

## RESEARCH ARTICLE



# Bibliometric analysis of local government finance: Trends, themes, and prospective directions

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## ABSTRACT

This study delineates the conceptual and thematic progression of LGFS research over 20 years. The literature is disjointed across disciplines and regions, lacking synthesis about principal trends, topics, and authors. This study used bibliometric analysis of 120 peer-reviewed Scopus-indexed papers from 2001 to 2025. Data were analyzed via VOSviewer and Biblioshiny to produce keyword networks, thematic maps, citation patterns, and co-authorship visualizations. The study identifies research clusters, emerging subjects, and key scientists and institutions. Results show a shift from fiscal issues like budgetary soundness and tax capacity to governance principles including resilience, participatory budgeting, and social equality. Thematic mapping emphasizes "sustainable development" and "human development" as primary topics. Research concentrates in high-income nations, with growing contributions from the Global South. Underexplored subjects like intergenerational equality and digital fiscal instruments indicate future opportunities. The study also provides theoretical insights by redefining LGFS as a multifaceted governance framework, showing scientific mapping's utility in public finance. It offers politicians a framework for improving fiscal sustainability through transparency, inclusivity, and innovation. This is the first complete bibliometric study to delineate the structural and thematic growth of LGFS research, providing a reproducible framework for future academic and policy involvement.

## KEYWORDS

Financial sustainability of local government; fiscal decentralization; bibliometric analysis; thematic mapping; VOSviewer; sustainable development goals (SDGs)

## ARTICLE HISTORY

Received: 28 May 2025

Accepted: 8 July 2025

Published: 31 July 2025

## CITATION (APA 7<sup>TH</sup>)

Lekettey, E., Sari, M., Dzobo, R. M. (2025). Bibliometric analysis of local government finance: Trends, themes, and prospective directions. *Review of Business and Accounting Research*, 2(2), 113-138. <https://doi.org/10.62941/rbar.v2i2.139>

## 1. Introduction

Local governments worldwide are facing increasing pressure to provide diverse public services under stringent economic limitations, changing policy requirements, and altering sociopolitical conditions. The notion of financial sustainability has become a

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significant issue for politicians and researchers. Financial sustainability in the public sector denotes a government's capacity to fulfill its present and future financial obligations without unduly burdening subsequent generations or jeopardizing critical service provision (Anessi-Pessina et al., 2016; Irianto & Adiatma, 2023; Cuadrado-Ballesteros & Bisogno, 2022; Kordestani & Mohamadi, 2020). It entails maintaining an equilibrium between income production and spending commitment while also guaranteeing resilience to external disruptions. With the rapid acceleration of decentralization and urbanization, the financial sustainability of local governments is essential for the efficacy and accountability of public governance systems (OECD, 2019; Vučetić, 2025; Ryan & Woods, 2017; UCLG, 2022).

The need for financial sustainability is emphasized by global changes such as population aging, climate adaptation requirements, digital transitions, and the pursuit of sustainable development goals (SDGs) (Khalila et al., 2024; Ng, 2020; Ma'ruf & Aryani, 2019). As primary executors of development programs, local governments are increasingly pivotal in achieving SDG 11 (Sustainable Cities and Communities) and SDG 16 (Peace, Justice, and Strong Institutions). Nevertheless, ongoing challenges such as constrained income autonomy, fluctuations in intergovernmental payments, inflexible spending frameworks, and escalating debt burdens diminish the fiscal ability of local governments to adapt and perform effectively (Huang et al., 2023). External shocks, such as the 2008 Global Financial Crisis & the COVID-19 pandemic, have highlighted the vulnerability of local fiscal systems and the need for resilient financial management frameworks (Gajewski, 2022).

Interest in local government financial sustainability (LGFS) has increased significantly over the past 20 years. Initial research focused on fiscal stress indicators, solvency metrics, and audit frameworks (Nollenberger et al., 2003). This area has evolved, resulting in a significant focus on assessing fiscal autonomy, intergovernmental fiscal frameworks, and performance-based budgeting systems (Musviyanti et al., 2022; Park & Kim, 2021; Zhiyong, 2017). Recent research incorporates multidimensional frameworks that connect economic, social, and environmental variables with fiscal performance, consistent with the overarching sustainability concepts (Rodríguez Bolívar et al., 2016; Rodrigues De Melo & Venturim Caldas, 2024; Benito et al., 2023; Shi et al., 2022). Notwithstanding this growth, the literature on geography, disciplines, and approaches continues to be fragmented, hindering the cumulative advancement of knowledge and its relevance to policies.

This dispersion presents difficulties in synthesizing current information and finding cohesive thematic developments and deficiencies in the domain of local governments'

financial sustainability. Prior assessments often have a narrative or exploratory character, lacking the analytical rigor and impartiality essential for charting the discipline's intellectual evolution. This gap offers a chance for a more systematic methodology to organize, assess, and analyze the academic landscape of LGFS.

This project intends to thoroughly compile and trace the thematic and intellectual growth of financial sustainability using bibliometric tools, in light of the vast issues and different approaches in the area. Bibliometric analysis is ideal for this objective because it offers quantitative insights into publishing trends, prominent authors, citation relationships, and subject clusters (Rodríguez-Faneca & Cuida, 2021). Unlike conventional reviews, bibliometric approaches provide a reproducible and transparent approach for evaluating the evolution of research fields over time and the influence of significant ideas and contributions on intellectual trajectories (Naik, 2024; Frandsen & Nicolaisen, 2022; Aria & Cuccurullo, 2017).

Bibliometric analysis, with its quantitative precision, facilitates a full grasp of the field's intellectual framework, thematic progression, and principal contributors—areas that qualitative reviews and narrative syntheses have found challenging to thoroughly cover. The burgeoning area of the LGFS literature includes a variety of issues, from fiscal governance to sustainability indicators, making manual synthesis more impractical. Science mapping tools such as VOSviewer and bibliometrix provide a visual and intellectual understanding of the interrelations, evolution, and convergence of subjects around major themes.

The use of bibliometric methodologies within the LGFS framework is opportune and warranted for three primary reasons: The increasing number of articles in this multidisciplinary field requires effective approaches to extract significant insights. The amalgamation of fiscal and sustainability paradigms in local governments necessitates a more precise comprehension of their operationalization and interconnection within academic discourse. Third, policymaking in financially decentralized environments requires evidence-based solutions optimally guided by a well-organized and thematically unified knowledge foundation.

The precise aims of this research correspond to these demands and aim to solve the fundamental gaps found in the literature. Initially, we aimed to delineate the conceptual progression and pinpoint the fundamental and nascent research domains concerning local government financial sustainability. This involves monitoring the frequency, co-occurrence, and temporal changes that indicate the evolution of academic attention from fiscal stress diagnostics to multidimensional sustainability. Second, we identified the most prominent authors, institutions, and publications on the topic, thereby offering

a definitive representation of intellectual leadership and collaborative trends. Third, we examined how global events and policy changes affected research trajectories and thematic emphasis over time. This was accomplished using strategy diagrams, co-authorship networks, and topic evolution maps produced using bibliometrix.

Identifying these issues and the disjointed structure of the current research highlights the need for a thorough methodological approach; hence, we resorted to a bibliometric analysis. This study utilized technologies such as VOSviewer and bibliometrix to provide an analytical depth and visual clarity. These methods enable recognition of topic clusters, institutional contributions, and intellectual linkages, which may otherwise remain hidden.

