THE EVOLUTION OF AUDIT FEE RESEARCH: A BIBLIOMETRIC ANALYSIS USING THE SCOPUS DATABASE FROM 1990 TO 2025

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Abstract

This study explores the bibliometric analysis of audit fee research from 1990 to 2025, highlighting its evolution, influential contributors, and emerging trends in response to regulatory changes and market dynamics. Using structured data collection and analysis from Scopus, 1,178 journal articles were examined through keyword searches and bibliometric mapping techniques. The findings reveal a significant increase in research output, particularly after 2006, reflecting heightened academic and professional interest in audit pricing. The analysis identifies key contributors and geographical trends, with the United States leading in publications, followed by China and Australia. The study further emphasizes the collaborative nature of research, illustrating co-authorship networks and institutional affiliations. Despite notable advancements, opportunities remain for deeper investigation into the effects of regulatory modifications and external economic influences on audit fees. Expanding methodological approaches and incorporating a broader geographical scope can enhance understanding and applicability in this field, offering valuable insights for auditors, financial professionals, and policymakers.

Keywords: Audit fee, Audit cost, bibliometric analysis, audit pricing, regulatory changes.

INTRODUCTION

Bibliometric research on audit fees, audit costs, and audit pricing plays a crucial role in understanding the evolving dynamics of the auditing profession. As audit markets become increasingly complex and face tighter regulatory scrutiny, bibliometric analysis helps uncover key determinants of audit pricing, particularly the impact of external factors such as political, economic, social, technological, legal, and environmental influences (Hartlieb et al., 2022). Despite years of empirical research, gaps remain in differentiating between fixed and variable costs in audit pricing structures (Novak & Knechel, 2023). Additionally, methodological challenges arise due to inconsistencies in control variables across audit fee studies, making comparisons and standardization difficult (Widmann et al., 2021). However, bibliometric studies have identified notable trends, such as the growing focus on audit quality and pricing research since the 2000s (Ciger, 2020), while also offering valuable insights for auditors, managers, and regulators regarding audit fee stickiness and market competitiveness (Goddard & Schmidt, 2021; Widmann et al., 2021). Further research examines firm size effects on audit pricing, particularly in country-specific contexts like Germany, highlighting the importance of appropriate size proxies (Fleischer & Goettsche, 2012). Scholars advocate for expanding audit pricing models by incorporating variables such as financial performance, interest expenses, and bank size (Al-Nimer & Hasan, 2019), alongside exploring systematic risk implications in highly regulated industries (Rao & MacDonald, 2011). Ultimately, bibliometric research provides a robust framework for assessing audit pricing mechanisms, addressing knowledge gaps, and guiding future developments in the field.

LITERATURE REVIEW AND HYPOTHESIS

Audit fees have been defined as the charges imposed by auditors for their professional services in examining a company's financial statements, while audit costs more broadly encompass the total expenditures incurred by firms to engage audit services (Alkebsee et al., 2023; Elswah et al., 2024). Research in this period has identified several key factors influencing audit fees, including corporate characteristics such as profitability and accounting comparability (Elswah et al., 2024), external factors like legal and economic conditions (Hartlieb et al., 2022), and the digitalization expertise of audit partners, which is particularly valued in highly digital industries (Maghakyan et al., 2025).

Audit fees also referred to as audit costs or audit pricing have become a central subject of scholarly attention due to their implications for audit quality, auditor independence, and the financial reporting process. Recent research has examined a variety of determinants influencing audit fees. Firm-specific characteristics such as size and profitability are consistently linked to higher audit fees, reflecting increased audit effort and complexity (Elswah et al., 2024; Mansur et al., 2021). However, operational complexity alone may not always significantly affect fees(Mansur et al., 2021). Auditor-related factors also play a vital role; large and reputable firms, particularly the Big Four, are known to charge premium fees, leveraging their perceived audit quality and market dominance (Štager, 2018). Furthermore, auditors with specialized industry expertise tend to command higher fees (Song et al., 2023). External factors, especially legal risks, and macro-environmental elements captured in the PESTLE framework, have also been shown to significantly affect audit pricing decisions (Hansen et al., 2022; Hartlieb et al., 2022).

