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Research paper

Joint Determinants of Audit Fees and Audit Delay: Publication Trends, Thematic Structures and Intellectual Networks

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Abstract

The current paper is a bibliometric review of audit fees and audit delay research published from 1992 to 2025. The analysis was performed using publication trends, thematic structures, and intellectual networks. Additionally, Biblioshiny and VOSviewer were used on 508 articles in the Scopus database. The results showed a significant increase in publications in 2021-2023, reflecting an increased academic interest in catching up with emerging issues, i.e., cybersecurity threats, the risk of COVID-19, the application of iXBRL, the intensity of regulations, and supply chain dynamics related to their consequences in terms of audit price and audit timeliness. Thematic mapping was applied to identify five general research clusters: audit risk and timeliness; audit quality and independence; corporate governance and reporting; market and contextual variables; and gender and diversity in audit governance. In the meantime, the citation and co-authorship analyses determined the most influential authors and journals in the discipline. Even though 2006-2015 can be defined as a time interval that is characterized by consistent scholarly effect, the average number of citations decreases after 2016, indicating that the field has become more mature and moved to such up-to-date issues as audit technology, data analytics, and sustainability assurance.

Keywords: *Audit Fees; Audit Delay; Joint Determinants; Thematic; Malaysia.*

1. Introduction

Azizkhani, Hossain, Jiang, and Yap (2021) argued that audit delay and audit fees in audit reporting are directly associated with one another. In the previous study, the joint relation between audit fees and audit delay was subjected to audit quality and audit risks (Johnson, Davies, & Freeman, 2002). Both factors were found to have a positive effect on audit delay and audit fees. Empirical studies have shown that there is a significant association between the price paid to the auditor and the date of the auditor's report. Understandably, when the auditor allocates longer hours in performing the audit, the likelihood of charging more fees is higher. In view of the fact that audit fees are one of the main sources of income for the accounting firm, higher fees must be expected by the clients in order to compensate for the extra effort put into the task. Two (2) UK studies found mixed results concerning the relationship between the audit delay variable and audit pricing. In this context, Ezzamel, Gwilliam, and Holland (1996) used 314 samples of publicly listed companies and found a significant positive association between audit delay and the log of audit fees. In contrast, Chan, Ezzamel, and Gwilliam (1993) did not find a strong connection between audit delay and audit fees based on the data acquired from 985 UK companies in 1989.

Besides, Azizkhani et al. (2020) used Australian data comprising annual observations for 10,281 firms from 2006 to 2015. The researchers employed simultaneous regression by including audit fees in the audit delay model and audit delay in the audit fees model. The regression results showed that audit fees have a significant positive relationship with audit delay, and audit delay has a significant relationship with audit fees. Likewise, Caneghem (2010) utilized the number of days between the balance sheet date and the date of submitting financial statements to the National Bank of Belgium to examine the relationship between the audit delay variable and the audit fees. Multiple regression analysis revealed that the audit delay significantly influenced audit fees in the full sample. Other studies that support the positive relationship include Griffin, Lont, and Sun (2009) and Ettredge, Li, and Scholz (2007). However, Naser and Nuseibeh (2007) failed to provide evidence concerning the significant influence of audit delay on the audit fee model in the emerging Jordan market.

Despite the mixed results of earlier studies, there is a strong reason to believe that audit delay significantly affects audit fees. When an extra burden of work is assigned to auditors, they normally demand more hours to complete the tasks. The longer the hours consumed by audit engagement, the longer the time needed to issue the audit report (Chen, Kalelkar & Xu, 2025; Knechel & Payne, 2001). Furthermore, extra hours mean that audit firms have to increase their operating costs for each audit engagement. As a result, an extra fee is generally charged to the clients to compensate for the lack of opportunity costs for not accepting other engagements. Therefore, it is anticipated that the additional hours consumed by the auditors would cause them to incur extra staff costs, higher overhead expenses, and increased

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opportunity costs. These additional costs are then reflected in the price of audit engagements charged to the client to cover the increase in the monitoring requirements of the agency theory. Analysis of the available literature shows that no existing bibliometric resources have previously combined audit fees and audit delay into one analysis. Also, the previous literature tends to incorporate less extensive time frames and omit the structural change of the discipline instigated by post-2016 changes, including digitalization, cybersecurity threats, integration of ESG, intensification of regulations, and the COVID-19 pandemic.

