Quest Journal of Management and Social Sciences
Volume 6 Issue 3: 591-607
ISSN Print: 2705-4527
ISSN Online: 2705-4535
Web: https://www.quest.edu.np

Bibliometric Analysis on Participatory Leadership in Local Governance

Indra Prasad Bhusal[1*] and Sanjeev Humagain[2]

[1]PhD Scholar, Lumbini Buddhist University, Lumbini, Nepal
[2]Program Coordinator, Mphil in Anthropology, Political Sciences and Sociology, Nepal Open University, Lalitpur, Nepal
*Corresponding Email: indrabhusal13@gmail.com

Received: 17 October 2024
Revised: 30 November 2024
Accepted: 02 December 2024
Published: 30 December 2024

How to cite this paper:
Bhusal, I. P., & Humagain, S. (2024). Bibliometric Analysis on Participatory Leadership in Local Governance. Quest Journal of Management and Social Sciences, 6(3). https://doi.org/10.3126/qjmss.v6i3.72684

Abstract

Background: This research examines the changing focus in academic studies on governance, leadership, and participatory approaches. There is a growing emphasis on sustainability and climate change. The goal is to track the evolution of these themes and understand their current relevance and interconnections.

Objective: The study aims to analyse trends in governance, leadership, and participatory approaches. It identifies central and declining themes and their roles in addressing contemporary challenges.

Methods: To map research trends, we conducted a bibliometric analysis using co-citation, co-occurrence, and strategic diagrams. Tools like R (biblioshiny) and VosViewer were used over time to visualise connections between key themes. Articles from Scopus spanning from 2003 to 2024 were analysed to determine the prominence and development of these themes.

Results: Leadership has emerged as a dominant theme, especially in governance and health-related research. Governance and participatory approaches, once central, are now receiving less attention. However, sustainability and climate change have become key areas, with governance frameworks addressing global environmental concerns.

Conclusions: The study concludes that leadership is a driving force in current research. Governance and participatory approaches still hold value, particularly when combined with sustainability frameworks. Future research should focus on how these frameworks can evolve to meet modern global challenges.

Keywords: Bibliometric analysis, leadership, governance, participatory approach, sustainability, climate change, thematic evolution.

Introduction

Participatory leadership in local governance has become a pivotal concept (Blakelley, 2010). It enhances democratic engagement, promotes transparency, and ensures decision-making processes reflect the needs and voices of local communities (Paliokaitė & Sadauskaitė, 2023). Participatory leadership refers to models where decision-making authority is distributed among various stakeholders, including citizens, rather than being concentrated in hierarchical structures (Buchenrieder et al., 2017). As local governance evolves, participatory leadership becomes central in addressing complex public policy challenges. This approach creates more inclusive and responsive local governments (Xavier et al., 2017). This shift toward participatory governance is reflected in frameworks and practices across different countries (Affre et al., 2024). Participatory governance integrates diverse voices, especially those from marginalised groups, into governance structures (Aulich, 2009). This trend enhances the legitimacy of decisions (Michels & De Graaf, 2010). Research suggests that participatory mechanisms, such as collaborative leadership and budgeting, empower communities and lead to better policy outcomes (Fung, 2015). These frameworks build trust between local governments and citizens by encouraging greater involvement in governance processes (Healy, 2023). An example of the impact of participatory governance is Ecuador's use of participatory budgeting (Bassoli, 2012). This process enables rural communities in the Amazon to actively shape municipal priorities and spending (Buele et al., 2020). It has democratised decision-making and strengthened local governance by improving transparency and citizen satisfaction, though challenges remain in achieving widespread participation (Alam & Lovett, 2019). Similarly, in Botswana, traditional leadership structures engage communities at the grassroots level. This approach balances modernisation needs with indigenous governance systems' cultural and historical significance(Fung, 2015).

The relationship between participatory leadership and governance is particularly important in education. In India, local governance reforms emphasise community participation in managing elementary education (Alam & Lovett, 2019). This shift has improved access to education for underserved populations and resulted in better educational outcomes through decentralised decision-making (Affre et al., 2024). In the Philippines and other regions, decentralised local governance allows greater control over resources and policy implementation, further illustrating the positive effects of participatory leadership on governance systems (Noda, 2017).

Despite these successes, there are various challenges. Participatory leadership models often face obstacles like institutional capacity limitations, uneven citizen engagement, and bureaucratic resistance (Murray et al., 2010). In some cases, power dynamics and resource shortages hinder the full implementation of participatory initiatives (Coelho & Favareto, 2011). Ensuring that participation is meaningful rather than symbolic requires continuous efforts. This participation includes building trust, educating citizens on governance processes, and ensuring participation mechanisms are inclusive and accessible (Affre et al., 2024).

A bibliometric analysis of participatory leadership in local governance reveals a growing recognition of the importance of inclusive leadership models. By integrating citizens into decision-making processes, participatory governance strengthens the legitimacy of local governments and enhances the effectiveness of public policies (Springer et al., 2020). As more countries adopt these models, it is vital to address the implementation challenges and ensure that participatory mechanisms are sustainable, equitable, and capable of producing meaningful outcomes for all citizens (Potluka, 2021). Bibliometric analysis is a powerful tool for scientific mapping, especially when research fields become fragmented across various streams, as seen in studies of governance, leadership, and participatory approaches (Donthu et al., 2021a; Van Raan, 2003). This study covers a broader time frame, analysing literature from 2003 to 2024. The data was sourced from the Scopus database. R (biblioshiny) and VosViewer were used as bibliometric tools for performance analysis and science mapping (Aria & Cuccurullo,

2017; van Eck & Waltman, 2010). These included mapping annual scientific production, citation analysis, co-citation networks, collaboration networks, thematic maps, evolution mapping, and co-word analysis. This comprehensive approach provided a deeper understanding of thematic governance, leadership, and participatory developments and helped us suggest future research areas.

