



The Future of Participative Budgeting: A Bibliometric Analysis Using Vos Viewer

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Abstract. This study aims to map the development, trends, and directions of research related to participative budgeting over the past four decades through a bibliometric analysis approach. Data were obtained from the Scopus database using the keyword “Participative Budgeting” for the period 1982–2025, resulting in 166 documents analyzed using VOSviewer and Publish or Perish software. The results show that the topic of participative budgeting has evolved from a mere managerial mechanism to an interdisciplinary issue involving behavioral, ethical, and organizational governance dimensions. The most frequently appearing keywords include budgetary slack, honesty, performance, and managerial performance, which indicate a research focus on behavioral and managerial performance aspects. Geographically, the United States is the main center of research, followed by Germany, Australia, and Brazil, with increasing contributions from developing countries such as Indonesia. The field of study is dominated by Business, Management and Accounting, but is beginning to expand into Social Sciences and Computer Science. This research provides a theoretical contribution to strengthening the understanding of the role of participation in budgeting effectiveness and opens new research opportunities related to the integration of digital technology, organizational culture, and local context in participative budgeting.

Keywords: Bibliometrics; Digital Technology; Managerial Performance; Organizational Governance; Participative Budgeting

1. INTRODUCTION

Budgeting and planning are two inseparable aspects of financial management, particularly at the early stage of the decision-making process. Without proper planning, a budget cannot generate optimal impact on the achievement of organizational goals (Agustina et al., 2023). Conceptually, a budget is a financial document that functions as a managerial planning tool, outlining the steps that need to be taken within a certain period to achieve predetermined objectives (BR & Adi, 2020). In a broader context, budgeting is understood as an essential instrument in management and economic policy, playing a crucial role in formulating the direction and priorities of both organizational and governmental policies (BR & Khoirunisa, 2021).

As a managerial tool, the budget has a critical role in assessing performance, identifying the causes of inefficiency, and managing both profitable and unprofitable costs. Anthony and Govindarajan (2005) emphasize that a budget serves as a tool for both short-term and long-term planning and control. Through budgeting, managers can identify waste, improve operational practices, and achieve more effective coordination and evaluation. Moreover, the

budget also serves as a mediator for coordination, communication, motivation, and control over organizational operational activities (Asogwa & Etim, 2017; Henttu-aho, 2018; IMF, 2018).

One of the widely used approaches to enhance the effectiveness of the budgeting process is participative budgeting. This approach combines both top-down and bottom-up principles in budget formulation, whereby managers from various organizational levels are directly involved in the preparation, review, and alignment of the budget (Anthony & Govindarajan, 2005). The involvement of multiple management levels in the budgeting process produces results that are more realistic and aligned with actual operational conditions (Rohma & Chamalinda, 2023; Huang, 2019; Arifin & Pagalung, 2018).

However, participative budgeting cannot be separated from the influence of individual characteristics, ethical values, and the norms upheld by each member of the organization (BR & Adi, 2020). Factors such as rationalism and personal information also affect the quality of budgeting outcomes. As the literature on this topic continues to evolve, a comprehensive mapping is needed to understand existing trends, directions, and research gaps. Therefore, this study adopts a bibliometric approach to examine the development of studies on participative budgeting. This method allows for a more objective and measurable analysis of literature trends, authors, and dominant research themes (Fauzan & Jahja, 2021).

The novelty of this research lies in its effort to systematically map recent literature on participative budgeting to identify underexplored research gaps. Thus, this study holds academic urgency in strengthening the reference base and contributing to the future development of research directions. Specifically, this research aims to enrich references on participative budgeting, identify influencing factors, and map variables frequently examined in the literature. The findings are expected to serve as a valuable reference for academics and researchers in advancing further studies on participative budgeting and its implementation in organizational practice.