This study enhances the literature in several ways. Scholars have offered a comprehensive and empirically substantiated summary of the evolution of the LGFS domain, highlighting prominent issues that have not yet been examined. This report provides evidence-based counsel for policymakers and local government practitioners on the prevailing themes, optimal practices, and conceptual frameworks that have influenced global fiscal sustainability discourse. Furthermore, the results facilitate a comparative study, particularly for low- and middle-income nations, where issues of fiscal decentralization are prominent but underexplored.

This study employed sophisticated bibliometric methods in a policy-relevant and increasingly complex domain. Through a thorough analysis of Scopus-indexed literature, we aim to elucidate the intellectual and thematic evolution of research on local government financial sustainability. This bibliometric method elucidates the current status of the subject and uncovers nascent research horizons, including climate finance, participatory budgeting, and digital fiscal instruments. These horizons highlight the transformative nature of the LGFS, which increasingly corresponds to governance innovation, equality concerns, and adaptive resilience.

## 2. Methodology

This study utilizes a thorough bibliometric approach to examine the conceptual framework and thematic progression of the literature on local government financial sustainability (LGFS). Bibliometric analysis offers a systematic and reproducible method for statistically evaluating the expansion, emphasis, and interrelations of academic production within a particular field (Chen, 2017; Cobo et al., 2011; Donthu et al., 2021; Zupic & Čater, 2015). Research employees' performance analysis and scientific mapping were used to elucidate trends in keyword use, pinpoint significant contributors, and illustrate theme patterns across time.

### ***2.1. Source of data and justification***

Bibliographic data were obtained from the Scopus Database, a diverse and esteemed indexing service administered by Elsevier. Scopus was chosen for its vast coverage of peer-reviewed journal articles, detailed information (e.g., author affiliation, citations, and keywords), and interoperability with prominent bibliometric software tools. Scopus is often used in bibliometric studies because of its extensive discipline coverage and dependent citation metrics (Ansorge, 2024; Mongeon & Paul-Hus, 2016).

Although restrictive in many respects, the selection of a single-source database is motivated by methodological precision and pragmatic factors. A consolidated dataset from Scopus guarantees uniformity in metadata formatting and mitigates the duplication and disambiguation challenges linked to the amalgamation of datasets from various repositories (Pranckutė, 2021).

### ***2.2. Search Methodology and Inclusion Standards***

The search query was meticulously designed to include fundamental literature on LGFS. The search was conducted in Scopus on May 7, 2025, and included papers published from 2001 to April 30, 2025. The employed query was

TITLE-ABS-KEY ("Local Government" & ("Financial Sustainability" OR "Fiscal Sustainability" OR "Municipal Finance" OR "Local Finance"))

This string was created to obtain relevant materials based on titles, abstracts, and keywords provided by the authors. Filters were used to restrict the search to:

Articles from peer-reviewed journals and review papers.

- Publications composed in English.
- The exclusion criteria were as follows.
- Proceedings of the conference
- Editorials, literary critiques, or unpublished documents
- Publications in languages other than English.

After screening and deduplication, 120 documents were selected for final collection. This corpus offers a solid basis for examining the development and framework of LGFS studies over the past twenty years.

### ***2.3. Data Preparation and Cleaning***

Data preparation was performed before analysis to improve consistency and accuracy. Bibliographic data were exported in the CSV format for use in Biblioshiny (an R-based

program for bibliometrics) and in the CSV format for application in VOSviewer. The following data cleansing procedures were executed:

- Keyword Harmonization: Synonyms and Variants Were Standardized (e.g., “Fiscal Sustainability” Amalgamated With “Financial Sustainability”).
- Author Disambiguation: Scopus Author IDs & Institutional Affiliations Were Used to Rectify Discrepancies in Author Names (e.g., Initials vs. Full Names).
- Exclusion of incomplete records: Entries lacking keywords, author names, or publication years were eliminated to prevent the distortion of co-occurrence and citation metrics.

These techniques guarantee that the dataset is dependable, consistent, and appropriate for bibliometric visualization and analysis.

## ***2.4. Analytical instruments and methodologies***

Two open-source software packages were used for bibliometric analysis:

- VOSviewer (version 1.6.20) was utilized to create the keyword co-occurrence maps, citation networks, and international cooperation maps. VOSviewer uses the visualization of similarities (VOS) algorithm to categorize objects into clusters based on their proximity and co-occurrence (Nurhayadi et al., 2023; Dagiene & Xie, 2021; Van Eck & Waltman, 2010).
- Biblioshiny (Version 4.2.1): A Graphical Interface for The R Tool Bibliometrix. It is used to conduct descriptive statistics, analyze conceptual structures, create theme maps, and examine temporal keyword trends (Komaludin et al., 2022; Aria & Cuccurullo, 2017).

Integration of these techniques facilitated both macro-level analysis (e.g., general publishing patterns and national productivity) and micro-level insights (e.g., keyword trends, topic shifts, and co-authorship networks).

## ***2.5. Analytical methodologies***

The analysis was performed in five phases:

Descriptive Analysis: This step yielded the following fundamental metrics:

- Yearly scientific output
- Authors with the highest productivity and citation rates
- Prominent periodicals, institutions, and nations.
- These measures have elucidated the extent and expansion of LGFS research.

Keyword Co-occurrence Analysis: A minimum occurrence criterion of five was used to perform co-occurrence analysis to identify the most commonly used terms. Clustering

algorithms in VOSviewer categorize similar terms into theme clusters, elucidating conceptual linkages and prevailing research streams.

**Thematic Mapping & Strategic Diagrams:** Themes Were Classified Using Callon's Centrality-Density Framework (Callon et al., 1983). Facilitated categorization into motor themes (elevated centrality & density), fundamental motifs (high centrality, low density), niche themes (low centrality, high density), and emerging order-diminishing themes (low centrality & density).

The strategic diagrams produced by Biblioshiny demonstrate the intellectual sophistication and interrelation of each subject.

**Thematic evolution and keyword trend analysis:** The dataset was segmented into temporal periods to monitor the progression of the studies/subjects over time. Overlay visualizations and trend charts illustrate the increase or decrease of certain terms (e.g., resilience, climate finance, and budget transparency) in response to global policy changes and financial occurrences.

**Analysis of Citations and Co-authorship:** The influence of authors was assessed using worldwide citation totals. Co-authorship networks and institutional cooperation maps elucidated the architecture of academic communities, highlighting the centers of intellectual leadership and international collaborations.

## ***2.6. Ethical considerations***

This study was based on secondary data from publicly available sources. All data were acquired from the Scopus Database in compliance with restrictions. The instruments used (VOSviewer and Bibliometrix) are open-source and well-recognized within the academic community. Consequently, ethical clearance was not necessary.

## ***2.7. Rationale for methodology***

The bibliometric method used in this study is congruent with the research goals stated in the introduction. This strategy provides a reproducible, data-informed approach for evaluating intellectual contributions, thematic emphasis, and collaborative frameworks within a disjointed and heterogeneous study field. The amalgamation of visualization with statistical rigor improves interpretability and transparency, particularly in complicated policy domains such as the LGFS.

The analysis was based on methodological triangulation using VOSviewer and Bibliometrix software. VOSviewer specializes in network visualization, whereas bibliometrix provides considerable analytical versatility, particularly in creating themed

maps and performing trend analysis. This dual-tool methodology guarantees a comprehensive and in-depth analysis of the academic trends within the topic.