The paper is designed to methodically respond to the formulated research questions. In order to fill an existing gap, a bibliometric analysis was conducted to chart out the interlinkage between audit fees and audit delay. Patterns of scholarly production, the effect of citation, thematic clusters, and author contributions were analyzed through the use of a structured Boolean search. This study will attempt to:

i) examine publication and citation trends in the relationship between audit fees and audit delay.
ii) identify the most influential authors and journals contributing to research on audit fees and audit delay.
iii) analyse the main themes, concepts, and keywords found in this literature.
iv) highlight under-researched areas and emerging topics that show promising directions for future research.

The research methodology section describes the data collection process and the bibliometric methodology used in the analysis. The results and discussion section elucidates the results of the study, and it includes performance, thematic mapping, and co-occurrences of keywords. Lastly, the study comes to a conclusion with the final section summarizing the key findings and stating implications and future research directions.

2. Methodology

This bibliometric analysis relied on the Scopus database since the dataset is the most comprehensive relative to the Web of Science (WoS) data. The data were extracted from the Scopus database on 10 October 2025. The data analysis began by examining the Boolean terms selected for the study, namely, audit fees and audit delay. Then, the identification, screening, and inclusion phase was followed. Table 1 shows the selected keywords that were used to analyze the relationship between audit fees and audit delay. There were two (2) main terms, namely audit fee and audit delay, used in this study to determine the relevant relationships. Additionally, in order to facilitate the overlap of data and allow for a seamless analysis, strings 1 and 2 were linked. Specifically, string 1 was used to find studies related to audit fees, and string 2 was utilized for audit delay.

Table 1: Selected Keywords

String	Keywords
String 1	"audit fee*" OR "audit pricing" OR "audit cost*" OR "audit remuneration" OR "audit compensation" OR "auditor fee*" OR "audit service fee*")
String 2	"audit delay*" OR "audit report lag" OR "audit reporting delay" OR "audit timeliness" OR "reporting lag" OR "financial reporting delay" OR "audit completion lag" OR "audit opinion lag" OR "audit reporting timeliness" " OR "financial risk" OR "sustainability of funding sources" OR "ESG" OR "SDG" OR "Environmental, Social, Governance"

Source: Author's work.

The Boolean search term was then added to the Scopus advanced document search with the keywords tabulated in Table 2. The scope and coverage included the article title, abstract, and keywords within the time frame from 1992 to 2024. Only articles written in English were retrieved, while the subject areas focused on Business, Management, Accounting, Economics, Econometrics, Finance, and Social Sciences. Based on the data extracted from Scopus, there were 534 articles that could be associated with the selected keywords published in Scopus. However, after screening, only 508 articles fulfilled the selection criteria.

The bibliometric dataset was systematically filtered and examined using a combination of tools, namely Biblioshiny (R package) (Aria & Cuccurullo, 2017), VOSviewer (van Eck & Waltman, 2010), and Microsoft Excel, in order to increase the accuracy and completeness of the findings. Biblioshiny and VOSviewer are generally used to visualize the metadata analysis of academic publications in terms of co-occurrence, citation analysis, publication trends, and thematic maps. Basically, these two software are commonly used to present a bigger picture of a topic to the audience (Aria & Cuccurullo, 2017; van Eck & Waltman, 2010). Meanwhile, Microsoft Excel was used to organize the data that was extracted from Biblioshiny, including sorting the publications by year, citations, author influence, and journal influence.

Table 2: Search Criteria and Article Selection

Filtering Criteria	Ac-cept	Re-ject
Search Date: 10 October 2025 Search Engine: Scopus Search String: TITLE-ABS-KEY ("audit fee*" OR "audit pricing" OR "audit cost*" OR "audit remuneration" OR "audit compensation" OR "auditor fee*" OR "audit service fee*") AND ("audit delay*" OR "audit report lag" OR "audit reporting delay" OR "audit timeliness" OR "reporting lag" OR "financial reporting delay" OR "audit completion lag" OR "audit opinion lag" OR "audit reporting timeliness")	534	
Subject Filters: Business, Management, Accounting, Economics, Econometrics, Finance, and Social Sciences	522	12
Document Type: Article, Review, and Conference Paper	516	6
Language Filter: Only English	508	8

Source: Author's work.

