

# Servant Leadership: A Bibliometric Review Through Performance Evaluation and Science Mapping

Shubhangi Sharma, Research Scholar, IMS Unison University, Dehradun, India.

Amit Adlakha, Professor, IMS Unison University, Dehradun, India.

Shikha Rana, Associate Professor, IMS Unison University, Dehradun, India.

Servant Leadership: A  
Bibliometric Review  
Through Performance  
Evaluation  
70

Received: 30.11.2022

Revised: 03.03.2023

Accepted: 11.03.2023

## Abstract

**Purpose:** Leadership has always been a prominent research topic in the public administration sphere and servant leadership (SL) is one of the significant leadership styles. Servant leaders endeavor selflessly and altruistically to help others before themselves, work to foster their followers' most noteworthy potential, and try to help the community. With the increasing prominence of servant leadership, there is a prevailing need to articulate SL's literature more precisely. Thus, a bibliometric analysis is conducted on SL's literature based on the SCOPUS database considering the timeframe of the earliest (1977) to the latest years (2021). The overarching aim of this study is to evaluate the research patterns and trends in this arena so far, to generate a comprehensible outlook of the field.

**Design/methodology/approach:** The analysis focused on analyzing the performance matrix and content analysis along with network generation to evaluate the research trend by identifying the bibliographic information of SL. The study used Biblioshiny, an R tool for bibliometrics analysis.

**Findings:** This study demonstrated that 'Leadership and Organization development Journal' is the top journal in SL's literature following that 'Liden RC' and 'Van derendonck' are the most relevant authors in the field. In addition to it, North America and Europe are the regions where most of the research on SL has been conducted. Moreover, Van derendonck and Liden rc are the most co-cited authors in the literature of SL. Further through thematic mapping, niche themes, motor themes, emerging or declining themes, and basic themes have been identified based on density and centrality.

**Originality/value:** The originality of the article lies in shedding light upon new insights of bibliographic information likewise three field's plot, Bradford's law, thematic map, and trend topics which remained under-defined in SL's literature.

**Practical implications:** This article can have several practical implications likewise identifying knowledge gaps within the existing literature of SL, guiding researchers for future research aspects of SL, benchmarking performance of various contributors in the field and enhancing collaboration for further researches in this particular area.

**Keywords:** Servant leadership, Servant leaders, Bibliometric analysis, Bibliometric techniques.

## 1. Introduction

*"Be the servant if you will rule. That is the real secret... Kill the self-first if you want to rule...Such a man becomes a world mover for whom this little self is dead and God stands in its place."*

- Swami Vivekananda

Presently organizations are peculiarly concerned about human interventions. The scope of leadership has been shifting from focusing only on productivity to quality work and a satisfied workforce. The concept of leadership has pivotally gained significance in shaping the employee work cycle. Styles of leadership are now focused on employees' prominent needs be it transformational leadership or servant leadership. Servant leadership states the intent of a leader where he counts people before himself. In 1977, Robert K. Greenleaf first beget the term 'servant leadership' as the leadership approach of serving the needs of followers and accentuating their great over the personal interest of leaders. In his views, SL is more than a management technique, likely a lifestyle that starts with "the normal inclination



Gurukul Business Review (GBR)  
Vol. 19 (Spring 2023), pp. 70-86  
ISSN : 0973-1466 (off line)  
ISSN : 0973-9262 (on line)  
RNI No. : UTTENG00072  
Impact Factor : 2.82 (IIFS 2020)

that one needs to serve, to serve first". In general, the term servant leadership was initiated by Greenleaf in his article "The Servant as Leader" to depict an emerging trend of leadership where leaders focused on followers' self-improvement and development, by ethically treating them. Greenleaf's origination was then refined by various analysts, such as Ehrhart (2004), who expressed that SL is one such form of leadership where a leader goes beyond the financial achievement of the organization perceiving their ethical responsibility towards subordinates, customers, and the entire organization's community. The emphasis of SL's theory has been set over the long run on serving and providing value for numerous stakeholders, both internal and outside of the organization.

### *1.1 heoretical framework*

Servant leadership is a leadership theory in which a leader thrives to serve people and the community. It differs from traditional leadership where the leader's main intent is to prosper the needs and necessities of their organization. A servant leader shares power, considers the necessities of the employees first, and helps individuals create and proceed as exceptionally as could be expected (Sendjaya S., et. al., 2002). Rather than individuals attempting to serve the leader, the leader exists to serve individuals (Kashyap et al., 2016) As expressed by its organizer, Robert K. Greenleaf, a Servant Leader ought to be centered around, "Do those served to develop as people? Do they, while being served, become better, savvier, more liberated, more independent, almost certain themselves to become servants?"

Servant leadership mainly considers two social theories to elucidate how it impacts follower behavior: social theory and social exchange theory. In servant leadership literature, the utilization of social learning theory contends that servant leaders influence their followers, as their followers observe and imitate the leader's positive ways of behaving. Interestingly, social exchange theory is utilized to contend that a servant leader's followers are showing positive ways of behaving because of the equal relationship they create with their leader.

## **2. Research Purpose and Gaps**

Research on servant leadership (SL) can be classified into three stages. The earliest stage centered on the applied development of SL, focusing on the work crafted by Greenleaf (1977) and Spears (1996). Second, a measurement stage where the research pivoted on identifying measures of SL and testing relationships between SL and outcomes through cross-sectional research. We are currently, at the third phase of SL research, which is the model development stage where more complex research plans are being used to go past straightforward associations with outcomes to comprehend the antecedents, mediating mechanisms, and limit states of SL. This third stage has seen an expansion of studies on SL, with more than 100 articles and two meta-analysis being published over the most recent four years alone (Eva et al., 2019).

Regardless of this developing consideration from practitioners and academics, SL is as yet an under-investigated theme while most of the empirical studies stay little (Parris and Peachey, 2012). We are at the beginning phases of understanding its real worth for organizations and employees (Hunter et al., 2013). Researchers argue to enhance and promote SL's research (Liden et al., 2014). Parris and Peachey (2012) claim SL is a "promising new field of research". Liden et al. (2014) consider SL "at an early stage of theoretical development" and predict it has noteworthy potential for further research.

It is evident from the published studies that aspects of SL are being researched globally in recent times. However, there remains a dearth of precise systematic literature in this area, moreover, transparency in concepts and SL constructs are still vague. The global SL research trends and themes are yet to be identified, analyzed, and evaluated in a clear and structured way. The contribution put forward by different nations, authors, journals, and their associations with one another are yet to be discovered and represented in a way that could lead to significant research outcomes for potential researchers and academicians across the globe. The most contributing countries in SL's research at the time are the USA, Netherlands, China, and Australia. There exists a huge gap to study SL's literature in the African, Middle Eastern, and South Asian contexts.

In one of a very profound research study relating to the literature review by Eva, Robin, Sendjaya, van Dierendonck, and Liden (2019) published by leadership quarterly, they have determined and classified the various phases of SL research over the timeframe of 20 years (1998-2018). Nonetheless, there still is a requirement for an extensive and incorporated bibliometric review to recognize the themes, trends, and development of SL research with identifying the potential future of the field.

In other words, bibliometric analysis is valuable for interpreting and mapping the total scientific knowledge and transformative nuances of well-established fields by sorting out enormous volumes of unstructured data in thorough ways. In this manner, bibliometric studies which are precisely done can fabricate strong ground works for propelling a field in novel and significant ways - it empowers and allows researchers to (1) gain a one-stop outline, (2) identify knowledge gaps, (3) determine original ideas for investigation, and (4) position their planned contributions to the field (Naveen Donthu et. al, 2021).