2. LITERATURE REVIEW

Theoretical Foundations

Participative budgeting is often examined through the lens of several theoretical frameworks, most prominently agency theory and stewardship theory. Agency theory highlights the inherent information asymmetry between principals (owners) and agents (managers), which may result in opportunistic behaviors such as budgetary slack. According to Ngo, Doan, and Huynh (2017), managers possess superior knowledge of operational realities and may strategically manipulate budget proposals by overestimating costs or underestimating

revenues to increase the likelihood of achieving targets. This behavior is consistent with the concept of self-interest maximization, where agents prioritize personal utility—such as favorable performance evaluations or bonus attainment—over organizational efficiency.

Stewardship theory, in contrast, offers a more optimistic perspective by emphasizing intrinsic motivation, collectivist values, and trust between organizational members. Under this framework, participative budgeting is seen as a tool that empowers managers and employees to align their contributions with organizational goals. Brownell and McInnes (1986) suggested that when subordinates perceive budget targets as fair and achievable, they are more likely to internalize organizational objectives, thereby enhancing performance. In addition, behavioral accounting research emphasizes the psychological and social dimensions of budgeting, including fairness perceptions (Libby, 2001), communication effectiveness (Hoque & Brosnan, 2007), and cultural values that influence how individuals engage in the process (Indriantoro & Supomo, 1998).

The interplay of these theories underscores the dual nature of participative budgeting: it can either serve as a platform for collaboration and empowerment or as an arena for opportunistic manipulation. This paradox has motivated scholars to investigate the contextual factors—such as culture, ethics, and organizational design—that determine which outcome prevails (BR & Adi, 2020; Rohma & Chamalinda, 2023).

Participative Budgeting

Budgeting, broadly defined, refers to the process of planning, allocating, and monitoring organizational resources in quantitative terms, typically expressed in monetary units (Halim, 2000; Mardiasmo, 2002). It provides a roadmap for both short-term operations and long-term strategic planning, serving as a benchmark for evaluating performance and controlling costs (Anthony & Govindarajan, 2005; Henttu-Aho, 2018). Within this framework, participative budgeting refers specifically to the involvement of subordinates and middle managers in the preparation and negotiation of budget targets. Supomo and Indriantoro (1998) describe it as a process that captures the voices of individuals within the organization, thereby shaping both budgetary goals and the incentives tied to those goals.

Kenis (1979) proposed that the degree of participation in budgeting can be measured by the extent to which top-level managers share control with lower-level managers, encouraging cooperation and joint decision-making. This definition underscores participation as a multidimensional construct, encompassing not only the procedural aspects of including subordinates in budget discussions but also the substantive influence they exert on final decisions. Ani (2020) further emphasizes that participation implies a collective decision-

making process wherein outcomes are shaped by the contributions of multiple parties rather than unilateral directives from senior management.

Participative budgeting can be operationalized through bottom-up processes in which budgetary information flows upward from operational units to senior management. This contrasts with top-down approaches, where budgets are imposed by senior leaders without consultation. The bottom-up process is considered to generate more realistic and accurate budget estimates because it draws upon the practical knowledge of those closest to operational realities (Huang, 2019; Arifin & Pagalung, 2018). However, as Nuryani (2021) notes, the effectiveness of participative budgeting depends on the balance between inclusivity and managerial oversight, as excessive autonomy may lead to inefficiencies while overly centralized control undermines participation.

Effects of Participative Budgeting

One of the earliest and most consistent findings in the literature is that participative budgeting enhances cost efficiency. Brownell (1982) argued that when employees are involved in setting targets, they are more likely to commit to those targets and adopt behaviors that minimize unnecessary expenditures. Because subordinates have practical knowledge of operational processes, their input leads to more accurate forecasts of resource needs, reducing the likelihood of over- or under-budgeting. Furthermore, by creating a sense of ownership, participative budgeting motivates employees to proactively identify cost-saving opportunities, thereby enhancing overall efficiency (Asogwa & Etim, 2017).

