Publication Trends of Leadership Excellence: A Bibliometric Review Using VOSviewer

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Received: 23 March 2021

Revised from: 23 April 2021

Accepted: 20 May 2021 Published: 31 May 2021

Abstract

Leadership research has long attracted interest among researchers. Analysing the evolution and development of this scientific domain is therefore essential. This study discusses the bibliometric review of scholarly research performed in leadership excellence in recent years. The study uses the Scopus database and a wide variety of bibliometric indicators such as publication trends, citations, and authors' keywords. Graphical visualisation of bibliometric using VOSviewer software is also presented. Results showed that the number of studies covering this topic has fluctuated and is still minimal, with fewer than ten publications per year over four decades. It could also be interpreted that leadership excellence research is broad by evaluating publications and research areas. The bibliometric review conducted provides a comprehensive and in-depth view of leadership excellence research that may be of interest to researchers who are keen to improve or discover new knowledge in this area.

Keywords: Leadership Excellence, Bibliometric, Scopus Database, Publication Trends, VOSviewer.

1. Introduction

The world's great leaders, such as Mahatma Gandhi, Winston Churchill, and Nelson Mandela, are among the most admired for their ability to cope with a deep crisis at an extraordinary opportunity. As a result, previous researchers were encouraged to examine their leadership styles, including skills, performance, and behaviour (Nagarathinam,2020; Nanjundeswaraswamy & Swamy, 2014). Besides, a trustworthy optimist, an approachable helmsman, a focused creator, a compassionate parent, a complimentary guide, a passionate professional and a vision-implementing team player were the influences of prolific leadership styles (Hofstede & Dooley, 2017). Leadership is one of the most studied fields of organisational studies. While substantial progress has been made in this field, there is still a lack of understanding of the cultural context within which leadership works (Selvarajah & Meyer, 2017). Thus, leadership research has long attracted interest among academicians, researchers, and practitioners.

Leading, planning, controlling, and organising are the four interrelated tasks that collectively form the management's hierarchical mechanism (Kanji, 2008). Leadership is often connected to significant organisational results, such as followers' participation (Li et al., 2020). Leadership is a wide-ranging field with a long history that involves 1000s of concepts and 100s of hypotheses, models, views, and approaches (Yammarino et al., 2020). Leadership excellence is described as the product of exceptional four-dimensional performance of a leader's personal qualities, leadership behaviours, organisational demands, and environmental influences (Kanji & e Sá, 2001; Selvarajah et al., 2013). These dimensions were also in line with the claim that when leaders force their ideas, they draw the minds, energy, and abilities of the people around them (Goleman, 2004). Most straightforwardly, leadership excellence means getting on the path to what's best and more effective for a leader to be dedicated and mindful of growth and change.

Despite comprehensive research on leadership, there is almost no model to describe how leadership works and how leadership excellence is assessed (Kanji, 2008). The value of leadership in the Business Excellence Model is evident; however, leadership is not just another criterion; it is a core feature of the Business Excellence Model

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(Kanji, 2015), which shows that leadership is responsible for driving the company towards quality and excellence in all aspects. According to Markina, Zhylinska, and Bolshakova (2019), sustainable development policy plays a crucial role in strategic planning implementation, and the ultimate goal of achieving leadership excellence is a success. On the other hand, Alhefiti, Ameen, and Bhaumik (2019) found that guiding organisational excellence by integrating techniques and practises such as leadership, strategy management and corporate culture would lead organisations to gain competitive advantages.

This study aims to investigate the bibliometric review of publication trends, the growth of literature, and the analysis of information on leadership excellence research publications. The information presented in this study was meant to offer a consistent overview of the trend of leadership excellence research that could encourage readers and researchers to analyse the information for their prospective studies. This study decisively assumes that the bibliometric review approach has the potential to make significant contributions to the current leadership excellence research refrains.

