Bibliometric Mapping of Earnings Management Research

Loso Judijanto[1], Fifitri Ali[2]
[1]IPOSS Jakarta
[2]Politeknik Caltex Riau

Article Info	ABSTRACT
	This study presents a comprehensive bibliometric analysis of earnings management research spanning the period from 2000 to 2025. Utilizing data from the Scopus database and analytical tools in VOSviewer, the study explores the thematic structure, intellectual foundations, and collaborative networks within the field. The keyword co-occurrence analysis reveals that core concepts such as discretionary accruals, audit quality, and financial reporting quality continue to dominate the literature, while newer themes like sustainability, corporate social responsibility, and gender diversity are emerging as significant research frontiers. Temporal and density visualizations indicate a shift from traditional earnings manipulation techniques toward broader governance and ethical considerations. The co-authorship and country collaboration networks highlight influential scholars and the dominance of the United States, China, and the United Kingdom, alongside increasing contributions from emerging economies. This bibliometric mapping not only consolidates existing knowledge but also provides a strategic overview of future research directions in the evolving landscape of earnings management.

Corresponding Author:

Name: Loso Judijanto
Institution: IPOSS Jakarta
e-mail: losojudijantobumn@gmail.com

1. INTRODUCTION

Earnings management has become one of the most extensively studied topics in accounting and financial research, largely due to its significant implications for the integrity of financial reporting and the quality of decision-making by stakeholders. Defined broadly, earnings management involves the deliberate manipulation of financial statements by corporate management to either mislead stakeholders or influence contractual outcomes that depend on reported accounting numbers [1]. These practices, whether opportunistic or informative, pose fundamental questions regarding the ethical and regulatory boundaries of managerial discretion in financial reporting. As global capital markets evolve and accounting standards converge, the attention toward earnings management continues to intensify, signaling the necessity of a comprehensive understanding of its research landscape [2], [3].

Over the past two decades, the body of literature on earnings management has expanded rapidly, encompassing various theoretical frameworks, methodological approaches, and contextual analyses. Researchers have explored numerous dimensions of earnings management,

including accrual-based and real activities manipulation [4], the impact of corporate governance mechanisms [5], the role of auditing [6], and the influence of cultural and institutional settings [7]. The proliferation of studies across diverse journals and disciplines reflects the complexity and interdisciplinary nature of earnings management as a research field. However, this vast literature also presents challenges in synthesizing key trends, identifying influential works, and understanding the evolution of research themes over time.

In addition to its theoretical significance, earnings management has substantial practical consequences. Regulators and standard-setters, such as the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB), are constantly evaluating the effectiveness of accounting rules in curbing earnings manipulation. Scandals involving high-profile firms such as Enron, WorldCom, and more recently, Luckin Coffee, have brought the issue into the public spotlight, further amplifying the need for research that not only explores causes and consequences of earnings management but also informs policy and practice [8], [9]. This practical urgency has led to a surge of empirical studies and policy debates centered on improving financial transparency and accountability.

The geographical and institutional spread of earnings management research has also become increasingly global. While early studies were predominantly focused on the U.S. capital market context, subsequent research has explored earnings management behaviors in various legal, cultural, and economic settings. This diversification reflects the influence of international differences in investor protection, enforcement mechanisms, and financial reporting systems [10]. Furthermore, emerging markets and developing economies have become new frontiers for earnings management studies, offering fresh insights into how institutional voids and regulatory asymmetries shape managerial behavior.

Despite the extensive growth of literature, the field still lacks a consolidated bibliometric overview that captures the intellectual structure, influential authors, key journals, research clusters, and emerging themes. Bibliometric analysis, through tools such as VOSviewer, offers a robust method for mapping the development of academic fields by analyzing publication patterns, co-authorship networks, citation relationships, and thematic co-occurrences [11]. Applying this method to earnings management literature can illuminate the evolution of the field, reveal collaborative trends, and identify gaps or saturated areas in research. A systematic bibliometric mapping is thus essential for understanding the trajectory and maturity of earnings management as a scholarly domain.