3. Results and Discussion

3.1. Descriptive data

The data retrieved from the Scopus database were analyzed with Biblioshiny, focusing on document types and publication sources. A total of 508 documents published between 1992 and 2024 were reviewed as illustrated in Figure 1, demonstrating a slowly increasing body of

literature with a growth rate of 14.16 documents each year. These papers were spread across 129 sources. The mean age of the contents was 4.77 years, which means that the research activity is fairly concentrated rather than long-term. An average of 19.84 times that each of the documents was cited proved to be an indication that the interdependence between audit fees and audit delay has gained massive research focus in academic literature, with numerous pieces of work extensively cited to establish the intellectual rigor of the topic.

Figure 1 shows that Biblioshiny found 1198 author keywords for these two strings, which correspond to their high level of complement and thematic compatibility. Author keywords are the keywords that are chosen by the researchers to represent their major research themselves (Reyes-Portillo, Masia Warner, Kline, Bixter, Chu, Miranda, Nadeem, Nickerson, Ortin Peralta, Reigada, Rizvi, Roy, Shatkin, Kalver, Rette, Denton & Jeglic, 2022). According to Aria and Cuccurullo (2017), when there is a value of zero (0) in the reference value of Biblioshiny, it implies that either the referred sources of a document are not included in the data exported or the type of publication (editing or note) has zero references. In general, 1,077 authors were incorporated into the dataset, an average of 2.94 co-authors per paper, and 35.83% of the publications were international collaborations. The tendency suggests that the number of activities across borders in the field of research is moderate, but growing.



Fig. 1: Primary Information.

3.2. Publication trends and field evolution

Although the descriptive statistics in Section 3.1 offer the characteristics of the data set, the subsequent analysis is aimed at tracking the temporal development of the research outputs to get a clearer picture of the developmental trend of the field.

3.2.1. Annual research production

Figure 2 shows the trend in annual research production for audit fees and audit delay for the years 1992 to 2025. Overall, the trend for audit fees and audit delay was gradually increasing, indicating that academic interest in the field is growing. As shown in Figure 2, there were two (2) peaks in the 10-year analysis. The first peak in this study was in 2020, and the second peak was in 2022, with the trend increasing dramatically from 2021 onwards. Primarily, in the early stage (1992 - 2014), the research was limited to fewer than 100 publications yearly. However, from 2016 onwards, the study started to rise, reaching a peak in 2020 before experiencing a slight decline in 2021. This decline was due to the COVID-19 pandemic interrupting academic writing to a greater extent (Reyes-Portilloasia et al., 2022; Yusof, 2021). Afterward, the number of publications more than doubled, exceeding 70 papers in 2024, with the increase particularly noticeable from 2021 to 2023. Such a quick increase implies that scholars and practitioners are becoming more enthusiastic about establishing how modern-day problems and developments, including COVID-19, cybersecurity, the adoption of iXBRL, the intensity of regulations, and factors related to supply chains, affect audit fees or audit delay.

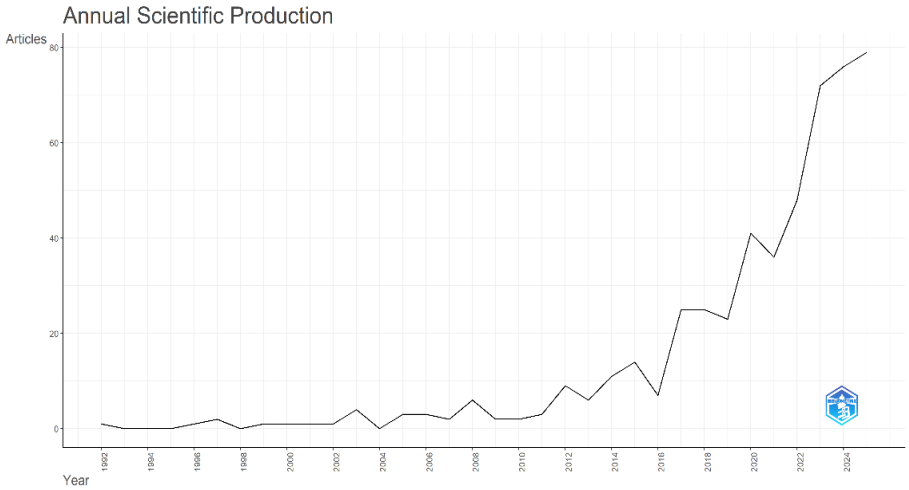


Fig. 2: Trend for Annual Research Production for Audit Fees and Audit Delay.

