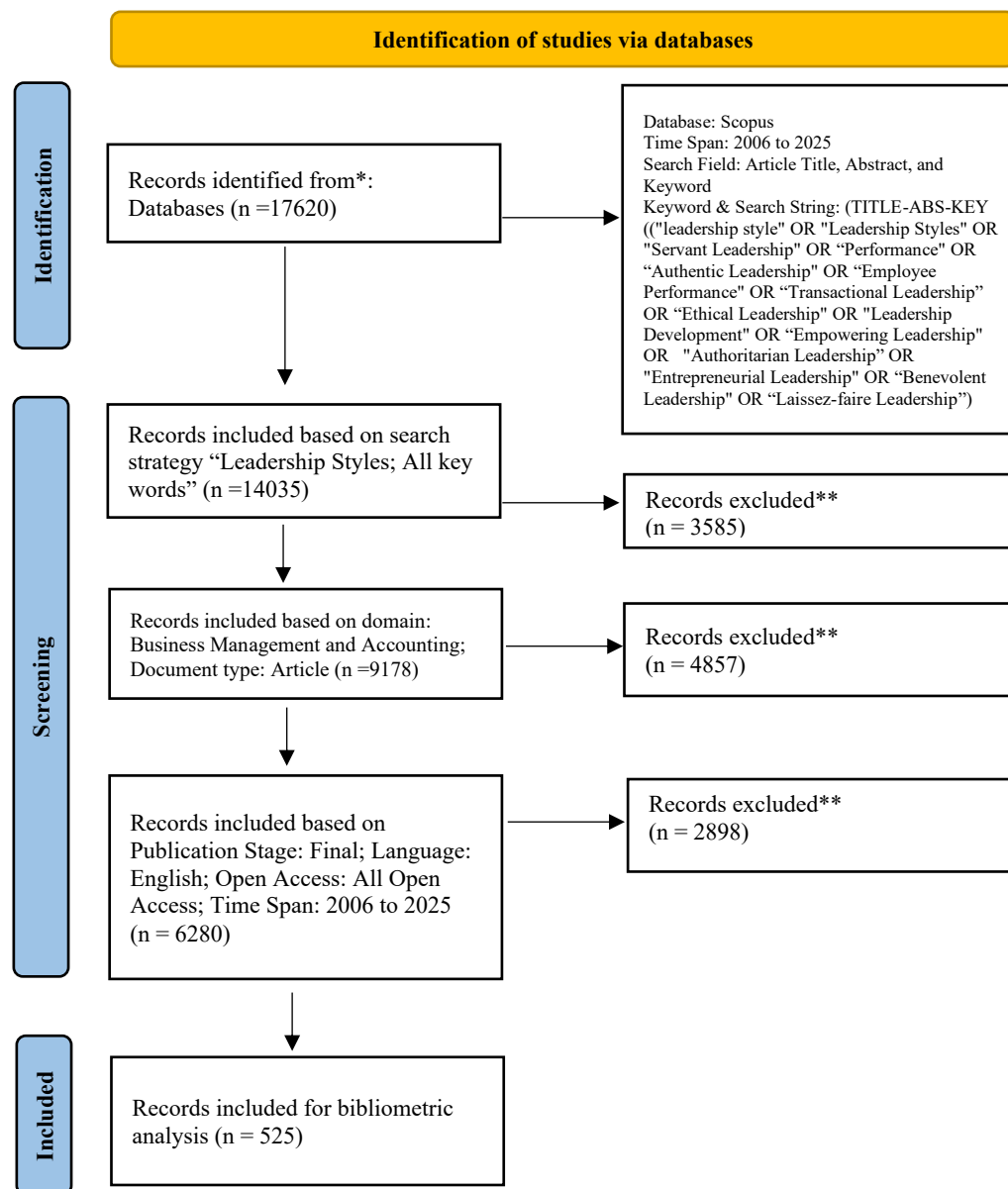
trajectory and reflects turning points and emerging frontiers with evolving research direction, enabling future research directions (Esen et al., 2020).

The Scopus dataset included in the study covers the study period from 2006 to 2025. The study utilized the Scopus dataset, as this source comprises comprehensive research documents, abstracts, and large citation sources representing the broader range of coverage from regional to global scientific documents of high quality (Baas et al., 2020). Similarly, the Scopus data source covers larger and multidisciplinary sources of data, with more representation of social sciences (AlRyalat et al., 2019; Kumpulainen & Seppänen, 2022; Singh et al., 2021). Therefore, this study contains a total of 525 Scopus datasets for the analysis. Further, the accumulated data were analyzed using R-Studio, 'Biblioshiny' software (Aria & Cuccurullo, 2017), and VOSviewer software.

Figure 1 below represents the search strategy. The initial data extracted from Scopus includes 17620, and the next stage comprises a dataset of 14035 based on the inclusion of leading keywords, which excluded 3585 Scopus records by eliminating irrelevant keywords in the study. Similarly, the Business Management and Accounting-based subject area included in the search process consisted of 9178, excluding 4857 records from other subject areas that are beyond the business management and accounting subject areas. Next, data published in English and all open access were included: 6280, excluding 2898 data which were manuscripts published in other languages and not open access. This research mainly integrated open-access data, as it reflects the details of the manuscripts published during the study period, which offers accessibility to the resources while crafting and accomplishing the study. Finally, this research included only 525 datasets, excluding other irrelevant documents.

Analysis of the results comprises scientific production on a yearly basis, average citation profile of the documents, a three-field plot, most relevant sources with Bradford's law, and most relevant authors. Similarly, it consists of 'most globally cited document', 'most locally cited document', 'most relevant affiliations', and 'sources' local impact'. Next, the analysis integrates 'countries' scientific production', 'most cited countries', and 'corresponding authors' countries'. Finally, the analysis covers 'most frequent words', 'trend topics', 'thematic map', 'co-occurrence', 'clustering by coupling', and the co-citation networks of authors. Further, Figure 1 below depicts the data selection criteria for the analysis:

Figure 1. Systematic Literature Review by PRISMA Flow Diagram



Source: Own using (Haddaway et al., 2022)

Figure 1 shows the search strategy. The data selection criteria were accomplished through the PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) guiding procedure (Haddaway et al., 2022). This research explored, filtered, and integrated relevant manuscripts for the bibliometric analysis. Initially, the total data explored in the Scopus dataset was 17,620 research articles. Next, datasets were filtered using the search strategy: TITLE-ABS-KEY ("leadership style" OR "Leadership Styles" OR "Servant Leadership" OR "Performance" OR "Authentic Leadership" OR "Employee Performance" OR "Transactional Leadership" OR

“Ethical Leadership” OR “Leadership Development” OR “Empowering Leadership” OR “Authoritarian Leadership” OR “Entrepreneurial Leadership” OR “Benevolent Leadership” OR “Laissez-faire Leadership”) with leadership term included in the study were 14035 and excluded 3585 data for irrelevant key terms.

Furthermore, Scopus data included based on subject areas domain; business management and accounting, with document types only articles were 9178. This process excluded the data of other subject areas and documents such as books, case studies, and other documents, with 4857 sources. Additionally, records included based on publication stage: final; language: English; Open Access: All Open Access; Time Span: 2006 to 2025 were 6280, which excluded 2898 documents published in other languages, not open access, and the publication beyond 2006 to 2025. Finally, the final dataset included for the analysis was 525, excluding 5755 other irrelevant documents.

4. Results and Discussion

The results section encompasses the descriptive reflection of the scientific publication on the leadership theme covering the period from 2006 to 2025. This section contains nations that have the highest number of citations, countries whose scientists have written the most comparable works, and so on. Finally, the investigation delves into the following themes: “most frequent words”, “trend topics”, “thematic map”, “co-occurrence”, “clustering by coupling”, and “author co-citation networks”. The main information of the study is depicted in Table 1 below:

Table 1. Main Information

Description	Results
Main Information about Data	
Timespan	2006:2025
Sources (Journals, Books, etc.)	245
Documents	525
Annual Growth Rate (%)	25.86
Document Average Age	4.07
Average citations per document	21.84
References	3758
Document Contents	

Keywords Plus (ID)	509
Author's Keywords (DE)	1446
Authors	
Authors	1534
Authors of single-authored document	50
Authors Collaboration	
Single-authored document	51
Co-Authors per document	3.1
International co-authorships (%)	27.62
Document Types	
Article	525

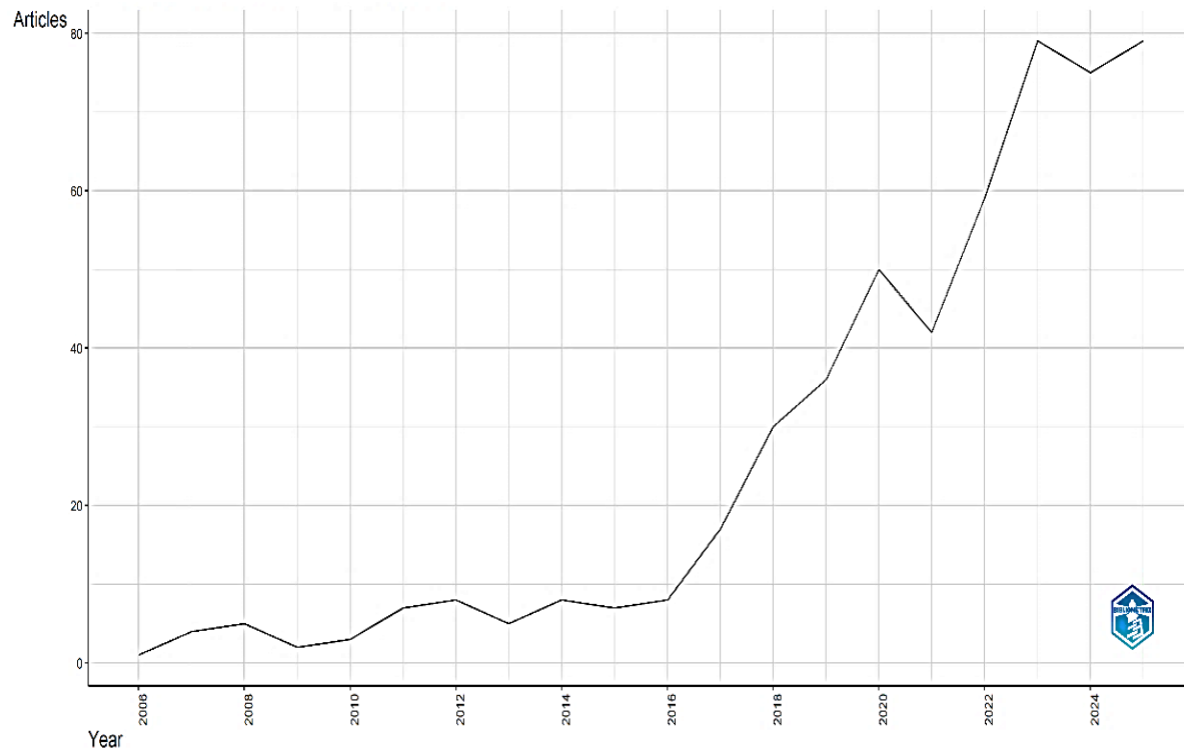
Source: authors' own computation using Scopus data in R-Biblioshiny

Table 1 presents the key data related to leadership styles for the bibliometric analysis. This study covers the period from 2006 to 2025, with a focus on the keyword “leadership style”. Sources of the data were mainly from journals, and the study used 525 final Scopus datasets. The annual growth rate of scientific production was found to be 25.86 percent during the study period, and the average age of the document remained 4.07. The average citations per document were 21.81 citations, and a total of 3758 references were included in the study. Keywords plus contained 509, and the authors' keywords were 1446. Similarly, the total number of authors was 1534, and authors of single-authored documents were 50. Further, single-authored documents for authors' collaboration were 51, co-authors per document were 3.1, and international co-authorships were 27.62 percent. Finally, the type of document included in the study was 525 articles.

4.1 Annual Scientific Production

Annual scientific production exhibits the trend of publication in the field of leadership style during the period from 2006 to 2025. The trend of publication showed an increasing trend with growing interest among scholars in investigations with a leadership theme. Figure 2 below shows the annual scientific production.

Figure 2. Annual Scientific Production



Source: authors' own computation using Scopus data in R-Biblioshiny

Figure 2 shows the annual scientific production covering the study from 2006 to 2025. The trend of scientific investigation in the leadership field has been increasing with the growing interest of research scholars. The initial phase depicted fewer publications, with fluctuations in the publication trends, ranging from a single publication in 2006 to eight research publications in 2016. However, the production of research articles rapidly grew from 2017, with 17 publications in the same year, to 79 publications in 2025. It further shows that the number of research papers published was 30 in 2018, 36 in 2019, 50 in 2020, and 79 in 2025.