### 3. Results

This section delineates the results of the bibliometric study of local government financial sustainability (LGFS) derived from 120 peer-reviewed papers sourced from Scopus. The investigation used VOSviewer and Bibliometrix to derive insights across five principal dimensions: keyword co-occurrence patterns, thematic structures, trends in keyword evolution, prominent authors and regional contributions, and distributions of keyword frequency distributions. These elements elucidate the structural, intellectual, and temporal processes that define the LGFS research landscape.

#### 3.1. *Keyword co-occurrence network*

Keyword co-occurrence analysis discerns groups of associated words based on their frequency and simultaneous use within a given dataset. A threshold of five keyword occurrences was used in VOSviewer, yielding network visualization with five unique clusters.

Cluster 1 (Red): Environmental Sustainability and Community Resilience, including terms such as waste management, recycling, community development, and emerging nations. The significance of these phases indicates a growing alignment between environmental governance and local financial sustainability, particularly among municipalities in the Global South. This underscores the transition toward environmentally integrated methodologies in municipal budgeting and service provision.

Cluster 2 (Green): Fiscal Governance & Financial Health the Green Cluster Includes Essential Concepts such as Fiscal Sustainability, Public Sector, Policy Formulation, & Financial Health. These terms signify the foundational elements of the LGFS literature, highlighting the concepts of public finance, evaluations of solvency, and regulatory responsibility (Ebdon, 2014).

Cluster 3 (Blue): The Urban Infrastructure and Resource Allocation cluster is characterized by terms such as infrastructure, urban planning, and municipal financing. These issues highlight the infrastructure aspect of fiscal sustainability as cities contend with the equilibrium between capital investments and long-term financial commitments.

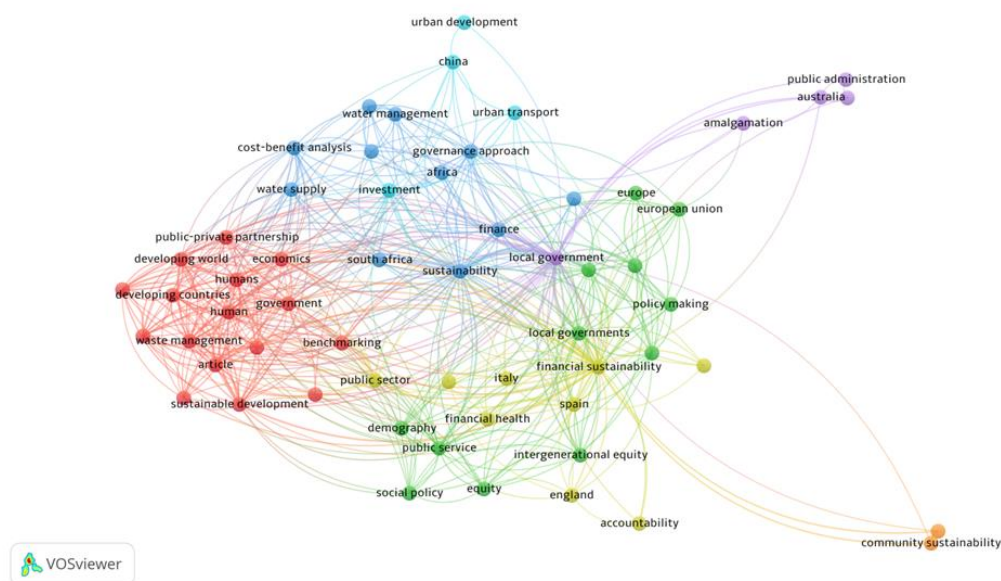
Cluster 4 (Yellow): Institutional Governance and Decentralization. Key concepts include governance, stakeholder engagement, and decentralization. This cluster indicates academic interest in administrative and institutional frameworks governing



budgetary choices, implying a growing emphasis on participatory governance approaches.

Cluster 5 (Purple): Transparency & Social Justice. Keywords included budget transparency, resilience, and social justice. These themes indicate the development of discussions of democratic accountability and inclusive municipal budgetary governance.

The generated map (Figure 1) illustrates the interconnection of these clusters, highlighting an increasing tendency toward multidisciplinary research that integrates technical fiscal analysis with social, environmental, and institutional aspects.



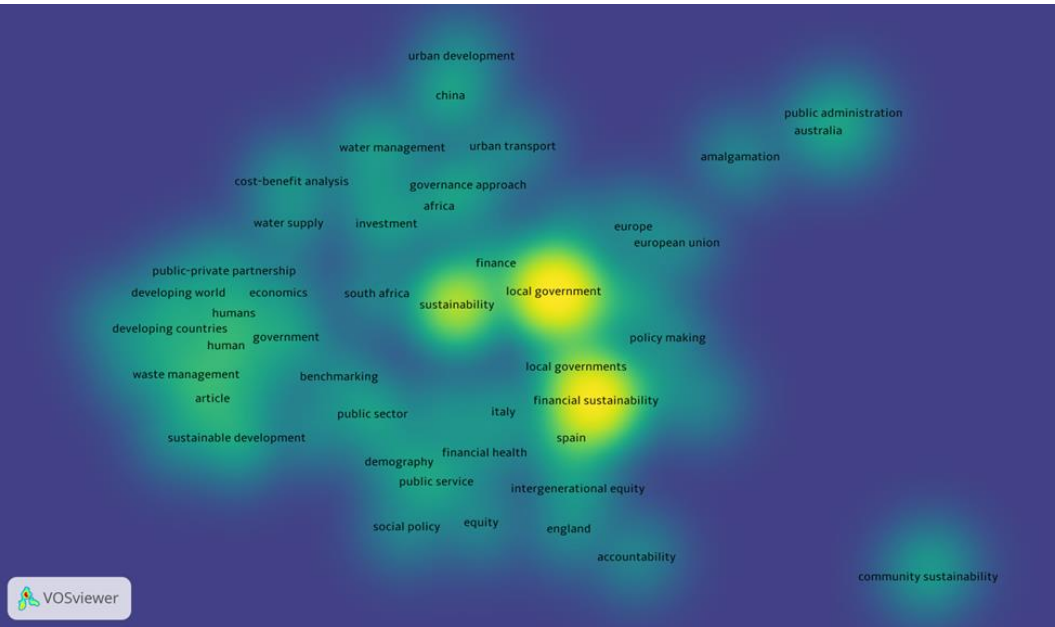
**Figure 1.** Visual representation

### 3.2. Density and overlay visualizations

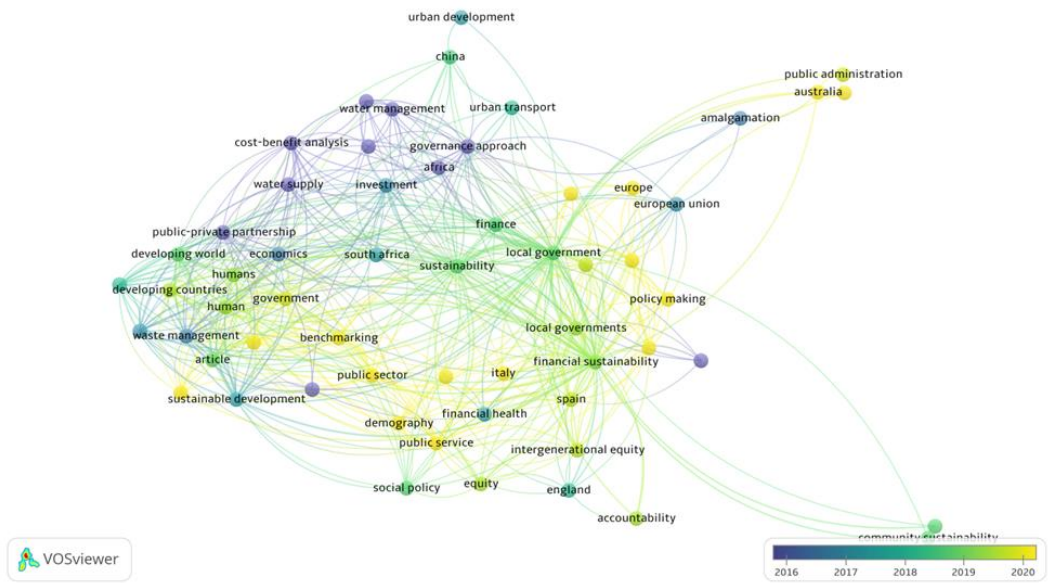
Density visualization (Figure 2) highlights the prominence of often co-occurring terms. Terms such as local governance, financial sustainability, and sustainability dominate, underscoring their significance in grounding the field's intellectual discourse. The geographical concentration of these terms suggests their connective role across thematic domains ranging from economic restraint to environmental resilience.