The study contributes to the field by identifying key countries, institutions, journals, and influential researchers shaping local governance and leadership discourse. Governance, participatory approaches, and leadership are interdisciplinary topics, often linked to public administration, environmental management, and organisational behaviour (Van Raan, 2003). This study consolidates existing knowledge in governance and leadership while catalysing future research. It provides insights for scholars, policymakers, and practitioners by advancing discussions on the evolving role of leadership, governance structures, and participatory models in addressing global challenges like climate change and digital transformation.

Materials and Methods

A comprehensive bibliometric analysis was performed using data sourced from the Scopus database to conduct this study. The search strategy used Boolean operators with the keywords **Participatory AND leadership*** and **local AND governance*** to capture relevant articles. This search resulted in the identification of 169 articles.

Screening Process

After the initial search, a filter was applied to limit the subject area and year range to between 2003 and 2024. This filter reduced the number of articles to 167. We excluded two records during this process due to their irrelevance to the research focus.

Eligibility Criteria

From the remaining 167 articles, further screening was conducted by limiting the document type to "article," the source type to "journal," and the language to "English." After applying these filters, 28 records were excluded, leaving 139 articles that met the eligibility criteria for the study.

Data Analysis

The final 139 articles were analysed using Biblioshiny R and VosViewer. These tools allowed us to conduct a bibliometric analysis, which included performance analysis and science mapping (Donthu et al., 2021b; van Eck & Waltman, 2010). The analysis explored key research themes, collaboration networks, and emerging trends in governance, leadership, and participatory approaches.

The selection process is outlined in Figure 1, a PRISMA flowchart that shows the identification, screening, eligibility, and inclusion stages for the articles used in the analysis (Rethlefsen et al., 2021).

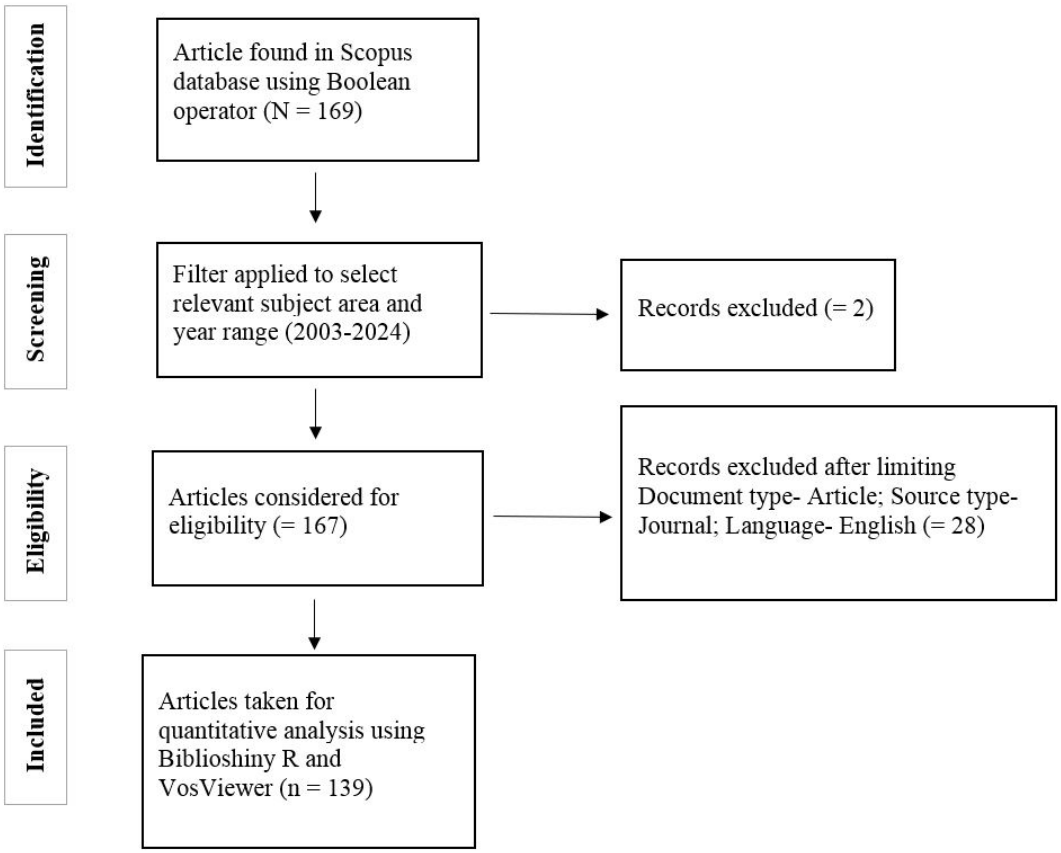

Figure 1: *PRISMA diagram for relevant article selection*

Source: Author's Construction

Results

Summary of Articles

The study analysed 139 articles. It revealed an annual growth rate of 8.91%. This growth indicates moderate expansion in the research field. The average age of the documents was 7.14 years, which suggests that the research area is relatively well-established. Each document received an average of 18.83 citations, and the articles collectively referenced 7,569 sources. The study covered the timespan from 2003 to 2024 and included 102 sources, such as journals and books.

In terms of content, the study used 962 Keywords Plus and 501 Author's Keywords. A total of 481 authors contributed to the research, with 32 documents being single-authored. On average, each article had 3.54 co-authors. About 31.65% of the articles involved international co-authorship. This shows a strong level of collaboration within and across borders, contributing to the development of the research field.