2. Methodology

2.1 Data Collection and Retrieval Strategy

This study was developed based on the entire data collection and data filtering process. In the earlier stages of this bibliometric review, it is essential to clarify the research's goals. This study is primarily aimed to analyse the publication trends on the compilation of publications related to leadership excellence in the Scopus database. The investigation was completed within the descriptive analysis context using the document examination approach. In this analysis, the Scopus database was searched for "leadership excellence" keywords to retrieve the data on November 28, 2020. The Scopus database was selected because it has extensive documents compared to the Web of Science and Pubmed (Sweileh et al., 2017) and has been frequently cited in previous studies (Khiste & Paithankar, 2017). This bibliometric review is based on the selection strategy and research protocol adapted from the PRISMA flow diagram (Moher et al., 2010), as shown in Figure 1.



Fig. 1 Selection strategy and research protocol

A total of 94 publications on leadership excellence were found from 1976 to 2020. Out of the 94 publications, there were 78 articles from various journal sources, five books, five conference papers, three trade journals, and three book series. A total of 91 publications were written in English, and one article in Afrikaans, Serbian, and Spanish. The review was initialised as data in the format of Comma-separated Values (CSV) and Research Information Systems (RIS) were exported to Microsoft Excel, Publish or Perish (PoP) and VOSviewer software for further analysis. The collected information included the author's name, the source of the document, the year of publication, the title of publication, the countries, journals, the subject area and the type of publications. Using the VOSviewer software developed by Van Eck and Waltman (2010), bibliometric review and mapping of leadership excellence publications have been made possible. According to Van Eck and Waltman (2010; 2019), VOSviewer used visual elements based on mapping techniques to transform CSV data into diagrams or clusters. The mapping technique also often helped the researcher evaluate relevant information such as authors, locations, organisations, citations, co-citations, and other refining facets (Khalil & Crawford, 2015).

3. Results and Discussion



3.1 Global Trend of Publications

Fig. 2 Global trend of publications

Figure 2 revealed that a total of 94 publications were published over 44 years, with four publications deemed free access, indicating that most of these publications are not freely available and the user would pay to access the content. It is proposed that publications be published in open access to receive many citations. The first publication dates back to 1976, and there was no record until 1988. The publication was written by Howard, E. M. entitled "Leadership excellence, something old, something new" and published by Journal (Indiana Dental Association). However, the publication did not obtain any citations. There was a shortfall in the number of leadership excellence publications between 1976 and 1992, with less than five documents published annually. The number of publications started in 1993 with more than five documents. The number of publication between 1996 and 2003. The highest number of publications was eight in 2015 and 2017, respectively. Kirabira (2020) noted that even the study highlights the evaluation of leadership excellence that can be useful in decision-making, increased leadership efficiency and organisational growth. However, not many assessments have been created to quantify leadership excellence. It is impossible to find a consistent understanding of leadership excellence in a study (Aladwan & Forrester, 2016). Besides, leadership excellence is a much-desired but difficult-to-assess construct (Prusak, 2011; Ford, Evans, & Masterson, 2012), and few studies have concentrated on assessing leadership excellence.

3.2 Most Influential Countries

As shown in Figure 3, the citations network consists of four countries and is divided into two clusters; the first cluster of red consisting of Australia, Malaysia and Indonesia. The second cluster identified as a green colour represented South Africa. The countries indicated by the nodes and the greater the nodes led to many publications. In this scenario, among the others, Australia had more significant nodes. It has been revealed that Australia has a substantial number of citations. The second rank goes to Malaysia, and in the third position were Indonesia and South Africa. Thus, those countries have been ascertained to play an essential role in developing scientific contact in leadership excellence and act as a gateway to information.



Fig. 3 Citation network of the countries

Rank	Countries	Publications
1	United States	46
2	Australia	9
3	United Kingdom	8
4	Canada	3
5	Germany	3
6	India	3
7	Malaysia	3

Table 1: Status of the most prominent countries

The most productive seven countries of at least three publications are shown in Table 1. With regard to the number of publications of the countries in leadership excellence, the United States has been listed as the most productive country with 46 academic works. In comparison, Australia is the second most productive country with nine publications, and the United Kingdom is the third most productive country with eight publications. This aspect is attributed to researchers in developing countries continually evaluating the efficacy of leadership in overcoming the complexities of the current progress they are making in terms of quality of work (Abdullah, Hashim, & Aziz, 2020). Besides, many developed countries have not been met with the problems of poverty, low health services and high unemployment due to continuous leadership research (Kanjere, 2017).