The overlay visualization (Figure 3) illustrates the time aspect of keyword emergence. Terms such as responsibility, climate financing, and resilience have become more prevalent in recent years, particularly since 2015. This timeframe aligns with the implementation of the SDGs, indicating that global development frameworks have profoundly impacted the thematic focus of the LGFS research. Conversely, earlier

concepts, such as tax capacity and fiscal stress, have seen a relative drop, signifying a shift from issue diagnosis to solution-focused governance.



**Figure 2.** Visual representation



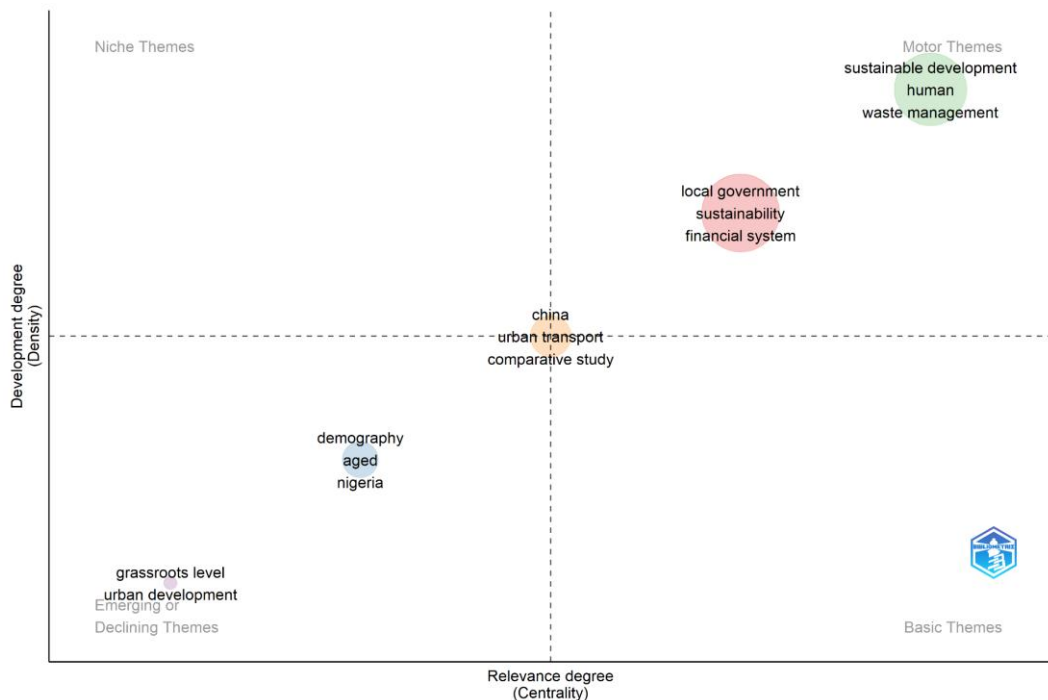
**Figure 3.** Visual Representation

### 3.3. Thematic cartography and strategic diagramming

Thematic mapping using Callon's centrality-density paradigm classifies research topics according to their significance (centrality) and developmental stage (density). The strategic diagram (Figure 4) categorizes the topics into four quadrants.

**Motor Themes (High Centrality, High Density):** Topics such as sustainable development, waste management, and human growth are categorized within this quadrant. These topics have significant internal coherence and extensive interconnections with other study domains, signifying their established and pivotal positions in LGFS literature.

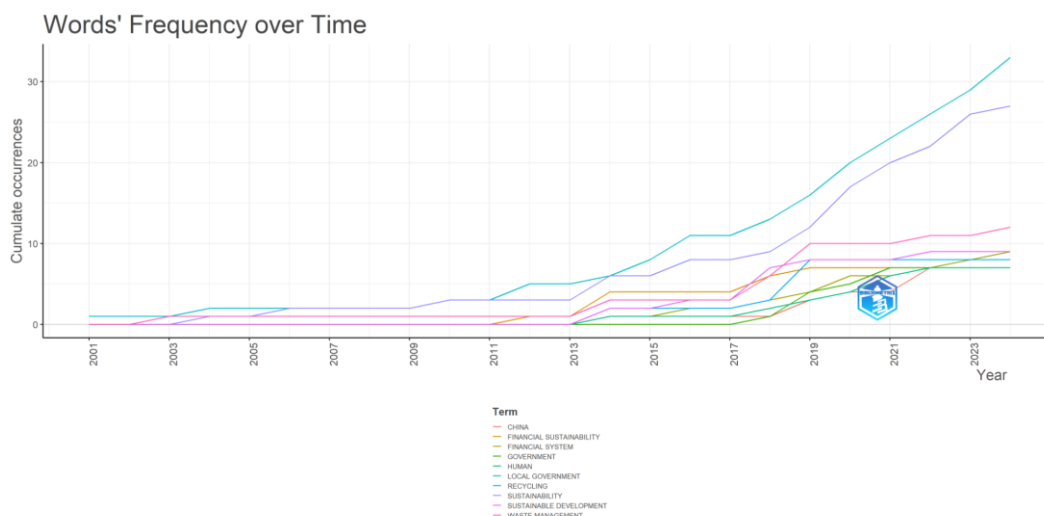
**Fundamental Themes (High Centrality, Low Density):** Themes include local governance, financial systems, and sustainability functions as essential constructs. Although theoretically expansive, these topics serve as essential anchors in most empirical and theoretical research.



**Figure 4.** Visual representation

**Niche Themes (Low Centrality, High Density):** Subjects Like Comparative Studies & Urban Transport Have Significant Internal Coherence but Remain Mostly Isolated from The Wider Discipline. These are often peculiar to a place or practice, adding depth but lacking generalizability.