3.2.2. Citation trends

The scholarly impact and intellectual influence of research over time are reflected in citations (Laxman, Ramesh, Jaya Prakash & Aluvala, 2024; Sjögårde & Didegah, 2022). The citation pattern of the audit fee and audit delay literature can be summarized into three phases, starting with an exploration phase (1992–2005) in which the average amplitude of citations was uneven; a period of consolidation (2006–2015) wherein the scholarly interest was consistent and relatively high; and a phase that followed after 2016 wherein the average citation pattern was reduced. The latter phase can be taken as an indication of the shift from the consolidation of the theory of auditing to the

diversification of the themes, because at this stage, the main connections between auditing prices, risk, and governance became quite strong. This reduction relative to 33.7 averages (2016) to 3 (2024) could thus be an indication of greater disaggregation of the literature and the spreading out of research focus over to new areas, including audit technology, data analytics, and sustainability assurance. Overall, the citation dynamics suggest an evolution from formative development to intellectual maturity and specialization within the field.

Table 3: Annual Total Citation Per Year

Year	Average TC per Article	N	Average TC per Year
2025	1.25	79	1.25
2024	3.04	76	1.52
2023	7.23	73	2.41
2022	9.67	48	2.42
2021	18.00	36	3.60
2020	25.59	41	4.26
2019	42.71	24	6.10
2018	32.16	25	4.02
2017	30.00	25	3.33
2016	32.86	7	3.29
2015	75.21	14	6.84
2014	33.18	11	2.77
2013	37.33	6	2.87
2012	76.80	10	5.49
2011	30.67	3	2.04
2010	135.50	2	8.47
2009	37.00	2	2.18
2008	30.00	6	1.67
2007	58.50	2	3.08
2006	75.67	3	3.78
2005	8.33	3	0.40
2003	54.25	4	2.36
2002	22.00	1	0.92
2001	66.00	1	2.64
2000	34.00	1	1.31
1999	14.00	1	0.52
1997	222.00	2	7.66
1996	29.00	1	0.97
1992	27.00	1	0.79

Notes: TC: Total Citation; N: Number.

3.3. Key contributors and sources

3.3.1. Author impact and research performance

The bibliometric information raises massive issues on the maturity and development of the field. They demonstrate that the scholarly literature on the relation between the audit fee and the audit delay is severely skewed toward a handful of well-known journalistic writers. Table 4, showcasing 10 publications, a g-index of 10, and an h-index of 7, it is evident that Knechel Walter Robert was the most prolific author in the topic, which is a characteristic of a researcher leader in the research community. In reference to the means of productivity and citation consistency, Salehi Mahdi could be identified as having consistent performance in terms of citation, with an h-index and g-index of 8. In comparison, although Al-Qadasi Adel Ali is an author who has fewer publications, the citation-per-publication ratio is quite high, which demonstrates that the particular works of this author are of significant value. Meanwhile, both Xu Hongkang and Amin Keval have moderate productivity and influence, and they increase the diversity of the research team.

In summary, the credibility and comprehensiveness of any paper are determined through an aggregate of old and new academicians. This research paper has a rich input on the literature of audit fees and audit delay, with well-grounded productivity measures and referencing statistics.

Table 4: Author Impact Indicators

Author	NP	h-index	g-index	TC
Knechel Walter Robert	10	7	10	837
Salehi Mahdi	8	8	8	143
Al-Qadasi Adel Ali	4	4	4	178
Xu Hongkang	7	5	7	88
Amin Keval	4	4	4	84

Notes: NP: Total Number of Documents; TC: Total Citation.