Although earnings management is a well-established topic in accounting research, there remains a lack of comprehensive bibliometric studies that systematically map the development, influential contributions, and thematic evolution of this field. The fragmented nature of existing literature, dispersed across various subtopics and journals, makes it difficult for scholars to navigate the research landscape, recognize collaboration networks, and identify future research directions. Without a synthesized view of the field's structure and dynamics, researchers may face challenges in understanding its conceptual boundaries, pinpointing emerging trends, and building on foundational works. The objective of this study is to conduct a comprehensive bibliometric mapping of earnings management research from 2000 to 2025, using VOSviewer as the primary analytical tool.

2. METHODS

This study employs a bibliometric analysis approach to map the structure, trends, and intellectual evolution of earnings management research from the year 2000 to 2025. Bibliometric analysis is a quantitative method used to assess the patterns and impacts of scientific publications by analyzing

citation, authorship, and keyword data [11]. The approach enables researchers to identify influential publications, prominent authors, collaboration networks, and thematic developments within a research field. Specifically, this study utilizes VOSviewer, a widely recognized software tool designed for constructing and visualizing bibliometric networks such as co-authorship, co-citation, and keyword co-occurrence [12].

The data for this analysis were collected from the Scopus database, which was selected due to its broad coverage of high-quality, peer-reviewed journals in accounting, finance, and business. A comprehensive search was conducted using the keyword "earnings management" within the title, abstract, and keyword fields. The search was limited to the publication years 2000–2025, and only articles published in English and categorized as journal articles were included. After cleaning and standardizing the dataset to remove duplicates and irrelevant entries, the final corpus consisted of a curated dataset containing bibliographic metadata, including titles, authors, affiliations, keywords, and citation counts.

3. RESULTS AND DISCUSSION
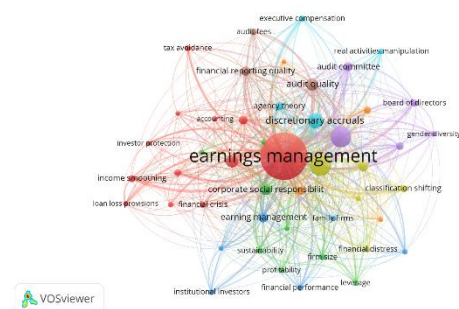
Keyword Co-Occurrence Network

Figure 1. Network Visualization
Source: Data Analysis

Figure 1 presents a co-occurrence map of keywords in the field of earnings management research. Each node (circle) represents a keyword, with the size indicating the frequency of its occurrence in the dataset, while the lines (edges) show the strength of co-occurrence relationships between terms. The clusters, distinguished by colors,

represent thematic groupings of research areas that commonly appear together in the literature. This bibliometric map offers insight into the intellectual and conceptual structure of earnings management studies over the years. At the core of the map, the largest and most central node is "earnings management", which acts as the anchor concept around which other themes revolve. Closely linked to it are key terms such as "discretionary accruals", "audit quality", "financial reporting quality", and "corporate social responsibility". These keywords signify dominant areas of focus in earnings management research, suggesting that scholars have extensively examined how managerial discretion in accruals interacts with audit practices, reporting standards, and ethical performance indicators. This centrality highlights the multidisciplinary interest from both accounting and corporate governance perspectives.

The red cluster, primarily located to the upper-left of the center, encompasses terms such as "tax avoidance", "income smoothing", "financial crisis", and "loan loss provisions". This cluster suggests a stream of research investigating how earnings management is employed as a response to financial pressures or regulatory environments. For instance, income smoothing and tax avoidance are strategies managers may use to present more stable financial results or reduce tax burdens, especially in times of economic downturn or crisis. This cluster reflects a critical examination of opportunistic motivations behind earnings manipulation. In contrast, the green and blue clusters, located toward the bottom and lower-left, emphasize the role of firm-specific and contextual factors. Keywords such as "sustainability", "profitability", "financial performance", "institutional investors", and "firm size" are prevalent. These themes indicate a growing interest in how company characteristics, financial health, and investor structure influence the likelihood and extent of earnings management. The presence of sustainability and corporate social responsibility in this cluster also suggests a more recent trend in

exploring how ESG (Environmental, Social, Governance) concerns intersect with financial reporting behavior.