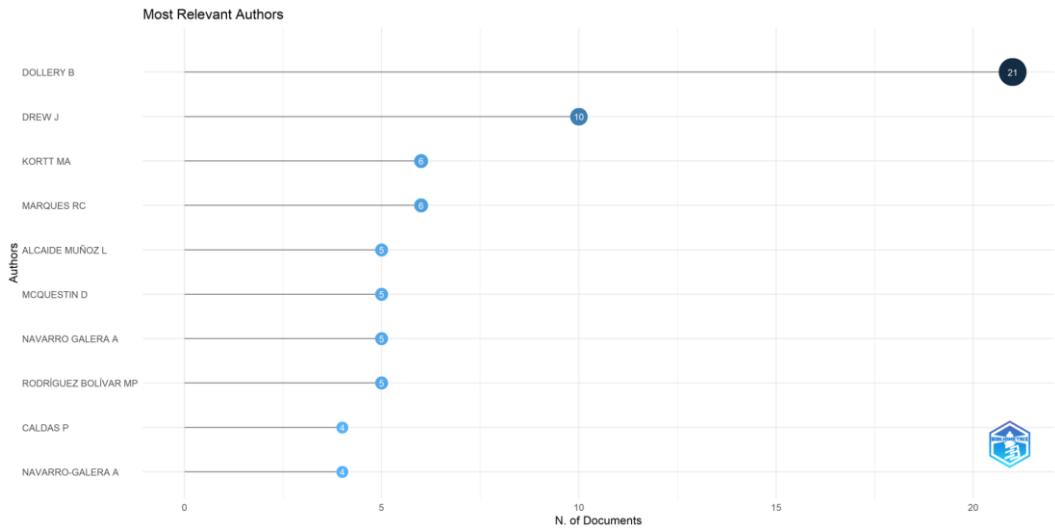
**Figure 6.** Visual representation

### 3.5. Prominent authors and institutional contributions

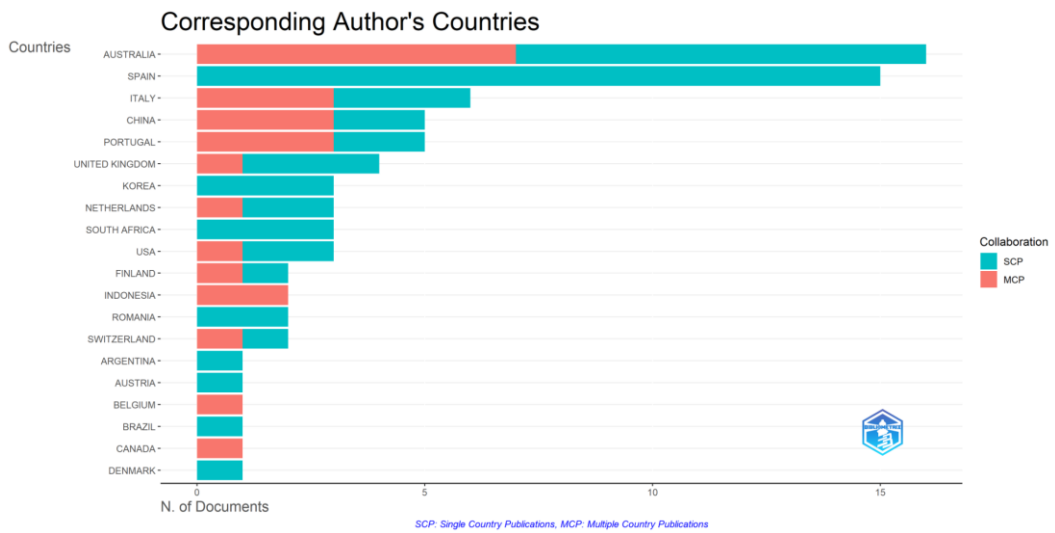
Citation analysis was performed to identify the most prominent authors based on total citations and publication volumes. Figure 7 illustrates that Dollery (2009) were the most prolific writers, with 21 and 10 articles, respectively. Their research focused on fiscal federalism, local government reform, and performance assessment systems. Other prominent writers include Marques RC and Kortt MA, whose works have focused on European municipal governance and financial control systems.

The institutional study indicates that Australia, Spain, and Italy excel in academic production and citation impact (Figure 8). Australia's preeminence illustrates the fervor of federal-local fiscal discussions and reform efforts, while Spain and Italy's significant involvement is associated with EU-wide fiscal compliance structures and decentralization measures. The results underscore the concentration of academic output in high-income nations, but burgeoning contributions from Indonesia, Brazil, and South Africa suggest increasing global involvement in local fiscal policy.

The co-authorship networks produced by VOSviewer indicate an increase in international cooperation, although they were unevenly distributed across areas. Although North-South academic collaborations are apparent in many studies, a significant portion of the literature remains geographically isolated, highlighting the need for cross-contextual and comparative research.



**Figure 7.** Visual representation



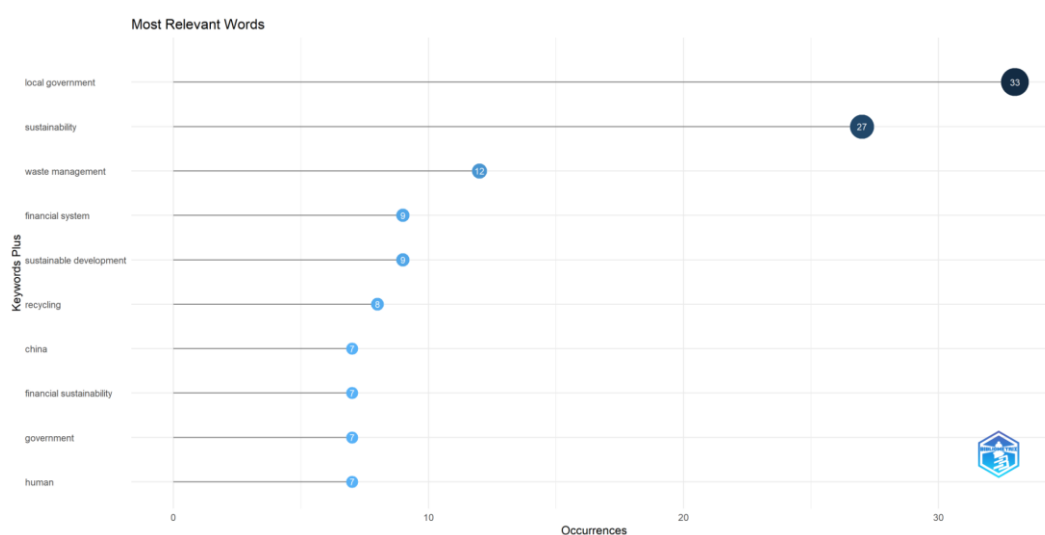
**Figure 8.** Visual representation

### 3.6. Distribution of keyword frequency

Figure 9 illustrates the ranked distribution of the keywords according to their frequency of occurrence. Key concepts such as local governance, financial systems, human development, and social equality illustrate the multifaceted nature of LGFS discourse. The recurrent emergence of terminology associated with fiscal performance (e.g., public finance and budget planning) and social outcomes (e.g., community sustainability and

equality) confirms a conceptual amalgamation of economic and developmental goals in the discipline.

This distribution signifies a conceptual change in the field, from limited budgetary measures to a more comprehensive governance framework. Financial sustainability is progressively contextualized in terms of service accessibility, environmental accountability, and institutional legitimacy. The keyword data corroborate the conclusion that LGFS research is increasingly aligned with overarching public policy issues, including transparency, participatory budgeting, and climate resilience.



**Figure 9.** Visual representation

### 3.7. Summary of key findings

In summary, the bibliometric findings elucidated many essential aspects of the LGFS study domain.

- The domain is conceptually varied and has evolved from conventional fiscal diagnostics to more expansive multidisciplinary frameworks.
- The themes of environmental, social, and participatory governance are becoming more fundamental to LGFS discourse.
- Scholarly leadership is mostly centralized in certain locations and writers; however, developing nations are gaining prominence.
- Thematic evolution maps and trend analyses indicate a research agenda that is sensitive to and influenced by global policy changes and financial occurrences.

