

VOGUE OF LEADERSHIP RESEARCH: A BIBLIOMETRIC ANALYSIS

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Abstract. Leadership is the utmost influential element of the organization since leaders generate a healthy work environment. There is a dearth of studies conducted on Bibliometric analysis of leadership research in the current period. This kind of study is not available during the period of 2018-2022. From the SCOPUS database, Meta-data was collected for this study. For this study 700 scholarly works reviewed. The increasing trend of publications is observed in leadership research using longitudinal data. It is evident that the researchers from the USA rule the chart on the quantum of research done in the field of leadership research. Using the thematic map, the study of 700 scholarly works divided into four clusters, including basic, motor, niche and emerging themes. Within these more prominent themes and their associated subthemes, paves the way to novel directions in research.

Keywords: bibliometric analysis, leadership, thematic maps.

VOGA CERCETĂRII ÎN DOMENIUL LEADERSHIPULUI: ANALIZĂ BIBLIOMETRICĂ

Rezumat. Leadership-ul este elementul cel mai influent al organizației, deoarece liderii generează un mediu de lucru sănătos. În perioada actuală există un deficit de studii efectuate pe baza analizei bibliometrice a cercetărilor în domeniul leadership-ului. Acest tip de studiu nu este disponibil pentru perioada 2018-2022. Din baza de date SCOPUS, au fost colectate meta-date pentru acest studiu. În acest scop au fost revizuite 700 de lucrări academice. Se observă o tendință de creștere a numărului de publicații pe baza cercetărilor în leadership, folosind date longitudinale. Este evident că cercetătorii din SUA sunt în top după numărul de cercetări efectuate în domeniul leadership-ului. Folosind harta tematică, studiul a 700 de lucrări academice a permis împărțirea acestora în patru grupuri, inclusiv teme de bază, motrice, de nișă și emergente. În cadrul acestora, temele mai proeminente și subtemele asociate acestora, deschid calea către direcții noi în cercetare.

Cuvinte cheie: analiză bibliometrică, leadership, hărți tematice.

1. Introduction

The vibrant and turbulent time that today's world experienced has made it challenging an organization to flourish and survive. In order to be flourish and survive in such time the leadership plays a huge role. Jia et al. [9] state that leaders have a vital influence on the formulation of Human Resource Management (HRM) concepts, policies and goals. Jia et

al. [9] further state that HRM practices have become a more imperative platform for top management to convey organizational vision and strategy. The view of Asif et al. is that the quest to understand effective leadership has become one of the most important goals and common aspiration for researchers, individuals, organizations, and societies around the world [13, p.1]. Iddagoda [15] defined leadership as inspiring, guiding and influencing people when it is necessary.

In response to the never-ending interest in leadership, our objectives for this study were six-fold. First is to identify the trend of publications related to leadership. Second is to identify the dominating journals in the field of leadership. Third is to identify the most cited pioneer authors in the topic of leadership. To identify the total number of articles, increasing tendency and international distribution in the theme of leadership is the fourth research objective. To identify the publications in leadership that have most significant citation impact is the fifth research objective. Sixth research objective is to identify the relevant author keywords in leadership.

2. Methodology

The sample of the present study is from the Scopus database and used the searching keyword viz., "Leadership". The sample confined to the publications on Leadership from 2018 to 2022 published in Human Resource Management-related journals. The final sample includes 700 publications.

The descriptive analysis carried out to look at the current direction of the Leadership topic. This is an analysis of publications broken down by year, nation, journal, and author. Author key words were included in this study's key word analysis. A tabular representation of the frequency analysis of popular key phrases used in Leadership provided. Word cloud represents a map and cluster terms collected from author keywords. The various leadership themes from the year 2018 to 2022 highlighted on the thematic map. Based on citation analysis, the most influential articles examined.

3. Current Publication Trend in Leadership Research

Year-wise Publications

Figure 1 presents the number of publications on Leadership research between 2018 and 2022. In 2021 there was the highest number of publications recorded, which was 185. From 2018 onwards, a rising trend is reflected with intermittent dips in 2021 and 2022.