Table 1: *General characteristics of participatory leadership in local governance research*

Description	Results
MAIN INFORMATION ABOUT DATA	

Timespan	2003:2024
Sources (Journals, Books, etc.)	102
Documents	139
Annual Growth Rate %	8.91
Document Average Age	7.14
Average citations per doc	18.83
References	7569
DOCUMENT CONTENTS	
Keywords Plus (ID)	962
Author's Keywords (DE)	501
AUTHORS	
Authors	481
Authors of single-authored docs	32
AUTHORS COLLABORATION	
Single-authored docs	33
Co-Authors per Doc	3.54
International co-authorships %	31.65
DOCUMENT TYPES	
article	139

Source: Created with Biblioshiny

Annual Scientific Productions and Citations

The graph depicts the annual scientific production (blue line) and the mean total citations per year (orange line) from 2003 to 2024. Scientific output steadily increased after 2007, with notable peaks in 2015 and 2023. In contrast, citation rates fluctuated more dramatically, peaking in 2006, 2010, and 2015 before dropping sharply after 2023. This highlights the variability in research activity and citation impact over the years.

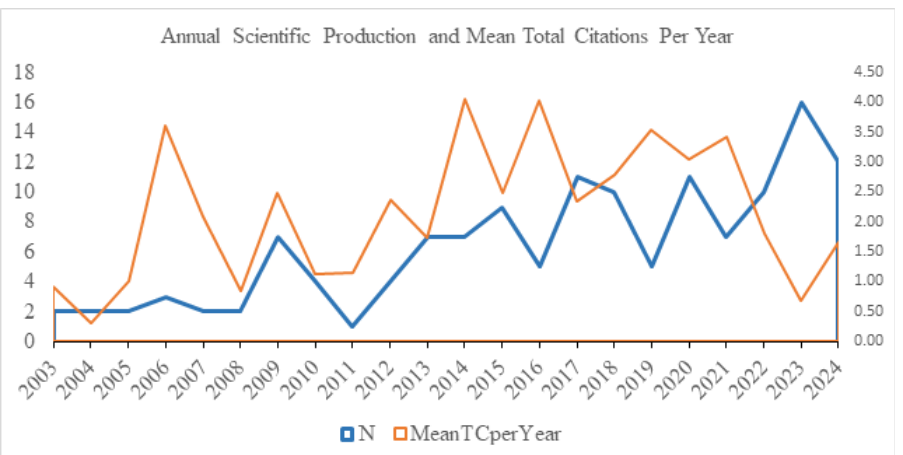

Figure 2: *Annual scientific production and mean total citations per year*

Source: Author's Construction

Table 2: *Annual scientific productions and citations data*

Year	Mean Total Citation per Article	Total Number of Articles Annually (N)	Mean Total Citations per Year	Citable Years
2003	20.00	2	0.91	22
2004	6.50	2	0.31	21
2005	20.00	2	1.00	20
2006	68.33	3	3.60	19
2007	37.50	2	2.08	18
2008	14.50	2	0.85	17
2009	39.86	7	2.49	16
2010	17.00	4	1.13	15
2011	16.00	1	1.14	14
2012	30.75	4	2.37	13
2013	20.71	7	1.73	12
2014	44.71	7	4.06	11
2015	24.89	9	2.49	10
2016	36.20	5	4.02	9
2017	18.73	11	2.34	8
2018	19.60	10	2.80	7
2019	21.20	5	3.53	6
2020	15.18	11	3.04	5
2021	13.71	7	3.43	4
2022	5.40	10	1.80	3
2023	1.38	16	0.69	2
2024	1.67	12	1.67	1

Source: Author's Construction

Table 2 presents the mean total citations per article, the number of articles published annually, the mean total citations per year, and the number of citable years from 2003 to 2024. Key highlights include a peak in citations per article in 2006, with an average of 68.33 citations. Article production increased significantly after 2015, with the highest number of articles (16) published in 2023. However, citation numbers have declined noticeably since 2022, indicating a recent drop in citation rates.

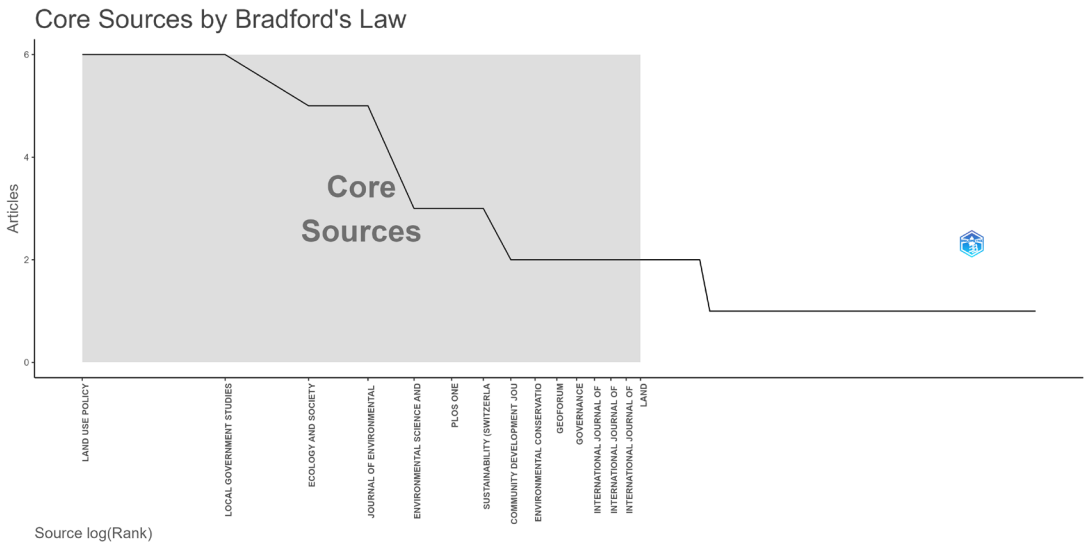

Figure 3: *Core sources as per Bradford's Law*

Source: Created with Biblioshiny

The graph illustrates core sources based on Bradford's Law, which ranks the most frequently cited journals. The "Core Sources" zone highlights the journals that contribute the largest number of articles. Land Use Policy, Local Government Studies, and Ecology and Society are leading the list, each contributing six articles. As the graph progresses, the number of articles from each source declines, with journals like Environmental Science and Policy and Geoforum contributing fewer. This pattern follows Bradford's Law. It shows a diminishing number of articles from sources outside the core group and clearly identifies the key journals in the research field.