3.3 Most Influential Sources

Table 2 reflects information on the most influential sources in leadership excellence, which are ranked based on the number of publications. A list of ten sources with at least two publications is presented. Clearly, the Journal of Nursing Administration was the most influential sources in this field, with 16 publications. The ranked second goes to the American Journal of Nursing. The Asia Pacific Business Review is positioned in third place. Based on this finding, it is suggested that these sources have been contributing helpful knowledge that will allow prospective researchers to source them and valuable in their future research toward leadership excellence. It also conveys a message that the sources make it easier for readers to find and manipulate relevant information.

No.	Sources	Publications
1	Journal of Nursing Administration	16
2	American Journal of Nursing	7
3	Asia Pacific Business Review	4
4	Journal of Counselor Leadership and Advocacy	4
5	Total Quality Management and Business Excellence	4
6	Human Resource Management International Digest	3
7	Ethical Economy	2
8	Nurse Leader	2
9	Quality Progress	2
10	Total Quality Management	2

Table 2: Most influential sources

3.4 Most Productive and Influential Authors

A list of the five most-cited documents is provided in Table 3. The number of citations is generally seen to be fair to represent the influence of authors work and how they are favoured among the scientific community (Merigó & Yang, 2015). As indicated in Table 3, the most cited work was taken up by S.A. Ginwright in his 2007 publication, with 92 citations for an article entitled "Black youth activism and the role of critical social capital in black community organisations". The article also obtained the highest citations per year. Ranked after S.A. Ginwright was V. Govindarajan, and C. Trimble work that has been published in 2005, with 66 citations for an article entitled "Building breakthrough businesses within established organisations". These two publications' perspectives enabled future researchers to recognise the most influential author on leadership excellence to be included in their studies.

Rank	Cites	Cites Per Year	Authors	Title	Year	Source
1	92	7.08	S.A. Ginwright	Black youth activism and the role of critical social capital in black community organisations	2007	American Behavioral Scientist
2	66	4.4	V. Govindarajan, C. Trimble	Building breakthrough businesses within established organisations	2005	Harvard Business Review
3	42	3	J. Brownell	Meeting the competency needs of global leaders: A partnership approach	2006	Human Resource Management
4	37	1.95	G.K. Kanji, P. Moura E SÃ _i	Measuring leadership excellence	2001	Total Quality Management
5	33	2.2	R.J. Taormina, C. Selvarajah	Perceptions of Leadership Excellence in ASEAN Nations	2005	Leadership

Table 4 reflects a number of seven authors with at least three publications related to leadership excellence. Selvarajah, C. affiliated to the Swinburne University of Technology, Melbourne, Australia, led with ten publications. The second rank was Meyer, D. affiliated to the Swinburne University of Technology, Centre for Mental Health, Melbourne, Australia, with nine publications, and the third rank was Gerardi, D. from EHCCO, Half Moon Bay, the United States, with six publications. It is noteworthy that over the last 44 years, professional authors and academicians have participated in leadership excellence research. This indicated that leadership excellence research often attracted the attention of professional authors. The most prominent authors originated in the United States, and it is revealed that developing countries have been actively engaged in leadership excellence-related research.