This research study aims to provide a precise and prominent review of the literature on SL through bibliometric methods likewise performance analysis and science mapping using an 'R-tool' Biblioshiny, The current research study attempts to address the following aspects:

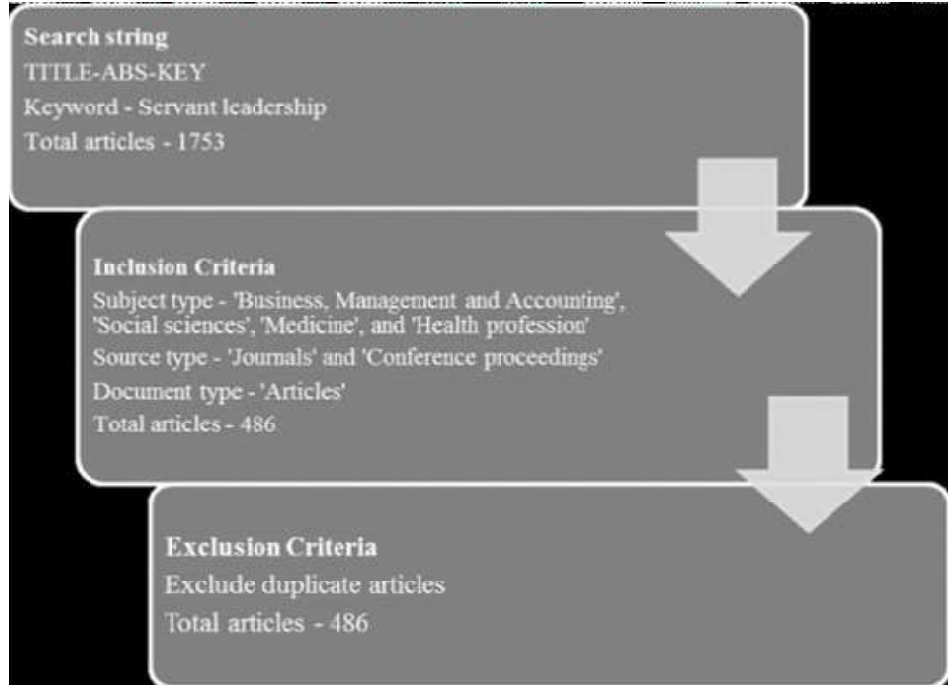
- \* The recent publication flow.
- \* The current thematic trend in this arena.
- \* The utmost influential authors.
- \* The collaboration trend.
- \* The core journals using Bradford's Law.
- \* The most cited and frequently used author keywords.
- \* The 'Three field's plot' using Sankey diagrams.
- \* The most influential countries and their annual scientific production over the years in SL's literature.
- \* The most relevant affiliations in the field.
- \* The conceptual, intellectual, and social structures.

### 3. Method

This study provides a significant contribution to servant leadership research by retrieving and analyzing all the publications on SL in different disciplines published by journals indexed in the Scopus database. To present the finding in an organized and structured way, the bibliometric analysis approach was considered to further evaluate the characteristics of all the publications in the field of SL. The techniques used for bibliometric analysis were performance analysis to identify the most contributing constituents in the field and science mapping to present the relationships among the identified constituents.

#### 3.1 Search strategy

The search for this study was conducted on January 18th, 2022 using the Scopus database. The topic for this search was "servant leadership" in the title, abstract, and keywords to analyze the global recent research trends of SL. The list of articles was sorted from oldest to latest where the oldest is 1977 and the latest is 2021. The search string was set as: (TITLE-ABS-KEY {"servant leadership", "servant leader"}). A total of 1753 articles were retrieved using this search string thereafter limiting the Subject area to 'Business, management and accounting', 'Social sciences', 'Medicine', and 'Health profession', Source type was limited to 'Journals' and 'Conference proceedings', and Document type was limited to 'Articles' after which only 486 articles were retrieved for further concluding bibliometric analysis.



**Figure 1.**  
Inclusion/ Exclusion  
criteria

**3.2 Bibliometric Technique**

Zupic and ?ater (2015) defined "Bibliometrics" as a quantitative tool/measure to analyze the different components of the publications, for example, journal, author, keywords, country, citation and co-author, and so forth. The bibliometric analysis requires representation and mapping software to direct the quantitative analysis (Cobo, López-Herrera, Herrera-Viedma, and Herrera, 2011). Bibliometric analysis has two categories: (1) performance analysis and (2) science mapping. Performance analysis accounts for the contributions of research constituents, whereas science mapping focuses on the relationships between research constituents. (Naveen Donthu et al., 2021). Performance analysis is done by identifying the most contributing constituents like annual scientific production, most relevant sources, authors, documents, countries, keywords, trend topics, and source impact. Science mapping was conducted by analyzing three field's plot, conceptual, intellectual, and social structures representing co-occurrence, thematic map, Co-citation, and collaboration network of authors, countries, and institutes.

<b>Bibliometric techniques</b>	
<b>Performance Analysis</b>	
Annual scientific production (yearwise article publication)	
Top sources (Bradford's Law)	
Source Impact (TC index)	
Prolific Authors (total no. of documents published)	
Most relevant Documents (GC index)	
Most relevant Countries (most no. of documents published)	
Most relevant Affiliations (most no. of documents)	
Trend topics (Term frequency per year)	
<b>Science Mapping</b>	
Conceptual Structure (Co-occurrence network of keywords and thematic map)	
Intellectual Structure (CoCitation network of Authors)	
Social Structure (Collaboration network of Authors, Countries, and Affiliations)	
Three-field's plot (Sankey diagram)	

**Table 1.**  
Bibliometric techniques

### 3.3 Bibliometric Map

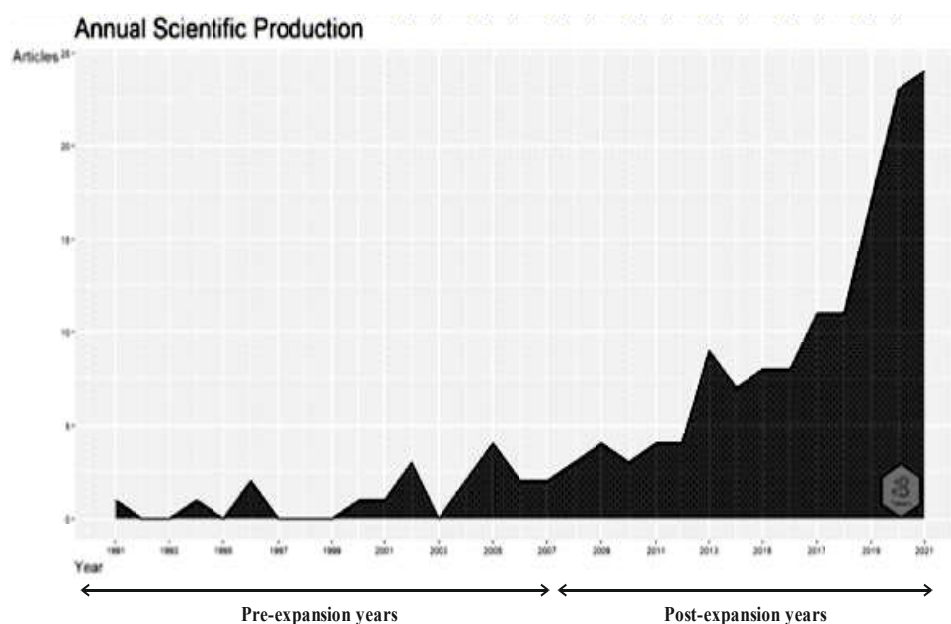
The bibliographic information has been attained by using the software Biblioshiny, an R-tool for bibliometric analysis to analyze and evaluate the bibliographic data through a workflow of data collection, data analysis, and data visualization by retrieving bibliometric maps and tables clarifying the influential major drifts in the literature of servant leadership. A total of 486 SCOPUS-indexed articles were exported and later on filtered on the basis of 'Core Sources' to attain only relevant articles pertaining significance to the research therefore only 162 articles were retrieved. Further, the bibliometric analysis has been conducted to draw the major outcomes relating to major contributors, conceptual, intellectual, and social structures in the literature of SL.