These insights establish a basis for the ensuing discussion section, which analyzes these trends and assesses their implications for theory, practice, and future research. The Bibliometric Analysis of Local Government Financial Sustainability (LGFS) Research uncovers a dynamic & evolving discipline. Although conventional fiscal diagnostics are significant, the discussion has evolved to include more comprehensive, multidisciplinary frameworks. This transition signifies an increasing acknowledgement of the intricate, interrelated characteristics of local government finances and their viability. Environmental elements, social factors, and participatory governance methods have become increasingly more, reflecting a more comprehensive view of financial sustainability that transcends economic indicators. These issues correlate with global policy development regarding sustainable development and inclusive governance.

The concentration of academic leadership in certain places and among selected authors indicates established knowledge in the LGFS research. The growing prominence of contributions from developing nations indicates a steady variety of viewpoints and experiences regarding this subject. This trend is poised to enhance worldwide dialogue on LGFS by incorporating diverse contextual perspectives and novel methodologies. Thematic evolution and trend studies illustrate the field's response to global policy changes and major financial events, underscoring the practical significance and flexibility of the LGFS research. This responsiveness guarantees that the research topic remains connected to practical issues and policy requirements, possibly augmenting its influence on local government practices and policy development.

## 4. Discussion

This bibliometric survey of the literature on Local Government Financial Sustainability (LGFS) during the last 20 years covers a dynamic and expanding intellectual landscape marked by growing theme variety, methodological innovation, and worldwide dissemination. The examination of 120 peer-reviewed journal articles indexed in Scopus, visualized using VOSviewer and Bibliometrix, reveals significant patterns in keyword evolution, thematic structures, and collaboration networks. These results provide essential insights into the transition of academic focus from traditional fiscal diagnostics to multidimensional sustainability-oriented governance frameworks.

### *4.1. Thematic and conceptual development of the discipline*

The keyword co-occurrence network demonstrates a significant shift from conventional public finance issues such as fiscal stress, budget deficits, and solvency toward comprehensive governance themes, including resilience, participatory budgeting, social fairness, and climate adaptation. This transition corresponds with the overarching global policy dialogue established by the Sustainable Development Goals (SDGs), notably SDG



11 (Sustainable Cities and Communities) and SDG 16 (Peace, Justice, and Strong Institutions), which underscore sustainable urban governance and robust institutions. The incorporation of environmental terminology (e.g., waste management and recycling) and equity-oriented phrases (e.g., human development and social equality) indicates a convergence between financial sustainability and socio-environmental governance within local government frameworks.

Thematic mapping validates this transformation by recognizing "sustainable development" and "human development" as essential themes, signifying increased centrality and density. These issues have evolved into fundamental components of LGFS research, indicating that sustainability is now essential for discussions on fiscal policy. In contrast, emerging themes, such as intergenerational equity and grassroots development, underscore the conceptual domains that are underexamined yet essential for fostering long-term financial resilience and inclusive governance. The keyword co-occurrence network indicates a notable shift in research priorities concerning Local Government Financial Sustainability (LGFS). Conventional public finance issues such as fiscal strain and budget deficits yield holistic governance principles, including resilience, participatory budgeting, social fairness, and climate adaptation. This progress reflects the international policy framework established by the Sustainable Development Goals, including SDG 11 and 16, which prioritize sustainable urban governance and resilient institutions. The network underscores the rising significance of environmental and equity-oriented terminology, reflecting enhanced awareness of the interrelation between financial sustainability and socio-environmental governance in local settings.

Thematic mapping further substantiates this change by designating "sustainable development" and "human development" as essential topics with significant centrality and density. These notions have transitioned from marginal concerns to the fundamental foundations of LGFS research, highlighting the importance of sustainability in the fiscal policy discourse. The introduction of issues such as intergenerational fairness and grassroots development indicates new avenues of investigation that, while now underexamined, are essential for fostering long-term financial resilience and inclusive governance. This change in study emphasis indicates a more comprehensive approach to LGFS, which considers not only financial measures but also social, environmental, and long-term sustainability concerns in local government administration.

#### ***4.2. Geographic concentration and institutional governance***

Citation and co-authorship studies have indicated that academic production is spatially concentrated in certain affluent nations, including Australia, Spain, and Italy. Authors such as Dollery (2009) made significant contributions, especially in federal government and municipal fiscal policy. This geographical concentration, albeit indicative of

established research ecosystems, highlights the persistent disparity in global knowledge generation. Contributions from Indonesia, Brazil, and South Africa indicate a broadening academic foundation and heightened involvement from the Global South.

Inadequate representation of low-income and fragile nations in the literature is notable. These areas often have significant fiscal issues, including informality, limited tax capacity, and reliance on one; however, they remain underrepresented in the empirical and conceptual frameworks. Broadening the geographic scope of LGFS research is crucial for establishing an internationally inclusive and policy-relevant knowledge foundation.

### *4.3. Implications of the study*

#### *4.3.1. Theoretical implications*

This study advances the theoretical framework of the LGFS by chronicling its transformation from a narrowly defined public finance concern to a multifaceted governance paradigm. The amalgamation of budget transparency, resilience, community sustainability, and social equality exemplifies the blending of normative and developmental perspectives within the fiscal sustainability frameworks. This advocates for a redefinition of LGFS as not just a technical or accounting issue but as a comprehensive public value matter embedded within the larger framework of sustainable development and effective governance.

Furthermore, the research illustrates that LGFS needs to be seen as a dynamic capability that is adaptable to global disruptions and institutional changes rather than a fixed condition. The discipline's response to macroeconomic crises (e.g., the 2008 financial crisis) and changes in global governance (e.g., SDGs) highlights the need for theoretical frameworks that include flexibility, policy innovation, and institutional learning.

Underdeveloped subjects, including intergenerational equality, digital fiscal instruments, and community resilience, provide opportunities for interdisciplinary theoretical advancement. These domains converge with urban studies, sustainability science, and political economics, prompting further theoretical exploration.

#### *4.3.2. Methodological implications*

This study emphasizes the analytical significance of integrating VOSviewer with bibliometric analysis in public finance and governance studies. The dual-tool technique improves methodological rigor and scope by facilitating both visual network building and detailed theme categorization. Keyword co-occurrence, trend analysis, and strategic

diagrams provide a comprehensive framework for evaluating conceptual maturity and research deficiencies.

This study illustrates how bibliometric mapping can enhance qualitative evaluation by providing reproducible and data-driven insights into the structural development of a discipline. These strategies are especially beneficial in interdisciplinary fields, such as LGFS, where conceptual boundaries are ambiguous and several stakeholders participate.

Subsequent bibliometric research may use this methodology to investigate the progression of other governance-related topics such as climate financing, urban resilience, and digital transformation in public administration.

#### ***4.3.3. Practical and policy ramifications***

The results of this study have substantial practical relevance for local government officials, politicians, and development partners. The increasing emphasis on budget transparency, participatory budgeting, and resilience signifies a shift in policy focus from fiscal balance to democratic accountability and adaptable government. Local governments seeking to improve financial sustainability should use mechanisms that foster stakeholder involvement, encourage open data collection, and facilitate inclusive planning.

Second, the incorporation of environmental and equity considerations indicates that municipal fiscal plans should extend beyond the financial equilibrium to include wider sustainability objectives. Instruments, such as green bonds, climate adaptation funds, and socially responsive budgeting, may improve the alignment between financial practices and developmental goals.

Third, the underrepresentation of low-income and vulnerable areas underscores the need for focused research funding and capacity development. Donor agencies and international organizations may use this data to prioritize assistance for research and policy development in underrepresented situations. Promoting south-south knowledge sharing and financing comparative analyses of various fiscal systems would enhance the worldwide relevance of the LGFS frameworks.