Table 5 clearly presents the development of the contributions made by the authors, and the intellectual growth of this sphere has a definite transition. This trend in the development of author contributions is an obvious advancement in the literature on audit fees and audit delay. An initial set of research involving Knechel Walter Robert (2006–2014) identified the basis and groundwork of further literature, studying the mechanism of price, production, and governance in the context of the audit, and giving them a theoretical and empirical basis. Mid-stage interventions in this literature included regulatory and temporal aspects of audit timeliness, e.g., Tanyi Paul N's work on mandatory audit partner rotation. Recent research by Salehi Mahdi and Baatwah Saeed Rabea indicates that there is a tendency toward contemporary issues involving the nature of auditors, fraud detection, and the dynamics of the emerging markets. This development signifies the shift of basic models of determining audit fees into a mixed study of the audit delay and contextual audit condition, as per the scope of this paper.

Table 5: Evolution of Author Contributions

Author	Title	Sources	Year	TC	Tcpy
Baatwah Saeed Rabea	Does Kam Disclosure Make a Difference in Emerging Markets? An Investigation into Audit Fees and Report Lag	International Journal of Emerging Markets	2024	17	8.5
Salehi Mahdi	The Relationship Between Auditor Characteristics and Fraud Detection	Journal Of Facilities Management	2022	30	7.5
Tanyi Paul N	Costs Of Mandatory Periodic Audit Partner Rotation: Evidence from Audit Fees and Audit Timeliness	Auditing	2017	90	10
Knechel Walter Robert	Does Corporate Tax Aggressiveness Influence Audit Pricing?	Contemporary Accounting Research	2014	162	13.5
Knechel Walter Robert	Short-Term Accruals and The Pricing and Production of Audit Services	Auditing	2010	103	6.438
Knechel Walter Robert	The Role of Risk Management and Governance in Determining Audit Demand	Journal Of Business Finance and Accounting	2006	133	6.65

Notes: TC: Total Citation; TCpY: Total Citation per year.

3.3.2. Journal impact and performance metrics

Table 6 presents the most significant journals that have published articles on the topic of "Joint Determinants of Audit Fees and Audit Delay." The Managerial Auditing Journal has played a key role in providing evidence on audit pricing and timeliness, as shown by the study of journal productivity. It has an h-index equal to 14 and 43 publications. In addition to that, despite the 42 articles that are contained in Auditing: A Journal of Practice & Theory, it has the highest impact (h-index = 20). This is an indication that the journal publishes highly cited studies that are methodologically sound and whose publications shape our knowledge of the field.

The International Journal of Auditing, Accounting and Finance, and the Journal of Accounting and Public Policy each published a substantial amount of research (18–27 papers) that was less frequently cited (h-index 9–10). This is an indication of their cooperation in promoting specialized audit subjects.

In short, the evidence points to the fact that the bulk of studies on audit fees and audit delay are published in a limited range of reputable accounting and audit research journals. This will make the research rigorous and transparent. Such a trend enhances the credibility and relevance of the paper to academics, as it is based on reputed, high-impact publication sources.

Table 6: Highly Productive Journals

Source	NP	h-index
Managerial Auditing Journal	43	14
Auditing	42	20
International Journal of Auditing	27	9
Accounting And Finance	18	9
Journal of Accounting and Public Policy	18	10

Note: NP: Number of Publication; TC: Total Citation.

Table 7 provides the most impactful journals with the highest number of citations. An overview of the popular articles shows that research efforts on the relationship between audit fees and audit delays are still in place. The article with the highest impact was by Jha and Chen (2015), titled Audit Fees and Social Capital, with the most characteristic impacts (337 citations; 30.64 per year), and in which the authors used social and relational contexts as determinants of audit fees. One of the essential studies (280 citations) was by Krishnan and Krishnan (1997), as it has been used in the framework of the risk-based approach of the present research. The findings of Blankley, Hurtt, and MacGregor (2012) (245 citations), put forward in support of the correlation between irregular fees and the quality of financial reporting, are supported by those of Reid, Carcello, Li, Neal, and Francis (2019) (212 citations; 30.29 per year), who presented recent evidence on reforms in financial reporting and auditing costs. Geiger and Rama (2003) (177 citations) provided some preliminary information on auditor behavior in financial distress. Taken altogether, these articles illustrate a transition from the most conservative audit risk frameworks to determinants with a much wider scope, namely, governance, social capital, and reporting quality, which have much in common with the objectives of the current study. Even though the patterns of citation are inclined to intellectual activity and evolution of the significant contributions, the following analysis of the keywords will dig deeper into the conceptual framework of the introduced area of research.