Table 2. Average Citation per Year

Year	Mean TC per Article	N	Mean TC per Year	Citable Years
2006	26.00	1	1.30	20
2007	85.25	4	4.49	19
2008	21.60	5	1.20	18
2009	12.00	2	0.71	17

2010	102.67	3	6.42	16
2011	145.71	7	9.71	15
2012	31.00	8	2.21	14
2013	56.00	5	4.31	13
2014	24.62	8	2.05	12
2015	50.57	7	4.60	11
2016	33.00	8	3.30	10
2017	45.18	17	5.02	9
2018	39.97	30	5.00	8
2019	29.92	36	4.27	7
2020	30.34	50	5.06	6
2021	18.95	42	3.79	5
2022	21.59	59	5.40	4
2023	14.52	79	4.84	3
2024	5.32	75	2.66	2
2025	1.53	79	1.53	1

Source: authors' own computation using Scopus data in R-Biblioshiny

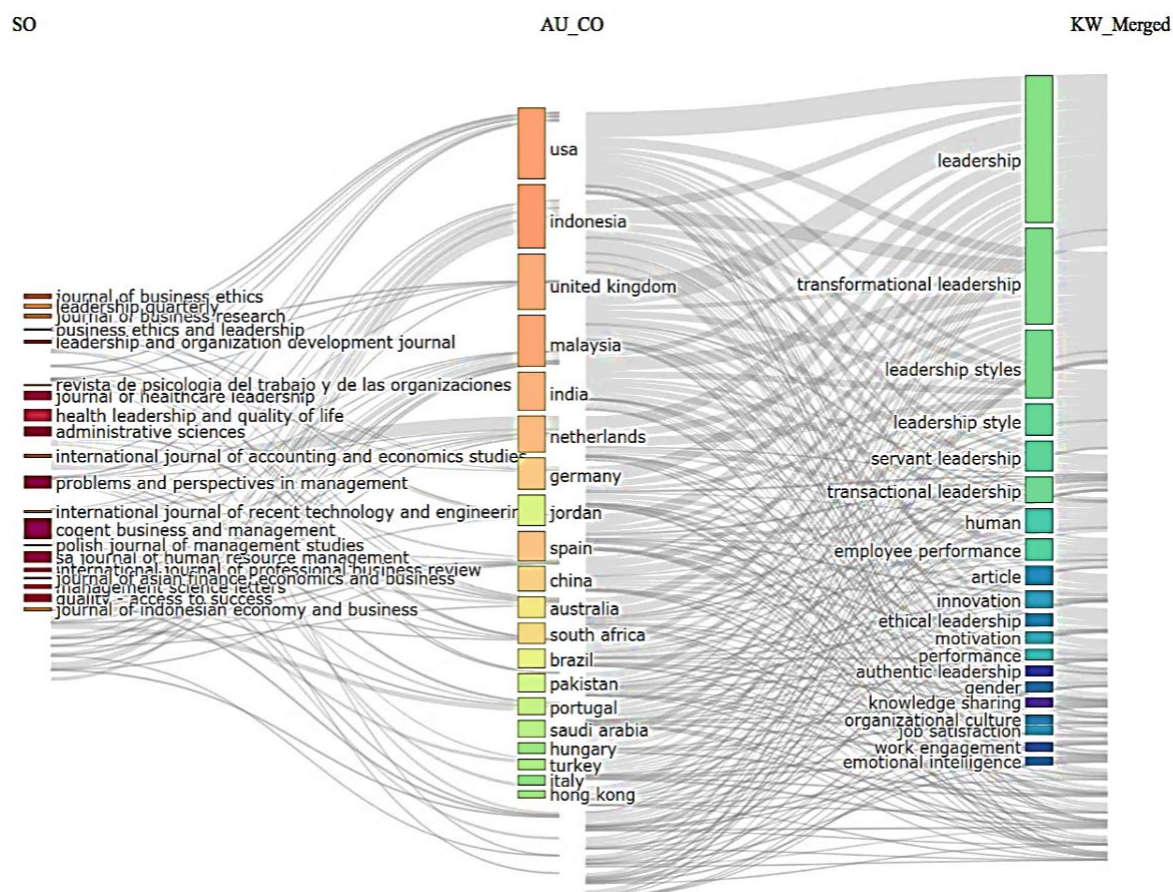
Table 2 represents the average citation per year. The mean total citation per article was twenty-six in 2006, with a mean total of 1.30 citations per year. Further, the mean total citation per year was found to be decreasing from 2007 to 2009, with 85.25, 21.60, and 12.00 citations, and the mean total citation per year for the same period revealed 4.49, 4.49, and 1.20 citations. However, rapid growth in mean total citations per document was found in 2009, reaching the highest mean citations in 2010, with 102.67 and 145.71 citations, respectively. The mean total citations per year during the same period were 6.42 in 2009 and 9.71 in 2010, indicating that 2010 had the highest total citations. In addition, the trend of mean total citations per article from 2012 to 2025 ranges from

21.59 citations to 56 citations, depicting a mean total citation per year of 1.53 and 4.31 in 2012 and 2025.

4.2 Three-Field Plot

A three-field plot demonstrates the sources, authors, and keywords used in the bibliometric analysis in the field of leadership themes. The graphical presentation of the three-field plot comprises the least to the leading sources, authors, and keywords in the field of study, representing the publications from 2006 to 2025. Figure 3 shows the three-field plot.

Figure 3. Three-field Plot



Source: authors' own computation using Scopus data in R-Biblioshiny

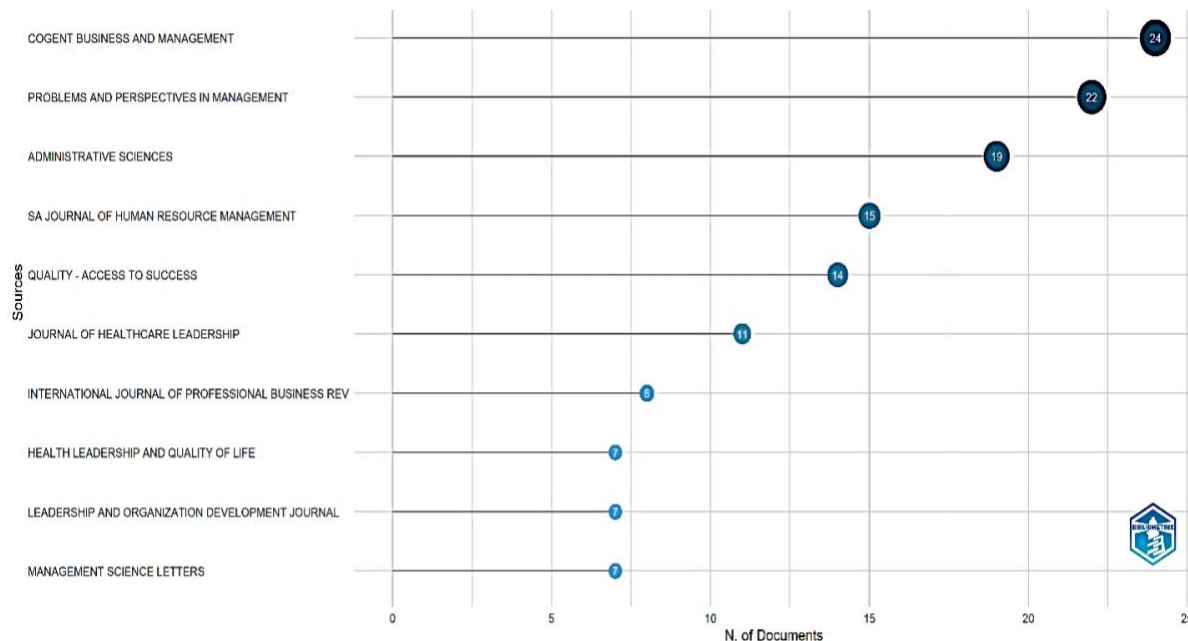
Figure 3 shows the three-field plot representing the three main sectors comprising the sources of the publication, countries, and keywords. The graph of the three-field plot demonstrates leadership as the most-used keyword in the previous research during the study period, followed by transformational leadership. Similarly, leadership styles are placed in the subsequent order, having the status of leading keywords in the top three positions. In addition, the other frequently used

keywords in the field of leadership are ‘servant leadership’, ‘transformational leadership’, ‘human’, ‘employee performance’, ‘innovation’, ‘ethical leadership’, ‘authentic leadership’, ‘gender’, ‘knowledge sharing’, ‘organizational culture’, and so on. Further, major contributing countries consist of the United States of America, Indonesia, and the United Kingdom as the top three countries. Other countries contributing to the field of leadership style themes are Malaysia, India, the Netherlands, and so on. The major sources of the document represent Cogent Business and Management, Problems and Perspectives in Management, and so on.

4.3 Most Relevant Sources

The most relevant sources comprise the major leading contributors in the field of leadership styles and themes, covering scientific studies up to 2025. The top ten relevant sources are reflected in this field. Figure 4 shows the most relevant sources.

Figure 4. Most Relevant Sources



Source: authors’ own computation using Scopus data in R-Biblioshiny

Figure 4 shows the relevant sources. The graph represents the number of documents in a horizontal line and the list of sources in a vertical line. ‘Cogent Business and Management’ contains twenty-four occurrences of their production, followed by ‘Problems and Perspectives in Management’, positioned in the second rank with twenty-two papers. Next, ‘Administrative Sciences’ depicts nineteen publications, and ‘SA Journal of Human Resource Management’ reveals fifteen papers. Moreover, ‘Quality - Access to Success’ published fourteen papers, ‘Journal of Healthcare Leadership’ reported eleven papers, and ‘International Journal of Professional Business Review’ published eight papers. Next, ‘Health Leadership and Quality of Life’, ‘Leadership and

Organization Development Journal’, and ‘Management Science Letters’ show seven scientific papers from each source.

Table 3. Core Sources by Bradford’s Law

Sources	Frequency	Bradford’s law	
		Rank	Zone
Cogent Business and Management	24	1	Zone 1
Problems and Perspectives in Management	22	2	Zone 1
Administrative Sciences	19	3	Zone 1
Sa Journal of Human Resource Management	15	4	Zone 1
Quality - Access to Success	14	5	Zone 1
Journal of Healthcare Leadership	11	6	Zone 1
International Journal of Professional Business Review	8	7	Zone 1
Health Leadership and Quality of Life	7	8	Zone 1
Leadership and Organization Development Journal	7	9	Zone 1
Management Science Letters	7	10	Zone 1

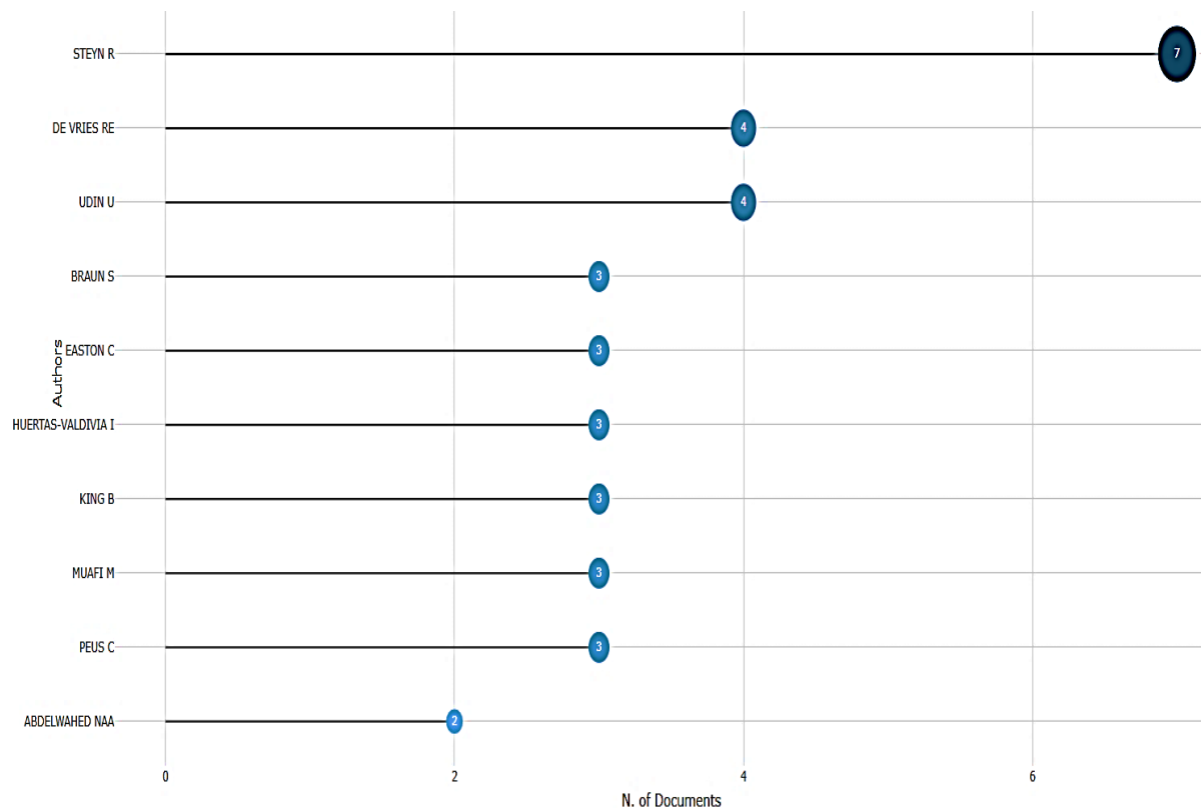
Source: authors’ own computation using Scopus data in R-Biblioshiny

Table 3 depicts core sources by Bradford’s law, and Figure 4 represents the most relevant sources for the leadership style study theme that encompasses ten highly contributing sources. ‘Cogent Business and Management’ contains 24 scientific publications as leading sources, followed by ‘Problems and Perspectives in Management’ with 22 publications during the study period. Further, ‘Administrative Science’ depicts 19 publications, ‘SA Journal of Human Resource Management’ with 15 articles, ‘Quality-Access to Success’ with 14 research papers, ‘Journal of Health Care Leadership’ with 11 publications, and ‘International Journal of Professional Business Rev.’ represents 8 publications. ‘Health Leadership and Quality of Life’, ‘Leadership and Organization Development Journal’, and ‘Management Science Letters’ represent seven publications for each source for the study period.