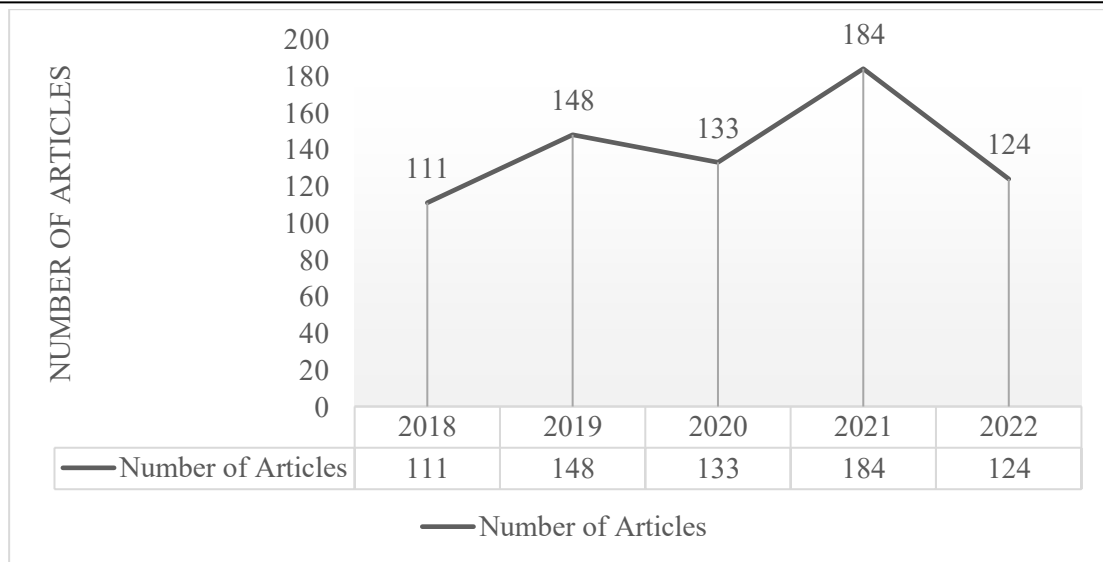


Figure 1. Year wise Publications

Country-wise Publications

Table 1 shows the highest cited ten countries on leadership research in 2018-2021. China is the top-cited country in the area of Leadership, which is the second country according to the number of publications. The top contributor to research is the USA, which is the second country according to total citations. Most of the research cited based on developed countries only China, Korea, and Pakistan are emerging countries. There is a dearth of studies has conducted in emerging countries.

Table 1. Country-wise Publications

Country	TP	TC	Average Article Citations
China	273	1148	14.53
USA	439	1012	9.92
United Kingdom	133	810	23.82
Australia	138	732	26.14
Spain	74	208	9.04
Korea	87	174	4.70
Italy	30	134	22.33
Pakistan	60	133	16.63
Germany	73	132	8.80
Portugal	39	131	14.56

Analysis based on corresponding author publications is depicted in Figure 2. The USA has the highest number of publications, and most are single-country publications. Most countries have multiple collaborations.