## 4. Result and Analysis

### 4.1 Performance Analysis

Performance analysis explains the contributions of research constituents to a given field (Cobo, Lopez-Herrera, Herrera-Viedma, and Herrera, 2011; Ramos-Rodríguez and Ruíz-Navarro, 2004). Performance analysis can be found in many studies, even in those that don't include science mapping, since it is a standard practice in research to introduce the performance of different research constituents (e.g., authors, institutions, countries, and journals) in the field, which is much the same as the foundation or profile of participants that is precisely represented in quantitative research yet more systematically.

#### 4.1.1 Annual Scientific Production



**Figure 2.**  
Annual Scientific  
Production

Figure 2 here represents the annual scientific production of articles in the arena of servant leadership over a span of 1991 to 2021 in the core journals adding relevance to the literature, where it can be noticed that starting years had a very slow-paced graph in terms of publications whereas a small spike in the literature can be observed in 2002 but within a year it went through a fallback. Finally, from the year 2004, the graph of articles production steadily increased and maintained the pace. The annual growth rate of scientific production is 14.82%. It can be depicted that the span of 1991 to 2009 is a pre-expansion phase in the literature of servant leadership with articles published ranging from 0 to 5 while the period of 2009 to 2021 is a post-expansion phase in the literature of servant leadership with articles published ranging from 5 to 24. The most significant year for the annual scientific production of articles is 2020 to 2021, where the maximum number of articles got published numbering 24.

Figure 3.  
Most Relevant Sources

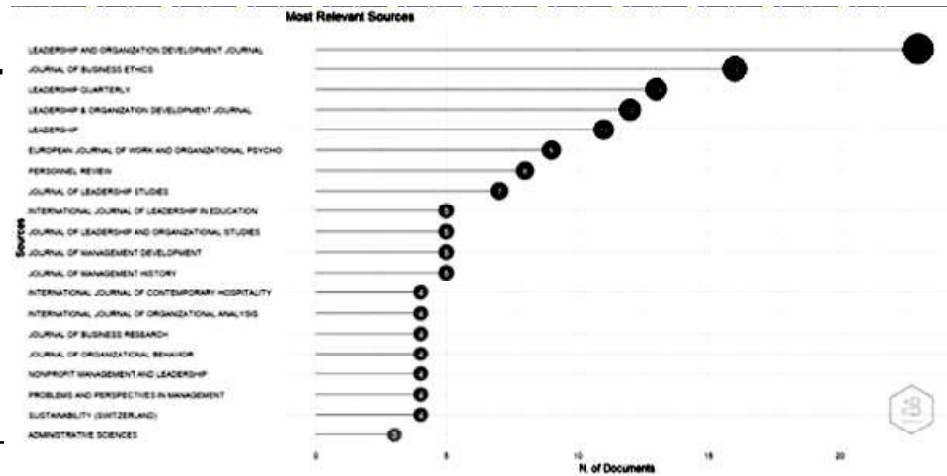


Figure 3 illustrates the top most relevant journals in the field of servant leadership, where it can be concluded that 'Leadership and Organization development Journal', 'Journal of Business Ethics', 'Leadership quarterly', 'Leadership & Organization development Journal' and 'Leadership' are the 5 top most influential journals with a total number of 23, 16, 13, 12 and 11 documents published respectively.

*Bradford's Law (Sources)*

Bradford's Law gauges the exponentially diminishing returns of searching for references in science journals. Journals in a field can be divided into three parts, each with about one-third of all articles: 1) a core of a few journals, 2) a second zone, with more journals, and 3) a third zone, with the bulk of journals. The number of journals is  $1:n:n^2$ .

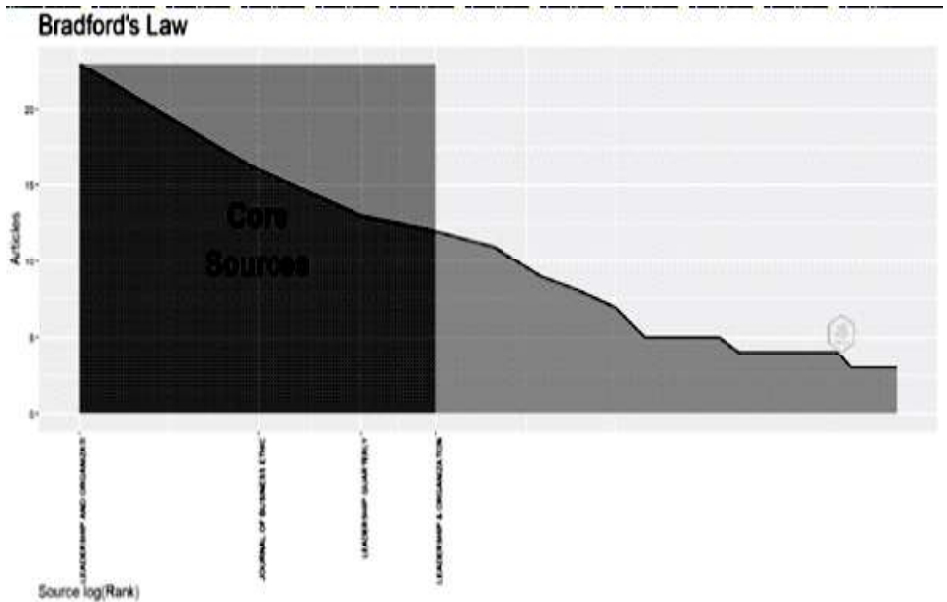


Figure 4.  
Bradford's Law

The depiction is based on the source rank per number of articles published under that source, the journals with the highest rank are considered as 'Core Sources'. The rank here signifies the relevance of the work published by journals, the focus here relies on quality rather than quantity. Through figure 4 it can be mentioned that 'Leadership and Organization Development Journal', 'Journal of Business Ethics', 'Leadership quarterly', and 'Leadership & Organization Development Journal' record the highest source rank amongst other journals with 23, 16, 13, and 12 articles which were limited in number but relevant published in the time period of 1977 till 2021.