Table 7: Highly Cited Articles

Author	Title	Journal	Year	Total Citations	TC per Year
Jha and Chen (2015)	Audit Fees and Social Capital	Accounting Review	2015	337	30.64
Krishnan and Krishnan (1997).	Litigation risk and auditor resignations	Accounting Review	1997	280	9.66
Blankley, Hurtt, and MacGregor. (2012).	Abnormal Audit Fees and Restatements	Auditing	2012	245	17.50

Reid, Carcello, Li, Neal, and Francis. (2019).	Impact of Auditor Report Changes on Financial Reporting Quality and Audit Costs: Evidence from the United Kingdom	Contemporary Accounting Research	2019	212	30.29
Geiger and Rama (2003)	Audit Fees, Nonaudit Fees, and Auditor Reporting on Stressed Companies	Auditing	2003	177	7.70

Note: TC: Total Citation.

3.4. Thematic patterns and keyword analysis

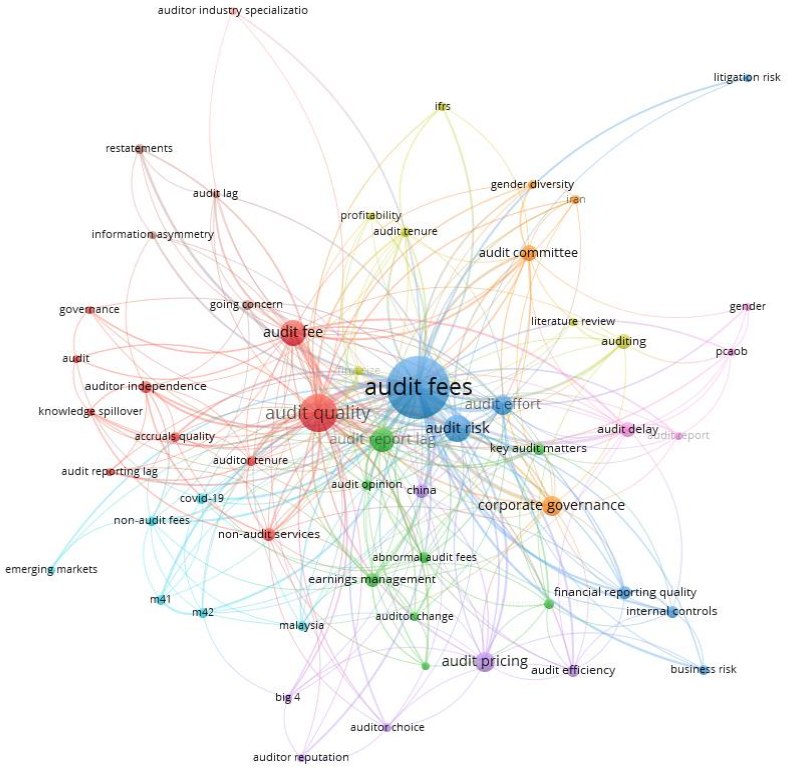


Fig. 3: Co-Occurrence of Audit Fees and Audit Delay.

The co-occurrence network in Figure 3 is generated with the help of VOSviewer, in which the node size determines the frequency of the keywords, and the linking may be considered conceptual closeness. The network structure places audit fees as a conceptual center of the field, which implies that pricing considerations are a key organizing factor in audit research. Its close associations with audit quality, audit risk, audit committee characteristics, and corporate governance imply that audit pricing is not considered an autonomous economic activity but an entrenched governing mechanism manifesting risk evaluation and risk-monitoring intensity.

The co-occurrence between audit fees and audit delay has a high value, and the existing literature can predict the conceptual relevance between the two elements. The correlation between them and audit delay, audit efficiency, and audit quality suggests that price and time are both determined by the level of effort being put into an audit, complexity, and risk aspects. This tendency proves the point of view that audit cost and the timeliness of reporting do not present two independent variables, but two connected aspects of audit performance and governance quality. Concerning the agency theory approach, an extended audit lag may be considered a source of subsequent attributes of increased information asymmetry and demand for audit monitoring, which are converted into the augmentation of audit effort and audit fees.