Rank	Authors	Affiliations	Countries	H-Index	Publications
1	Selvarajah, C.	Swinburne University of Technology, Melbourne	Australia	11	10
2	Meyer, D.	Swinburne University of Technology, Centre for Mental Health, Melbourne	Australia	24	9
3	Gerardi, D.	EHCCO, Half Moon Bay,	United States	6	6
4	Beyers, M.	Patient Care Consultant	United States	4	5
5	Anderson, R.	RMA Consulting, Scottsdale	United States	3	3
6	Kanji, G.K.	Sheffield Hallam University, Sheffield	United Kingdom	23	3
7	Rao, M.S.	MSR Leadership Consultants India, Hyderabad	India	5	3

Table 4: Seven most productive and influential authors in leadership excellence

3.5 Most Productive and Influential Institutions

A total of 88 institutions included universities, research centres, and hospitals involved in publishing leadership excellence publications. Table 5 contains a list of institutions with at least two publications. It is important to note that the United States institutions have monopoly publications on leadership excellence. Researchers at the Swinburne University of Technology have been credited with the leading institution with ten publications. The American Organization of Nurse Executives was ranked second with seven publications. The third rank was Hartford Hospital, with five publications. As far as the top three institutions have shown that the United States has become the world's leading publisher of scientific papers. Another important finding is that the American Organization of Nurse Executives was the leading research centre for leadership excellence research. In exploring Tables 4 and 5, cross-referencing the relationship between the most outstanding authors and leading institutions. This study found that two outstanding leadership excellence researchers (Selvarajah, C. and Meyer, D.) are affiliated with Swinburne Technology University, Melbourne, Australia. It is noted that connections between organisations engaged in leadership excellence research.

Institutions	Countries	Publications
Swinburne University of Technology	Australia	10
American Organization of Nurse Executives	United States	7
Hartford Hospital	United States	5
Villanova University	United States	3
Beth Israel Deaconess Medical Center	United States	3
Kanji Quality Culture Ltd.	United Kingdom	2
EHCCO	United States	2
Yale-New Haven Hospital	United States	2
Zeppelin University	Germany	2
Universidad Autónoma de Madrid	Spain	2
Sheffield Business School	United Kingdom	2

Table 5: Ranking of the institutions with at least two publications

3.6 Analysis by Research Areas

The review of research articles on a specific area is also essential. This method facilitates the recognition of the critical disciplines under which leadership excellence research has been performed. Table 6 provides 18 study areas by which leadership excellence publications can be categorised according to the Scopus database. "Business, Management and Accounting" has been found to be the most researched area, with 30 publications. This finding was as expected, as the subject under this review is relevant from a business and management perspective, which focuses on the leadership and business strategy offer a competitive edge and accelerate the quality of work and obtain the expertise that top businesses need for strategic problem-solving. Another field of study that stands out is "Nursing," with 29 publications, and the next is "Social Sciences," with 24publications. Concerning nursing, leaders help, and encouragement could facilitate and support front-line nurses in their efforts to innovate and change (McSherry et al., 2012). It is a logical goal to create a healthcare environment that supports compassion, safety, and quality nursing practise. In terms of social science, it is indicated that leadership has demonstrated it has a social impact, especially in improving working environments and organisational performance (Campos et al., 2020). Hence, a proper understanding of the behavioural components is critical to determining corporate results.

Rank	Research Area	Publications
1	Business, Management and Accounting	30
2	Nursing	29
3	Social Sciences	24
4	Medicine	12
5	Psychology	9
6	Engineering	8
7	Economics, Econometrics and Finance	7
8	Arts and Humanities	5
9	Environmental Science	3
10	Chemical Engineering	2
11	Decision Sciences	2
12	Energy	2
13	Agricultural and Biological Sciences	1
14	Chemistry	1
15	Health Professions	1
16	Materials Science	1
17	Pharmacology, Toxicology and Pharmaceutics	1
18	Physics and Astronomy	1

Table 6: 18 research areas in leadership excellence

3.7 Mapping of Leadership Excellence Research with VOSViewer Software

A visual description is available in this section to deepen the conclusions in previous sub-topics. The VOSviewer software is used to evaluate co-citation and the authors' keywords co-occurrence; figure 4 displays sources co-citation analysis that number up to 20 citations and seven sources. The Total Quality Management is the most-cited source with the best network links (green cluster) and a total link strength of 599. The Total Quality Management was grouped in a similar cluster with the International Journal of Hospitality Management. However, concerning the pace of publication, Total Quality Management was ranked tenth in the ranking.