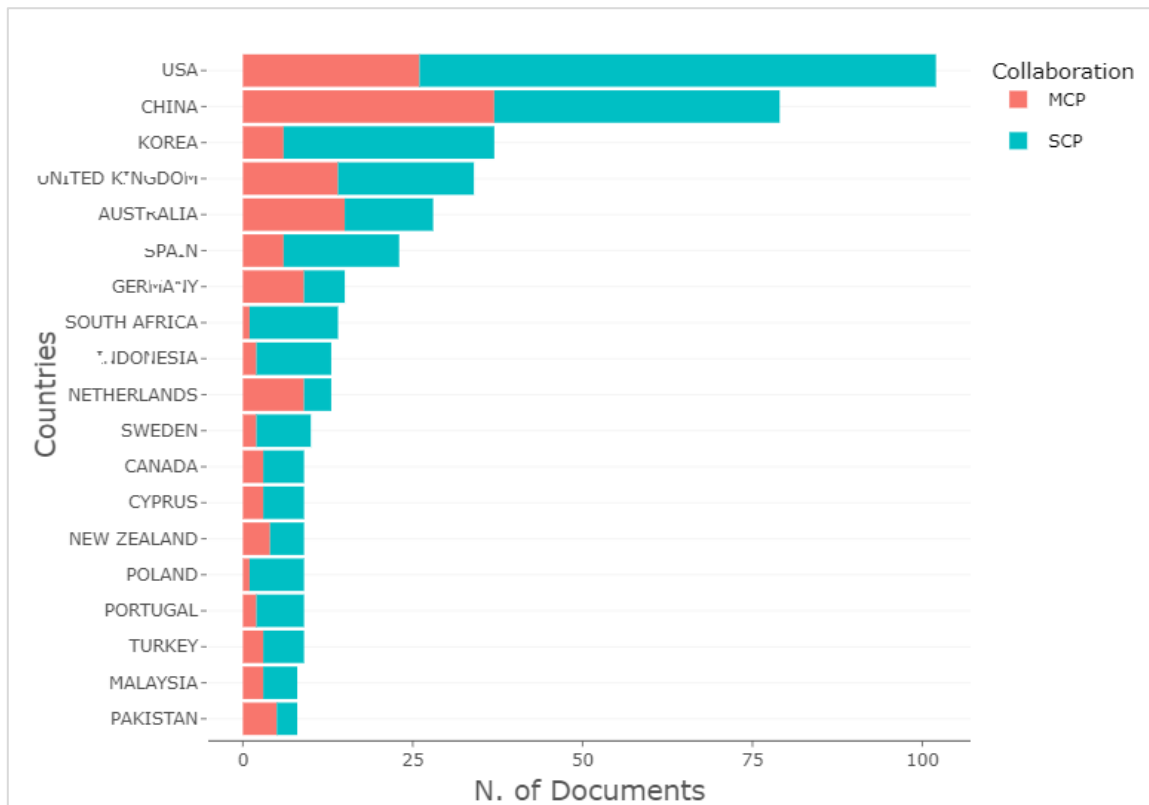


Figure 2. Corresponding Author Analysis

Journal-wise Publications

Table 2 lists the journals with the most cited articles on leadership research in 2018-2021. The 700 articles appeared in 61 journals. The leading journal attracting the highest number of publications with the highest number of citations in the area of Leadership are Sustainability (Switzerland). Leadership Quarterly, Human Relations, and Leadership journals received higher than 400 citations.

Table 2. Source Analysis

Journal	h_index	g_index	m_index	TC	NP
Sustainability (Switzerland)	21	32	4.2	1766	160
Leadership Quarterly	16	32	3.2	1182	32
Human Relations	13	20	2.6	426	27
Leadership	10	19	2	414	36
Leadership and Organization Development Journal	11	15	2.2	248	21
Journal of Occupational and Organizational Psychology	9	15	1.8	356	15
Public Personnel Management	9	13	1.8	170	14
Human Resource Management	11	12	2.2	285	12
Journal of Business Research	9	12	1.8	312	12
Journal of Leadership and Organizational Studies	7	11	1.4	131	12

Authors-wise Publications

Table 3 provides the list of top contributing authors in the area of Leadership. Newman A has the highest number of citations with 526 citations for six publications, followed by Lee Y with 525 citations and Tian with 451 citations. The top 9 authors received citations greater than 300 and Hughes also received 292 citations which are closed to 300.