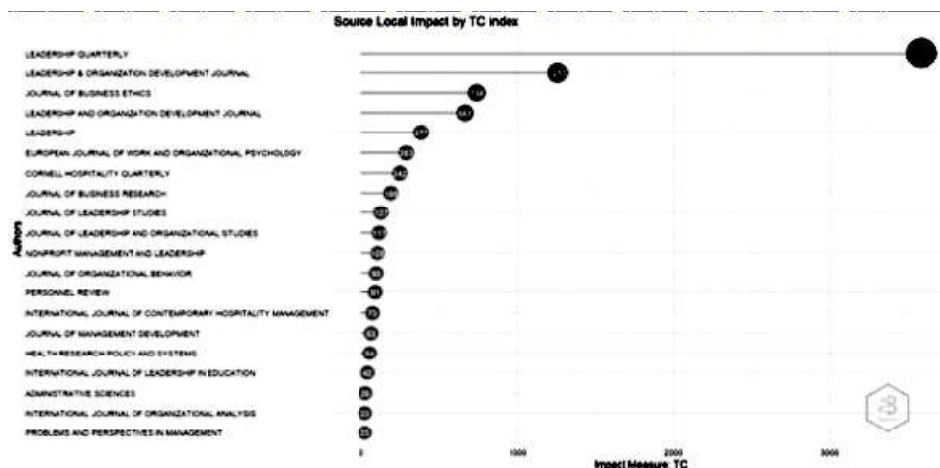


Figure 5.  
Source Impact

Source impact describes the influence factor of a particular Journal in terms of Total Citations by authors, researchers, and academicians. Total citations represent the number of times an author cites a particular article in a study. Figure 5 interprets that 'Leadership Quarterly' has the major impact with the highest total citations 3583, the second impactful source is 'Leadership & Organization Development Journal' with a total citation count of 1253. The third most impactful source is the 'Journal of Business Ethics' with total citations of 734 while the least impactful source is 'Problems and Perspectives in Management' with the lowest total citations count of 23.

#### 4.1.3 Major Contributors (Authors, Documents, Countries and Affiliations)

Most relevant Authors

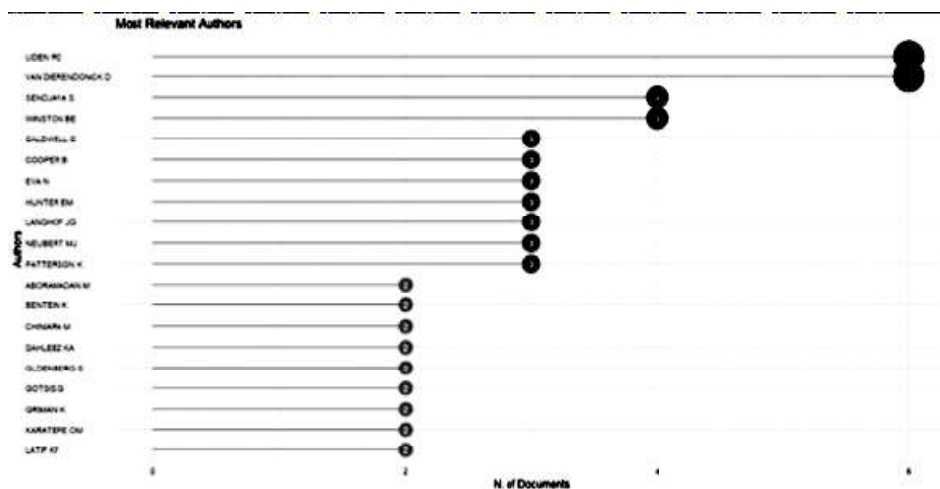


Figure 6.  
Most Relevant Authors

As depicted by figure 6, 'Liden RC' and 'Van derendonck' are the two most relevant authors with 6 published articles each in the 'Core Journals' of servant leadership expanding and adding relevance to the literature of SL. While 'Sendjaya S' and 'Winston BE' published 4 articles each in the 'Core Journals' making them significant contributors to the research field.

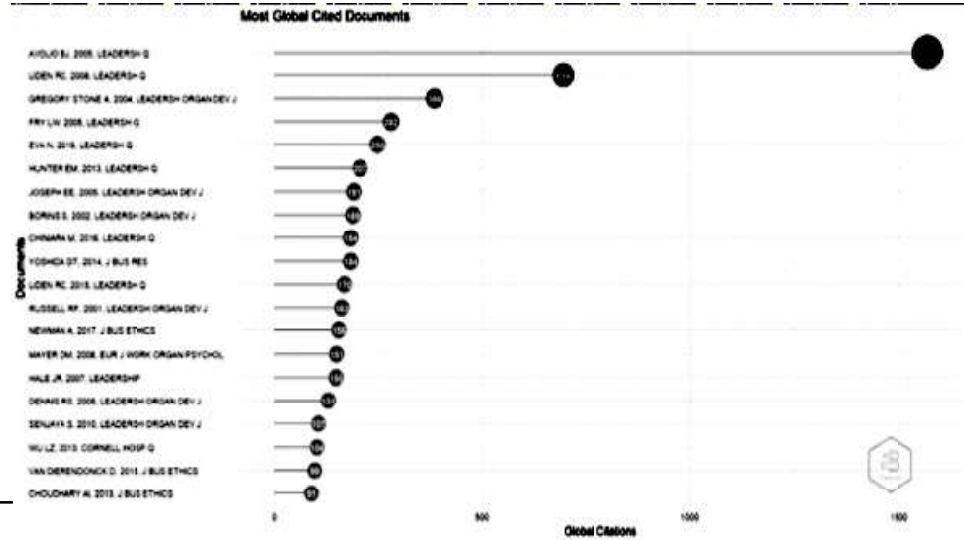


Figure 7.  
Most relevant Documents

As depicted by figure 6, 'Liden RC' and 'Van derendonck' are the two most relevant authors with 6 published articles each in the 'Core Journals' of servant leadership expanding and adding relevance to the literature of SL. While 'Sendjaya S' and 'Winston BE' published 4 articles each in the 'Core Journals' making them significant contributors to the research field.

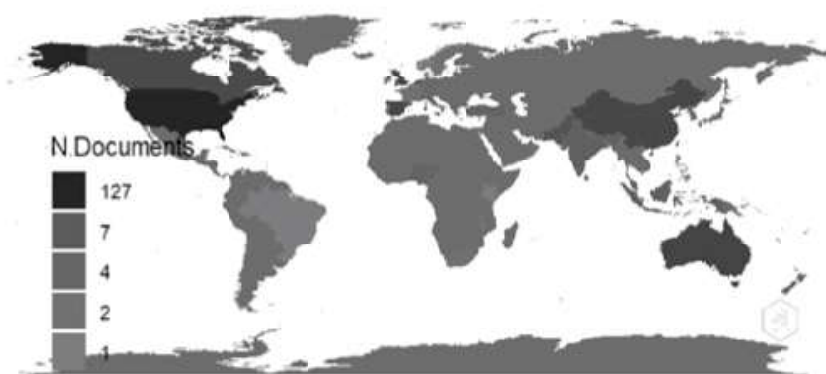


Figure 8.  
Country Scientific  
Production

The literature of SL has outgrown globally, the most relevant countries in terms of most publications remain the USA, Australia, UK, China, Netherlands, and Canada. These are the major contributors in terms of expanding research in the field. Figure 8 states the 'Country scientific production' over the years 1977 till 2021 in the 'Core Journals' of the area where the USA has published 127 documents, Australia published 7 and the UK published 4 documents respectively, concluding to be the most relevant Countries in terms of major articles publications.