The recognition of developing subjects such as e-governance and digital finance highlights the significance of technological innovation in contemporary fiscal management. Policymakers must use digital instruments for immediate budget oversight, automated audits, and public input to improve efficiency, accountability, and responsiveness.

#### ***4.4. Limitations and future research directions***

Notwithstanding its merits, this study was constrained by significant constraints. This depends on data from the Scopus database, which, although extensive, may exclude pertinent material indexed in the Web of Science, Google Scholar, or regional repositories. Consequently, the results may not adequately reflect contributions from non-English sources or lesser-known publications.

The study relied on information provided by the author, including keywords and affiliations, which may exhibit discrepancies or omissions. Despite the use of preprocessing measures to standardize terminology, residual semantic overlaps may remain, possibly affecting co-occurrence and clustering results.

Third, bibliometric analysis elucidates the structural and relational dimensions of academic production but fails to provide comprehensive insights into theoretical substances or normative arguments. Future research should augment bibliometric results with qualitative synthesis, content analysis, or meta-narrative reviews to examine contextual and policy elements.

In light of the recognized deficiencies and rising trends, the following avenues for further study are suggested:

Comparative fiscal resilience studies examining local governments' cross-national responses to fiscal shocks (e.g., pandemics, natural disasters, and inflationary pressures) have provided essential insights into institutional flexibility and governance efficacy.

Future research should investigate the interplay among financial sustainability, service delivery effectiveness, public trust, and environmental impact to provide a comprehensive assessment of local government financial sustainability (LGFS).

Concentrations in the Underrepresented Regions. Broadening bibliometric and empirical analyses to include low-income nations and fragile states will enhance the diversity of the knowledge base and guarantee that policy solutions are internationally relevant.

The significance of digital governance instruments, AI-enhanced financial analytics, and blockchain technology in enhancing local financial sustainability warrants more academic scrutiny.

Longitudinal Tracking of Thematic Shifts: Employing Bibliometric Mapping at More Granular Time Intervals Helps Elucidate the Impact of Significant Global Events (e.g., Adoption of the SDGs, COVID-19) on the Progression of Fiscal Governance Themes.

#### ***4.5. Concluding reflection***

This bibliometric analysis delineates the progression of local governments' financial sustainability from a limited fiscal perspective to a multifaceted and internationally integrated research field. The findings confirm the increasing acknowledgement of the

LGFS as a multifaceted issue necessitating multidisciplinary approaches, regional awareness, and innovative policy solutions. This study provides a systematic basis for future research and practice by elucidating intellectual trends, recognizing major contributions, and highlighting under-examined areas with the objective of enhancing the fiscal resilience and governance capabilities of local governments globally.

## 5. Conclusion

This research presents a thorough bibliometric analysis of academic literature on local government financial sustainability (LGFS), using 120 peer-reviewed journal articles indexed in Scopus and examined with VOSviewer and Bibliometrix. The results elucidate the philosophical framework, topic evolution, and geographic dispersion of LGFS research over the past twenty years. This research indicates that the subject has undergone substantial evolution, transitioning from an initial emphasis on fiscal diagnostics and solvency to a more comprehensive governance-oriented dialogue that includes resilience, environmental sustainability, participatory budgeting, and social equality.

Keyword co-occurrence and theme mapping indicate a transition toward integrative research frameworks that match LGFS with global objectives, including Sustainable Development Goals (SDGs). The rise of "motor themes," such as sustainable development, along with increasing interest in less-examined subjects, such as intergenerational fairness and digital finance, indicates a shift toward a more intricate, multidisciplinary comprehension of fiscal sustainability at the local level. Furthermore, citation and co-authorship studies have revealed a concentration of academic production in high-income nations, accompanied by promising indications of growing participation from the Global South.

This research presents several theoretical advances, notably the redefinition of LGFS as a dynamic and multifaceted governance framework. This illustrates that fiscal sustainability cannot be comprehended separately from institutional, environmental, and social settings. Methodologically, it substantiates the use of bibliometric methods to elucidate intellectual trends, categorize research subjects, and guide literature-based knowledge synthesis. This dual-tool bibliometric framework offers a reproducible method for researchers to investigate dynamic areas of public administration and finance.

These findings highlight the significance of openness, public engagement, and adaptive governance in achieving budgetary sustainability. Local governments can derive practical lessons from focusing on participatory budgeting, open data, and sustainability-oriented fiscal mechanisms.

Despite these advances, this study has several limitations. It depends only on the Scopus Database, possibly excluding permanent research published in non-indexed or geographically specialized journals. This study relies on the consistency of information provided by authors (e.g., keywords and affiliations), which may result in biased omissions despite preprocessing. Third, bibliometric analysis inherently offers structural insights but is deficient in the qualitative depth required to evaluate theoretical coherence or policy effects.

Given these constraints, this report proposes several avenues for further research.

- Cross-national comparative analyses of fiscal resilience were performed to examine how local governments react to external shocks and systemic vulnerabilities. The combination of performance and equity indicators with financial measurements effectively reflects the multifaceted nature of sustainability.
- Enhance empirical and bibliometric investigations in low-income and fragile environments, where fiscal decentralization poses significant difficulties.
- To examine the functions of technology and digital governance instruments, such as AI-driven fiscal oversight and blockchain-enabled transparency frameworks, in enhancing local financial systems. Longitudinal theme monitoring was used to evaluate the influence of significant events (e.g., the COVID-19 pandemic and SDG integration) on the academic progression of LGFS.

This study offers a rigorous and data-driven basis for enhancing the scholarship, policy, and practice regarding the financial sustainability of municipal governments. It advocates more inclusive, creative, and multidisciplinary strategies to enhance resilient and responsible fiscal governance at the sub-national level.

## Conflict of interest

The authors declare no conflicts of interest related to this publication.

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## References

- Anessi-Pessina, E., Barbera, C., Sicilia, M., & Steccolini, I. (2016). Public Sector Budgeting: A European Review of Accounting & Public Management Journals. *Accounting, Auditing*

- & *Accountability Journal*, 29(3), 491–519. <https://doi.org/10.1108/AAAJ-11-2013-1532>
- Ansorge, L. (2024). *Bibliometric Studies as a Publication Strategy*. MDPI AG. <https://doi.org/10.20944/preprints202410.1347.v1>
- 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>
- Benito, B., Guillamón, M. D., & Ríos, A. M. (2023). The Sustainable Development Goals: How Does Their Implementation Affect the Financial Sustainability of The Largest Spanish Municipalities. *Sustainable Development*, 31(4), 2836–2850. <https://doi.org/10.1002/sd.2551>
- Callon, M., Courtial, J.-P., Turner, W. A., & Bauin, S. (1983). From translations to problematic networks: An introduction to co-word analysis. *Social Science Information*, 22(2), 191–235. <https://doi.org/10.1177/053901883022002003>
- Chen, C. (2017). Science Mapping: A Systematic Review of the Literature. *Journal of Data & Information Science*, 2(2), 1–40 <https://doi.org/10.1515/jdis-2017-0006>
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science Mapping Software Tools: Review, Analysis, & Cooperative Study Among Tools. *Journal of the American Society for Information Science & Technology*, 62(7), 1382–1402. <https://doi.org/10.1002/asi.21525>
- Cuadrado-Ballesteros, B., & Bisogno, M. (2022). Budget transparency and financial sustainability. *Journal of Public Budgeting, Accounting & Financial Management*, 34(6), 210–234. <https://doi.org/10.1108/jpbafm-02-2022-0025>
- Dagiene, E., & Xie, Q. (2021). *Visualising quantitative data with VOSviewer will widen your research projects*. <https://doi.org/10.59350/3ft5b-0kr95>
- Dollery, B. (2009). REVIEW NOTE: Local Government Reform and Local Government Finance. *Commonwealth Journal of Local Governance*, (4), 153–163. <https://doi.org/10.5130/cjlg.v0i4.1364>
- Donthu, N., Kumar, S., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). 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>
- Ebdon, C. (2014). Handbook of Local Government Fiscal Health. *Public Budgeting & Finance*, 34(1), 103–106. <https://doi.org/10.1111/pbaf.12031>
- Frandsen, T. F., & Nicolaisen, J. (2022). *Exploring Research Fields Through Institutional Contributions to Academic Journals* (pp. 313–319). springer. [https://doi.org/10.1007/978-3-031-16802-4\\_27](https://doi.org/10.1007/978-3-031-16802-4_27)