4.4 Most Relevant Authors

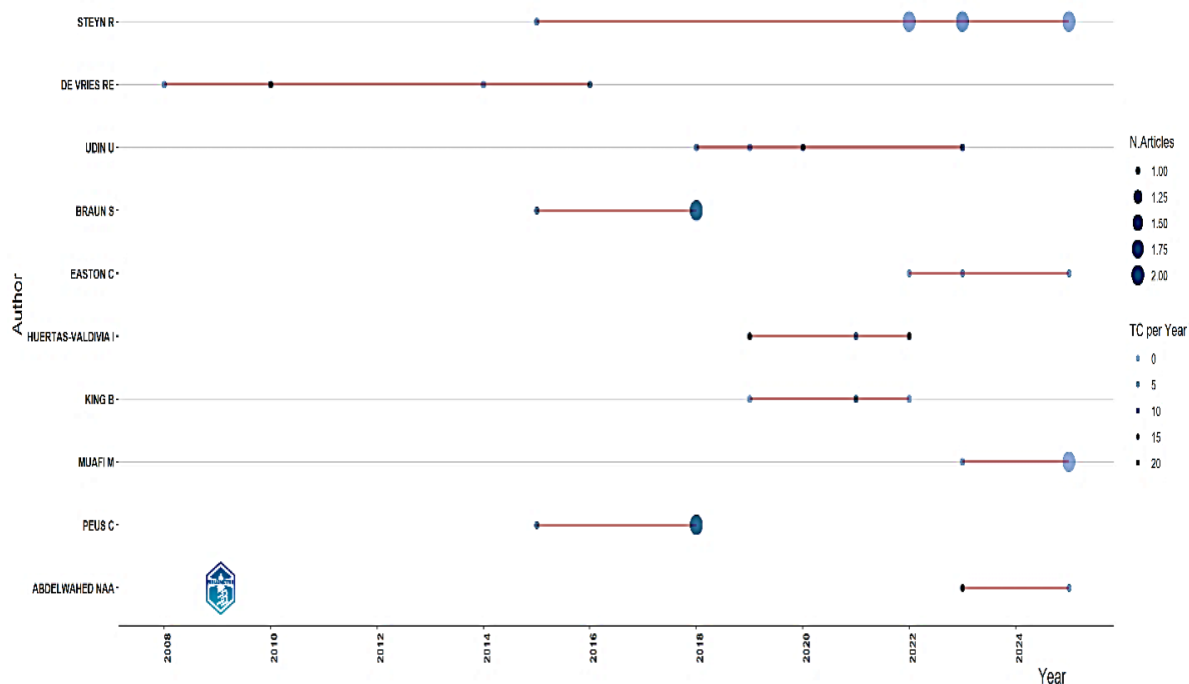
Most relevant authors exhibit the profile of the authors contributing to the leadership research areas during the study period from 2006 to 2025. The graphical presentation of the most relevant authors includes the top ten contributors in the study area. Figure 5 shows the most relevant authors

Figure 5. Most Relevant Authors



Source: authors' own computation using Scopus data in R-Biblioshiny

Figure 6. Authors' Production over Time



Source: authors' own computation using Scopus data in R-Biblioshiny

Figures 5 and 6 represent the most relevant authors and their production over time, respectively. The most relevant author in the field of leadership style is Steyn R, with seven scientific publications during the study period, followed by De Vries Re and Udin U, with four research publications for each author. Similarly, Braun S, Easton C, Huertas-Valdivia I, King B, Muafi M, and Peus C published three scientific papers for each author. Finally, Abdelwahed NAA represents two publications covering the leadership theme during the study period.

Table 4. Most Global Cited Documents

S.N.	Author(s)	Title	TC	Journals
1	AlNuaimi et al. (2022)	Mastering digital transformation: The nexus between leadership, agility, and digital strategy	510	<i>Journal of Business</i>
2	Tims et al. (2011)	Do transformational leaders enhance their followers' daily work engagement?	488	<i>The Leadership Quarterly</i>

3	Hambley et al. (2007)	Virtual team leadership: The effects of leadership style and communication medium on team interaction styles and outcomes	270	<i>Organizational Behavior and Human Decision Processes</i>
4	De Vries et al. (2010)	Leadership Communication? The Relations of Leaders' Communication Styles with Leadership Styles, Knowledge Sharing and Leadership Outcomes	268	<i>Journal of Business and Psychology</i>
5	Vinkenburg et al. (2011)	An exploration of stereotypical beliefs about leadership styles: Is transformational leadership a route to women's promotion?	220	<i>The Leadership Quarterly</i>
6	Du et al. (2013)	The Roles of Leadership Styles in Corporate Social Responsibility	203	<i>Journal of Business Ethics,</i>
7	Sousa and Van Dierendonck (2017)	Servant Leadership and the Effect of the Interaction Between Humility, Action, and Hierarchical Power on Follower Engagement	163	<i>Journal of Business Ethics</i>
8	Piwowar-Sulej and Iqbal (2023)	Leadership styles and sustainable performance: A systematic literature review	157	<i>Journal of Cleaner Production</i>
9	Huertas-Valdivia et al. (2019)	Effects of different leadership styles on hospitality workers	151	<i>Tourism Management</i>
10	Decuypere and Schaufeli (2020)	Leadership and work engagement: Exploring explanatory mechanisms	145	<i>German Journal of Human Resource Management: Zeitschrift Für Personalforschung</i>

Note. TC = Total citations

Table 4 shows the most globally cited documents. This result represents the top ten leading authors, research papers, publishing journals, and their total citation score. AlNuaimi et al. (2022), with a

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research paper on “Mastering digital transformation: The nexus between leadership, agility, and digital strategy” found in the “*Journal of Business*”, depicted the highest citation score of five hundred and ten, holding the top position through the citation score during the study period. Similarly, the next paper by Tims et al. (2011), titled “Do transformational leaders enhance their followers’ daily work engagement?”, revealed in the “*The Leadership Quarterly*” journal, occupied the second position with 488 aggregate citations among ten research publications in the field of leadership. Next, the work by Hambley et al. (2007) through “Virtual team leadership: The effects of leadership style and communication medium on team interaction styles and outcomes”, found in the journal “*Organizational Behavior and Human Decision Processes*”, reflected a 270 accumulated citation score and occupied third position. Moreover, the publication by De Vries et al. (2010) with a scientific paper on “Leadership Communication? The Relations of Leaders’ Communication Styles with Leadership Styles, Knowledge Sharing and Leadership Outcomes”, published in the “*Journal of Business and Psychology*”, demonstrated 268 citation statuses. The work accomplished by Vinkenbunrg et al. (2011) on the academic paper “An exploration of stereotypical beliefs about leadership styles: Is transformational leadership a route to women's promotion?” in the “*The Leadership Quarterly*” journal manifested 220 citation statuses. The research work by Du et al. (2013) on “The Roles of Leadership Styles in Corporate Social Responsibility” in the “*Journal of Business Ethics*” reflects 202 citation reports.

Additionally, Sousa and Van Dierendonck (2017) concurred with the research paper “Servant Leadership and the Effect of the Interaction Between Humility, Action, and Hierarchical Power on Follower Engagement” published in the “*Journal of Business Ethics*” and found 163 citation profiles. The work by Piwowar-Sulej and Iqbal (2023) on “Leadership styles and sustainable performance: A systematic literature review” revealed in the Journal of “*Tourism Management*” found 157 complete citations. Next, the paper by Huertas-Valdivia et al. (2019) with the title “Effects of different leadership styles on hospitality workers” published in “*Tourism Management*” showed a 157 citation score. Another work by Decuypere and Schaufeli (2020) with the paper on “Leadership and work engagement: Exploring explanatory mechanisms” published in “*German Journal of Human Resource Management: Zeitschrift Für Personalforschung*” depicted 145 citations, standing at the tenth position based on the most globally cited papers.

Table 5 manifests the local citation status. The scientific production in the field of leadership, representing the study period 2006 to 2025, includes a local citation score in this result. The research paper by Abdelwahed et al. (2023) in the area of “Predicting employee performance through transactional leadership and entrepreneur’s passion among the employees of Pakistan” published in the “*Asia Pacific Management Review*” Journal held in the first position based on the local citation status with a score. This status is followed by Aboramadan and Dahleez (2020) “Leadership styles and employees' work outcomes in nonprofit organizations: The role of work engagement”, published in “*Journal of Management Development*”, which depicted three local citation positions.

Table 5. Most Local Cited Documents

S.N.	Author(s)	Title	LC	Journals
1	Abdelwahed et al. (2023)	Predicting employee performance through transactional leadership and entrepreneur's passion among the employees of Pakistan	5	<i>Asia Pacific Management Review</i>
2	Aboramadan and Dahleez (2020)	Leadership styles and employees' work outcomes in nonprofit organizations: The role of work engagement	3	<i>Journal of Management Development</i>
3	Alqatawenah (2018)	Transformational leadership style and its relationship with change management. business	3	<i>Theory and Practice</i>
4	De Vries et al. (2010)	Leadership Communication? The Relations of Leaders' Communication Styles with Leadership Styles, Knowledge Sharing and Leadership Outcomes	3	<i>Journal of Business and Psychology</i>
5	Anderson and Sun (2024)	Re-Envisioning a Hierarchy of Leadership Behaviours Using Insights from the Psychological Literature on Personality Traits	2	<i>Journal of Management Studies</i>
6	Kaur Bagga et al. (2023)	The mediating role of organizational culture: Transformational leadership and change management in virtual teams	2	<i>Asia Pacific Management Review</i>
7	Almahasneh et al. (2023)	The impact of organizational culture and leadership styles on the performance of public organizations	2	<i>Corporate Governance and Organizational Behavior Review</i>
8	Arıcı et al. (2021)	Leadership research in the root of hospitality scholarship: 1960–2020	2	<i>International Journal of</i>



			<i>Hospitality Management</i>	
9	Al Amiri et al. (2020)	Leadership Styles and Organizational Knowledge Management Activities: A Systematic Review	2	<i>Gadjah Mada International Journal of Business</i>
10	Astuty and Udin (2020)	The effect of perceived organizational support and transformational leadership on affective commitment and employee performance	2	<i>The Journal of Asian Finance, Economics and Business</i>

Note. LC = Local citation

Additionally, the work by Alqatawenah (2018) on “Transformational leadership style and its relationship with change management. Business” in the “*Theory and Practice Journal*” and the research by De Vries et al. (2010) on “Leadership Communication? The Relations of Leaders' Communication Styles with Leadership Styles, Knowledge Sharing and Leadership Outcomes” published in “*Journal of Business and Psychology*” found three local citation scores for each publication. Similarly, the publication by Anderson and Sun (2024) on “Re-Envisioning a Hierarchy of Leadership Behaviors Using Insights from the Psychological Literature on Personality Traits” published in “*Journal of Management Studies*” found two local citations. Next, the research by Kaur Bagga et al. (2023) related to “The mediating role of organizational culture: Transformational leadership and change management in virtual teams” in “*Asia Pacific Management Review*” found two local citations. Next, the scientific work by Almahasneh et al. (2023) in the field of “The impact of organizational culture and leadership styles on the performance of public organizations” in the Journal “*Asia Pacific Management Review*” depicted two local citations. The work by Arici et al. (2021) related to “Leadership research in the root of hospitality scholarship: 1960–2020” in “*International Journal of Hospitality Management*” found two local citations. Another work by Al Amiri et al. (2020) on “Leadership Styles and Organizational Knowledge Management Activities: A Systematic Review” in “*Gadjah Mada International Journal of Business*” revealed two citations. Moreover, the publication by Astuty and Udin (2020) with “The effect of perceived organizational support and transformational leadership on affective commitment and employee performance” published in “*The Journal of Asian Finance, Economics and Business*” demonstrated two local citation positions for each document during the study period.