The relationship between audit fees and audit quality remains a subject of debate in the literature. On one hand, higher audit fees are generally associated with improved audit quality, as they allow for greater resource allocation and effort in the audit process (Ha & Tran, 2025; Saleh Aly et al., 2023; Song et al., 2023). This positive association is particularly evident in contexts with shorter audit tenure, where more effort may be required to understand the client's business (Saleh Aly et al., 2023). On the other hand, excessively high audit fees can impair auditor independence and thus reduce audit quality, particularly in smaller firms with limited monitoring mechanisms (Park & Sonu, 2022). Moreover, economic pressures leading to fee reductions may compromise audit diligence, resulting in increased misstatements (Ettredge et al., 2014).

Regulatory interventions such as the Sarbanes-Oxley Act (SOX) have also reshaped the audit pricing landscape. Studies have shown that post-SOX, audit fees rose significantly due to heightened audit scope and increased litigation risk (Ghosh & Pawlewicz, 2009; Griffin & Lont, 2007). However, the positive association between audit fees and audit quality may weaken under such regulatory regimes, as demonstrated in specific post-SOX contexts (Mande & Son, 2015). Special considerations also emerge in the comparison between voluntary and mandatory audits. Voluntary audits often achieve higher quality when audit fees are relatively low, while mandatory audits are more effective at curbing earnings management when accompanied by higher fees (Gandía & Huguet, 2021). Collectively, these findings emphasize the multifaceted nature of audit pricing and the need for balanced audit fee structures that uphold both audit quality and auditor independence.

RESEARCH METHODS

To construct a bibliometric research methodology focused on audit fee, audit cost, or audit pricing, researchers should adopt a structured and multi-phase approach that integrates robust tools and reliable data sources. The initial phase involves data collection, where Scopus are used as the primary databases due to their broad academic coverage and credibility. A well-defined search strategy using targeted keywords relevant to audit pricing themes ensures accurate retrieval of pertinent literature (Abdelwahab et al., 2025). The data processing phase involves cleaning the dataset, When Scopus are used, automated merging techniques are recommended to minimize manual errors and streamline the dataset (Echchakoui, 2020; Kasaraneni & Rosaline, 2024). For data analysis, various bibliometric indicators should be employed. In the analytical phase, citation analysis identifies influential publications (Knowlton et al., 2019; Mering, 2017), Keyword frequency analysis further highlights prevailing research topics (Alhuay-Quispe et al., 2022; Maulani & Widuri, 2024). The final stage reporting and interpretation should present descriptive statistics, trend analysis, and network visualizations to illustrate findings clearly and interpret the evolution of themes within audit fee, cost, and pricing research. This methodology ensures a comprehensive, reproducible, and insightful examination of the literature in this domain.

The search for the terms "audit fee" OR "audit cost" OR "audit charge" was conducted on May 1, 2025, as a search article title, keyword for abstracts and publication keywords. Additionally, the search was restricted up to the year 2025 to ensure that all publications related to this topic were included in the analysis. This period was chosen to encompass the widest possible variety.

This article aims to present a broad-based bibliometric assessment of audit fee studies. This will provide a comprehensive overview of developments and critical field outcomes in audit fee research. The data was gathered from the Scopus database, which is usually considered to be the most influential in academic research.