Furthermore, the relationship between participative budgeting and managerial performance has been extensively studied. Brownell and McInnes (1986) provided empirical evidence that greater participation in budgeting correlates with higher managerial productivity. Similarly, Indriantoro and Supomo (1998) found a significant positive relationship between participative budgeting and managerial performance in the Indonesian context. Yahya, et al., (2008) confirmed these findings in Malaysia, demonstrating that participative budgeting improves both motivation and accountability. These results suggest that participation fosters not only technical improvements in budget accuracy but also psychological benefits, such as increased commitment and reduced resistance to performance evaluations.

Beyond efficiency and performance, participative budgeting also shapes organizational culture. Siegel and Marconi (1989) emphasized that participation enhances group cohesion, teamwork, and a sense of fairness in organizational processes. By involving employees in decision-making, participative budgeting promotes transparency and reduces perceptions of arbitrariness in resource allocation. Nuryani (2021) similarly argues that participative

budgeting can cultivate a culture of collaboration, where individuals prioritize collective goals over personal interests. However, the impact on culture is not universally positive. In some cases, participative processes may prolong decision-making, create conflicts between units, or foster groupthink, particularly if power imbalances are not effectively managed.

3. RESEARCH METHOD

This study uses qualitative methods as its research approach. Bibliometric analysis is used to answer various research questions on a specific topic. Zakiyyah, et al., (2022) explain that bibliometrics is the study and measurement of publication patterns, all types of written communication, and their authors. Simply put, bibliometric analysis is “the application of mathematical and statistical methods to books and other communication media” (Kurdi & Kurdi, 2021). More specifically, bibliometric analysis is a method for measuring patterns of publication, text, information, and published documents, particularly scientific literature, using quantitative and statistical analysis approaches (Fauzi & Purwaningtyas, 2023). Our research will analyze publication trends in the articles studied and detailed information related to publications, including authors, citations, and keyword frequency. In this study, metadata was retrieved from the Scopus database using search queries or keywords: Participative Budgeting. Scopus data for the last 43 years produced 166 documents on participatory budgeting (period 1982–2025). After exporting metadata in CSV and RIS formats, the next step in our investigation process was to perform frequency analysis in Microsoft Excel, visualize networks with VOSviewer, and develop citation metrics with Harzing's Publish or Perish. This method allows academics to track trends in the literature related to participatory budgeting and the most productive journals, most popular authors, authors' countries of origin, and most frequently cited topics of study.

4. RESULTS AND DISCUSSION

Bibliometric Analysis

Publications and Citations

The number of publications shows a fluctuating yet generally increasing trend over the past two decades. In the early period (1980s–1990s), publications were very limited, averaging only one to two articles per year. A significant rise began to appear around 2009, reaching its peak in 2023 with 14 publications. This pattern indicates a growing interest and research activity in the topic, particularly during the last ten years.



Figure 1. Number of Publications per Year

The citation count also exhibits a non-linear dynamic. The highest citation numbers were recorded in 1988 (354 citations), 1998 (303 citations), and 2009 (210 citations). The citation surges in those years suggest the presence of highly influential publications that served as foundational works for subsequent studies. However, after 2015, although the number of publications continued to increase, the citation rate showed a relative decline. For instance, in 2023, there were 14 publications but only 45 citations. This phenomenon may be attributed to two main factors: (a) the research is still relatively new and has not yet accumulated a large number of citations, or (b) the increase in quantity of publications is not necessarily accompanied by a corresponding improvement in quality or research relevance.