4.5 Most Relevant Affiliations

The most relevant affiliations encompass the linkage of the affiliations representing the scientific publications made during the study phases from 2006 to 2025. This outcome demonstrates the production of research papers in the field of study theme “leadership”. It is placed in the hierarchical order, with the highest production at the lower end. The graphical outcome below represents the profile of the relevant affiliations:

Figure 7. Most Relevant Affiliations

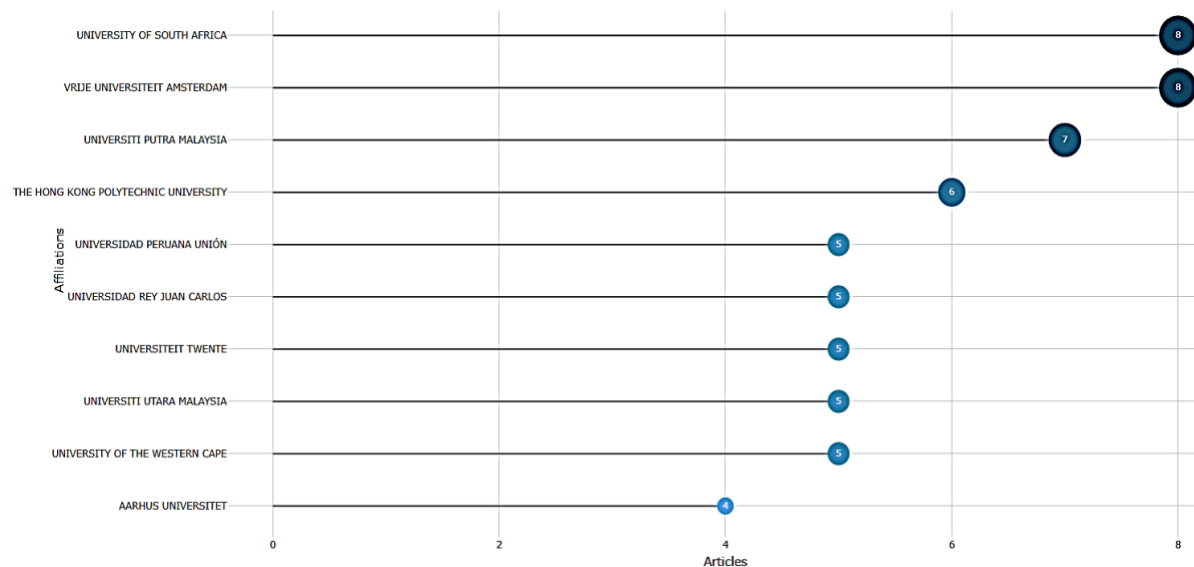


Figure 8. Affiliations' Production over the Time

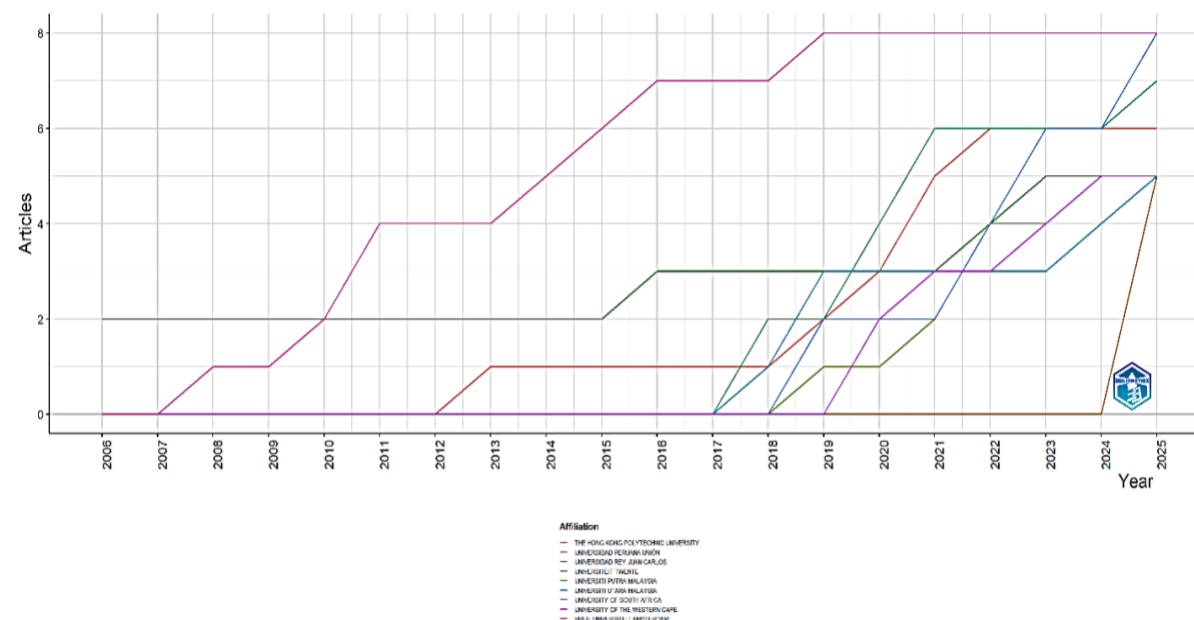


Figure 7 and Figure 8 exhibit the relevant affiliations and their production over time. The graphical outcome in Figure 7 represents the number of manuscripts in the horizontal form, and the list of affiliations in the vertical lines manifests their number of productions with the dark circle and number. Similarly, Figure 8 comprises the year of publication in the horizontal line and the list of articles in the vertical lines. The output of the computation showed that affiliation with “University of South Africa” stood in the first position based on the production of eight manuscripts, followed by “Vrije Universiteit Amsterdam” with eight papers. Similarly, the affiliation linked to “Universiti Putra Malaysia” contains seven articles, and “The Hong Kong Polytechnic University” manifests six papers. Additionally, the remaining six affiliations showed five articles for each affiliation, including the sources “Universidad Peruana Unión”, “Universidad Rey Juan Carlos”, “Universiteit Twente”, “Universiti Utara Malaysia”, and “University of the Western Cape”. Finally, the affiliation “Aarhus Universitet” contains four manuscripts published during the study phases.

4.6 Sources’ Local Impact

The sources’ local impact involves the high impact factor for the published scientific works in the field of leadership. The result contains ten sources revealing the higher impact of scientific production. The figure below exhibits the local impact of the sources.

Figure 9. Sources’ Local Impact

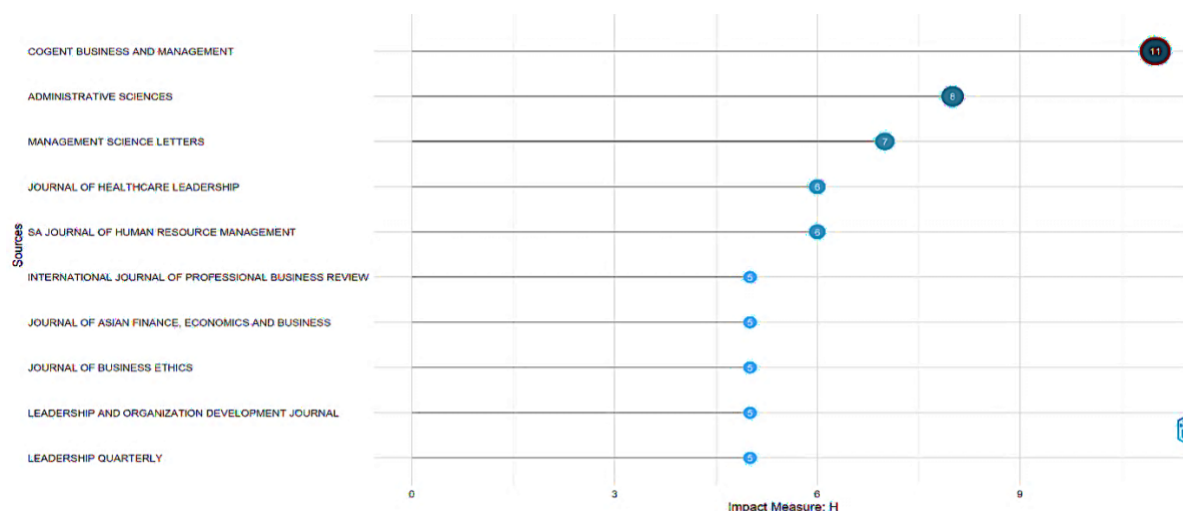


Figure 9 shows the sources’ local impact. The result integrates the impact measure with the H-index in the parallel line, and the list of sources is placed in the vertical line, indicating the total number of impact scores with the H-index. The sources’ local impact is assessed by the H-index number (Sahabuddin et al., 2023). The source “Cogent Business and Management” depicts the highest impact factor with eleven H-indices, followed by “Administrative Science” with eight H-indices. Similarly, the source “Management Science Letter” reveals that “SA Journal of Human Resource Management” exhibits six H-indices. Additionally, the remaining sources, including

“International Journal of Professional Business Review”, “Journal of Asian Finance, Economics and Business”, “Journal of Business Ethics”, “Leadership and Organization Development Journal”, and “Leadership Quarterly”, contain five H-indices for each source during the study period.

Table 6. Countries’ Scientific Production

S.N.	Country	Frequency	S.N.	Country	Frequency
1	Indonesia	98	13	Jordan	31
2	USA	87	14	Pakistan	26
3	Malaysia	79	15	Portugal	26
4	UK	78	16	Saudi Arabia	23
5	India	62	17	Turkey	18
6	Netherlands	55	18	Hungary	16
7	Spain	47	19	Italy	14
8	Germany	44	20	United Arab Emirates	13
9	China	43	21	Bangladesh	12
10	South Africa	36	22	Peru	12
11	Australia	31	23	Canada	11
12	Brazil	31	24	France	11

Table 6 shows the countries’ scientific production. This result involves the twenty-four top contributing countries for the production of scientific papers in the field of “leadership” during the study phases. Indonesia stands in the first position with ninety-eight publications, followed by the United States of America with 87 research works. Similarly, Malaysia holds 79, United Kingdom 78, India 62, Netherlands 55, Spain 47, Germany 44, China 43, South Africa 36, Australia and Brazil 31 productions. Similarly, the remaining countries comprising Jordan reveal 31, Pakistan 26, Portugal 26, Saudi Arabia 23, Turkey 18, Hungary 16, Italy 14, United Arab Emirates 12, Peru 12, Canada 11, and France 11 manuscripts published in the study period.