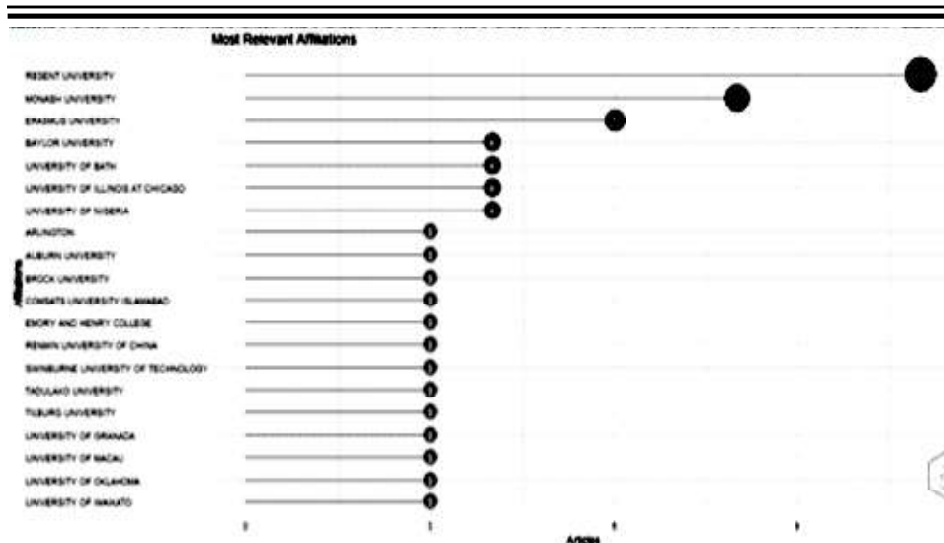


Figure 9.  
Most relevant Affiliations

Figure 9 represents that 'Regent University' (11) outstands as the most relevant institution in the SL's literature. While 'Monash University' (8), 'Erasmus University' (6), 'Baylor University' (4), 'University of Bath' (4), 'University of Illinois at Chicago' (4), 'University of Nigeria' (4), 'Arlington' (3) and others come later as relevant institutions in the field. These universities have contributed the most in terms of total scientific production.

#### 4.1.4 Trend topics

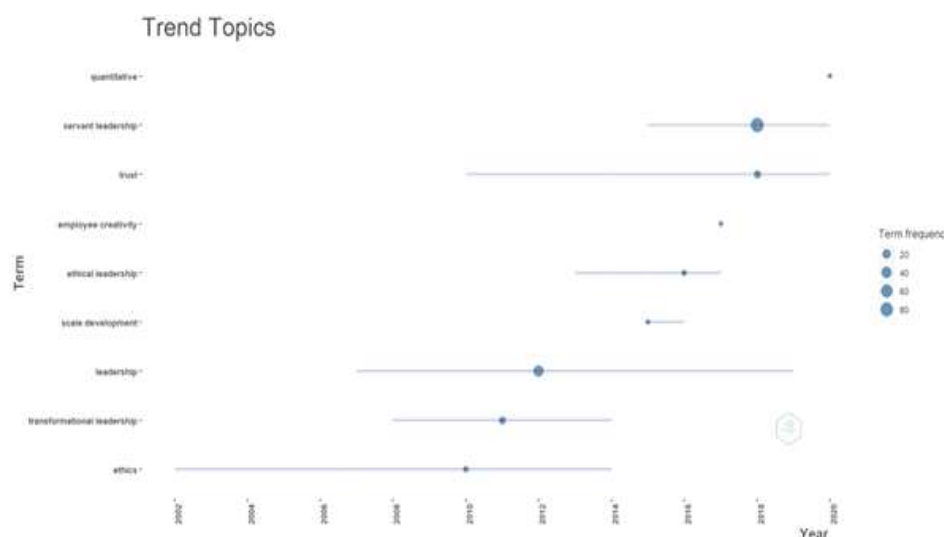


Figure 10.  
Trend topics

Figure 10 illustrates trend topics from 2002 till 2020, defining the diversified work conducted in the field. The years 2002 to 2009 noticed negligible research trends, while the year 2010 started recognizing the growing curiosity of researchers in this arena following that 'Scale development', 'Employee creativity', and 'Quantitative' are the least trending topics with 20 as term frequency in the SL literature. 'Ethics', 'Ethical leadership', 'Trust', and 'Transformational leadership' have 40 'term frequency' depicting less interest of the researchers. 'Leadership' has 60 'term frequency' stating good research trends in the year 2012. The most trending topic is 'Servant leadership' in the SL research with the highest 'term frequency' of 80 in the year 2018.

#### 4.2 Science Mapping

Science mapping reviews the relationships between research constituents (Baker, Kumar, and Pandey, 2021; Cobo et al., 2011; RamosRodríguez and Ruíz-Navarro, 2004). The analysis relates to the intellectual interchange and structural associations among research constituents. The strategies for science mapping incorporate citation analysis, cocitation analysis, bibliographic coupling, co-word analysis, and coauthorship analysis. Such strategies, when joined with network analysis, are instrumental in introducing the bibliometric structure and the intellectual design of the research arena (Baker, Pandey, Kumar, and Haldar, 2020; Tunger and Eulerich, 2018).

4.2.1 Three fields plot

The three-field plot in Biblioshiny software is used to outwardly survey the relationship among sources, countries, affiliations, keywords, leading authors, cited sources, and author-keywords, and so forth. The rectangle's height indicates the relationship among different features like countries, sources, prominent authors, and author-keywords, and so forth. The larger, the size of a rectangle shown in the diagram, the denser the relationship between different components (Raman kumar et. al., 2021).

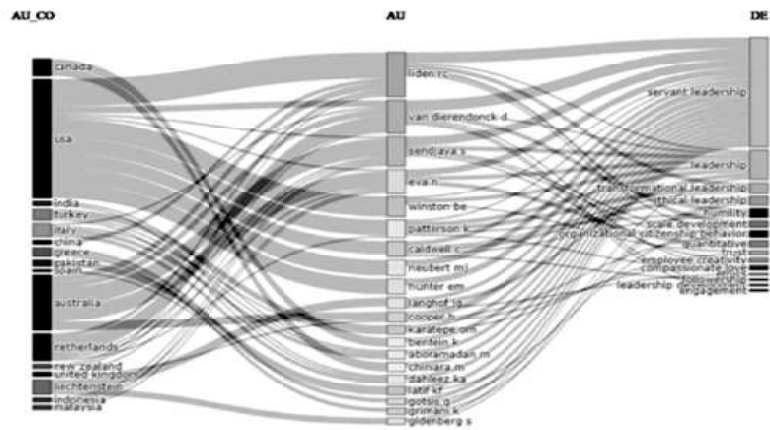


Figure 11.

Figure 11 illustrates the three fields plot relationship between countries (left), author (middle), and keywords (right). It shows how different authors from various countries have worked on numerous aspects of servant leadership using different keywords. 'Servant leadership', 'Leadership', and 'transformational leadership' were the most used keywords by Authors 'Liden rc', 'Van derendonck. D', 'Sendjaya S', 'Eva n' and 'Winston be'. On the basis of these keywords major contribution in the SL research is by the USA, Australia, and Netherlands along with their researchers publishing relevant articles in this arena.

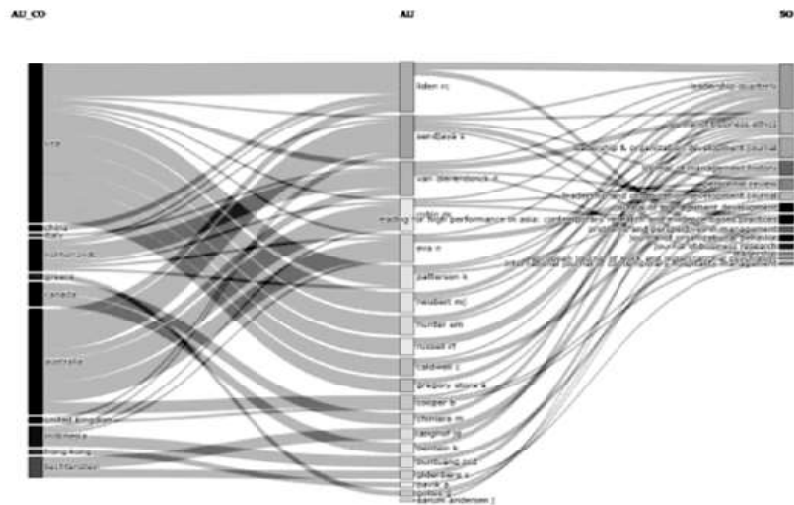


Figure 11.1

Through figure 11.1, a sankey diagram discloses the three fields plot analyzing the relationship among three components namely countries (left), author (middle), and sources (right). It shows how multiple authors published their studies in various major contributing sources belonging to different countries. The analysis established most of the work has been published in 'leadership quarterly', 'journal of business ethics' and 'leadership and organization development journal' by 'Liden R.C', 'Sendjaya S.' and 'Van derendonck d.' majorly from USA and Australia. This represents the strong connection among all these components.