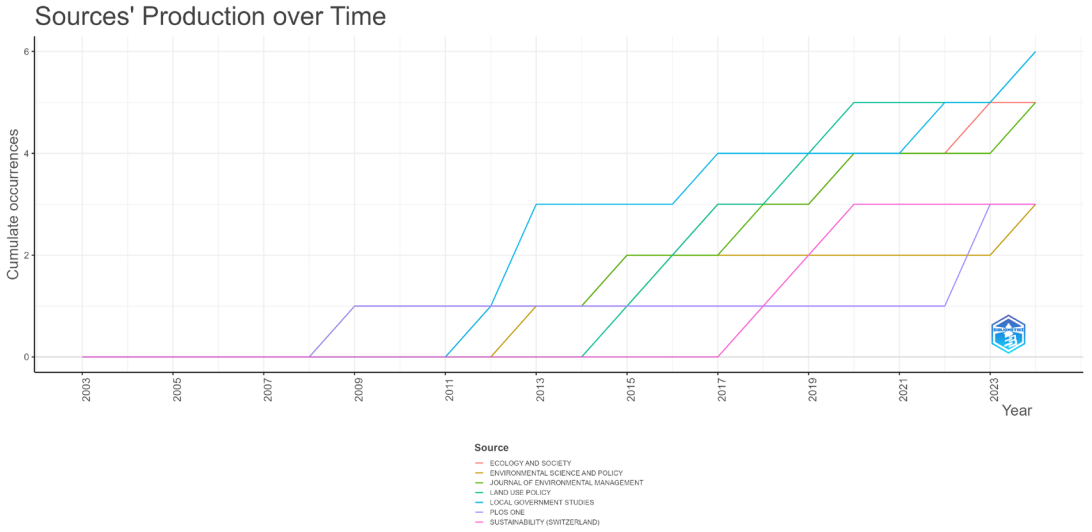

Figure 4: *Sources' production over time*

Source: Created with Biblioshiny

The graph displays the cumulative production of key academic sources over time. It emphasises the growth of publications in various journals from 2003 to 2023. Key sources, such as Ecology and Society, Land Use Policy, and Environmental Science and Policy, experienced significant publication growth, particularly after 2011. Sharp increases in cumulative occurrences are noticeable around 2013 and 2016. Additionally, Sustainability (Switzerland) and PLOS ONE have shown growth in recent years. This visualisation captures the expanding contributions of these sources to the research field. The notable spikes indicate periods of intensified academic output from specific journals.

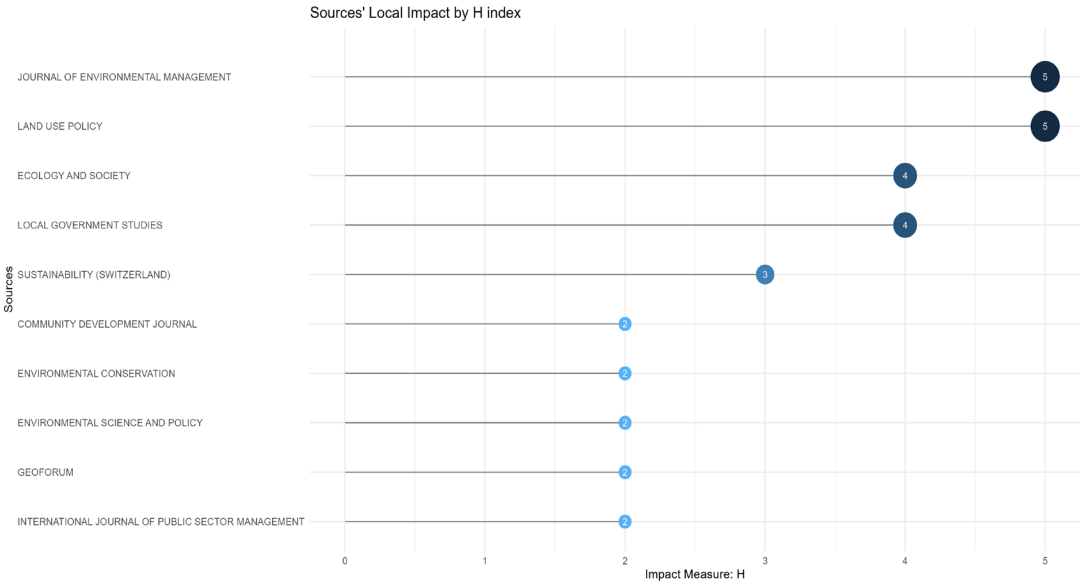

Figure 5: *Sources' local impact by h-index*

Source: Created with Biblioshiny

The graph shows the local impact of various academic sources based on their H-index, which measures productivity and citation impact. Journal of Environmental Management and Land Use Policy have the highest H-index of 5. This indicates that they have the strongest local impact. Ecology and Society and Local Government Studies follow with an H-index of 4. These journals also have a significant influence on the field. Other sources, such as Sustainability (Switzerland), have an H-index of 3. Community Development Journal and Environmental Conservation have an H-index of 2. These journals maintain a moderate impact. This distribution helps identify the most influential journals in the local academic landscape based on citation performance.