4.7 Most Cited Countries

The most cited countries encompass mainly ten countries based on the citation score and are placed in order from the highest citation score to the lowest one. The following graphical outcome shows the most cited countries:

Figure 10. Most Cited Countries

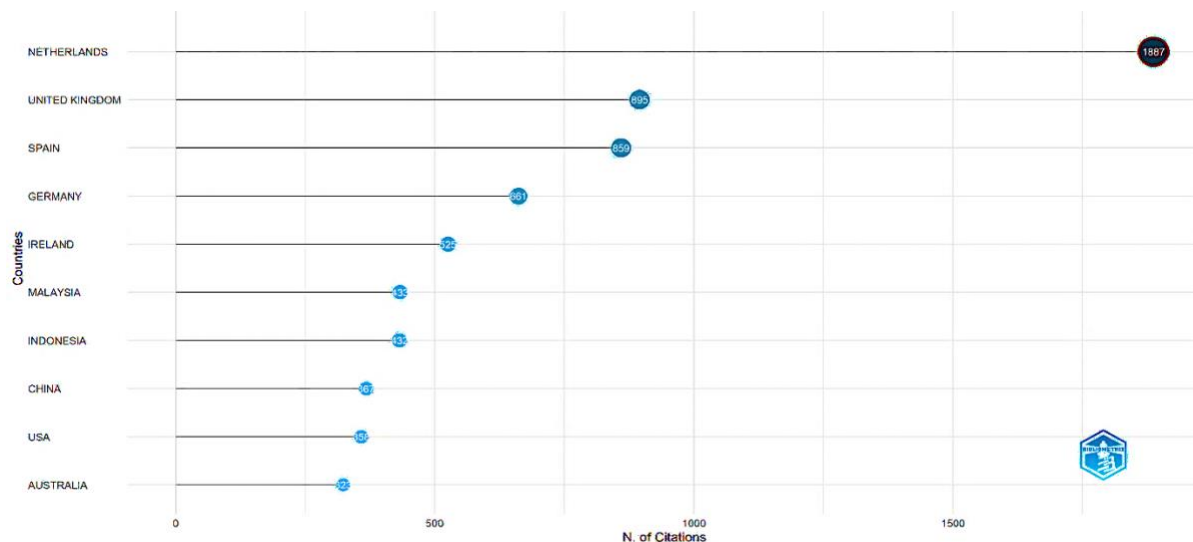


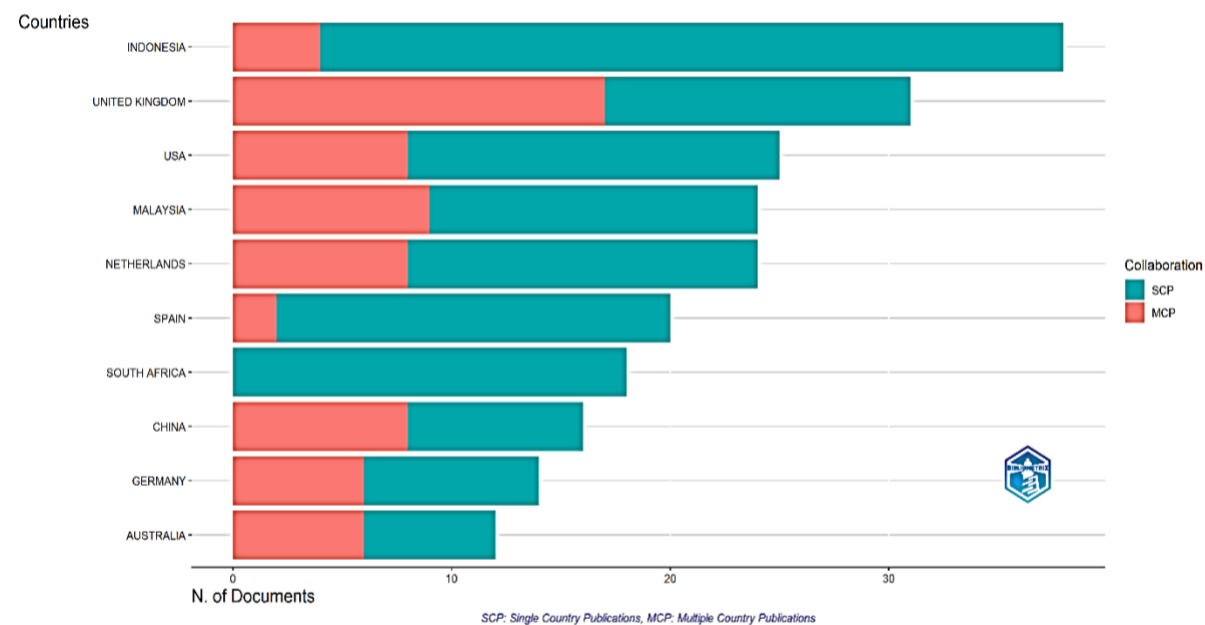
Figure 10 reveals the most cited countries. The horizontal line represents the number of citations, and the vertical line shows the list of countries. Netherlands reveals the highest citation score with 1887, remaining in the first position in the list of most cited countries, followed by United Kingdom with 895 total citations. Similarly, Spain shows 859 aggregated citation status, Germany depicts 661 accumulated citation score, Ireland has 525, Malaysia 433, Indonesia 432, China 367, the United States of America 358, and Australia 323 citation status found during the study period.

4.8 Corresponding Author's Countries

Figure 11 shows the corresponding authors' countries. The graphical outcome represents the number of manuscript documents in the horizontal form and a list of countries on the vertical line. The single-country publication (SCP) and multiple-country publication (MCP) consist of the two distinct colors red and blue. The highest document belongs to Indonesia based on the corresponding author's nation, with thirty-eight documents, which represent 7.20 percent of the total publications, holding thirty-four single-country publications and four documents with multiple-country publication status. Secondly, the United Kingdom reflects thirty-one aggregate documents with 5.90 percent of production, SCP 14, and MCP 17 status. Similarly, the United States of America holds 25 manuscripts, 4.70 percent with SCP 17 and MCP 8. Next, Malaysia depicts 24 papers, 4.5 percent with SCP 15, and MCP 9. Next, the Netherlands reveals 24 papers, 4.50 percent of total production, with SCP 16 and MCP 8. Spain represents 20 documents, 3.80

percent of publications, with SCP 3.8 and MCP 2. South Africa consists of 18 documents, 3.40 percent, with SCP 18 and no MCP. China comprises 16 papers 3.00 percent with SCP and MCP eight for each.

Figure 11. Corresponding Author's Countries

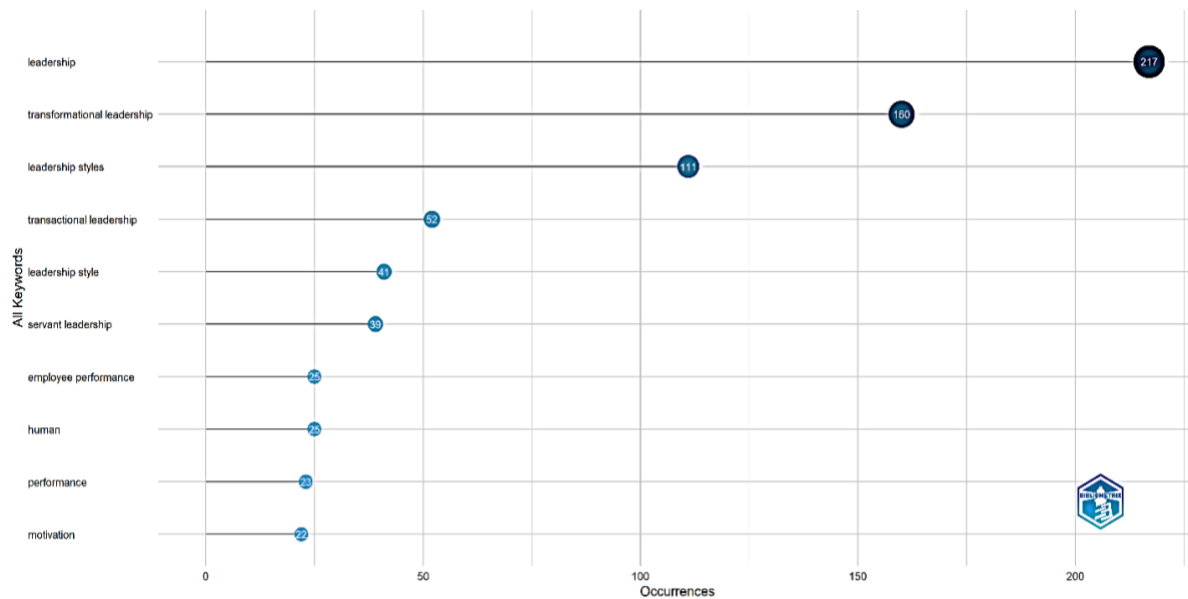


Germany reveals 14 papers 2.70 percent with SCP eight and MCP six. Finally, Australia represents 12 documents, 2.30 percent, with six SCP and MCP during the study period.

4.9 Most Frequent Words

The most frequent words integrate the most occurrences of the key terms of the study theme areas. Figure 12 depicts the most frequent words. The horizontal line exhibits the number of occurrences of the key terms, and the vertical line depicts the main key terms. The term 'leadership' in this study demonstrates the highest occurrence frequency during the study period, with 217 occurrences, followed by 'transformational' leadership with 160 occurrences. Similarly, the term 'leadership styles' stands in the third position based on the number of its occurrences with 111, 'transactional leadership' with 52, and the term 'leadership style' reveals 41 frequencies of occurrences. Next, the term 'servant leadership' reveals 39, 'employee performance' 25, 'human' 25, 'performance' 23, and 'motivation' 23 occurrences.

Figure 12. Most Frequent Words



4.10 Trend Topics

The trend topics reveal the scenario of emerging theme areas during the study period. This outcome shows the direction of trend topics, which are mostly occupied in the research areas. The graphical outcome below presents the trend topics:

Figure 13. Trend Topics

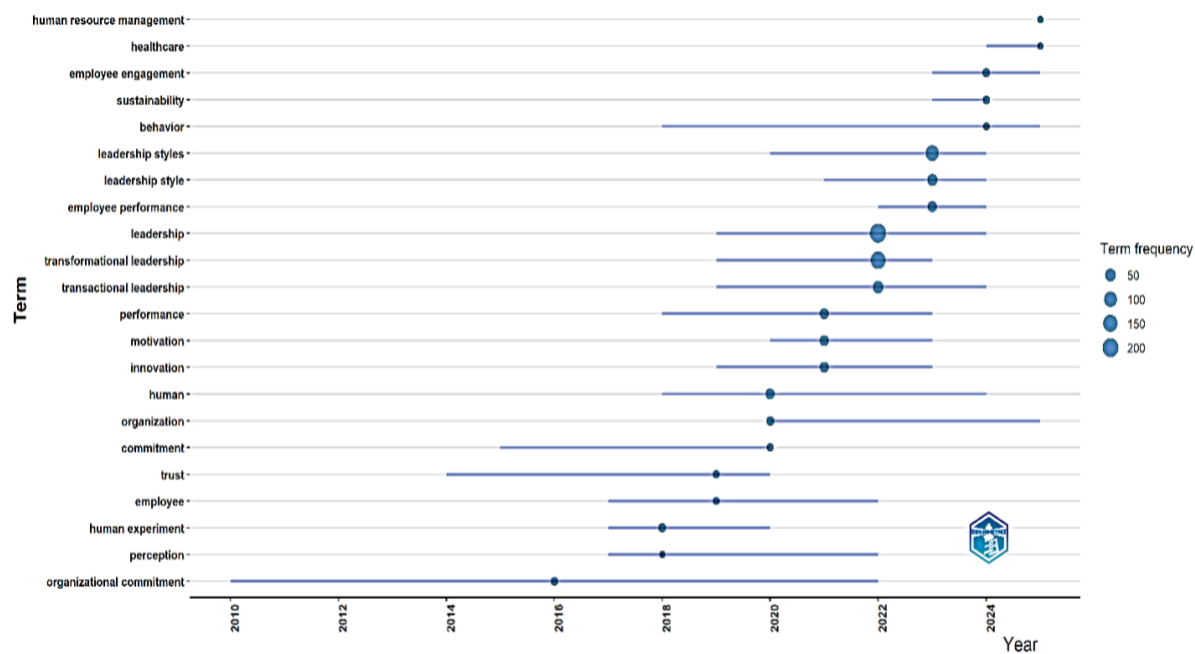


Figure 13 exhibits the trend topics. The figure involves years of publication and the list of trend topics, ranging from term frequencies up to 50, 100, 150, and 200, differentiating the volume of frequencies indicated with colored circle areas. This graph shows that the initial phase popularly adopted terms such as ‘organizational commitment’, ‘human experiment’, ‘perception’, ‘trust’, ‘employee’, ‘human’, ‘organization’, ‘commitment’, ‘performance’, ‘motivation’, and ‘innovation’ during the 2010 to 2023 periods. Particularly, the term ‘organizational commitment’ occurred eight times during 2010 to 2022, and ‘human experiment’ was found nine times from 2017 to 2020. Similarly, the term ‘perception’ was revealed five times from 2017 to 2022, and ‘trust’ exhibited seven occurrences from 2014 to 2020. Next, the term ‘employee’ showed six occurrences from 2017 to 2022, and ‘human’ work was found 25 times from 2018 to 2024. Additionally, the ‘organization’ term was found 11 times from 2020 to 2025, ‘commitment’ with seven from 2015 to 2020, ‘performance’ 23 occurrences from 2018 to 2023, and ‘motivation’ 22 occurrences from 2020 to 2023. Interestingly, the term ‘leadership’ found as highly occurring words as highly trending topic during 2019 to 2024 with 217 highest occurrences followed by ‘transformational leadership’ with 160 frequencies which occurred during 2019 to 2023. Furthermore, the term ‘transactional leadership’ was revealed 52 times during 2019 to 2024, ‘leadership styles’ 111, holding the third position in its occurrences representing the period from 2020 to 2024, and ‘leadership style’ exists with 41 occurrences during the 2021 to 2024 period of time. Moreover, the term ‘employee performance’ shows 25 frequencies from 2022 to 2024, ‘employee engagement’ 10 during 2023 to 2025, and ‘sustainability’ eight during 2023 to 2024. Finally, the term ‘behavior’ was found six times during 2018 to 2025, ‘healthcare’ five times during 2024 to 2025, and ‘human resource management’ occurred five times in the year 2025.