#### 4.2.2 Conceptual Structure

##### Co-occurrence network

Conceptual structures define the co-occurrence of some items, similar to keywords or index words of feature elements articulated in an article. The element substances consist of organizations, titles, authors, or keywords, etc in the literature. It is a quantifiable study of the co-occurrence phenomenon to reveal the content connotation of the evidence. Keywords can summit the exploration limits in examining and directing research areas of interest and growth patterns.

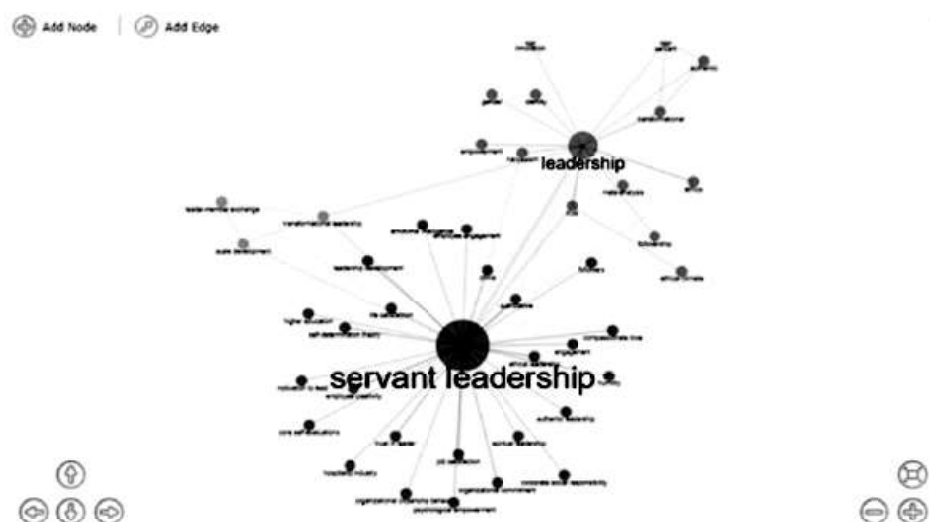


Figure 12.

Figure 12 results in the network representing the occurrences of the most frequently used keywords in the SL literature. The output generated by the software for author keywords co-occurrence divides the total keywords into three clusters. The most occurred keyword is 'servant leadership' falling in cluster 1 (Red colored). Cluster 1 represents 27 nodes showcasing links with other used keywords falling in the same cluster namely 'ethical leadership, leadership development, job satisfaction, quantitative, employee creativity, spiritual leadership, authentic leadership, compassion, compassionate love, engagement, humility, followers, employee engagement' and so on. Cluster 2 (Blue colored) includes 17 nodes representing links with each other namely 'leadership, trust, ethics, empowerment, gender, management, management styles, servant, followership, narcissism' and so forth. Cluster 3 (Green colored) have 3 nodes showcasing link with one another, 'transformational leadership, scale development, and leader-member exchange'.

##### Thematic Map

Servant leadership literature encountered thematic research over the years. To bring clarity the themes are studied under four categories namely Niche themes, Motor themes, Emerging or declining themes, and Basic themes based on density and centrality. Where niche themes state the specific segments where the SL research is more favorable, motor themes explain the commonly covered areas in the field, emerging or declining themes present the areas of SL that could be growing in terms of researchers' interest or falling due to the same and basic themes define the most fundamental and essential areas of SL literature.

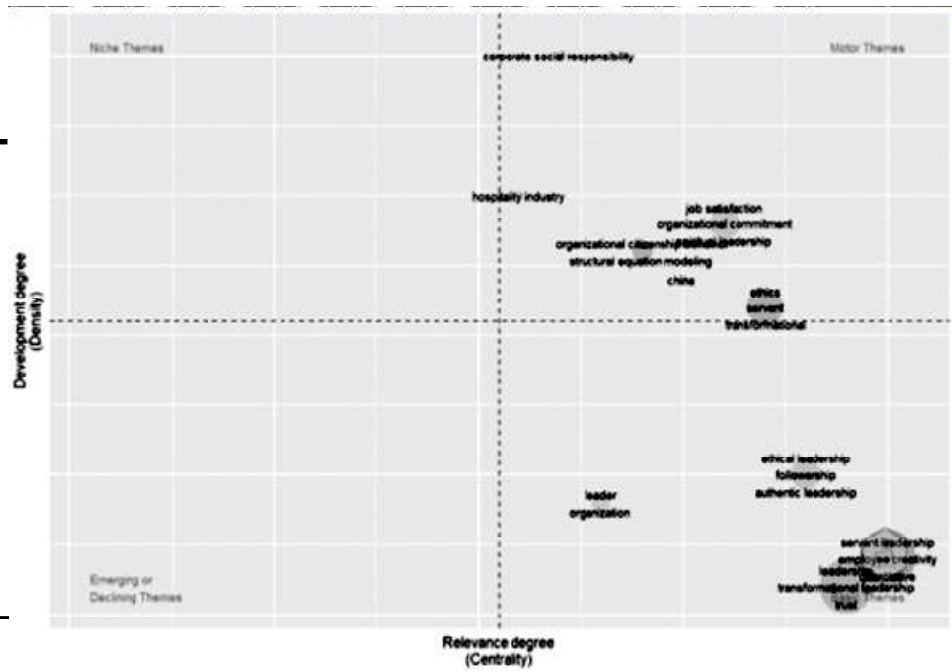


Figure 13.

As shown in figure 13, Niche themes include studies on 'corporate social responsibility and hospitality industry'. Motor themes include 'corporate social responsibility, hospitality industry, job satisfaction, organizational commitment, organizational citizenship behavior, spiritual leadership, structural equation modeling, China, ethics, servant, transformational'. Emerging or declining themes notice no such topics as of now while basic themes include 'transformational, ethical leadership, followership, leader organization, authentic leadership, servant leadership, employee creativity, leadership, quantitative, transformational leadership, and trust'.

4.2.3 Intellectual structure

Co-citation network

It results when two authors or two sources are found related to the reference rundown of a sole publication (Tunger and Eulerich 2018). Along these lines, the CoC analysis is a way to evaluate the relative comparison of different publications with the shared subject, model, procedure, or experimental discipline (Gmur 2003).



Figure 13.

This analysis assists in distinguishing the intellectual structure of the paper. We considered clusters from the CoC network and supported a content analysis to differentiate the intellectual structure of the subject 'servant leadership'. Figure 14 depicts three clusters with different nodes linked with each other resulting in a co-citation network where multiple authors have been co-cited together in the studies. Van derendonck d., 2011-1, Liden rc, 2008, Van derendonck d., 2011-2 and Liden rc, 2014 are the most co-cited authors from cluster 1 (Blue coloured). Greenleaf r.k., 1977 and Barbuto, J.E, 2006 are the second most co-cited author falling under cluster 2 (Red colored), and Ehrhart, M.G., 2004 and Walumbwa, F.O, 2010 are the other most co-cited authors representing cluster 3 (Green colored).