The groups formed in the network can offer insight into the implications of underlying themes linking audit fees and audit delays.

i) The blue cluster, which represents audit risk and audit effort, is the aspect that depicts that the perceived riskiness of an audit engagement can affect the cost and length of the audit. Sharma, Tanyi & Litt (2017) empirically tested the effects of audit partner rotation on audit quality and audit timeliness and discovered that audit fees and much longer audit report stays are present during the period of immediate audit partner rotations.

ii) The red cluster, which aims at audit quality and auditor independence, demonstrates that the higher the quality of an audit, the more resources it will need, which may increase both the time and cost. Bell, Causholli, and Knechel (2015) established that there was lower evaluation of audit quality (discounted audit fees) in first-year audits, improved quality afterward (premium audit fees), and consequently worsened when tenure became extremely long.

iii) The green cluster includes the corporate governance, audit committee, and internal controls. The moderation by the green cluster focuses on the role of moderation, made up of governance structures. In most cases, companies with good audit committees and solid internal controls are not delayed, and costs incurred in audits are minimized because efficiency and control are enhanced. For example, Chen, Kalelkar, and Xu (2025) have analyzed the association between odd audit committees and audit effort, based on audit fees (LAF) and audit delay (LAG). The results indicated that odd audit committees require more audit work, hence high audit fees and protracted audit delays.

iv) Smaller clusters (purple cluster: auditor choice, Big 4, market context, and orange cluster: gender diversity, board characteristics) constitute the emergent research on the effects of institutional and demographic variables on audit outcomes. In Gull, Atif, Issa, and Usman (2021), the succession of CEOs from males to females showed that there is a high impact on the quality of internal monitoring mechanisms (as women are better monitors) and a positive impact on the quality of financial reporting.

Combined, these trends indicate that auditing fees as well as audit delays are not functional measures, but they indicate the quality, governance, and risk impact on the overall audit process. The high relationship between these two words demonstrates that delays in finalizing an audit can often be cost-linked and that there can be a structure of fees that can be associated with the amount of work and complexity in that audit. Finally, the network brings out the fact that efficiency, quality, and governance are closely related to the economic and time-based aspects of auditing.

The network structure further indicates a distinction between mature and emerging research domains. The cluster focusing on audit risk, audit quality, and corporate governance reflects theoretically based and closely interconnected themes, and smaller clusters focusing on auditor choice, market context, and gender diversity are considered emerging research fronts extending with institutional and sustainability-related changes in the auditing environment. Table 8 illustrates a summary of all five thematic clusters and the themes, keywords, and the chosen studies to highlight the findings of the cluster analysis.

Table 8: Comprehensive Overview of Key Findings from Cluster Analysis

Cluster	Main Themes	Keywords	Representative Studies	Key Insight
Cluster 1: Audit Risk and Timeliness (Blue)	Relationship between audit risk, audit effort, and reporting timeliness	Audit fees, audit risk, audit effort, audit delay, litigation risk	Sharma, Tanyi & Litt (2017) Li, Qi, Robin & Yang (2022) Knechel & Willekens (2006).	Higher audit risk and complex engagements increase both audit fees and audit delay due to greater auditor diligence and verification needs.
Cluster 2: Audit Quality and Independence (Red)	Interplay between audit quality, independence, and audit outcomes	Audit quality, auditor independence, non-audit services, information asymmetry, accruals quality, and audit tenure	Bell, Causholli, and Knechel (2015) Salehi, Zimon, Tarighi, & Gholamzadeh (2022).	High-quality, independent audits enhance credibility but are often costlier and require more time, contributing to longer audit completion periods.
Cluster 3: Corporate Governance and Reporting (Green)	Governance mechanisms influencing audit cost and timeliness	Corporate governance, audit committee, internal controls, financial reporting quality, audit efficiency	Chen, L., Kalelkar, R., & Xu, Q. (2025). Farooq, Kazim, Usman& Latif. (2018).	Strong governance and effective audit committees reduce audit delays and fees by improving internal control and audit efficiency.
Cluster 4: Market and Contextual Factors (Purple)	Influence of institutional and market environments on audit outcomes	Big 4, auditor choice, auditor reputation, emerging markets, Malaysia, China	Baatwah, Almoataz, Omer, W., & Aljaaidi (2024). Harymawan, Prabhawa, Nasih, & Putra (2021).	Market structure, auditor reputation, and country context significantly shape audit fees and reporting timeliness, especially in emerging economies.
Cluster 5: Gender and Diversity in Audit Governance (Orange)	Role of diversity and board composition in audit processes	Audit committee, gender diversity, profitability, literature review	Farooq, Su, Tawiah, & Usman (2025). Gull, Atif, Issa, Usman, & Siddique (2021). Alkebsee, Tian, Usman, Siddique, & Alhebry (2021).	Gender-diverse audit committees enhance monitoring effectiveness, potentially reducing audit delay without significantly raising audit fees.