Science Mapping

Co-citation Analysis

Co-citation Analysis- Cited References

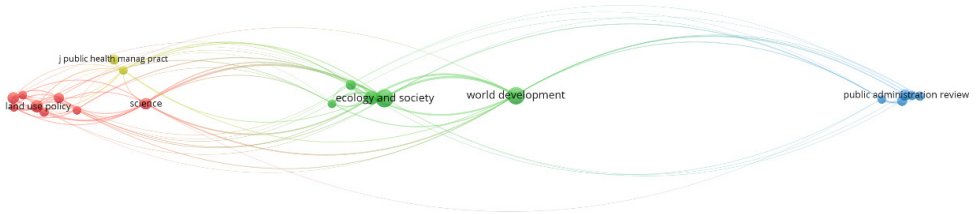

Figure 6: *Co-citation analysis- cited references (minimum documents- 1; minimum citations- 1)*
Source: Created with VosViewer

The network map, created using VOS viewer, shows co-citation relationships between academic journals. Key journals, such as Land Use Policy, Ecology and Society, World Development, and Public Administration Review, are central to their respective clusters. Each cluster represents a different research theme. The red cluster focuses on land use. The green cluster is centred on sustainability and development. The blue cluster focuses on governance. The connecting lines represent co-citations. Thicker lines indicate stronger relationships between the journals in the network.

Co-citation Analysis- Cited Sources

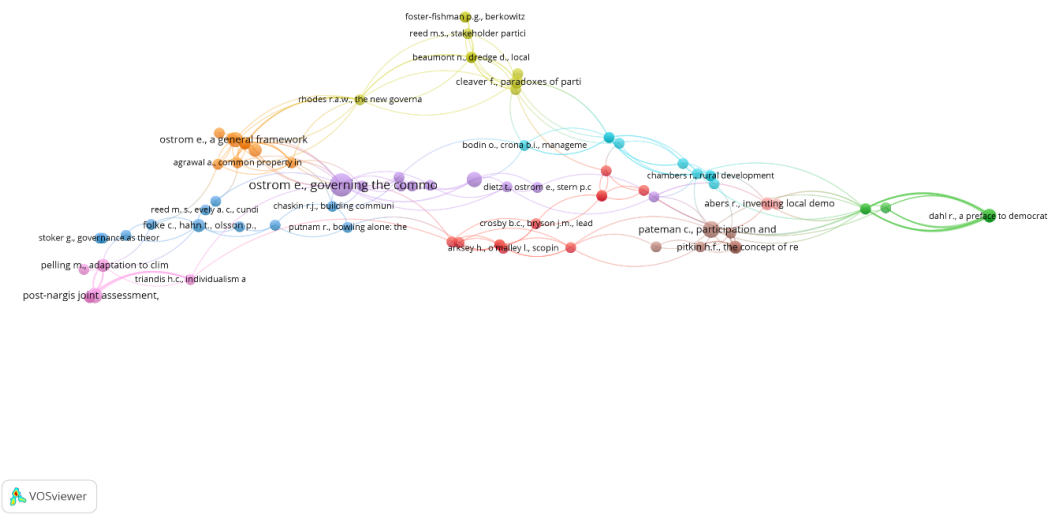

Figure 7: *Co-citation analysis- cited sources (minimum documents- 1; minimum citations- 1)*
Source: Created with VosViewer

The co-citation network map highlights key authors, with Ostrom E. and her work "Governing the Commons" at the centre. Thematic areas, such as governance, commons theory, and democracy, are represented by different colour clusters. Strong connections between authors indicate frequent co-citations. This reflects the significant influence of these works in research on governance and participatory frameworks.

Co-citation Analysis- Cited Authors

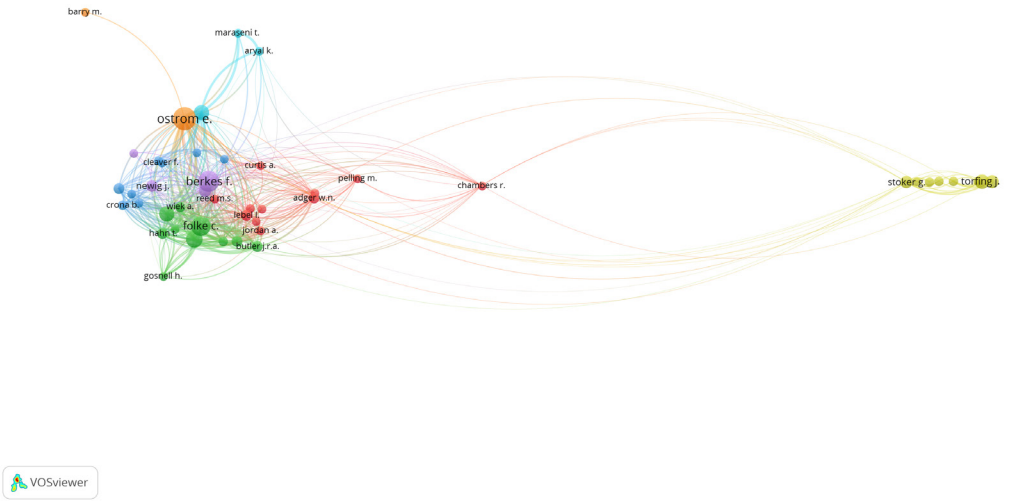

Figure 8: *Co-citation analysis- cited authors (minimum documents- 1; minimum citations- 1)*

Source: Created with VosViewer

The co-citation network map highlights Ostrom E. as a central figure. Clusters focus on governance, sustainability, and commons management. Key authors in the green cluster, which centres on sustainability, include Folke C. and Berkes F. In the yellow cluster, which focuses on governance, Stoker G. and Torfing J. are prominent. Strong connections between these authors indicate their significant influence and collaboration within these research fields.

Bibliographic Coupling

Bibliographic Coupling- Authors

Figure 9: *Bibliographic coupling- authors (minimum documents- 1; minimum citations- 1)*

Source: Created with VosViewer

The network map displays co-citations among authors. There is a dense cluster of closely connected researchers, including Butler J.R.A., Benson D., and Fudge C. This cluster shows strong citation relationships in their field. On the right, Cochrane J.M. appears isolated. Cochrane has minimal overlap or citation connections with the main cluster. The visualisation illustrates how certain authors collaborate or cite each other frequently. Other authors, like Cochrane, work in separate areas of research.