Data mining was carried out using the Scopus database on May 1, 2025. The focus of this study was to search papers in Scopus database the title, abstracts, and keyword ("audit fee" OR "audit cost" OR "audit charge"). The data sourcing revealed that the first publication on audit fee was 1990, and the most recent publication was published in 2023. The research used the following search string to source the data: TITLE-ABS-KEY ("audit fee" OR "Audit cost" OR "Audit Charge") AND (LIMIT-TO (EXACTKEYWORD , "Audit Fees") OR LIMIT-TO (EXACTKEYWORD , "Audit Fee") OR LIMIT-TO (EXACTKEYWORD , "Audit Pricing") OR LIMIT-TO (EXACTKEYWORD , "Abnormal Audit Fees") OR LIMIT-TO (EXACTKEYWORD , "Auditor's Fees") OR LIMIT-TO (EXACTKEYWORD , "Audit Cost") OR LIMIT-TO (EXACTKEYWORD , "Abnormal Audit Fee")) AND (LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English"). The search resulted in producing 2,410 journal articles. This number includes review articles, which must be excluded from the analysis. After further examination, the articles included in the analysis were limited to those in the fields of Business, Management and Accounting; Economics, Econometrics and Finance; limited to articles; limited to topics such as Audit Fees, Audit Fee, Audit Pricing, Abnormal Audit Fees, Auditor's Fees, Audit Cost, and Abnormal Audit Fee; and limited to those written in English. As a result, the number of articles used in the analysis totaled 1,178.

VOS viewer, a software tool for building and visualizing bibliometric maps, was by exporting citation, bibliographic and author keywords data from 1,178 journal articles. Maps produced using VOS viewer software contains items showing the countries and keywords of the authors as well as showing link-connection or relationship between any pair of items. Each connection has a power, a favourable numerical value representing it and the greater the value, the stronger the connection. Scopus is used as the primary data source to collect relevant scientific publications for bibliometric analysis.

RESULTS AND DISCUSSION

A total of 1,178 research articles on audit fees were published between 1990 and 2025, covering a span of 35 years. Based on the bibliometric graph plotted for audit fee research, the first article on audit fee was published in 1990, followed by one article in 1995, four years later. Although publications continued annually from 1995, audit fee research only began receiving significant attention in 2006, when ten articles were published. Research on audit fee has been published every year since 1995, with notable growth starting in 2006. In that year, there were ten publications, increasing to 15 in 2007, reflecting a 50% rise. Sixteen years later, in 2023, the number of publications surged to 146, indicating an 873% increase. This significant increase in audit fee research is likely linked to changes in overall audit standards, including regulations related to audit fees, which became effective in 2022. Consequently, in 2023, research in this field experienced a significant increase.

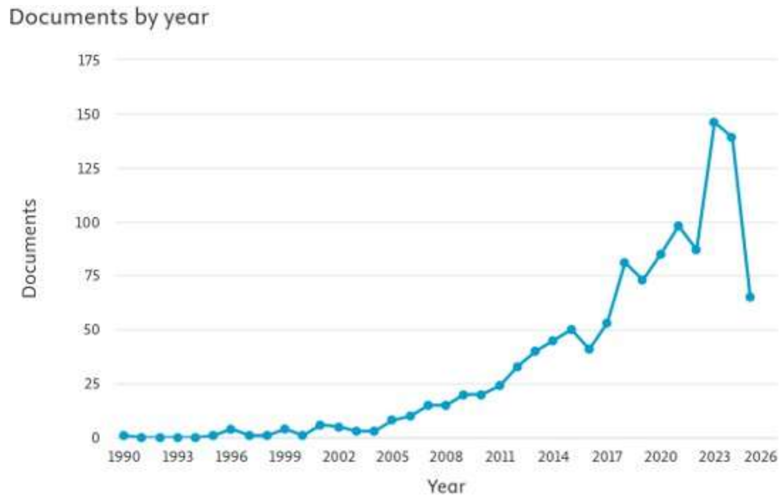

Fig. 1: Annual and Cumulative Number of Research Article on Audit Fee Research between 1990 and 2025 Published in Scopus Index Journal

Top Journals in Audit Fee Research

Out of the five most prolific journals, 3 are published by the American Accounting Association (Auditing, Accounting Review and Accounting Horizon), Emerald Publishing (Managerial Auditing Journal), and John Wiley & Sons (International Journal of Auditing), The most productive journal was Auditing with 110 articles covering 9.34% of the total publications, followed by Managerial Auditing Journal 78 articles, with 6.62%, International Journal of Auditing 67 articles, with 5.68%, Accounting Review with 37 articles, representing 3.14% and Accounting and finance with 35 articles, representing 2.97%.