Figure 14 exhibits a thematic map. The thematic map includes relevance degree or centrality in the horizontal line and development degree in the vertical line. Moreover, this outcome involves four thematic clusters: motor theme, basic theme, emerging or declining themes, and niche theme. The motor theme cluster combines a higher relevance degree and higher development degree. Similarly, the basic themes cluster involves a high degree of relevance and low degree of density. Next, emerging or declining themes combine the lower degree of centrality and lower degree of density. Finally, niche themes integrate a higher degree of development and lower relevance. Next, the key terms ‘transformational leadership’, ‘leadership styles’, and ‘transactional leadership’ are clustered into basic themes, which reveals that the key themes show a high degree of relevance of the terms and less development of theme areas. Similarly, the emerging or declining themes cluster contains the terms ‘leadership’, ‘leadership style’, and ‘performance’, which indicates less centrality and less degree of development as an emerging theme. Moreover, niche themes involve ‘laissez-faire’, ‘democratic’, and ‘SMEs’ keywords, which reveal a high degree of density and less degree of relevance. Finally, the motor theme includes ‘human’ and ‘motivation’ keywords, which show high relevance and high development.

Figure 14. Thematic Map

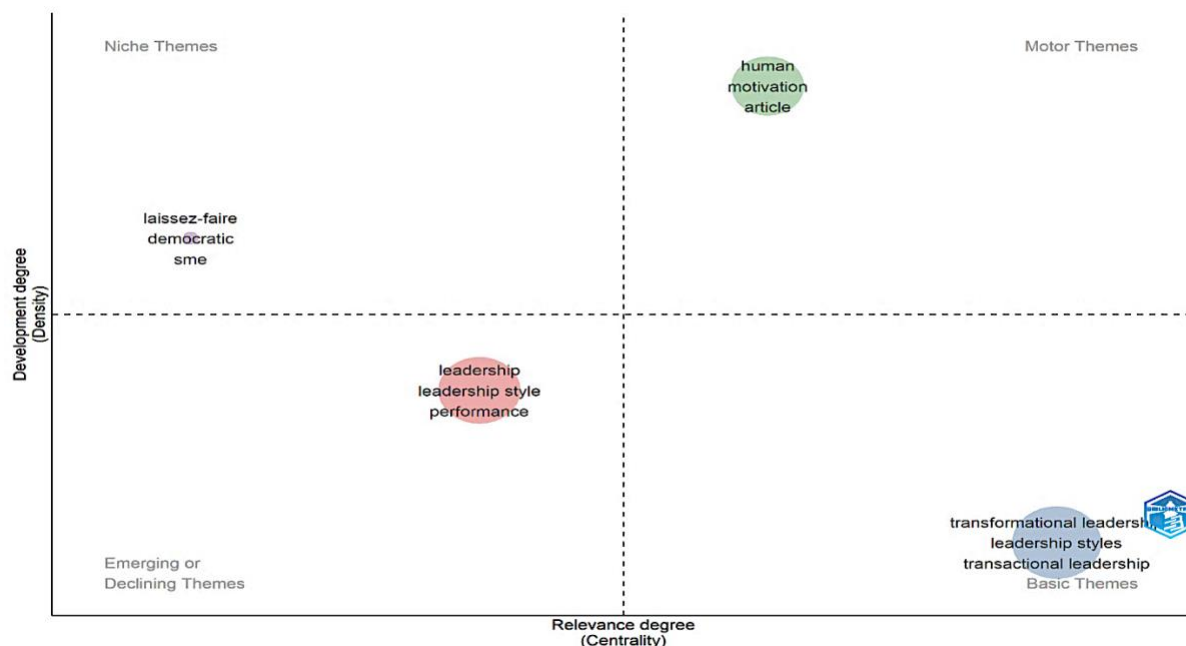


Figure 15 manifests the co-occurrence of the terms of the theme areas. This result involves fifty-five items and seven clusters, which are depicted with different colors in the graph. These selection processes lead to the data selection process for this result: ‘co-occurrence of authors’ keywords’: ‘minimum number of occurrences of a keyword’ integrates three in total, based on the 1452 keywords, only 128 meet the threshold criteria, and finally, inclusion of the keywords for the co-

occurrence analysis involves fifty-five key terms. The first cluster of this output involves the key terms: 'authoritarian leadership', 'directive leadership', 'empowering leadership', 'engagement', 'generations', 'higher education', 'millennial leaders', 'patriarchal leadership', 'psychological empowerment', 'servant leadership', and 'work engagement'. Similarly, the second cluster of this graph comprises the key terms: 'communication', 'culture', 'effectiveness', 'employees', 'leadership', 'management', 'motivation', 'organizational performance', 'organizations', and 'transformational'. Moreover, the third cluster of this outcome integrates the terms 'authentic leadership', 'crisis management', 'digital transformation', 'ethical leadership', 'knowledge sharing', 'leadership styles', 'organizational commitment', and 'perceived organizational trust'. Additionally, the fourth cluster in this result involves the terms 'affective commitment', 'change management', 'COVID-19', 'emotional intelligence', 'laissez-faire leadership', 'PLS-SEM', 'public sector', 'transactional leadership', and 'transformational leadership'.

Figure 15. Co-occurrence



Figure 16 exhibits the clustering by coupling of countries. This result reveals the highly contributing countries in the field of the leadership theme. The data selection criteria for this result include ‘maximum number of countries per document’, which involves twenty-five; ‘minimum number of documents of a country’ integrates two; and ‘minimum number of citations of a country’ involves one. Similarly, among the ninety nations, only sixty-seven states met the threshold criteria. Finally, the total number of countries included for the study for this clustering by coupling of countries includes fifty countries. Next, the different clusters are depicted with distinct color combinations. Moreover, the first cluster involves the countries ‘Australia’, ‘Austria’, ‘China’, ‘Denmark’, ‘Finland’, ‘Germany’, ‘Hong Kong’, ‘Israel’, ‘Italy’, ‘Kuwait’, ‘Netherlands’, ‘Romania’, ‘Spain’, ‘Taiwan’, ‘Turkey’, ‘United Kingdom’, and ‘United States’. The next cluster involves ‘Bangladesh’, ‘Chile’, ‘Colombia’, ‘Hungary’, ‘India’, ‘Indonesia’, ‘New Zealand’,

‘Norway’, ‘Pakistan’, ‘Serbia’, ‘Slovenia’, ‘Sweden’, ‘Thailand’, and ‘Viet Nam’. Moreover, another cluster in this graph integrates ‘Brazil’, ‘Canada’, ‘Czech Republic’, ‘Ecuador’, ‘France’, ‘Greece’, ‘Iraq’, ‘Lithuania’, ‘Malaysia’, ‘Peru’, ‘Poland’, ‘South Africa’, and ‘United Arab Emirates’. Finally, the remaining cluster of this outcome involves ‘Belgium’, ‘Jordan’, ‘Oman’, ‘Portugal’, ‘Qatar’, and ‘Saudi Arabia’.

Figure 16. Clustering by Coupling

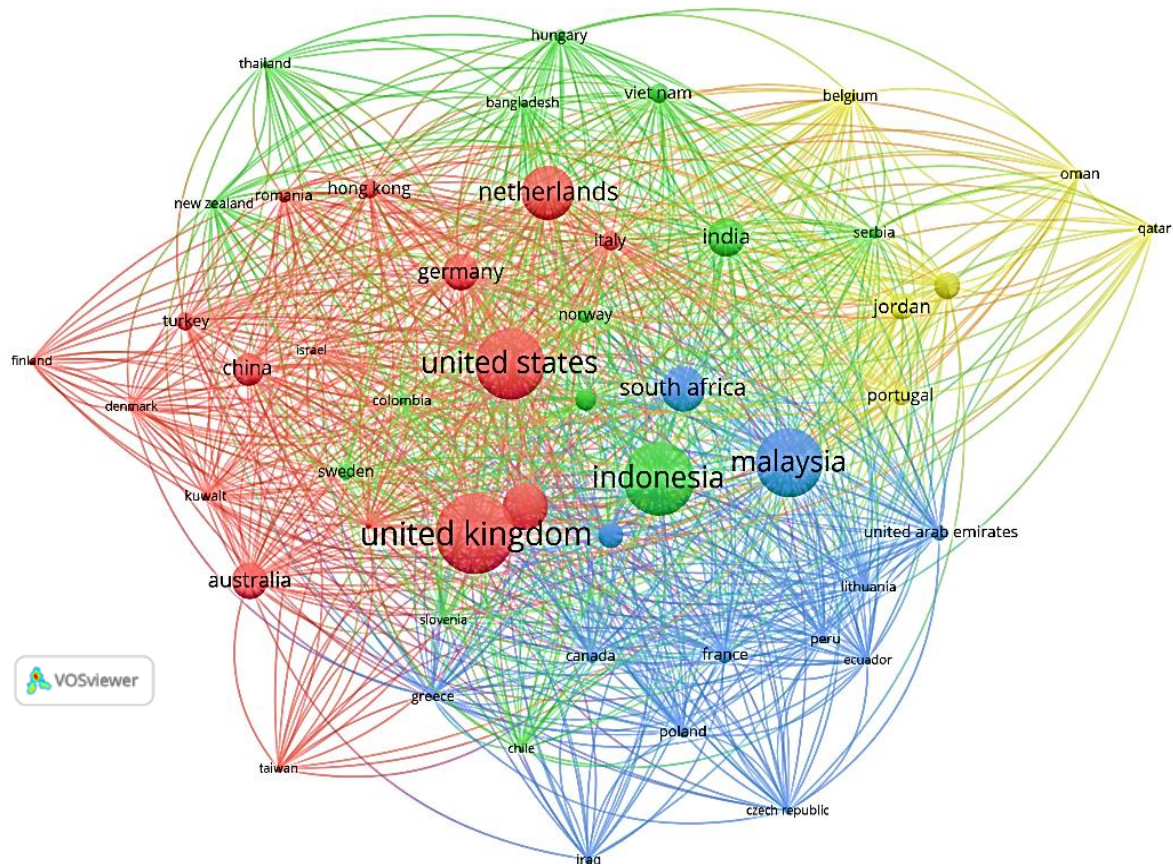
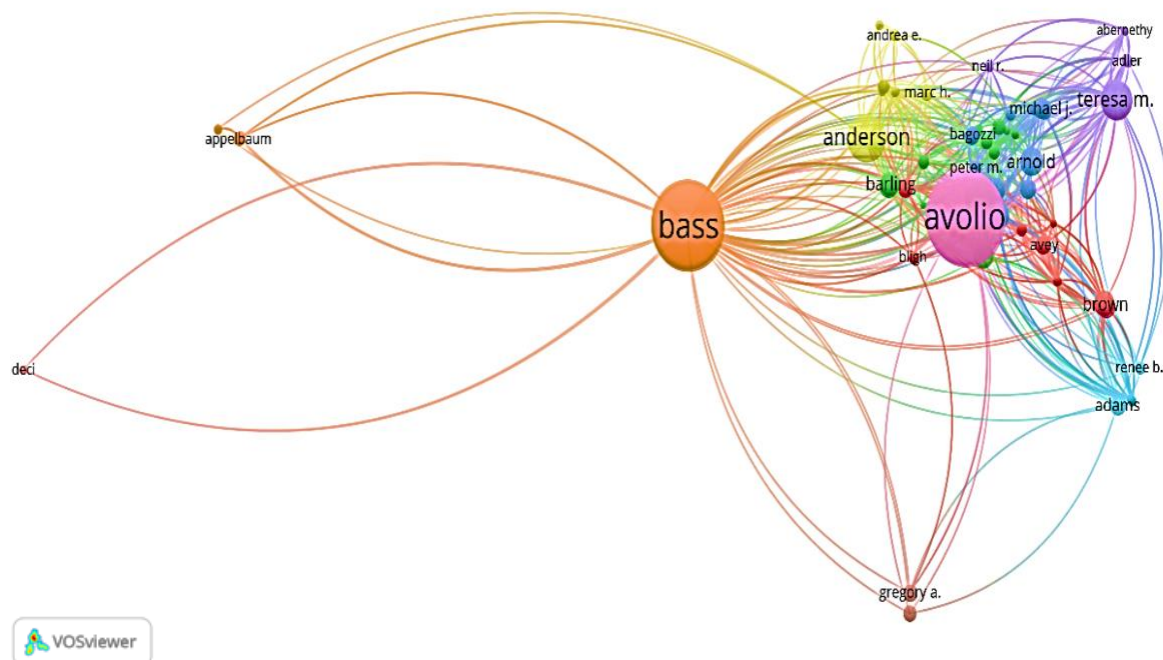