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The analysis of the most frequent occurrence of keywords in a given collection of publications was made possible by the VOSviewer. In this review, VOSviewer mapped the authors' keywords in the title and abstract fields. Figure 5 presented a network diagram of keywords in which colour, node sizes, font sizes, and the connecting lines' thickness illustrate the relationship with other keywords (Sweileh et al., 2017). There are 16 keywords that have been grouped into three different node colours (green, red, and blue). The keywords "excellence" in green nodes are the most popular keywords. It is grouped into the same category with the keywords "company," "organisation," "strategy," "manager", and "coaching." It is indicated that leadership excellence is closely linked to the keywords mentioned. And it was considered necessary for future researchers to explore these keywords to understand the topic of leadership excellence better. The second cluster of keywords is "development," "administrator," "discusses trends," "executive staff member," "national organisation" and "nurse executive." Development and discussion were the vital factors that have been shown to include relevant stakeholders in the company, such as executive staff and administrators, in order to achieve leadership excellence. The considerations deemed appropriate to be considered in the future direction of research. The third cluster goes to the keywords "competency," "leader", and "organisation." This indicates that successful leaders needed to assess competence in specific organisations.



Fig. 4 Sources co-citation



Fig. 5 Authors keyword's co-occurrence

4. Conclusions

This bibliometric review promotes examining and integrating established directions in leadership excellence research as new trends continue to emerge. Based on a bibliometric review of 44 years of publications, this study concluded that the information below provides readers and researchers with beneficial information:

- 1. The number of publications on leadership excellence has fluctuated over four decades, with the highest number of publications below ten, which is eight in 2015 and eight in 2017, respectively.
- 2. The United States, Australia, and the United Kingdom were active publishing countries. Besides, India and Malaysia have been identified as the countries in Asia involved in the research of leadership excellence.
- 3. The Journal of Nursing Administration seems to be the most influential journals in this study.
- 4. The Swinburne University of Technology was the leading institutions in this study with ten publications and headed the most prominent institutions in leadership excellence.
- 5. Selvarajah, C. affiliated to the Swinburne University of Technology, Melbourne, Australia, being the prominent author with ten publications.
- 6. "Business, Management and Accounting" has been found to be the most researched area, with 30 publications. This finding was as expected, as the subject under this review is relevant from a business and management perspective.
- The keywords "excellence" are the most popular keywords and grouped into the same category with "company," "organisation," "strategy," "manager" and "coaching." It is indicated that leadership excellence is closely linked to the keywords mentioned, and it was considered necessary for future researchers to explore these keywords to understand the topic of leadership excellence better.

The current study's implications suggest that leadership excellence will remain popular in the coming decades if changes resulting from relevant situations are taken into account in organisational management. This demonstrates how critical it is for a leader to be committed to their development, improvement, and awareness of leadership excellence. Because there is still a lack of clear understanding of the concept, core, and importance of excellent leadership in an organisation, there may be unique and dubious differences to study. Leaders can redesign their management leadership skills to evaluate further and develop leadership skill that can synergise collaborative networks between leaders and followers by understanding the concept of leadership excellence and publication growth trends. Besides, leadership excellence is imperative to providing more excellent stakeholder protection and safeguarding stakeholders' interests by implementing its strategic culture.

Also, the bibliometric review makes it possible to project or provide insight into the state of the art of a specific field or subject related to leadership excellence. However, a number of limitations relevant to the research method sought and how the documents have been categorised cannot be ignored. In this regard, it is essential to remember that there are several other databases that could have been used for this study, such as Google Scholar or Microsoft Academic. Further research should be performed to evaluate leadership excellence publications' patterns in specific organisations or countries from Google Scholars or Microsoft Academic. Progressive leadership excellence is, therefore, undoubtedly a crucial and vital factor in the promotion and advancement of required leadership excellence dimensions. Based on this bibliometric review, readers, educators, and researchers would be better able to identify essential knowledge for assessing or examining leadership excellence in their future studies.

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