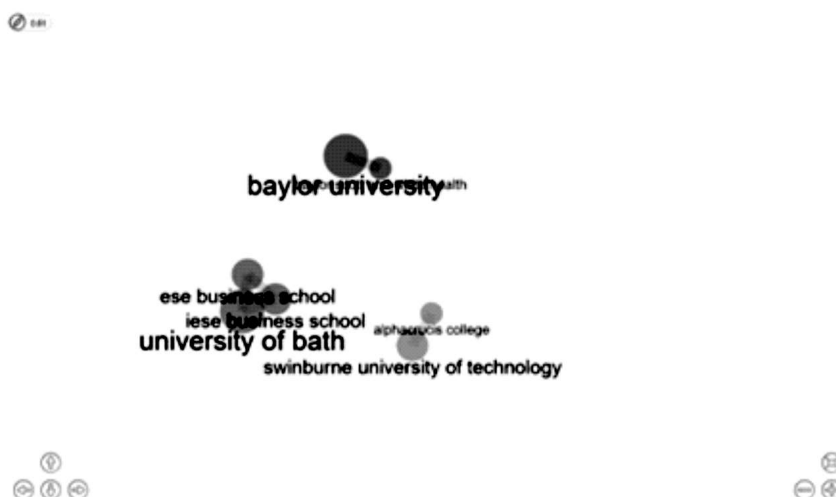
#### 4.2.4 Social Structure

In Biblioshiny software 'Social structure' represents the collaboration network of Authors, Institutions, and Countries. With the help of social structure, a collaboration network is formed identifying the shared participation of different variables in the same research arena.



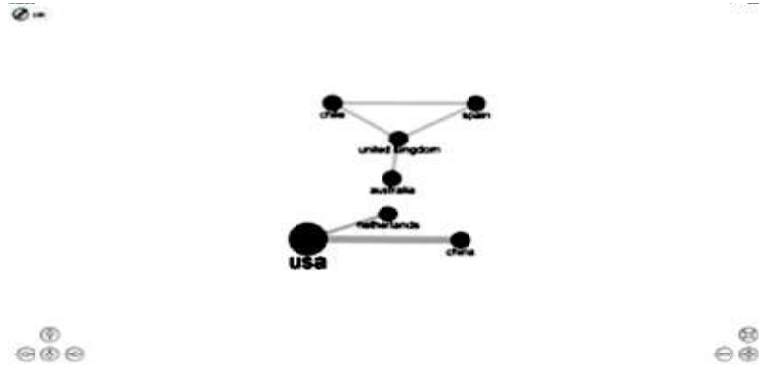
**Figure 15.**  
Author collaboration  
network

The major author's collaboration is found in three different clusters, cluster 1 (Red) where Sendjaya S., Eva n, Robin m, and Cooper b. collaborated, cluster 2 (Blue) where Liden RC, Wayne SJ, Liao C, and Wu J collaborated, and lastly, cluster 3 (Green) where Van derendonck d. and Sousa M collaborated to enrich the SL's literature over time (1977 to 2021).



**Figure 16.**  
Institution collaboration  
network

Figure 16 reveals that there are three clusters of Institution collaboration network, which have worked together to conduct relevant research in the field of SL. Cluster 1 (Red) shows a collaboration network between 'Baylor University' and 'Baylor Scott & White Health', cluster 2 (Blue) represents a collaboration network among 'University of bath', 'Iese Business School' and 'Ese Business School' and cluster 3 (Green) depicts a collaboration between 'Swinburne University of Technology' and 'Alphacrucis College'.



**Figure 17.**  
Country collaboration network

Countries collaboration network defines the number of countries who have jointly contributed towards the research in the field. Through figure 17, two clusters have been found, cluster 1 (Red) shows the collaboration among USA, China, and Netherlands whereas Cluster 2 (Blue) represents the collaboration among Australia, the United Kingdom, Chile, and Spain. These are the major contributing countries in terms of the most relevant publications in SL's literature.

### 5. Findings and Discussions

The study thoroughly addressed the aspects of SL as mentioned above, by putting forward the major contributors likewise major authors, journals, countries, and institutions, and emphasized their collaborations in the field through scientific analysis of the SCOPUS database. This article provided wholesome information about the performance matrix using the performance analysis technique and also, defined the network associations among different constituents using the science mapping technique of bibliometrics analysis respectively. Primarily, through performance analysis, the study showcased the current publication drift in the field where results exhibit that the year span of 1991 to 2009 is a pre-expansion phase in SL literature with a lesser contribution in publications while the period of 2009 to 2021 is a post-expansion phase in SL literature with higher publications in 'Core journals' of the field. Bradford's Law specified that 'Leadership and Organization development Journal', 'Journal of Business Ethics', 'Leadership quarterly' and 'Leadership & Organization development Journal', record the highest source rank amongst other journals with 23, 16, 13, and 12 number of limited but relevant articles published in the span of 1977 till 2021 hence can be concluded as 'Core Sources'. Further, 'Leadership Quarterly', 'Leadership & Organization development Journal', and 'Journal of Business Ethics' have been identified as the most impactful sources based on the highest total citations count. Additionally, Countries like the USA, Australia, China, Netherlands, and Canada have published the most relevant articles in this arena. 'Liden RC', 'Van dierendonck', 'Sendjaya S', and 'Winston BE' are the most relevant authors with the most published articles in the 'Core Journals' of servant leadership expanding and adding relevance to the literature of it. Documents by 'Avolio BJ, 2005 published in Leadership quarterly' and 'Liden rc, 2008 published in Leadership quarterly' are the most influential documents in SL's research. Further mentioning the trend topics of this field over the years 2010 to 2020, 'Servant leadership', 'Leadership', 'Transformational leadership', 'Trust', 'Ethical leadership', 'Ethics', 'Quantitative', 'Employee creativity', and 'Scale development' proved to be the most stressed and worked topics throughout. Eventually,

through science mapping, the research article defined the 'Three fields plot' where the relationship among countries, authors, and keywords have been specified and thus noticed that 'Servant leadership', 'Leadership', and 'transformational leadership' are the most used keywords by Authors 'Liden rc', 'Van derendonck. D', 'Sendjaya S', 'Eva n' and 'Winston be'. Adding more to it, through co-occurrence analysis of keywords it can be mentioned that 'servant leadership' was the most occurring keyword in SL's research and other frequently used keywords were 'leadership, transformational leadership, ethical leadership, leadership development, job satisfaction, quantitative, employee creativity, spiritual leadership, authentic leadership, compassion, compassionate love, engagement, humility, followers, employee engagement, leadership, trust, ethics, empowerment, gender, management, management styles, servant, followership, narcissism, scale development, and leader-member exchange'. Further, the thematic map of SL's literature has been classified into 4 themes namely Niche themes, Motor themes, Emerging or declining themes, and Basic themes where Niche themes include studies on 'corporate social responsibility and hospitality industry'. Motor themes include 'corporate social responsibility, hospitality industry, job satisfaction, organizational commitment, organizational citizenship behavior, spiritual leadership, structural equation modeling, China, ethics, servant, transformational'. Emerging or declining themes notice no such topics as of now while basic themes include 'transformational, ethical leadership, followership, leader organization, authentic leadership, servant leadership, employee creativity, leadership, quantitative, transformational leadership, and trust'. Moreover, Through co-citation analysis, it is found that 'Van derendonck d., 2011-1', 'Liden rc 2008', 'Van derendonck d., 2011-2' and 'Liden rc, 2014' are the most co-cited authors by researchers. 'Greenleaf r.k., 1977' and 'Barbuto, J.E, 2006' are the second most co-cited authors by researchers or academicians, and 'Ehrhart, M.G, 2004' and 'Walumbwa, F.O, 2010' are the other most co-cited authors in the SL's literature. On the collaboration front authors Sendjaya S., Eva n, Robin m, and Cooper b. collaborated, followed by institutions namely 'Baylor University' and 'Baylor Scott & White Health' shared a collaboration network and the countries that collaborated were USA, China, and Netherlands.