Figure 17 shows the co-citation of authors. The data inclusion criteria for this result include a ‘minimum number of citations of an author’ of two. Among the 1283 authors found in the research, only 13 meet the thresholds based on the selection criteria, and the final included authors for the analysis of co-citation of authors are eighty. Similarly, the different clusters of co-citation of authors are revealed with distinct colors. The first cluster shows the ‘Ambrose’, ‘Aquino’, ‘Avey’, ‘Baumeister’, ‘Becker’, ‘Bligh’, ‘Bono’, ‘Brown’, ‘James, B.’, ‘Joyce, E.’, ‘Karl, F.’, ‘Maureen, I.’, ‘Michael, E.’, ‘Michelle, C.’, ‘Roy, F.’, and ‘Thomas, E.’ in the co-citation of authors. Similarly, another cluster of authors’ co-citation includes ‘Allen’, ‘Ashforth’, ‘Ashkanasy’, ‘Atwater’, ‘Avery’, ‘Barling’, ‘Bateman’, ‘Bauer’, ‘Blake, E.’, ‘Julian, I.’, ‘Leanne, E.’, ‘Natalie, J.’, ‘Neal, M.’, ‘Tammy, D.’, ‘Thomas, S.’ The next cluster includes ‘Ahearne’, ‘Albrecht’, ‘Arnold’, ‘Bagozzi’, ‘Baron’, ‘Bentler’, ‘James, C.’, ‘Josh, A.’, ‘Kara, A.’, ‘Michael, J.’, ‘Peter,

M.', 'Reuben, M.', 'Richard, P.'. Moreover, the other cluster contains 'Abele, 'Anderson', 'Andrea, E.', 'Ashton', 'Barrick', 'Marc, H.', 'Michael, C.', 'Murray, R.'. Furthermore, the remaining cluster includes 'Adams, J.', 'Stacy', and 'Renee, B.'. Next, the other cluster integrates 'Alice, H.', 'Appelbaum', 'Bass', 'Bernard, M.', 'Eagly', and 'Steven, H.'. Finally, the remaining cluster integrates 'Aarons' and 'Gregory, A.', and the next cluster involves 'Avolio' and 'Bruce, J.'. The next cluster integrates 'Deci' and 'Edward, L.'.

Figure 17. Co-citation of Authors



4.11 Discussion

This research on the leadership theme was analyzed through bibliometric analysis, which investigated the research landscape to discover trajectory, turning points, and emerging frontiers of the theme covering the period from 2006 to 2025. The study used the Scopus dataset. Results were computed through yearly publication, citation score with global and local context in the study, 'three-field plot', leading sources, prolific research scholars, status of affiliation, analysis of impact position, distinct nations contributing to the scientific production, status of countries' citation, corresponding scholars' states, highly occurring key terms, trend topics, 'thematic map', 'clustering by coupling', and 'co-citation network'. The findings of the study depicted an escalation trajectory with intensive investigations during the study period. It exhibited the emerging inclination of researchers towards the 'leadership' theme globally, with the density of scholars' concentration found incorporating the diverse areas within leadership.

The citation score of the scientific publication, globally cited status, and locally cited positions demonstrated a growing popularity of the theme 'leadership', with the citation score remaining tremendous. It depicted the inclination of research scholars in the publication of papers. Similarly, the globally cited score for the work accomplished by AlNuaimi et al. (2022) on 'mastering digital transformation: the nexus between leadership, agility, and digital strategy' published in the 'Journal of Business' remained highly cited. Secondly, the paper by Tims et al. (2011) on 'Do transformational leaders enhance their followers' daily work engagement?' found in the 'The Leadership Quarterly' journal held a second-highest citation profile. Next, the locally cited paper by Abdelwahed et al. (2023) related to 'predicting employee performance through transactional leadership and entrepreneur's passion among the employees of Pakistan' published in 'Asia Pacific Management Review', was the most cited manuscript in local citations. The second highest citing paper in locally cited score was found for the work by Aboramadan and Dahleez (2020) for 'leadership styles and employees' work outcomes in nonprofit organizations: the role of work engagement' published in 'Journal of Management Development'. This evidence indicates how the theme areas are inclined with multiple research papers that manifest a rise in investigations.

The profile of prolific contributors shows Steyn R. as a highly publishing author, followed by De Vries R. E. with the second-highest contribution, and corresponding scholars' states additionally depicted the more contribution of the research scholars. Next, the co-citation network revealed intense collaboration in the theme areas. This scenario advocates the evolution of the 'leadership' theme during the study period. Moreover, the diverse nations from around the globe were involved in the production of scientific works related to the 'leadership' theme. Countries belonging to eastern regions and western regions are simultaneously involved with their high contributions. 'Indonesia' remained in the top position, followed by the 'United States of America' for publication works. It reflects that eastern regions massively contributed to the production of research papers. However, the most cited nation remained 'Netherlands', followed by 'United Kingdom'. This dimension depicted a hybrid contribution of western and eastern regions in the 'leadership' theme areas during the study phase. Moreover, the affiliations and their production contained 'Cogent Business and Management' as the most relevant source, followed by 'Problems and Perspectives in Management' and sources local impact found with 'Cogent Business and Management' depicting the highest impact factor, followed by 'Administrative Science'. These sources additionally revealed diverse contributions in the theme of 'leadership' during the study period.

Furthermore, the results from 'three-field plot', 'Bradford's law', 'most frequent words', 'trend topics', 'thematic map', and 'co-occurrence' showed the leading key terms such as 'leadership' as mostly occurring terms during the study period, followed by 'transformational leadership' as a highly revealing term. The scientific production of 'leadership' gained popularity only from 2019 onwards, with intense occurrences, and 'transformational leadership' gained popularity at the same time. This finding showed that other terms such as 'organizational commitment', 'human

experiment', 'perception', 'trust', 'employee', 'human', 'organization', 'commitment', 'performance', 'motivation', and 'innovation' were used during the 2010 to 2023 periods. Similarly, the 'leadership styles' gained popularity from 2020 onwards, and 'leadership style' gained popularity from 2021 onwards. This result depicts that the other key terms occupied the initial stage of the investigation, and 'leadership' terms were revealed as recent and emerging terms. Based on the outcome of the 'thematic map', 'transformational leadership', 'leadership styles', and 'transactional leadership' emerged as basic and highly relevant themes, and 'leadership', 'leadership style', and 'performance' appeared as emerging themes in the research. These findings indicated that the burning and vibrating themes in the recent research were found as 'leadership', in which researchers from global geographical locations, having multiple affiliations, significantly contributed to the theme areas.

Additionally, these outcomes of key terms are aligned with several philosophical doctrines of leadership, as 'transformational leadership theory' concentrates on competencies comprising influence, vision, and motivation that play a vital role in structuring the organizational change, ultimately contributing to better organizational performance (Bass & Avolio, 1994). Similarly, other scholars considered competencies as significant, rare, valuable, and inimitable assets that bridge perpetual organizational benefits (Barney, 1991). Another theory of human capital advocates that 'leadership' efficiencies are the sources of knowledge and skills enabling societal and economic advantages, in which investment in human capital is essential. These theoretical grounds are aligned with leadership doctrine that helps in cultivating organizational success, in which a number of investigations were conducted during the study period.

5. Conclusion

This research analyses the trajectory and frontiers in leadership research through a bibliometric lens embracing the 525 Scopus dataset, which covers nineteen years of research documents from 2006 to 2025. The bibliometric analysis examined several dimensions comprising yearly publication, tracking average citation, three-field plot, leading sources, prolific scholars, globally highly cited documents, locally cited with leading citation position, affiliation, sources impact, highly cited states, corresponding authors, most frequent words, trend topics, thematic map, co-occurrence network, clustering by coupling, and co-citation of authors. The result of the bibliometric lens depicts that research scholars reflect intense interest in the areas of leadership investigation with their tremendous contribution. The research trajectory evolved during the study period, which manifests the inclination of researchers as the term 'leadership' sparks its significance in global phenomena. Similarly, a scenario of prolific research scholars got involved from around the world, and corresponding authors' nations with scientific production of the numerous states demonstrate that the eastern and western states simultaneously participated in crafting and shaping the research path in the theme areas exploring the distinct context. Therefore, different countries, including 'Indonesia', 'United States of America', 'Malaysia', 'United

Kingdom', 'India', 'Netherlands', 'Spain', 'Germany', 'China', and 'South Africa' are highly producing nations in the theme areas.

Eventually, it depicts and concludes that multiple nations emphasize the emerging theme of 'leadership' leading the research direction towards the 'leadership' theme, which consequently gave immense rise to manuscripts. Moreover, the globally cited papers, locally cited documents, output from most relevant affiliation, most cited nations, corresponding authors' countries clustering by coupling, and co-citation network of authors manifest additional evidence of how rapidly and gigantically the international collaboration, production, and their network are aligned to explore the 'leadership' theme areas. Next, the prolific authors for investigation of the theme involved 'Teyn, R.', 'De Vries, R. E.', 'Udin U.', 'Braun, S.', 'Easton, C.', 'Huertas-Valdivia' I.', 'King, B.', 'Muafi, M.', 'Peus, C.' and 'Abdelwahed, N. A. A. A.' This involvement contributes to producing highly impactful papers and representing the distinct states and institutions. Thus, the 'leadership' theme spread throughout the globe.

Similarly, the outcome from the three-field plot, most frequent words, trend topics, thematic map, and co-occurrence exhibit that the vibrating key terms are 'leadership', 'transformational leadership', 'leadership styles', 'transactional leadership', 'leadership style', 'servant leadership', 'employee performance', and 'performance'. Out of the several terms gaining higher interest, the 'leadership' term gained prominence during the period of study. In conclusion, this research revealed the findings accumulated from the bibliometric lens, which establishes a foundation for spreading the understanding of 'leadership' areas, its trajectory, turning points, and frontiers. As the role of leadership drives organizational prosperity, embracing compatible and the best model of leadership doctrine further cultivates perpetual success of the organization. Thus, the landscape of leadership exhibits escalated trajectory, revealing the paradigm shift pursuing leadership philosophy pragmatically, and emerges this theme as vibrating areas of the research which could be a benchmark for the organizational sectors for crafting the congruent leadership approaches.

Next, the result of this study extends the contribution to the theoretical ground by integrating the diverse research landscapes within the 'leadership' theme, structuring the leadership dimension, which shows the relevance and significance of leadership and its doctrines with existing approaches such as transformational and transactional leadership. The outcome derived from the bibliometric analysis simultaneously depicts implications for practitioners, as organizational strategic decisions essentially require direct involvement of leaders, in which appropriate adoption and implementation of leadership philosophy determines the successful path of organizations.

However, this research has limitations, as this study computed its results only based on the Scopus dataset covering the period from 2006 to 2025; meanwhile, it excludes other important databases consisting of Web of Science, Dimensions, Google Scholar, Open Alex, and Lens.org, which exerts contraction for broad outcomes in bibliometric exploration. Additionally, this research included research articles published only in the English language and excluded books, case studies,

and even articles written in other languages. Further, this study embraced mainly the leadership theme, and a particular focus was not made on distinct terms of leadership. Therefore, the future investigation can take place conducting the research with key terms such as authoritarian leadership', 'directive leadership', 'empowering leadership', 'paternalistic leadership', 'servant leadership', 'transformational', 'authentic leadership', 'ethical leadership', 'leadership styles', 'laissez-faire leadership', 'transactional leadership', and 'laissez-faire' leadership. Moreover, future research can embrace distinct sources of documents comprising Web of Science, Dimensions, Google Scholar, Open Alex, and Lens.org. Finally, future study can integrate other important documents published in multiple languages, including books and case study-based documents.