Table 3. Author-wise publications

Authors	h_index	g_index	m_index	TC	NP
Newman A	5	6	1	526	6
Lee A	5	5	1	525	5
Tian Aw	3	3	0.6	451	3
Eva N	3	3	0.75	390	3
Robin M	2	2	0.5	386	2
Sendjaya S	2	2	0.5	386	2
Legood A	3	3	0.6	376	3
Liden RC	1	1	0.25	343	1
Van Dierendonck D	1	1	0.25	343	1
Hughes DJ	1	1	0.2	292	1

4. The themes of Leadership which are most popular among the scholars

Keyword Analysis



Figure 3. Wordcloud

Figure 3 shows the Frequency of occurrence of keywords. To explore the prevalent themes within leadership, the researchers conduct keyword analyses. Table 4 suggests that Leadership is the most frequently used keyword in the literature. The second most often used keyword is Transformational Leadership. This reveals most of the research about leadership in 2018-2022 considered transformational leadership, which is required in today's highly dynamic environment. Next, sustainability is the keyword, which is emphasized by the word cloud, which is vital in the current world. The current leadership is significant concern about the sustainability of the organisations to survive the COVID - 19 and business crisis in the world. Apart from the keywords discussed above and the other top 7 most frequently occurring keywords are innovation, performance, authentic leadership, gender, ethical leadership, China and job satisfaction.

Table 4. Frequency of Author Keywords

Words	Occurrences
leadership	446
transformational leadership	55
sustainability	35
innovation	28
performance	28
authentic leadership	25
gender	25
ethical leadership	20
china	19
job satisfaction	19

Thematic Maps

Researchers of this study have identified some themes in the research that will aid in better understanding the findings. The importance and growth of the research theme can be analyzed by placing the identified themes into separate categories within a strategic diagram [17]. The density (y-axis) and centrality (x-axis) thematic map is shown in Figure 4. Both centrality and density provide insights into how well the selected theme is developed. There are four distinct regions within the graph. The themes that appear in the bottom left corner are either novel or fading away. These are developing ideas that may prove fruitful or fizzle out in the field of study. The themes that fall into the transversal or basic category are in the lower right of the thematic map. They are low-density but crucial themes. Substantial studies conducted on these topics. The upper left quadrant is characterized by high density but low centrality, indicating that the underlying themes are well-developed but stand apart. High density and centrality are shown in the upper right corner. This section's themes revolve around a motor theme that becomes increasingly

central by the end. Factors that fall under the theme determine how large the thematic map will be.

The period of 2018-2022 is used in constructing the thematic map shown in Figure 3. The researchers of the study used the most popular 400 keywords, but the 'biblioshiny' website tool only displays cluster items with a minimum frequency of 4. There will be three representative labels for each category. This is based solely on the author's keywords of the dynamics and best representation of leadership literature. Based on the groupings in Figure 4, Table 5 is built.