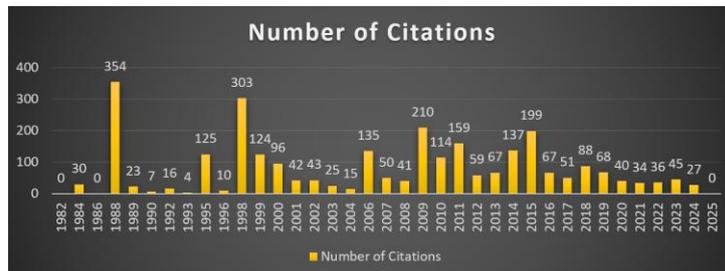


Figure 2. Number of Citations per Year

Table 1. Publications and Citations

Year	Number of Publications	Number of Citations	Year	Number of Publications	Number of Citations
1982	2	0	2008	3	41
1984	3	30	2009	6	210
1986	1	0	2010	4	114
1988	3	354	2011	11	159
1989	1	23	2012	5	59
1990	2	7	2013	5	67
1992	1	16	2014	8	137
1993	2	4	2015	8	199
1995	2	125	2016	4	67
1996	2	10	2017	7	51
1998	2	303	2018	7	88
1999	2	124	2019	9	68
2000	1	96	2020	6	40

2001	2	42	2021	7	34
2002	1	43	2022	10	36
2003	3	25	2023	14	45
2004	2	15	2024	11	27
2006	4	135	2025	3	0
2007	2	50			
Grand Total				166	2844

Subject Area

The Business, Management, and Accounting field dominates with 113 publications, indicating that the analyzed research strongly focuses on managerial, accounting, and business decision-making aspects. This dominance aligns with the characteristics of the topic, which generally relate to organizational management, governance, financial performance, and business strategy. The fields of Social Sciences (53 publications) and Economics, Econometrics, and Finance (34 publications) serve as major supporting disciplines, reflecting an interdisciplinary approach that integrates social and economic behavioral perspectives into management and accounting analysis.

Table 2. Subject Area

Subject Area	Number
Business, Management and Accounting	113
Social Sciences	53
Economics, Econometrics and Finance	34
Decision Sciences	32
Computer Science	14
Psychology	7
Engineering	7
Environmental Science	5
Mathematics	4
Medicine	2
Energy	2
Pharmacology, Toxicology and Pharmaceutics	1
Multidisciplinary	1
Earth and Planetary Sciences	1
Dentistry	1
Arts and Humanities	1

In addition to these three core areas, other disciplines such as Decision Sciences (32 publications) and Computer Science (14 publications) are also involved. This trend indicates a shift toward data-driven analysis, decision-support systems, and the application of digital technologies (e.g., big data, AI, and accounting information systems) in management and financial research. Smaller fields such as Psychology (7 publications), Engineering (7 publications), and Environmental Science (5 publications) highlight the emergence of new

perspectives that combine elements of human behavior, technology, and environmental sustainability within management and accounting contexts. Meanwhile, fields like Medicine, Energy, and Pharmacology, though contributing minimally (1–2 publications), signal the potential expansion of research into specific industry sectors such as healthcare and sustainable energy. This broad disciplinary distribution reflects that the main research topic is inherently interdisciplinary, maintaining a core focus on management and accounting while remaining open to the integration of other scientific domains. Such a tendency illustrates an academic transformation toward a holistic approach in understanding modern business dynamics—particularly in addressing the challenges of digitalization, sustainability, and organizational behavioral change.

Document Type

Table 3. Document Type

Document Type	Number
Article	128
Book chapter	13
Conference paper	9
Review	8
Conference review	3
Erratum	2
Book	2
Note	1
Total	166

The dominance of journal articles indicates that research on this topic has a strong academic foundation and is widely recognized in indexed journals. Most studies focus on testable theoretical and empirical contributions that serve as academic and practical references. The presence of 13 book chapters and 2 books reflect efforts to compile conceptual knowledge in a comprehensive academic form, while conference papers (9) and conference reviews (3) show active discussion and continuous research development. Additionally, 8 review articles help synthesize literature and identify future research directions, whereas 2 erratum and 1 note demonstrate a commitment to accuracy and ongoing refinement in scholarly publications.