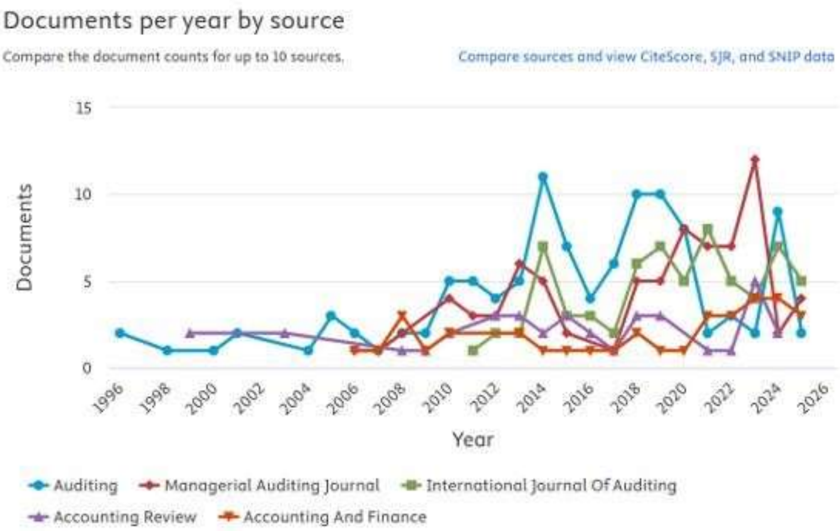

Fig. 2: Screenshot Showing the Top 5 Most Productive Journals on Audit Fee Research in Scopus Database

Top Countries and Affiliation in Audit Fee Research

The top 10 most productive nations that contribute to the global development of audit fee study activity are, the U.S. contributed approximately 40.5% of worldwide journals stating that the nation is a leading player in the advancement of audit fee studies. The United States was the leading country with 477 documents of total worldwide audit fee publications. China was ranked as the second most productive country with 181 publications and 15.3% of worldwide audit fee research papers. Furthermore, Australia was third with a complete publication of 161, representing 13.6% of worldwide publication on audit fee research. Similarly, the United Kingdom fourth with the publication of 71 and 6%, while the Hongkong, New Zealand and South Korea each had 5% publications on audit fee research. Malaysia 4.6%, also Canada 3.4% and Taiwan 2.8% global publications on audit fee research.

The top 5 most productive affiliation that contribute to the global development of audit fee study activity are, the City University of Hongkong contributed approximately 2.2% of worldwide journals stating that the affiliation is a leading player in the advancement of audit fee studies. The City University of Hongkong was the leading affiliation with 27 documents of total worldwide audit fee publications. The University of Auckland and The Deakin University each had 26 publications and 2.2% of worldwide audit fee research papers. Furthermore, UNSW Sydney had 2.1% and Univerity of cansas a complete publication of 21, representing 1.8% of worldwide publication on audit fee research.