The purple and yellow clusters, on the right side of the map, highlight the governance and organizational dimensions of earnings management. Terms like "audit committee", "board of directors", "gender diversity", and "family firms" signal research streams focused on how governance mechanisms and demographic diversity influence the quality of earnings. This area reflects a normative and policy-oriented approach, investigating whether stronger oversight or more diverse leadership reduces manipulative practices. Furthermore, the term "classification shifting" signals a nuanced form of earnings manipulation that scholars have recently begun to differentiate from accruals and real activity management.
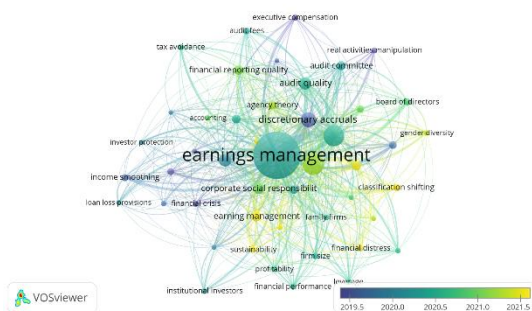

Figure 2. Overlay Visualization
Source: Data Analysis

Figure 2 presents a temporal co-occurrence map of keywords related to earnings management research, with the color gradient representing the average publication year of documents using each keyword (ranging from 2019.5 to 2021.5). The larger the node, the more frequently the keyword appears; the color indicates its recency. The map shows that the central term, "earnings management", remains the most frequently used and is associated with a wide range of connected terms. Notably, the keywords shaded in yellow to light green, such as "gender diversity", "classification shifting", "financial distress", and "corporate social responsibility", suggest more recent attention in the field, indicating evolving themes and emerging areas of scholarly focus.

From a thematic perspective, older research topics (shaded darker blue or purple) include "income smoothing", "loan loss provisions", "financial crisis", and "real activities manipulation". These topics, primarily linked to foundational studies from the early 2000s and the global financial crisis of 2008, reflect earlier waves of earnings management research focused on managerial discretion during financial turmoil or regulatory pressure. Meanwhile, keywords like "audit committee", "audit quality", and "executive compensation" are colored in mid-range shades, signifying continued but slightly earlier interest compared to the newest themes. The presence of newer terms like "gender diversity", "family firms", and "sustainability" in yellow highlights a recent shift toward integrating ESG (Environmental, Social, and Governance) considerations into earnings management research. These topics suggest that scholars are increasingly investigating how ethical, social, and governance dimensions influence or mitigate earnings manipulation practices. Additionally, the emergence of "classification shifting" as a contemporary focus point to a growing interest in detecting more subtle and strategic forms of financial misrepresentation

Figure 3. Density Visualization
Source: Data Analysis

This heatmap visualization from VOSviewer illustrates the density of keyword occurrences in the earnings management research domain. The intensity of the color, ranging from blue (low density) to yellow (high density), represents how frequently a keyword appears and how central it is within the literature. At the center, "earnings management" is the most prominent and densely connected term, surrounded by

closely associated concepts such as "discretionary accruals", "audit quality", "financial reporting quality", and "corporate social responsibility". These terms reflect the core thematic focus of the field, suggesting that much of the scholarly discourse continues to revolve around measurement techniques, governance mechanisms, and ethical considerations in financial reporting. Moving outward from the center, the density decreases, with less frequently used but still relevant keywords such as "loan loss provisions", "real activities manipulation", "institutional investors", and "gender diversity". Their positions in the outer zones imply emerging or more specialized subtopics within the broader earnings management literature. For instance, "gender diversity" and "sustainability" represent newer directions that integrate social and environmental concerns into discussions of financial manipulation.
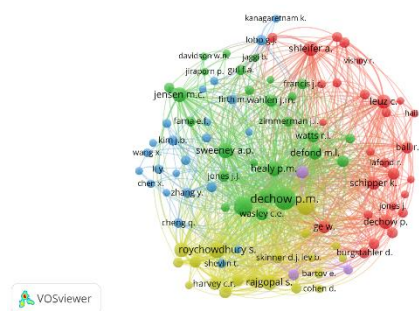
Co-Authorship Network