Source Type

The dominance of academic journals indicates that research on this topic possesses a high level of validity and credibility, as journal publications typically undergo a rigorous peer-review process. This also suggests that most studies focus on empirical testing and theoretical development within formal academic contexts. Publications in the form of book series and conference proceedings reflect a dynamic scholarly environment—book series often host

ongoing or multidisciplinary research themes, while conference proceedings signify active discourse and idea exchange among researchers before full journal publication.

Although relatively few, books demonstrate efforts to present comprehensive and in-depth theoretical discussions or long-term research findings that serve as conceptual references for future studies. Overall, this distribution shows that research in this area has reached a high level of academic maturity, with the majority of publications concentrated in reputable scholarly journals, while other forms—such as book series and proceedings—support the dissemination of ideas and innovation within the field.

Table 4. Source Type

Source Type	Number
Journal	127
Book series	23
Conference Proceeding	11
Book	5
Total	166

Top 10 Source Journal

Several leading journals serve as the primary publication outlets for this topic, including The Accounting Review, Journal of Management Accounting Research, Accounting, Organizations and Society, and Behavioral Research in Accounting. In addition, regional journals such as Advances in Accounting and the Journal of Applied Accounting Research also make significant contributions. The concentration of publications in these journals indicates that participative budgeting remains an essential part of the modern managerial accounting discourse. Furthermore, research on this topic has begun to expand across disciplines, encompassing areas such as social sciences, organizational behavior, and information systems demonstrating its growing presence in journals beyond the traditional accounting domain.

Table 1. Top 10 Source Journal

Top 10 Source Journal	Number
Accounting Organizations and Society	11
Advances in Management Accounting	10
Journal of Management Accounting Research	7
Management Accounting Research	5
Lecture Notes in Information Systems and Organisation	5
British Accounting Review	4
Advances in Accounting Behavioral Research	4
Contributions to Political Science	3
Behavioral Research in Accounting	3
Accounting Review	3

Institutional Affiliation

The institutions with the highest contributions are The University of Arizona and Georgia State University, each with six publications. Both universities have a strong reputation in managerial accounting and organizational behavior, indicating that research on participative budgeting remains deeply rooted within the American academic environment. In addition, Louisiana Tech University, Mississippi State University, Universidad de Los Lagos, and the University of Pittsburgh each contributed three to four publications, reflecting international collaboration, including participation from Latin America (Chile) through Universidad de Los Lagos. The emergence of Universitas Tadulako as one of the contributing institutions from Indonesia signifies a growing interest in this topic within Southeast Asia, particularly in the context of public sector and local government budget participation practices.

Table 6. Top 12 Affiliation

Top 12 Affiliation	Number
The University of Arizona	6
Georgia State University	6
Louisiana Tech University	4
Mississippi State University	3
Universidad de Los Lagos	3
University of Pittsburgh	3
Western Sydney University	3
FernUniversität in Hagen	3
Universiti Malaya	3
Auburn University at Montgomery	3
Universitas Tadulako	3
Eller College of Management	3

Country

Table 7. Top 10 Country

Top 10 Country	Number
United States	53
Germany	14
Australia	11
Brazil	10
Indonesia	9
Spain	7
Malaysia	7
Canada	7
Italy	6
Netherlands	4

Geographically, the research is dominated by the United States with 53 publications, followed by Germany (14), Australia (11), and Brazil (10). Countries such as Indonesia (9 publications), Spain (7), Malaysia (7), Canada (7), and Italy (6) indicate that participative

budgeting has become a global research focus encompassing diverse contexts from public organizations and multinational corporations to local governments. These findings also suggest that participative budgeting practices have been adapted across different organizational cultures and political systems, highlighting their versatility and relevance in various governance environments.