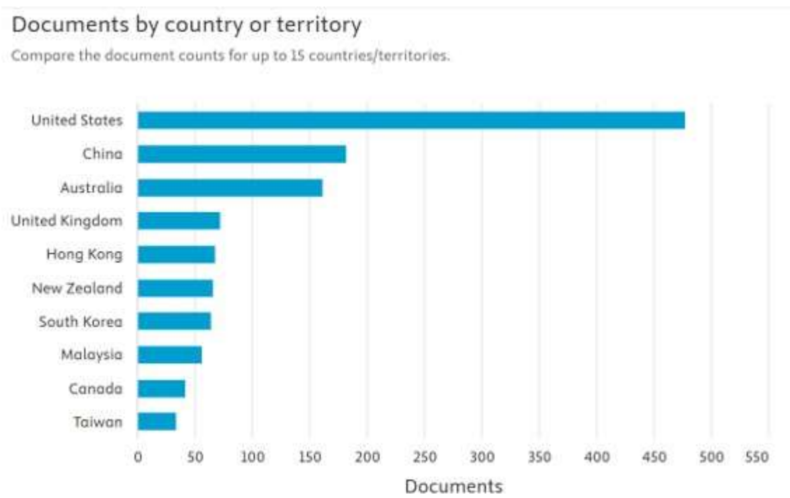

Fig. 3: A Screen Shot of Countries / Territorial Distribution Audit Fee Research Documents in Scopus Database

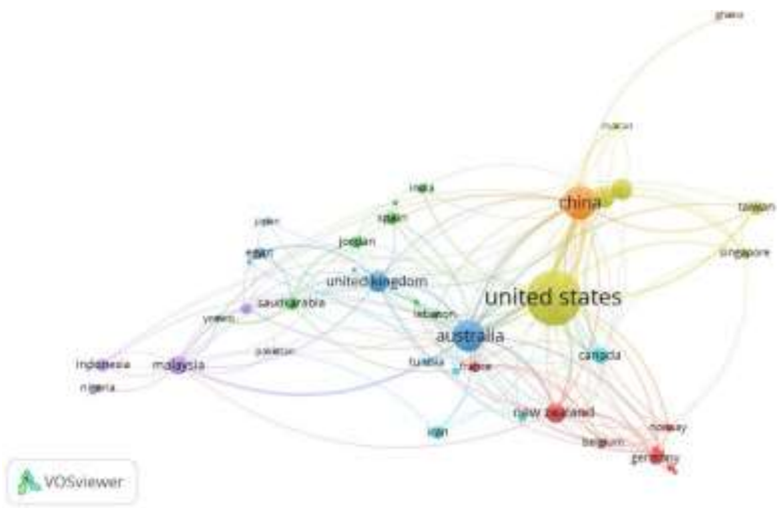

Fig. 4: A Screen Shot of Countries / Territorial Distribution Audit Fee Research Documents in Vos Viewer

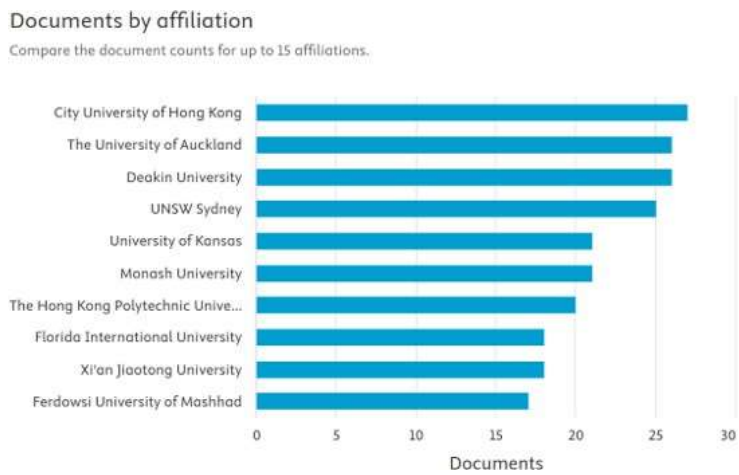

Fig. 5: A Screen Shot of Affiliation Distribution Audit Fee Research Documents in Scopus Database

Top Author in Audit Fee Research

The top 10 authors had a total of 87 articles co-authored, representing 7.34% of the total publications on audit quality research.

Similarly, figure 6 shows the screens shot of 10 top authors in audit quality research with their number publications in the Scopus database. Gul F.A. had 20 articles, Salehi, M. had 13 articles, Harymawan, I. had 11 articles, Knechel W.R. had 11 articles, Krishman, G.V had 11 articles, Hay, D. had 10 articles, Habib, A. had 9 articles, Kim, J.B had 9 articles, Mitra, S. had 9 articles, Huang, H.W had 8 articles.