Bibliographic Coupling- Countries

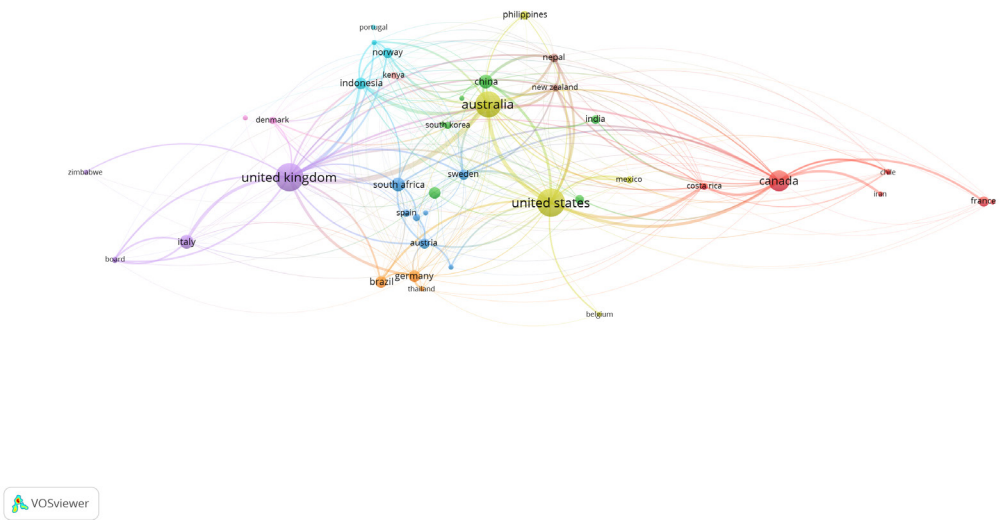

Figure 10: *Bibliographic coupling- countries (minimum documents- 1; minimum citations- 1)*

Source: Created with VosViewer

This network map visualises collaboration between countries in research. The United Kingdom, United States, Australia, and Canada are central hubs, showing strong international partnerships. Countries

like France, Germany, and Brazil are also prominent, though with slightly fewer connections. The color-coded clusters represent regional or thematic collaborations. Countries like India, South Africa, and China also form significant ties. The map reflects the global nature of research collaboration, with strong partnerships between North America, Europe, and parts of Asia and Africa.

Keywords and Co-occurrence Network Analysis

WordCloud

Figure 11: *WordCloud (field- keyword plus; number of words- 50)*

Source: Created with Biblioshiny

The WordCloud highlights the most frequent themes and keywords in the analysed research. Prominent terms such as leadership, governance approach, and participatory approach strongly focus on decision-making, participation, and governance. Other notable keywords include local participation, sustainability, stakeholder, and forest management. These terms emphasise environmental management, community involvement, and sustainability. The key terms indicate that much of the research centres on governance, leadership in decision-making, and participatory approaches in both environmental and social contexts.

TreeMap

Figure 12: *Treemap (field- keyword plus; number of words- 20)*

Source: Created with Biblioshiny

The TreeMap visually represents the most frequently used terms in the research. The largest blocks, such as leadership (15%), governance approach (11%), and participatory approach (9%), highlight the dominant themes. Other significant terms include local participation (7%), decision-making (6%), and sustainability (5%). These terms emphasise the research's focus on governance, participation, and sustainability. Smaller blocks, like climate change, government, and public health, represent emerging or supporting topics within the research framework. The size of each block corresponds to the term's frequency, offering a quick visual insight into the research's focus areas.

Co-Occurrence Analysis- All Keywords

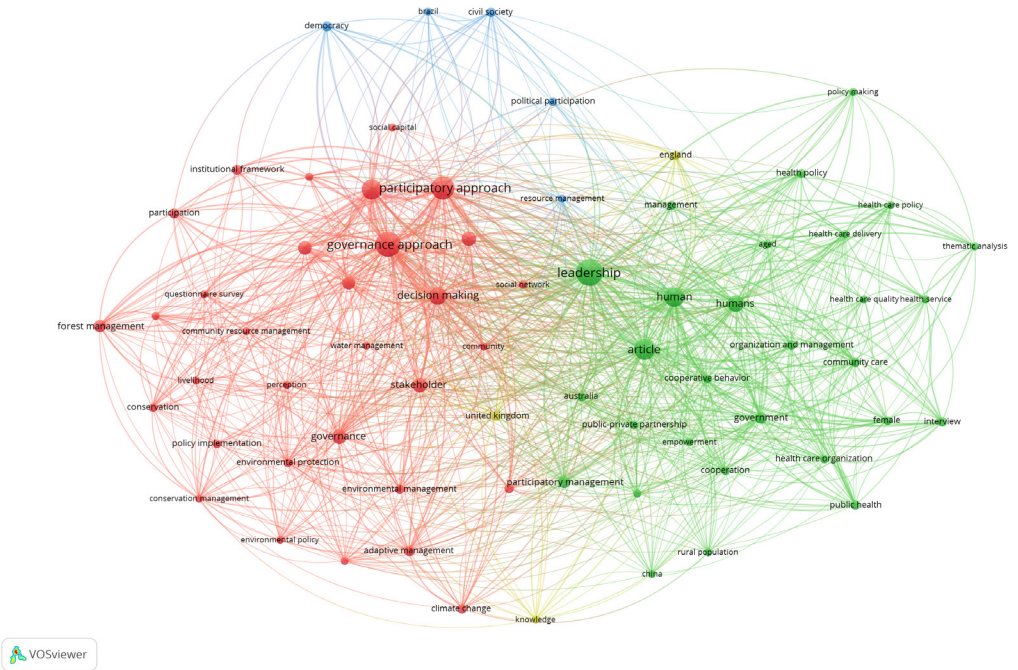

Figure 13: *Co-occurrence analysis- all keywords*

Source: Created with VosViewer

This network map visualises key research themes, with leadership, governance, and participatory approaches as central nodes. The red cluster focuses on governance and decision-making. The green cluster centres on leadership and health, while the blue cluster emphasises political participation. The lines between the nodes represent term co-occurrences. Thicker lines indicate stronger relationships between the terms. The map highlights how governance, leadership, and participation are interconnected in health and environmental research.