Figure 3. VOSviewer Analysis Based on Country

Figure 3 shows a visualization of the distribution of countries based on the most influential publications in participatory budgeting research. The dominance of the United States can be explained by its strong tradition of research in the fields of management accounting and behavioral accounting, as well as support from educational institutions and reputable indexed journals. Meanwhile, the increased contribution from countries such as Brazil and South Korea indicates an expansion of research into regions with different socioeconomic contexts, providing variety and novelty in participatory approaches to budgeting. In addition, countries such as Malaysia, Spain, and Indonesia are also beginning to emerge as part of this research network, albeit with a lower intensity of collaboration. Their position on the edge of the map indicates that their contributions are still regional in nature or limited to collaboration between certain researchers or universities. This visualization shows that research on participative budgeting is transnational and multidisciplinary, with a strong dominance of institutions in North America and Western Europe, while countries in Southeast Asia have begun to develop in the last decade. This indicates the potential for strengthening international collaboration between developed and developing countries to broaden the theoretical and contextual perspectives in future research on participatory budgeting.

Language

The English language dominates with 149 publications, reaffirming its role as the primary standard for global scientific communication. However, the presence of publications in Spanish (8) and Portuguese (8) reflects significant contributions from Latin American regions, particularly Brazil, Chile, and Spain. Other languages such as German, French, Italian, Russian, Ukrainian, and Czech appear in smaller numbers, indicating that research on

participative budgeting has achieved international diffusion, though it remains concentrated in English-language journals to ensure broader academic visibility and impact.

Table 8. Language

Language	Number
English	149
Spanish	8
Portuguese	8
German	2
Ukrainian	1
Russian	1
Italian	1
French	1
Czech	1

Keywords

The relationship patterns among keywords indicate how the topic has evolved—from internal organizational issues toward broader social contexts such as *participatory democracy* and *justice*. The keyword “participative budgeting” appears 45 times, confirming its central role in the research landscape. It reflects the focus on the involvement of managers and employees in the budgeting process, influencing motivation, performance, and accountability. Keywords such as “budgetary slack” (18) and “honesty” (16) emphasize the behavioral and ethical dimensions of budgeting, with many studies exploring how participation can either reduce or induce slack depending on honesty levels and incentive systems. Terms like “participatory budgeting” (15), “democracy” (8), “participatory democracy” (4), and “participatory budget” (4) illustrate the expansion of research from business organizations to the public sector, particularly local governments. This shift indicates that the participatory approach is not only applied in managerial contexts but also in public budget allocation to enhance transparency and accountability.

Table 9. Top 22 Keywords

Top 22 Keywords	Number	Top 22 Keywords	Number
Participative Budgeting	45	Experiment	6
Budgetary Slack	18	Budget Control	6
Honesty	16	Local Government	5
Participatory Budgeting	15	Fairness	5
Participation	11	Budget	5
Budgeting	11	Trust	4
Performance	10	Representation	4
Budget Participation	10	Participatory Democracy	4
Democracy	8	Participatory Budget	4
Job Satisfaction	7	Budgets	4
Managerial Performance	6	Budget Goal Commitment	4

Keywords such as “performance” (10), “managerial performance” (6), “job satisfaction” (7), and “budget goal commitment” (4) highlight the emphasis on the impact of budget participation on individual and team outcomes. Psychological factors such as trust and fairness perception play crucial roles in explaining the effectiveness of participation. Meanwhile, terms like “experiment” (6), “representation” (4), and “budget control” (6) suggest that most studies adopt experimental or behavioral survey approaches to examine causal relationships among participation, budget control, and performance outcomes. Overall, the analysis identifies two major research directions: 1). Micro-level focus – examining behavioral and performance aspects within business organizations. 2). Macro-level focus – linking participative budgeting to democratic principles and public sector governance.