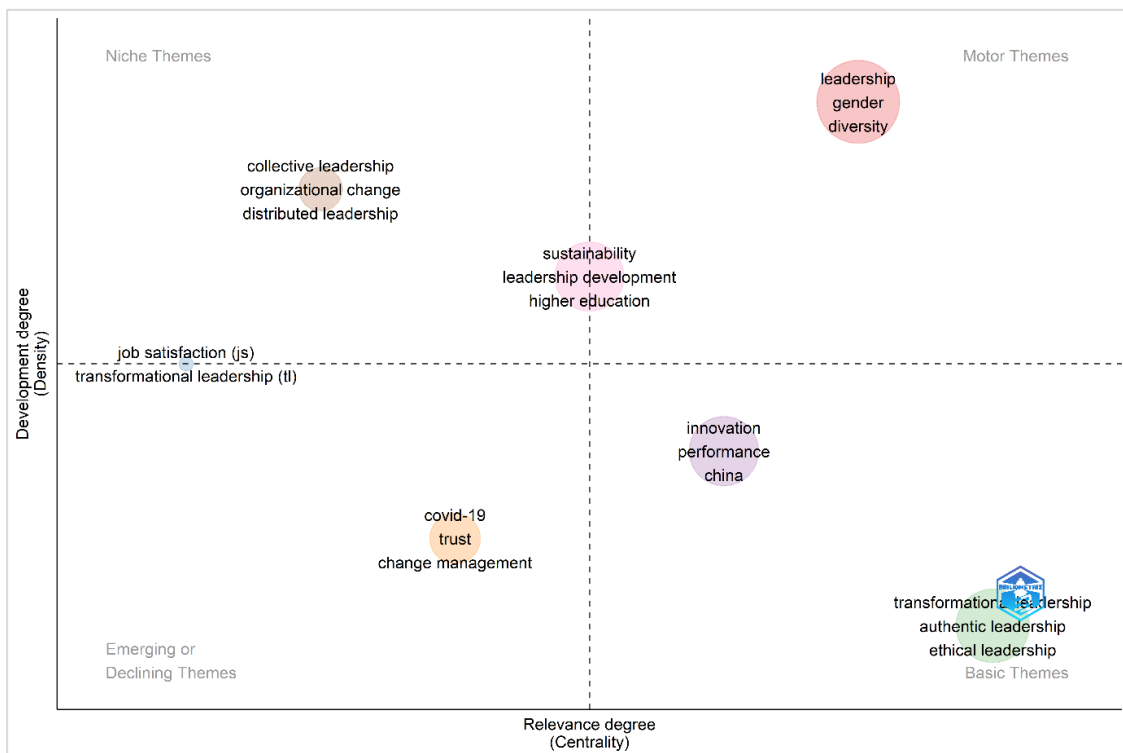


Figure 4. Thematic Map

Innovation represents the first cluster, which includes subtopics such as innovation, performance, China, creativity, meta-analysis, emotional intelligence, culture, empowering leadership, leadership styles and Japan. The thematic map classifies these ideas as high-centrality, low-density "basic" or "transversal" themes. Much research has been done on these topics, but it's difficult to identify future research directions. The second cluster includes transformation leadership, which includes subtopics such as authentic leadership, ethical leadership, job satisfaction, servant leadership, work engagement, human resource management, power, transactional leadership and authenticity.

This developing theme can be studied by researchers from the vantage points of both COVID-19 and leadership. Sub-topics include trust, change management, complexity, crisis, digital transformation, health and human capital. Motor themes are extremely contributing themes because they are both highly centrality and density. The first theme is

leadership, and sub-topics include gender, diversity, motivation, management, ethics, fellowship, identity, organisational culture and transformational. Themes related to sustainability are considered converted from isolated themes to motor themes. Sub-topics include leadership development, higher education, sustainable development, sustainable leadership, corporate social responsibility, responsible leadership, shared leadership, entrepreneurial leadership and innovative work behaviour. These are the topics to be investigated by future researchers.

The ideas that are embodied in collective leadership are also ones that are well-developed and isolated. The sub-topics include organisational change, distributed leadership, leadership effectiveness, affect, boundary spanning, emotions, heteronormativity, ideology and intergroup relationships. This research stream can be linked with basic themes which are represented by leadership. Transformational leadership can be connected with organisational change or innovation. Leadership effectiveness can be connected with ethical, authentic or transformational leadership. Lastly, Job satisfaction research themes have turned from emerging themes into isolated themes.

Table 5. Clusters of Thematic Map

Clusters	Themes	Keywords in Clusters
Innovation	Basic Themes	innovation, performance, China, creativity, meta-analysis, emotional intelligence, culture, empowering leadership, leadership styles and Japan
Transformation leadership	Basic Themes	transformation leadership, authentic leadership, ethical leadership, job satisfaction, servant leadership, work engagement, human resource management, power, transactional leadership and authenticity
COVID -19	Emerging Themes	COVID -19, trust, change management, complexity, crisis, digital transformation, health and human capita
leadership	Motor Themes	leadership, gender, diversity, motivation, management, ethics, fellowship, identity, organisational culture and transformational
Sustainability	Motor Themes	sustainability, leadership development, higher education, sustainable development, sustainable leadership, corporate social responsibility, responsible leadership, shared leadership, entrepreneurial leadership and innovative work behaviour
Collective Leadership	Niche Themes	collective leadership, organisational change, distributed leadership, leadership effectiveness, affect, boundary spanning, emotions, heteronormativity, ideology and intergroup relationships
Transformational Leadership	Niche Themes	transformational leadership, lastly, job satisfaction

4. Most influential articles on leadership

Table 6 shows the top research publications by total citations. The highest cited paper in the leadership in the 2018-2022 period was “Servant Leadership: A systematic review and call for future research” by Sendjaya [1], which received 343 citations. The second highly cited paper with 292 citations were “Leadership, creativity, and innovation: A critical review and practical recommendations” by Hughes et al. [2]. Both articles are review articles related to leadership.