## 6. Conclusion

Bibliometric analysis is a quantitative research method used to examine patterns in the literature of a particular subject area. Through this study of servant leadership, bibliometric analysis provides insights into the trends, patterns, and impact of research on this topic. Based on a bibliometric analysis of servant leadership literature published between 1977 and 2021, several key conclusive remarks emerge like the number of publications on SL has increased significantly over the past few decades, indicating a growing interest in this topic among researchers. Prominently, the most popular publication outlets for SL research are journals in the fields of leadership, management, and organizational behavior. Interestingly, North America and Europe are the regions where most of the research on SL has been conducted. Moreover, the most cited papers in the SL literature tend to be those that focus on the concept of servant leadership as a distinctive leadership style or approach, and those that explore the relationships between servant leadership and other leadership concepts, such as transformational leadership and ethical leadership. Additionally, there is evidence of a growing interest in the practical implications of SL, including its potential to improve organizational performance, employee well-being, and stakeholder satisfaction.

Finally, there is a need for more empirical research on servant leadership, particularly studies that test the effectiveness of SL in different contexts and cultures, and those that explore the relationship between servant leadership and other organizational outcomes. Overall, the bibliometric analysis of SL literature indicates that this topic has generated a significant amount of research interest over the past few decades and that there is still much to be explored in terms of its conceptualization, measurement, and practical implications. Through the findings it can be inculcated that this arena is by far been studied well but still lacks robust literature, focusing that this research article should help future scholars and researchers to understand the latest trends, themes, and scope of leadership. By using Biblioshiny package of R Studio software, a modernized and comprehensible picture of SL's literature

has emerged. The analysis is providing a great visualization of the bibliographical information about the area of research. There is an increase in the number of publications in the past few years, and it shows that this area is in its developing phase. New areas of SL development have been highlighted through this study.

### **7. Implications**

#### **Social Implications**

This article will add concise knowledge to the literature on servant leadership. This article can be significant to academicians, research scholars, practitioners, organizations, and business policymakers in understanding the core of servant leadership on a global basis through a systematic literature representation of facts and information. In any case, researchers ought to analyze the possible downsides of servant leadership, survey its validity across industries, as well as recognize the best scenario where it tends to be executed.

#### **Practical Implications**

The bibliometric analysis of servant leadership can have several practical implications, including: Identifying knowledge gaps: By analyzing the literature on servant leadership, researchers can identify areas where there is a lack of research and where further investigation is needed. This can help guide future research and inform the development of new theories and concepts related to servant leadership.

Informing practice: The practical implications of servant leadership can be better understood by analyzing the literature on this topic. Such an analysis can provide insights into how organizations can implement servant leadership practices to improve employee engagement, performance, and well-being, as well as enhance stakeholder satisfaction.

Benchmarking performance: By analyzing the bibliometric data, organizations can benchmark their performance in relation to others in the field, identifying areas where they excel and where there is room for improvement.

Enhancing collaboration: Bibliometric analysis can also be used to identify potential collaborators for future research projects and to establish networks of researchers who share common interests in servant leadership.

Facilitating knowledge transfer: Finally, the bibliometric analysis of servant leadership literature can help disseminate knowledge and promote knowledge transfer across organizations and industries, as well as across academic disciplines. This can enhance the uptake of servant leadership practices and promote a deeper understanding of the concept in the broader community.

Moreover, this study prominently pictures the future direction for researchers to study the emerging themes in this area while focusing on core journals, the most cited articles, and the most noteworthy authors. In addition to it, the scientific analysis of SL definitely provides information to academicians, scholars and researchers where to emphasize more in this field which will eventually help this arena to expand in terms of research.

### **7. Limitations and Future Research Scope**

#### **Limitations**

The major limitation of the study is that it has considered data from SCOPUS Database only. Future researchers can also consider data from other global libraries like Web of Science, Dimensions, and Google scholar. This analysis is based on the software and algorithm and completely depends on the secondary database which is indexed in Scopus.

#### **Future Research Scope**

Through this article, it can be concluded that SL research is in its developing phase. Some relevant work has been done in the field but it is still not evident whether servant leadership is an approach, a model, or a trait. Further researchers should work on this to bring more clarity. Researchers can also decide on a sector-based study on SL, to find where it is best suited. There are multiple areas of SL that can be discovered in terms of employee development. This article can help future researchers in finding out the major contributions and phases of SL all in one place which could lead them to bring forward a more interesting and vast explanation of the topic.



## References

- Baker, Kumar, Pandey & Haldar. (2020). A bibliometric analysis of board diversity: Current status, development, and future research directions. *Journal of Business Research*.
- Cobo, López-Herrera, Herrera-Viedma, and Herrera. (2011). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the Fuzzy Sets Theory field. *Journal of Informetrics*.
- Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology*.
- Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R. C. (2019). Servant Leadership: A systematic review and call for future research. *Leadership Quarterly*, 30(1), 111-132.
- Greenleaf, R. K. (1977). Servant leadership in business. In *Servant leadership: A journey into the nature of legitimate power and greatness*.
- Gmur. (2003). Co-citation analysis and the search for invisible colleges: A methodological evaluation. *Scientometrics*.
- Hunter, E. M., Neubert, M. J., Perry, S. J., Witt, L. A., Penney, L. M., & Weinberger, E. (2013). Servant leaders inspire servant followers: Antecedents and outcomes for employees and the organization. *Leadership Quarterly*.
- Kashyap, Vanee; Rangnekar, Santosh (2016). Servant leadership, employer brand perception, trust in leaders and turnover intentions: a sequential mediation model. *Review of Managerial Science*.
- Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *Leadership Quarterly*, 19(2), 161-177.
- Liden, R. C., Wayne, S. J., Meuser, J. D., Hu, J., Wu, J., & Liao, C. (2015). Servant leadership: Validation of a short form of the SL-28. *Leadership Quarterly*, 26(2), 254-269.
- Naveen Donthu, Satish Kumar, Debmalya Mukherjee, Nitesh Pandey, Weng Marc Lim (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*.
- Parris, D. L., & Peachey, J. W. (2013). A Systematic Literature Review of Servant Leadership Theory in Organizational Contexts. *Journal of Business Ethics*, 113(3), 377-393.
- Raman kumar et. al.,. (2021). Revealing the benefits of entropy weights method for multi-objective optimization in machining operations: A critical review. *Journal of materials Research and Technology*.
- Ramos-Rodriguez A-R, Ruiz-Navarro J. (2004). Changes in the intellectual structure of strategic management research: a bibliometric study of the *Strategic Management Journal*, 1980-2000. *Strategic Management Journal* 25(10), 981-1004.
- Sendjaya, Sen; Sarros, James C. (2002). Servant Leadership: Its Origin, Development, and Application in Organizations. *Journal of Leadership & Organizational Studies*.
- Spears, L. (1996). Reflections on Robert K. Greenleaf and servant leadership. *Leadership & Organization Development Journal*, 17(7), 33-35.
- Tunger, D., Eulerich, M. (2018). Bibliometric analysis of corporate governance research in German-speaking countries: applying bibliometrics to business research using a custom-made database. *Scientometrics*.
- Zupic, I., & ?ater, T. (2015). *Bibliometric Methods in Management and Organization*. *Organizational Research Methods*.