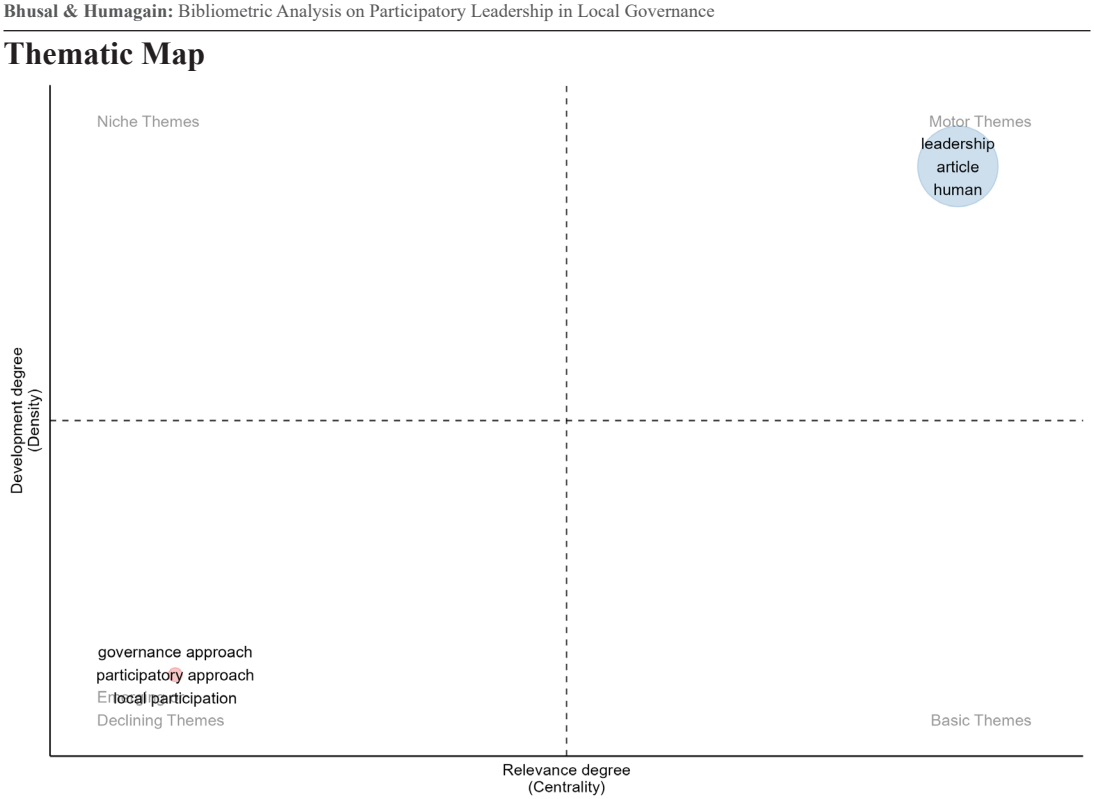

Figure 14: *Thematic map (field- keyword plus)*

Source: Created with Biblioshiny

This strategic diagram classifies research themes based on their relevance (centrality) and development (density). The Motor Themes quadrant (top-right) includes highly developed and central topics such as leadership, articles, and humanities. These themes are well-researched and influential. In contrast, the Declining Themes quadrant (bottom-left) includes topics like governance approach, participatory approach, and local participation. These themes are less central and may be in decline or less developed in recent research. There are no themes in the Niche or Basic Themes quadrants, which suggests a concentration of research focus on the motor and declining themes.

Findings and Discussion

This bibliometric analysis highlights the changing landscape of research on governance, leadership, and participatory approaches. The findings reveal that leadership has emerged as a central and well-developed topic. In contrast, themes like the governance approach and participatory approach are receiving less attention and appear to be declining.

Leadership as a Key Focus

Leadership drives much of the current research. There are strong connections between leadership and topics like health policy, management, and public health. This shows its growing importance across various sectors. Leadership is crucial in decision-making and human-centred management frameworks. It has become a central theme, especially in healthcare and organisational governance. As global challenges grow, leadership is receiving more attention and will likely remain a significant area of study. Stronger and more adaptive leadership is increasingly needed in response to these challenges.

Declining Interest in Governance and Participatory Approaches

In contrast, themes like governance and participatory approaches are becoming less central. These areas were once key in governance and resource management discussions, but they are now receiving less attention. This decline might suggest that researchers consider these frameworks well-explored or that the focus has shifted to other pressing issues. However, these approaches are still important, particularly in environmental management and sustainable development, where community involvement continues to play a crucial role.

Sustainability and Climate Change Gaining Ground

Themes like sustainability and climate change are gaining more attention, as shown in the co-occurrence map. These topics are increasingly connected to governance and decision-making. This reflects the growing need for sustainable policy frameworks to address global environmental challenges. As the world continues to deal with the impacts of climate change, integrating governance with sustainability efforts will likely shape future research.

Influential Journals and Authors

Journals like Land Use Policy and Ecology and Society have become core sources. This highlights their importance in publishing research on governance and sustainability. Influential authors such as Ostrom E. and Folke C. continue to shape the conversation, especially in areas like commons governance and environmental resilience.

Future Directions

The research landscape is focused on established themes, with little exploration of new or niche topics. While this suggests stability, it also presents an opportunity for innovation. Future research could explore the intersections of governance, technology, and sustainability. There is also potential to renew interest in participatory approaches by combining them with digital tools and AI-driven decision-making models.