Table 6. Most Cited Papers

Authors	Title of the Article	Total Citations	TC per Year
Sendjaya (2019)	Servant Leadership: A systematic review and call for future research	343	85.75
Hughes et al. (2018)	Leadership, creativity, and innovation: A critical review and practical recommendations	292	58.40
Randel et al.(2018)	Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness	170	34.00
Newman et al.(2018)	The effects of employees' creative self-efficacy on innovative behavior: The role of entrepreneurial leadership	143	28.60
Wilson (2020)	Pandemic leadership: Lessons from New Zealand’s approach to COVID-19	107	35.67
Javed et al.(2019)	Impact of inclusive leadership on innovative work behavior: The role of psychological safety	97	24.25
Lee et al.(2019)	Servant leadership: A meta-analytic examination of incremental contribution, moderation, and mediation	93	31.00
Jia (2018)	The continuous mediating effects of GHRM on employees' green passion via transformational leadership and green creativity	81	16.20
Fabio & Peiró (201)	Human Capital Sustainability Leadership to Promote Sustainable Development and Healthy Organizations: A New Scale	78	15.60
Asif et al.(2019)	Ethical Leadership, Affective Commitment, Work Engagement, and Creativity: Testing a Multiple Mediation Approach	72	18.00

The study of Eva et al. [1] is a comprehensive review of the 285 articles on servant leadership spanning 20 years (1998–2018). Eva et al. [1] presented a conceptual framework/nomological network and a theoretical framework as a research gap identified by this review. According to Eva et al. [1] servant leadership can be categorized into three phases. They are namely, first phase focused on the conceptual development of servant leadership; second phase focused on developing measures of servant leadership; third phase focused on the model development phase where more sophisticated research designs are being utilized.

Hughes et al. [2], state that there is clear theoretical and empirical indication establishing that leadership is a vital variable which can improve or obstruct workplace creativity and innovation. Hughes et al. [2], further state that it is essential to build a more

detailed understanding of which leader behaviors are most imperative. Nembhard and Edmondson define the inclusive leadership as “words and deeds exhibited by a leader or leaders that indicate an invitation and appreciation for others' contributions” [4, p. 947]. Inclusive leaders permit employees to make sure the employees’ access in decision-making and in every step of activities demonstrates their availability to employees, therefore they support employees to generate new and novel ideas [7, p.2]. Randel et al. [3] presented a conceptual framework/nomological network of inclusive leadership, which is theoretically-grounded conceptualization. Randel et al. [3] point out that the leader’s humility, pro-diversity beliefs and cognitive complexity enhance the tendency of inclusive leadership behaviors, examine inclusive leadership as a predictor of innovative work behavior with the mediating role of psychological safety. Javed et al. [7] conducted a research on inclusive leadership as a predictor of innovative work behaviour. In this study, psychological safety plays the mediating role on the relationship between inclusive leadership and innovative work behaviour. Data were gathered from the employees in textile industry in Pakistan context. Javed et al. [7] mention that there is a positive relationship between inclusive leadership innovative work behaviour. Javed et al. [7] further mention that there is a mediating effect psychological safety on the relationship between inclusive leadership and innovative work behaviour.

Newman et al. [5] state that entrepreneurial leadership utilizes a stronger moderating effect on the employees' creative self-efficacy and innovative behavior link than participative and transformational leadership behaviors. The study conducted by Lee et al. strengthens this notion by providing evidence that servant leadership has relative predictive validity over key leadership theories [8, p.35]. In the study conducted by Lee et al. [8] provide evidence that the link between servant leadership and positive work behavior can be partially explained by, procedural justice, trust in the leader and Leader-Member-Exchange.