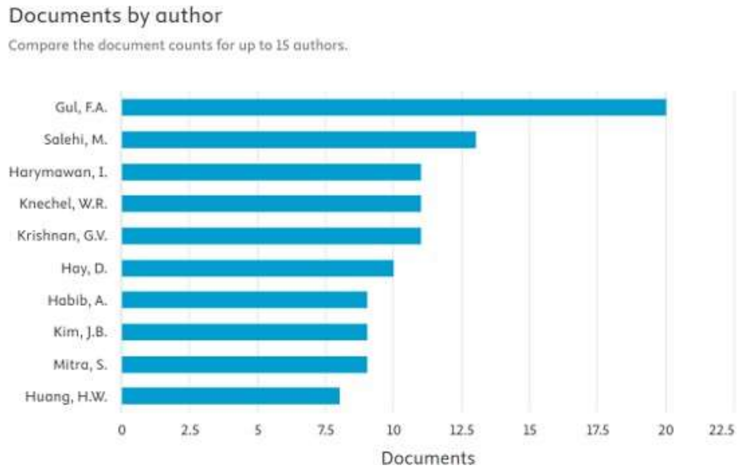

Fig. 6: A Screen Shot of Top Author Distribution Audit Fee Research Documents in Scopus Database

Author Keywords

In determining audit fee, researchers used various keywords. A total of 1,178 author keywords was recorded from the Scopus database on audit fee research between the period of 1990 to 2025. At the minimum occurrence of 5 keywords, 138 meet the threshold. Fig. 7 indicate the author keywords mostly used in the determination of audit fee as per Vos viewer software.

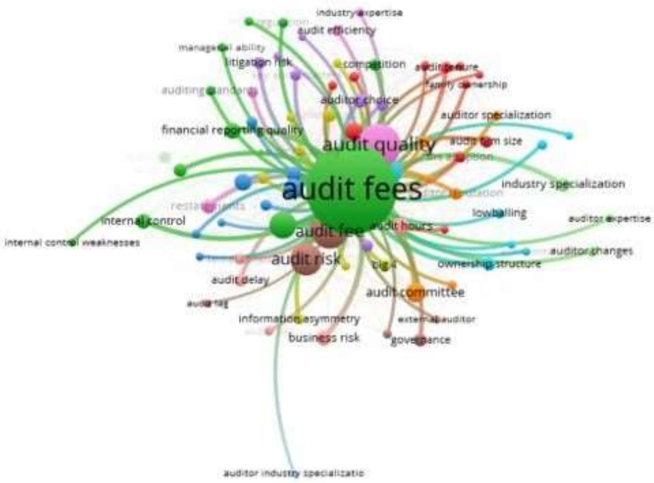

Fig. 7: A Screenshot of Author Keyword Extracted from Vos VIewer

CONCLUSION

The extensive bibliometric analysis of audit fee research conducted from 1990 to 2025 highlights a significant evolution in the scholarly output of this field, particularly marked by a pronounced increase in publications from 2006 onwards. This upward trajectory corresponds with the introduction of new audit standards and regulations, which have catalyzed interest and inquiry into the determinants and implications of audit fees. The data reveals a substantial growth in research output, culminating in an impressive 873% increase in articles published by 2023, indicative of the field's maturation and the growing recognition of audit fees as a critical area of study. The analysis identifies the American Accounting Association's journal "Auditing" as the leading publication outlet, while the United States emerges as the foremost contributor to this body of research, followed closely by China and Australia. Furthermore, the collaborative efforts of various authors and institutions underscore the collective advancement in understanding audit fee dynamics. Despite the notable progress, the findings also illuminate areas ripe for further exploration, particularly regarding the implications of recent regulatory changes and the diverse factors influencing audit fees. Future research endeavors are encouraged to address the limitations identified in this study, such as the need for a wider array of keywords and a more inclusive geographical perspective, which could enhance the comprehensiveness and applicability of audit fee research.

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