Vosviewer Analysis Based on Keywords

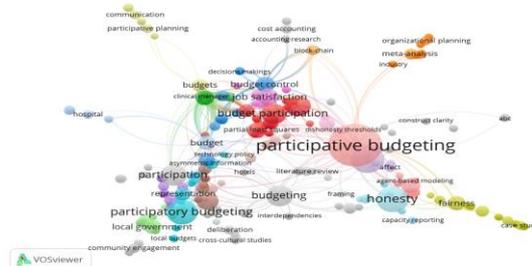


Figure 4. Visualization of Co-Occurrence Using the Full Counting method

Figure 4 presents a co-occurrence visualization based on all keywords using the full counting method, illustrating that research topics related to participative budgeting form several interconnected clusters. The largest cluster centers around the term “participative budgeting”, which serves as the primary focus and shows strong associations with keywords such as budget participation, honesty, budgetary slack, fairness, and managerial performance. These connections indicate that the theme of participation in budget preparation is widely examined from the perspective of organizational behavior and managerial honesty, particularly in relation to the formation of budgetary slack. In addition, another cluster highlights the relationship between participatory budgeting and local government, suggesting a research direction toward the implementation of participatory budgeting concepts in the public sector and local governance.

Keywords such as job satisfaction, trust, and performance also emerge as cross-cluster linking elements, demonstrating that psychological and motivational dimensions play an important role in participatory budgeting research. Meanwhile, more technical topics such as meta-analysis, agent-based modeling, and partial least squares indicate the growing methodological diversity and sophistication in the past decade. Overall, this keyword mapping

reveals an evolution of research from traditional behavioral approaches toward more comprehensive studies that integrate aspects of technology, public governance, and modern quantitative methodologies.

Future Research Opportunities

The keyword co-occurrence visualization generated through VOSviewer highlights the evolving intellectual contours of participative budgeting research. Several clusters emerge, each representing distinct but interconnected research streams. While traditional themes such as budget participation, job satisfaction, and budget control remain central, the appearance of new keywords—such as honesty, fairness, blockchain, local government, and meta-analysis—suggests emerging research trajectories. Based on this bibliometric mapping, the following avenues for future research can be identified.

Behavioral and Ethical Dimensions of Participative Budgeting

The strong linkages among keywords such as honesty, fairness, and dishonesty thresholds indicate growing scholarly attention to ethical behavior and integrity within the budgeting process. Future research could explore how moral reasoning, ethical climates, and social norms shape information sharing and decision-making in participative budgeting. Specifically, studies might investigate how honesty interacts with organizational justice perceptions, psychological safety, and performance evaluations. Cross-cultural comparisons could also illuminate how different ethical frameworks influence participatory behavior and budgetary slack formation. Experimental or behavioral simulation studies could provide further insight into how individuals balance personal incentives and collective fairness in budgeting contexts.

Participative Budgeting in the Digital and Technological Era

The presence of keywords such as blockchain, technology policy, and agent-based modeling suggests a new intersection between participative budgeting and digital transformation. As organizations increasingly adopt data-driven decision systems and distributed ledger technologies, future studies could examine how these innovations enhance or challenge participation, transparency, and accountability. For instance, blockchain-based budgeting systems could reduce information asymmetry and improve auditability, but may also introduce new forms of digital control and resistance. Researchers could develop conceptual frameworks or case studies on how digital tools (e.g., collaborative dashboards, AI-driven forecasting) reshape the dynamics of participation, communication, and trust among managers.

Public Sector and Community-Based Participatory Budgeting

Clusters involving local government, community engagement, and participatory planning underscore a rich area for further exploration. Future studies could analyze how participative budgeting functions as a mechanism for democratic governance and citizen empowerment. Comparative analyses across countries or municipalities may reveal how institutional contexts, administrative capacity, and public trust affect participatory outcomes. Moreover, longitudinal studies could assess the long-term effects of participatory budgeting on social equity, local service delivery, and fiscal transparency. Integrating perspectives from public administration and political economy could deepen understanding of how participative budgeting contributes to inclusive development and civic accountability.

Psychological and Organizational Factors: Motivation and Job Satisfaction

The recurring co-occurrence of job satisfaction, decision making, and communication suggests continuing interest in the psychological outcomes of participative budgeting. However, future research could adopt a more nuanced approach by examining the mediating and moderating mechanisms underlying these relationships. For example, how does participative communication influence affective commitment and creativity? Do personality traits or leadership styles moderate the link between participation and job satisfaction? Employing mixed methods combining surveys, interviews, and longitudinal performance data could provide a richer understanding of these dynamics.