- Gajewski, P. (2022). Regional resilience to the Covid-19 shock in Polish regions: how is it different from resilience to the 2008 Global Financial Crisis? *Regional Studies, Regional Science*, 9(1), 672–684. <https://doi.org/10.1080/21681376.2022.2137426>
- Huang, B., Ye, L., & Wu, J. (2023). Fiscal decentralization, intergovernmental mobility, and the innovativeness of local governments' policy response in COVID-19: Evidence from China. *Public Administration and Development*, 43(2), 196–206. <https://doi.org/10.1002/pad.2007>
- Irianto, O., & Adiatma, T. (2023). Financial Sustainability Publication Trend: A Bibliometric Study. *Academic Journal of Interdisciplinary Studies*, 12(5), 132. <https://doi.org/10.36941/ajis-2023-0132>
- Khalila, N. R. A. B. M., Sagar, S. A. L. S., & Basar, M. F. (2024). An Overarching Summary of the Sustainable Development Goals (SDGs). *International Journal of Research Publication and Reviews*, 5(1), 1234–1240. <https://doi.org/10.55248/gengpi.5.0124.0209>
- Komaludin, A., Firmansyah, M. F., & Rusliana, N. (2022). A Scientometric Analysis of Urban Economic Development: R Bibliometrix Biblioshiny Application. *Jurnal Ekonomi Pembangunan*, 11(2), 80–94. <https://doi.org/10.23960/jep.v11i2.484>
- Kordestani, G., & Mohamadi, M. (2020). Financial Sustainability Assessment Indicators in Public Sector. *Journal of Accounting and Auditing Studies*, 9(35), 5–16. <https://doi.org/10.22034/iaas.2020.119836>
- Ma'ruf, A., & Aryani, F. (2019). Financial Inclusion and Achievements of Sustainable Development Goals (SDGs) in ASEAN. *GATR Journal of Business and Economics Review*, 4(4), 147–155. [https://doi.org/10.35609/jber.2019.4.4\(1\)](https://doi.org/10.35609/jber.2019.4.4(1))
- Mongeon, P., & Paul-Hus, A. (2016). The Journal Coverage of Web of Science & Scopus: A Comparative Analysis. *Scientometrics*, 106(1), 213–228. <https://doi.org/10.1007/s11192-015-1765-5>
- Musviyanti, M., Bone, H., Abadan Syakura, M., Yudaruddin, R., & Nur Khairin, F. (2022). Structure of local government budgets and local fiscal autonomy: Evidence from Indonesia. *Public and Municipal Finance*, 11(1), 79–89. [https://doi.org/10.21511/pmf.11\(1\).2022.07](https://doi.org/10.21511/pmf.11(1).2022.07)
- Ng, M. K. (2020). Sustainable Development Goals (SDGs) and Pandemic Planning. *Planning Theory & Practice*, 21(4), 507–512. <https://doi.org/10.1080/14649357.2020.1807130>
- Naik, M. B. (2024). Exploring the Evolution of Green Marketing and Consumer Awareness: A Bibliometric Analysis. *International Journal of Research Publication and Reviews*, 5(3), 813–818. <https://doi.org/10.55248/gengpi.5.0324.0633>
- Nollenberger, K., Groves, S. M., & Valente, M. G. (2003). Evaluating Financial Condition: A



- Handbook for Local Government. Washington, DC, International City/County Managers Association.
- Nurhayadi, W., Hanifah, I., Meutia, M., & Muchlish, M. (2023, January 1). *Scopus Indexed and VOSviewer-Based Environmental Management Accounting System Mapping: Bibliometrics and Visualization*. In Proceedings of the International Conference on Sustainability in Technological, Environmental, Law, Management, Social and Economic Matters, ICOSTELM 2022. <https://doi.org/10.4108/eai.4-11-2022.2328756>
- OECD (2019). *Government at a Glance 2019*. OECD Publishing. <https://doi.org/10.1787/8ccf5c38-en>
- Park, S., & Kim, S. (2021). How Does Fiscal Autonomy Influence Fiscal Outcomes Depending on Corruption. *Lex Localis - Journal of Local Self-Government*, 19(1), 91–109. [https://doi.org/10.4335/19.1.91-109\(2021\)](https://doi.org/10.4335/19.1.91-109(2021))
- Pranckutė, R. (2021). Web Of Science (WoS) & Scopus: The Titans of Bibliographic Information in Today's Academic World. *Publications*, 9(1), 12. <https://doi.org/10.3390/publications9010012>
- Ryan, R., & Woods, R. (2017). Decentralization & Subnational Governance: Theory & Praxis. In Handbook of Research on Sub-National Governance & Development (Pp. 1-33). IGI Global Scientific Publishing.
- Rodríguez Bolívar, M. P., Navarro Galera, A., Alcaide Muñoz, L., & López Subires, M. D. (2016). Analyzing Forces to the Financial Contribution of Local Governments to Sustainable Development. *Sustainability*, 8(9), 925. <https://doi.org/10.3390/SU8090925>
- Rodrigues De Melo, L., & Venturim Caldas, O. (2024). Municipal Fiscal Performance. *Revista Gestão & Conexões*, 13(3), 182.203. <https://doi.org/10.47456/regec.2317-5087.2024.13.3.43188.182.203>
- Rodríguez-Faneca, C., & Cuida, A. (2021). Bibliometric Analysis of the Journal Sendebor (2005-2020): Authorship Patterns, Collaboration and Publishing Trends. *OALib*, 08(06), 1–10. <https://doi.org/10.4236/oalib.1107525>
- Shi, J., Xu, L., & Yang, J. (2022). Economic globalization and fiscal performance. *Applied Economics Letters*, 30(17), 2348–2354. <https://doi.org/10.1080/13504851.2022.2097168>
- UCLG. (2022). Local Finance [PDF]. United Cities & Local Governments. [Global Observatory on Local Democracy and Decentralization](#)
- 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>
- Vučetić, D. (2025). Strengthening the Financial Sustainability of Serbian Local Governments

by Improving their Efficiency and Effectiveness. *Institutiones Administrationis*, 5(1).  
<https://doi.org/10.54201/iajas.122>

Zhiyong, Y. (2017). Local-Central Intergovernmental Fiscal Relations of China. *Journal of Tax Reform*, 3(2), 92–102. <https://doi.org/10.15826/jtr.2017.3.2.033>

Zupic, I., & Čater, T. (2015). Bibliometric Methods in Management & Organization. *Organizational Research Methods*, 18(3), 429–472.  
<https://doi.org/10.1177/1094428114562629>