Figure 4. Author Visualization
Source: Data Analysis

Figure 4 represents a co-authorship and co-citation network of leading scholars in the field of earnings management research. Each node corresponds to an author, with the size indicating the frequency of citation, and the colors representing distinct collaboration or citation clusters. At the center, Dechow P.M. appears as the most influential and widely connected scholar, suggesting her foundational role in shaping the discourse around earnings management, particularly through work on discretionary accruals and earnings quality. The green cluster includes other major figures like Healy P.M., Jensen M.C., and Sweeney A.P., reflecting a highly interconnected academic group with strong

mutual influence. The red cluster, containing scholars such as Leuz C., Ball R., and Schipper K., likely represents a parallel stream focused on international accounting standards, investor protection, and regulatory effects. Meanwhile, the yellow and blue clusters denote emerging or geographically distinct research communities.
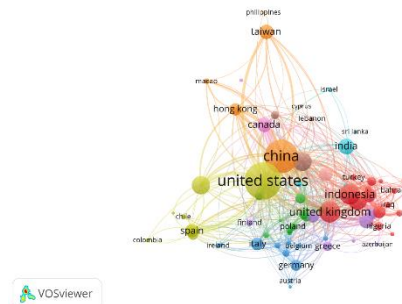

Figure 5. Country Visualization
Source: Data Analysis

Figure 5 shows the international collaboration network in earnings management research, with each node representing a country and the size indicating its publication volume or citation impact. The connections between nodes reflect co-authorships or joint research activities. The United States, China, and the United Kingdom emerge as the dominant contributors, occupying central positions and exhibiting extensive collaborative ties with various countries. Notably, regional clusters are also visible—for instance, Taiwan, Hong Kong, and Macao form a dense East Asian collaboration group, while Spain, Italy, and Germany are closely linked within the European cluster. The presence of India, Indonesia, and Nigeria in distinct but interconnected regions suggests growing scholarly activity and integration from emerging economies.

DISCUSSION

The results of the bibliometric analysis reveal a rich and evolving landscape of earnings management (EM) research, characterized by thematic diversity, global collaboration, and shifting scholarly priorities. At the core of the literature lies a consistent focus on core concepts such as discretionary accruals, audit quality, and financial reporting quality. These terms have

historically dominated the field, and their centrality in the co-occurrence network confirms their role as foundational pillars in EM scholarship [13], [14]. The central positioning of earnings management in all visual maps, surrounded by related concepts, demonstrates its integrative function across theoretical frameworks and empirical investigations.

One major insight from the keyword co-occurrence network is the conceptual clustering of EM research into distinct thematic areas. The red cluster, for instance, revolves around opportunistic earnings behavior, such as tax avoidance, income smoothing, and loan loss provisions. This indicates a stream of literature focused on managerial incentives and ethical boundaries, often viewed through the lens of agency theory. These themes reflect concerns about financial misrepresentation and its consequences for investors, regulators, and auditors. The proximity of financial crisis to this cluster further suggests that studies in this group often explore earnings manipulation as a defensive response to external pressures or economic downturns. The green and blue clusters are centered on firm-specific and performance-related factors such as profitability, firm size, and financial performance. These terms signal research concerned with internal drivers and organizational characteristics that influence the likelihood and extent of earnings management. The inclusion of institutional investors and sustainability within this grouping reflects growing scholarly attention to corporate governance and ESG (Environmental, Social, Governance) concerns. This aligns with broader trends in accounting literature that seek to contextualize financial manipulation within the framework of stakeholder theory and long-term value creation [15], [16].

Another important theme is the governance-focused purple cluster, which includes keywords such as audit committee, board of directors, gender diversity, and executive compensation. This thematic domain suggests that governance mechanisms continue to be critical in constraining earnings manipulation practices. The emergence of gender diversity as a recent keyword, visible both in the temporal map and its lighter color in the co-occurrence map, indicates a new research direction that examines the demographic composition of boards and its influence on financial ethics and transparency. This aligns with contemporary debates about diversity, equity, and inclusion (DEI) within corporate governance scholarship [6]. The temporal co-occurrence map adds a valuable layer by revealing how the focus of EM research has shifted over time. Older themes such as income smoothing and loan loss provisions, shown in darker blue hues, reflect the foundational period of EM studies during the early 2000s and post-Enron era. These early investigations often emphasized accrual-based earnings manipulation and its detection. In contrast, newer keywords like classification shifting, gender diversity, and financial distress appear in bright yellow tones, representing more recent scholarly inquiries from 2020 onward. The inclusion of corporate social responsibility (CSR) and sustainability in the recent period confirms a shift toward integrating ethical, social, and long-term performance dimensions into EM studies, moving beyond financial metrics alone.