References

- Abdelwahed, N. A. A., Soomro, B. A., & Shah, N. (2023). Predicting employee performance through transactional leadership and entrepreneur's passion among the employees of Pakistan. *Asia Pacific Management Review*, 28(1), 60–68. <https://doi.org/10.1016/j.apmr.2022.03.001>
- Aboramadan, M., & Dahleez, K. A. (2020). Leadership styles and employees' work outcomes in nonprofit organizations: The role of work engagement. *Journal of Management Development*, 39(7/8), 869–893. <https://doi.org/10.1108/JMD-12-2019-0499>
- Al Amiri, N., Abdul Rahim, R. E., & Ahmed, G. (2020). Leadership styles and organizational knowledge management activities: A systematic review. *Gadjah Mada International Journal of Business*, 22(3), 250. <https://doi.org/10.22146/gamaijb.49903>
- Almahasneh, Y. A. S., Rahman, M. S. B. A., Omar, K. B., & Zulkiffli, S. N. A. (2023). The impact of organizational culture and leadership styles on the performance of public organizations. *Corporate Governance and Organizational Behavior Review*, 7(1), 158–165. <https://doi.org/10.22495/cgobrv7i1p15>
- AlNuaimi, B. K., Kumar Singh, S., Ren, S., Budhwar, P., & Vorobyev, D. (2022). Mastering digital transformation: The nexus between leadership, agility, and digital strategy. *Journal of Business Research*, 145, 636–648. <https://doi.org/10.1016/j.jbusres.2022.03.038>
- Alqatawenah, A. S. (2018). Transformational leadership style and its relationship with change management. *Business: Theory and Practice*, 19(0), 17–24. <https://doi.org/10.3846/btp.2018.03>
- AlRyalat, S. A. S., Malkawi, L. W., & Momani, S. M. (2019). Comparing bibliometric analysis using PubMed, Scopus, and Web of Science databases. *Journal of Visualized Experiments*, (152), 58494. <https://doi.org/10.3791/58494>



- Altynbassov, B., Bayanbayeva, A., Tolegen, M., & Zhamankarin, M. (2024). A comprehensive bibliometric analysis of trends in higher education leadership in the Global South, 2013-2023: Contemporary perspectives and developments. *International Journal of Educational Research*, 127, 102421. <https://doi.org/10.1016/j.ijer.2024.102421>
- Anderson, M. H., & Sun, P. Y. T. (2024). Re-envisioning a hierarchy of leadership behaviours using insights from the psychological literature on personality traits. *Journal of Management Studies*, 61(4), 1165–1191. <https://doi.org/10.1111/joms.12922>
- Arabian, A., Tajpour, M., & Zahedi, M. R. (2024). The effect of digital leadership on the performance of businesses: The mediating role of organizational entrepreneurship. *International Journal of Human Capital in Urban Management*, 9(1). <https://doi.org/10.22034/IJHCUM.2024.01.02>
- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Arici, H. E., Arici, N. C., Köseoglu, M. A., & King, B. E. M. (2021). Leadership research in the root of hospitality scholarship: 1960–2020. *International Journal of Hospitality Management*, 99, 103063. <https://doi.org/10.1016/j.ijhm.2021.103063>
- Astuty, I., & Udin, U. (2020). The effect of perceived organizational support and transformational leadership on affective commitment and employee performance. *Journal of Asian Finance, Economics and Business*, 7(10), 401–411. <https://doi.org/10.13106/jafeb.2020.vol7.no10.401>
- Azhar, Z., & Ayobami, A. (2026). Leadership competencies: A global bibliometric analysis (1960–2025). *Discover Sustainability*, 7(1), 638. <https://doi.org/10.1007/s43621-026-02809-6>
- Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, 1(1), 377–386. https://doi.org/10.1162/qss_a_00019
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications* (3. ed). Free Press.
- Bryman, A. (2007). Effective leadership in higher education: A literature review. *Studies in Higher Education*, 32(6), 693–710. <https://doi.org/10.1080/03075070701685114>

- Busari, A. H., Khan, S. N., Abdullah, S. M., & Mughal, Y. H. (2020). Transformational leadership style, followership, and factors of employees' reactions towards organizational change. *Journal of Asia Business Studies*, 14(2), 181–209. <https://doi.org/10.1108/JABS-03-2018-0083>
- Cai, X., Cui, R., & Nie, T. (2026). Does shared platform matter? The impact of platform leadership on research innovative behaviors in universities. *Acta Psychologica*, 263, 106324. <https://doi.org/10.1016/j.actpsy.2026.106324>
- Canavesi, A., Minelli, E. (2022). Servant leadership: a systematic literature review and network analysis. *Employ Respons Rights J* 34, 267–289. <https://doi.org/10.1007/s10672-021-09381-3>
- Capobianco-Uriarte, M. D. L. M., Casado-Belmonte, M. D. P., Marín-Carrillo, G. M., & Terán-Yépez, E. (2019). A bibliometric analysis of international competitiveness (1983–2017). *Sustainability*, 11(7), 1877. <https://doi.org/10.3390/su11071877>
- Chughtai, M. S., & Khan, H. S. U. D. (2024). Knowledge oriented leadership and employees' innovative performance: A moderated mediation model. *Current Psychology*, 43(4), 3426–3439. <https://doi.org/10.1007/s12144-023-04502-7>
- De Vries, R. E., Bakker-Pieper, A., & Oostenveld, W. (2010). Leadership communication? The relations of leaders' communication styles with leadership styles, knowledge sharing and leadership outcomes. *Journal of Business and Psychology*, 25(3), 367–380. <https://doi.org/10.1007/s10869-009-9140-2>
- Decuypere, A., & Schaufeli, W. (2020). Leadership and work engagement: Exploring explanatory mechanisms. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, 34(1), 69–95. <https://doi.org/10.1177/2397002219892197>
- Du, S., Swaen, V., Lindgreen, A., & Sen, S. (2013). The roles of leadership styles in corporate social responsibility. *Journal of Business Ethics*, 114(1), 155–169. <https://doi.org/10.1007/s10551-012-1333-3>
- Esen, M., Bellibas, M. S., & Gumus, S. (2020). The evolution of leadership research in higher education for two decades (1995–2014): A bibliometric and content analysis. *International Journal of Leadership in Education*, 23(3), 259–273. <https://doi.org/10.1080/13603124.2018.1508753>
- Günzel-Jensen, F., Hansen, J. R., Jakobsen, M. L. F., & Wulff, J. (2018). A Two-pronged approach? combined leadership styles and innovative behavior. *International Journal of Public Administration*, 41(12), 957–970. <https://doi.org/10.1080/01900692.2017.1303711>
- Haddaway, N. R., Page, M. J., Pritchard, C. C., & McGuinness, L. A. (2022). *PRISMA2020*: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with

- interactivity for optimised digital transparency and Open Synthesis. *Campbell Systematic Reviews*, 18(2), e1230. <https://doi.org/10.1002/cl2.1230>
- Hambley, L. A., O'Neill, T. A., & Kline, T. J. B. (2007). Virtual team leadership: The effects of leadership style and communication medium on team interaction styles and outcomes. *Organizational Behavior and Human Decision Processes*, 103(1), 1–20. <https://doi.org/10.1016/j.obhdp.2006.09.004>
- Howladar, M. H. R., Rahman, Md. S., & Uddin, Md. A. (2018). Deviant workplace behavior and job performance: the moderating effect of transformational leadership. *Iranian Journal of Management Studies*, (Online First). <https://doi.org/10.22059/ijms.2018.226143.672514>
- Hu, D., Thien, L. M., Ahmi, A., & Mohamed, A. (2023). The 100 most-cited research publications on servant leadership: A bibliometric analysis. *Sage Open*, 13(3). <https://doi.org/10.1177/21582440231194220>
- Huertas-Valdivia, I., Gallego-Burín, A. R., & Lloréns-Montes, F. J. (2019). Effects of different leadership styles on hospitality workers. *Tourism Management*, 71, 402–420. <https://doi.org/10.1016/j.tourman.2018.10.027>
- Islam, M. N., Furuoka, F., & Idris, A. (2021). Mapping the relationship between transformational leadership, trust in leadership and employee championing behavior during organizational change. *Asia Pacific Management Review*, 26(2), 95–102. <https://doi.org/10.1016/j.apmr.2020.09.002>
- Kaur Bagga, S., Gera, S., & Haque, S. N. (2023). The mediating role of organizational culture: Transformational leadership and change management in virtual teams. *Asia Pacific Management Review*, 28(2), 120–131. <https://doi.org/10.1016/j.apmr.2022.07.003>
- Keivani, S., Isavi, H., & Asl, M. D. (2026). Mapping the intellectual structure of centaur leadership: A bibliometric analysis. *Human Behavior and Emerging Technologies*, 2026(1), 9940186. <https://doi.org/10.1155/hbe2/9940186>
- Kumpulainen, M., & Seppänen, M. (2022). Combining Web of Science and Scopus datasets in citation-based literature study. *Scientometrics*, 127(10), 5613–5631. <https://doi.org/10.1007/s11192-022-04475-7>
- Maditati, D. R., Munim, Z. H., Schramm, H.-J., & Kummer, S. (2018). A review of green supply chain management: From bibliometric analysis to a conceptual framework and future research directions. *Resources, Conservation and Recycling*, 139, 150–162. <https://doi.org/10.1016/j.resconrec.2018.08.004>
- McCann, J., & Sparks, B. (2019). The effects of leadership styles on innovative work behavior and the role of locus of control in the manufacturing environment. *Journal of Organizational Psychology*, 19(1). <https://doi.org/10.33423/jop.v19i1.1092>

- Omair, S., Khizar, H.M.U. & Kumar, S. The power of language in leadership: a systematic literature review and bibliometric analysis of leader motivating language. *Asian Bus Manage* 24, 385–427 (2025). <https://doi.org/10.1057/s41291-025-00289-6>
- Piowar-Sulej, K., & Iqbal, Q. (2023). Leadership styles and sustainable performance: A systematic literature review. *Journal of Cleaner Production*, 382, 134600. <https://doi.org/10.1016/j.jclepro.2022.134600>
- Riaz, A., Kwon, C., & Bux, R. (2026). How leadership shapes workplace outcomes for differently-abled employees: A systematic literature review and bibliometric analysis. *Future Business Journal*, 12(1), 247. <https://doi.org/10.1186/s43093-026-00934-2>
- Sahabuddin, M., Sakib, Md. N., Rahman, Md. M., Jibir, A., Fahlevi, M., Aljuaid, M., & Grabowska, S. (2023). The evolution of fintech in scientific research: A bibliometric analysis. *Sustainability*, 15(9), 7176. <https://doi.org/10.3390/su15097176>
- Shahzad, M. U. (2024). Core competencies for digital leadership development: A perspective from the lens of paradox theory. *The Bottom Line*, 37(4), 454–472. <https://doi.org/10.1108/BL-10-2023-0278>
- Singh, V. K., Singh, P., Karmakar, M., Leta, J., & Mayr, P. (2021). The journal coverage of Web of Science, Scopus and Dimensions: A comparative analysis. *Scientometrics*, 126(6), 5113–5142. <https://doi.org/10.1007/s11192-021-03948-5>
- Sipe, L. J. (2018). Leadership, innovation outputs, and business performance: A mixed methods study of senior managers in the attractions industry. *International Journal of Hospitality & Tourism Administration*, 19(4), 440–463. <https://doi.org/10.1080/15256480.2017.1348922>
- Sousa, M., & Van Dierendonck, D. (2017). Servant leadership and the effect of the interaction between humility, action, and hierarchical power on follower engagement. *Journal of Business Ethics*, 141(1), 13–25. <https://doi.org/10.1007/s10551-015-2725-y>
- Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement? *The Leadership Quarterly*, 22(1), 121–131. <https://doi.org/10.1016/j.leaqua.2010.12.011>
- Udachone, S., Udin, U. & Zumitzavan, V. Exploring toxic leadership in organizations through a comprehensive bibliometric analysis. *Discover Sustainability* 7, 6 (2026). <https://doi.org/10.1007/s43621-025-02360-w>
- Udin, U. (2025). Paradoxical leadership: a bibliometric analysis and research agenda. *Discover Sustainability*, 6(1). <https://doi.org/10.1007/s43621-025-01490-5>
- Vinkenbarg, C. J., Van Engen, M. L., Eagly, A. H., & Johannesen-Schmidt, M. C. (2011). An exploration of stereotypical beliefs about leadership styles: Is transformational leadership

- a route to women's promotion? *The Leadership Quarterly*, 22(1), 10–21.
<https://doi.org/10.1016/j.leaqua.2010.12.003>
- Vogel, B., Reichard, R. J., Batistič, S., & Černe, M. (2021). A bibliometric review of the leadership development field: How we got here, where we are, and where we are headed. *The Leadership Quarterly*, 32(5), 101381. <https://doi.org/10.1016/j.leaqua.2020.101381>
- You, C., Awang, S.R. & Wu, Y. (2024). Bibliometric analysis of global research trends on higher education leadership development using Scopus database from 2013–2023. *Discover Sustainability* 5, 246. <https://doi.org/10.1007/s43621-024-00432-x>
- Yudiatmaja, W. E., Salomo, R. V., & Prasojo, E. (2023). Fostering Innovative behavior of millennial public employee through leadership styles and organizational trust. *Sage Open*, 13(2), 21582440231178545. <https://doi.org/10.1177/21582440231178545>
- Zhang, Y., Huang, K., Yu, Y., & Yang, B. (2017). Mapping of water footprint research: A bibliometric analysis during 2006–2015. *Journal of Cleaner Production*, 149, 70–79. <https://doi.org/10.1016/j.jclepro.2017.02.067>
- Zheng, J., Wu, G., Xie, H., & Li, H. (2019). Leadership, organizational culture, and innovative behavior in construction projects: The perspective of behavior-value congruence. *International Journal of Managing Projects in Business*, 12(4), 888–918. <https://doi.org/10.1108/IJMPB-04-2018-0068>