Methodological Innovations and Meta-Analytic Integration

The appearance of meta-analysis and construct clarity as keywords signals increasing methodological sophistication in the field. Future research could build upon this trend by conducting large-scale meta-analyses that synthesize findings across diverse contexts, identifying consistent patterns and boundary conditions for participative budgeting effects. Additionally, scholars could use advanced bibliometric and network-analysis techniques (e.g., dynamic co-citation analysis, topic modeling) to track the temporal evolution of concepts and theoretical frameworks. These approaches can refine construct definitions, improve measurement validity, and establish a more coherent cumulative knowledge base.

Integrating Sustainability and Governance Perspectives

The connections between organizational planning, cost accounting, and capacity reporting reveal an emerging interest in the intersection of participative budgeting and sustainable governance. Future research may examine how participatory financial planning aligns with sustainability reporting, ESG (Environmental, Social, and Governance) frameworks, or performance-based budgeting. Studies could also analyze how participative

mechanisms facilitate stakeholder dialogue, resource stewardship, and ethical accountability in sustainability-oriented organizations.

Cross-Sectoral and Interdisciplinary Applications

Finally, keywords such as hospital, hotel, and industry point to opportunities for applying participative budgeting research across various sectors. Future studies could investigate sector-specific dynamics, such as how participative budgeting influences efficiency and innovation in healthcare, hospitality, or education. Interdisciplinary collaborations between accounting, psychology, information systems, and public policy scholars could enrich theoretical and practical understanding of participative budgeting in diverse institutional settings.

5. CONCLUSION

This study provides a comprehensive overview of the development of literature on participative budgeting over more than four decades through a bibliometric analysis approach. The findings reveal that participative budgeting is no longer confined to the technical aspects of budget preparation but has evolved into an interdisciplinary topic encompassing behavioral, social, and organizational governance dimensions. The dominance of keywords such as budgetary slack, honesty, performance, and managerial performance indicates that ethical and managerial behavior issues have become central themes in this area of research. Furthermore, research trends show a shift from business contexts toward the public sector, reflecting the growing application of participatory principles in modern governance systems.

Empirically, the mapping results indicate that the largest contributions come from developed countries, particularly the United States, Germany, and Australia, while developing countries such as Indonesia are beginning to show increased participation in academic publications in this field. The dominance of research within the Business, Management, and Accounting category demonstrates a strong focus on efficiency and organizational performance aspects. However, the emergence of related disciplines such as Social Sciences, Psychology, and Computer Science suggests a transformation toward a more comprehensive multidisciplinary approach.

Theoretically, this study reinforces the position of participative budgeting as a management concept highly relevant to the dynamics of modern organizations. It emphasizes the importance of participation in creating fair, transparent, and accountable budgeting systems, while also opening opportunities for deeper understanding of individual behavior in financial decision-making processes. Practically, the findings offer implications for both

business organizations and the public sector to broaden the application of participatory mechanisms, particularly in addressing the challenges of the digital era that demand transparency and cross-level collaboration.

Future research opportunities remain wide open. First, subsequent studies can focus on integrating participative budgeting with digital technologies such as big data analytics, artificial intelligence, and participatory-based accounting information systems to enhance budgeting efficiency. Second, there is a need for deeper exploration of cultural and local contextual factors, especially in developing countries, to understand how social values influence the effectiveness of participation in budgeting processes. Third, experimental and longitudinal research could be conducted to test the causal relationships among budget participation, managerial honesty, and long-term organizational performance. Moreover, interdisciplinary approaches combining behavioral accounting, organizational psychology, and political economy perspectives can enrich the understanding of participative budgeting as a modern governance mechanism oriented toward collaboration and distributive justice.

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