3.4.1. Theoretical foundations underpinning the research clusters

The theory of audit risk is mainly used to underpin the "audit risk and timeliness" cluster, which focuses on the relationship between complexity and risk exposure and the amount of effort in auditing and reporting delay. Most of the information in the audit quality and independence cluster is informed by agency theory, whereby audit fees act as a form of monitoring to reduce the conflicts between managers and shareholders. The studies within the cluster of corporate governance and reporting have extensive reference to the theory of governance; as such, board characteristics and the regulatory framework are identified as the factors that determine audit results. Resource dependence theory is beginning to prevail in emerging literature on gender and diversity, which indicates the presence of bigger forces in the organization.

4. Conclusion

This is a detailed bibliometric review that gives a summary of the literature on audit fees and audit delay from 1992 to 2025. The results are based on 508 articles that were obtained in Scopus and processed using Biblioshiny and VOSviewer. The increment in the number of publications between the years 2021 and 2023 was high. This rapid growth indicates the growing attention of researchers and scholars to explore how the impact of the current issues and trends, including cybersecurity, the COVID-19 pandemic, the acceptance of IXBRL, the vigor of the regulation, and the dynamics of the supply chain, affects audit fees and delays. The thematic mapping has formed five major groups, namely: audit risk and timeliness; audit quality and independence; corporate governance and reporting; market and contextual variables; and gender and diversity in audit governance. Citation data and co-authorship analysis single out the greatest authors and most popular journals. The years 2006–2015 could be described as the time of consistent interest in the given field, since the citation rates were high. Since 2016, the data suggest that the average citations have dramatically declined. The probable reason is that the field may have become mature, and instead of focusing on academic interest, the interest of research has been transferred to contemporary subjects such as audit technology, data analytics, and sustainability assurance.

Theoretical Contributions

The given study will contribute to the literature, as it will combine the concept of audit fees and audit delay into a single bibliometric concept, through which the conceptual interdependence between these two notions will be revealed, as well as the key theoretical

underpinnings of the discussed topics, namely agency, audit risk and governance approaches. The difference between old topics and new research fronts is also another contribution to the knowledge of the developmental pattern of the field.

Practical and Policy Implications

Significant correlation of audit price and audit delay with audit risk implies that regulations, including reporting dates, partner rotation, and mandates to disclose ESGs, can have a direct effect on audit work, audit fees, and audit timeliness. These findings are particularly relevant for emerging markets, where institutional quality and enforcement mechanisms play a critical role in mitigating excessive delays and abnormal fee structures.

Limitations and Future Research

There are some limitations of this study. First, only studies included in Scopus were analyzed, which left the possibility of missing other databases and finding other related studies. Besides, the bibliometric approach would focus more on publication tendencies and the co-occurrence of words, but not the critical appraisal of the evidence. As to future research on the topic, it is necessary to build on these results by providing comparative studies in different jurisdictions. Additional study could be conducted to evaluate the impact on audit fees of the addition of the ESG factors in the audit structure, along with the timeliness of the audit. More attention should be paid to the particular weaknesses of the developing countries, as in most cases, the regulatory network and financial innovation are developing unevenly (Ngo, Pham, Pham & Truong, 2025; Zhang, 2023).

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