The density map supports these interpretations by emphasizing the dominance of specific core topics. Earnings management, unsurprisingly, remains the most densely studied term, acting as a gravitational center that pulls in adjacent concepts. High-density areas include audit quality, discretionary accruals, and CSR, indicating intense research attention and citation activity. Meanwhile, lower-density areas, such as gender diversity, classification shifting, and leverage, represent emerging topics with growth potential but relatively fewer publications so far. This visualization helps identify research gaps and potential directions for future inquiry.

The co-authorship network provides insights into the intellectual structure of the field by revealing key thought leaders and collaborative communities. Scholars like

Dechow P.M., Healy P.M., Sweeney A.P., and Roychowdhury S. are positioned centrally with dense linkages, confirming their influence in developing theories and methods related to accruals, audit effects, and real activity manipulation. The green cluster, including Jensen M.C. and Fama E.F., reflects the intersection of EM with broader financial economics literature, particularly agency theory and efficient markets. The red cluster, featuring Leuz C., Ball R., and Schipper K., suggests a strong network of scholars focused on international accounting, regulation, and investor protection. The existence of distinct but interconnected clusters indicates a healthy diversity of perspectives, with overlapping influence across research traditions.

This intellectual mapping also uncovers patterns of geographical and institutional collaboration, as shown in the country co-authorship network. The United States, China, and the United Kingdom are the most prominent contributors, with the United States serving as the global hub of EM research. China's growing presence, visible in both node size and connectivity, signals the rapid expansion of EM studies in Asian contexts, particularly in light of regulatory changes and rising corporate scandals. The clustering of countries like Indonesia, India, Nigeria, and Turkey indicates increasing contributions from emerging markets, often exploring how institutional weaknesses, enforcement gaps, or cultural norms shape earnings management practices. The network also reveals strong regional research alliances. For example, the East Asian group—comprising Taiwan, Hong Kong, Macao, and Philippines—demonstrates intense collaboration, likely facilitated by shared institutional features and regional accounting bodies. European countries such as Spain, Germany, Italy, and Belgium form another dense cluster, often focusing on earnings quality under IFRS and governance regulations in the EU context. These patterns suggest that while EM research is global in scope, it remains heavily influenced by national institutional environments and localized academic networks, echoing the findings of [7].

Taken together, the findings from all visualizations confirm that the field of earnings management is both mature and evolving. It is mature in the sense that it has developed a strong theoretical core, influential scholars, and sustained scholarly attention for over two decades. However, it is also evolving, as evidenced by the emergence of new topics (e.g., CSR, diversity, classification shifting), rising contributions from non-Western countries, and increasing interdisciplinarity. The integration of social and ethical themes alongside traditional financial analysis suggests a broadening of the field's conceptual boundaries and methodological approaches. From a methodological standpoint, the application of bibliometric techniques via VOSviewer has proven effective in uncovering the structural, temporal, and collaborative dynamics of earnings management research. The combination of co-occurrence, co-authorship, density, and temporal maps enables a multidimensional analysis that is both visual and quantitative. This approach not only identifies what has been studied but also reveals how knowledge is produced, disseminated, and connected across authors, institutions, and geographies. It provides valuable insights for future researchers aiming to position their work within existing scholarly conversations or seeking to explore under-researched themes.

4. CONCLUSION

This study provides a comprehensive bibliometric mapping of earnings management research from 2000 to 2025, revealing a dynamic and multidimensional scholarly landscape. The analysis highlights the centrality of themes such as discretionary accruals, audit quality, and corporate governance, while also uncovering emerging interests in sustainability, gender diversity, and classification shifting. Key authors like Dechow P.M., Healy P.M., and Roychowdhury S. have shaped the intellectual core of the field, and the United States, China, and the United Kingdom have emerged as dominant contributors in global

collaboration networks. The field exhibits both conceptual maturity and evolutionary expansion, as newer interdisciplinary perspectives continue to influence traditional accounting paradigms. By utilizing VOSviewer visualizations, this study not only maps the thematic and structural contours of the literature but also offers critical insights into future research opportunities. Ultimately, the findings underscore the relevance of earnings management as a persistent issue in corporate reporting, shaped by institutional, ethical, and regulatory dimensions across diverse global contexts.

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