Hence, leadership and sustainability are currently the leading research trends, while participatory approaches are witnessing a decline. Global challenges like climate change are becoming more urgent. As a result, combining governance frameworks with sustainability creates opportunities for further research.

Conclusion

This study reveals the shifting trends in research related to governance, leadership, and participatory approaches. Leadership has become a dominant area of focus and is increasingly important in addressing modern challenges, especially in health and management contexts. Although governance and participatory approaches are receiving less attention, they remain important in fields like environmental sustainability and resource management. The increasing focus on sustainability and climate change points towards the need for more adaptive governance models that are responsive to global challenges. Future research could benefit from exploring how these established frameworks can evolve and integrate with emerging areas, such as digital governance and sustainable development, ensuring their continued relevance.

References

Affre, L., Guillaumie, L., Dupéré, S., Mercille, G., & Fortin-Guay, M. (2024). Citizen Participation Practices in the Governance of Local Food Systems: A Literature Review. *Sustainability*, *16*(14), 5990. https://doi.org/10.3390/su16145990

Alam, R., & Lovett, J. C. (2019). Prospects of Public Participation in the Planning and Management of Urban Green Spaces in Lahore: A Discourse Analysis. *Sustainability*, *11*(12), 3387. https://doi.org/10.3390/su11123387

Aria, M., & Cuccurullo, C. (2017). bibliometrix : An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, *11*(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

Aulich, C. (2009). From Citizen Participation to Participatory Governance. *Commonwealth Journal of Local Governance*, 44–60. https://doi.org/10.5130/cjlg.v0i2.1007

BASSOLI, M. (2012). Participatory Budgeting in Italy: An Analysis of (Almost Democratic) Participatory Governance Arrangements. *International Journal of Urban and Regional Research*, *36*(6), 1183–1203. https://doi.org/10.1111/j.1468-2427.2011.01023.x

BLAKELEY, G. (2010). Governing Ourselves: Citizen Participation and Governance in Barcelona and Manchester. *International Journal of Urban and Regional Research*, *34*(1), 130–145. https://doi.org/10.1111/j.1468-2427.2010.00953.x

Buchenrieder, G., Dufhues, T., Theesfeld, I., & Nuchanata, M. (2017). Participatory local governance and cultural practices in Thailand. *Cogent Social Sciences*, *3*(1), 1338331. https://doi.org/10.1080/23311886.2017.1338331

Buele, I., Vidueira, P., Yagüe, J. L., & Cuesta, F. (2020). The Participatory Budgeting and Its Contribution to Local Management and Governance: Review of Experience of Rural Communities from the Ecuadorian Amazon Rainforest. *Sustainability*, *12*(11), 4659. https://doi.org/10.3390/su12114659

Coelho, V. S. P., & Favareto, A. (2011). Participatory Governance and Development: In Search of a Causal Nexus. *Geography Compass*, *5*(9), 641–654. https://doi.org/10.1111/j.1749-8198.2011.00446.x

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021a). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, *133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021b). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, *133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Fung, A. (2015). Putting the Public Back into Governance: The Challenges of Citizen Participation and Its Future. *Public Administration Review*, *75*(4), 513–522. https://doi.org/10.1111/puar.12361

Healy, H. (2023). Pulp and participation: Assessing the legitimacy of participatory environmental governance in Umkomaas, South Africa. *Ecological Economics*, *208*, 107794. https://doi.org/10.1016/j.ecolecon.2023.107794

Michels, A., & De Graaf, L. (2010). Examining Citizen Participation: Local Participatory Policy Making and Democracy. *Local Government Studies*, *36*(4), 477–491. https://doi.org/10.1080/03003930.2010.494101

Murray, J., Tshabangu, B., & Erlank, N. (2010). Enhancing Participatory Governance and Fostering Active Citizenship: An Overview of Local and International Best Practices. *Politikon*, *37*(1), 45–66. https://doi.org/10.1080/02589346.2010.492149

Noda, Y. (2017). Trust in the leadership of governors and participatory governance in Tokyo Metropolitan Government. *Local Government Studies*, *43*(5), 776–797. https://doi.org/10.1080/03003930.2017.1333428

Paliokaitė, A., & Sadauskaitė, A. (2023). Institutionalisation of participative and collaborative governance: Case studies of Lithuania 2030 and Finland 2030. *Futures*, *150*, 103174. https://doi.org/10.1016/j.futures.2023.103174

Potluka, O. (2021). Roles of formal and informal leadership: civil society leadership interaction with political leadership in local development. In *Handbook on City and Regional Leadership*. Edward Elgar Publishing.

https://doi.org/10.4337/9781788979689.00015

Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., Koffel, J. B., Blunt, H., Brigham, T., Chang, S., Clark, J., Conway, A., Couban, R., de Kock, S., Farrah, K., Fehrmann, P., Foster, M., Fowler, S. A., Glanville, J., … Young, S. (2021). PRISMA-S: an extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. *Systematic Reviews*, *10*(1), 39. https://doi.org/10.1186/s13643-020-01542-z

Springer, A., Walkowiak, K., & Bernaciak, A. (2020). Leadership Styles of Rural Leaders in the Context of Sustainable Development Requirements: A Case Study of Commune Mayors in the Greater Poland Province, Poland. *Sustainability*, *12*(7), 2676. https://doi.org/10.3390/su12072676

van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, *84*(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Van Raan, A. (2003). The use of bibliometric analysis in research performance assessment and monitoring of interdisciplinary scientific developments. *TATuP - Zeitschrift Für Technikfolgenabschätzung in Theorie Und Praxis*, *12*(1), 20–29. https://doi.org/10.14512/tatup.12.1.20

Xavier, R., Komendantova, N., Jarbandhan, V., & Nel, D. (2017). Participatory governance in the transformation of the South African energy sector: Critical success factors for environmental leadership. *Journal of Cleaner Production*, *154*, 621–632. https://doi.org/10.1016/j.jclepro.2017.03.146