According to Chen et al., “green creativity refers to the production novel and useful ideas with environmentally friendly influences on products, services, processes, and practices within organizations” [10, p.1]. The view of Renwick et al. [11], is that transformational leadership fully exemplifies the values, beliefs, attitudes and behaviors of the managerial employees. Transformational leadership has a fundamental impact on the HRM practices of the organization is another view of Renwick et al., in 2013. Jia et al. [9] point out that transformational leader can inspire employees’ green passion through influencing Green Human Resource Management (GHRM). Jia et al. [9] further point out that transformational leadership positively affect employees’ green creativity.

Di Fabio and Peiró [12] developed a novel integrated concept, called human capital sustainability leadership and the scale to measure it. According to Di Fabio and Peiró “the new human capital sustainability leadership focuses on healthy people as flourishing and

resilient workers, and on healthy organizations as thriving and successful environments characterized by the positive circle of long-term wellbeing and performance” [12 p.3]. Di Fabio and Peiró [12] state that this leadership style has four dimensions including ethical, sustainable, mindful and servant leadership.

Table 7. Key findings of Highly cited papers in leadership

Author	Year	Description
Wilson	2020	- A study during COVID-19 pandemic - Drawn from a case study a framework of good practices for pandemic leadership is offered
Lee, Lyubovnikova, Tian and Knight	2020	- Leaders, as servant leaders, focus on their followers’ needs, - Servant leadership has a positive effect on organizational functioning
Eva, Robin, Sendjaya, Van Dierendonck and Liden	2019	Create a theoretical and nomological network/conceptual framework of servant leadership in relation to its antecedents, moderators, mediators and consequences
Brown, Treviño and Harrison	2019	- Identified a partial mediation of affective commitment on the relationship between employee engagement and ethical leadership
Javed, Naqvi, Khan, Arjoon, and Tayyeb	2019	- Inclusive leadership is a positively related with innovative work behaviour - Psychological safety mediates the effect of inclusive leadership on innovative work behavior
Newman, Herman, Schwarz and Nielsen	2018	Explores the unique effect of entrepreneurial leadership on the relationship between innovative behaviour and employees' creative self-efficacy
Di Fabio and Peiró	2018	- Developed a novel concept, called human capital sustainability leadership - Developed a scale to measure the construct called human capital sustainability leadership
Hughes, Lee, Tian, Newman and Legood	2018	Leadership is an important variable that can enhance or obstruct workplace creativity and innovation
Randel, Galvin, Shore, Ehrhart, Chung, Dean and Kedharnath	2018	A conceptual framework with theoretically-grounded conceptualization of inclusive leadership
Jia, Liu, Chin and Hu	2018	- Transformational leader can inspire employees’ green passion through influencing Green Human Resource Management (GHRM) - Transformational leadership positively affect employees’ green creativity

Brown et al. [14] point out that the leaders must layout the foundation of ethical guidance for employees. The “demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to subordinates through two-way communication, reinforcement and decision-making” is the definition given by Brown et al. in 2005 on ethical leadership. Iddagoda and Opatha [16] found that leadership has an impact on employee engagement. The study of Asif et al. [13], discover the relationships among ethical leadership, employee engagement, affective

commitment and employees' creativity in the Chinese public sector context. Asif et al. [13], state there is a partial mediation of affective commitment on the relationship between employee engagement and ethical leadership.

Conclusion

This study has found significant influential aspects of Leadership literature. These influential aspects provide implications for core future research. The study found the highest cited journals, countries, authors and keywords using Biblioshiny software. Next, this study analysed main themes into four clusters and identified it is essential to consider in research areas, including sustainability, gender diversity and leadership integrated with psychological domains. In addition, this study is limited to Scopus Indexed journals and analysed using Biblioshiny software. Future researchers can conduct bibliometric analysis using articles Web of Science database and using VoSViewer or Gephi Software.

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