A Bibliometric Analysis of Audit Report Lag in Scopus Database

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Abstract. Transparency in finance reporting is essential to keep shareholders informed. Finance reports must be delivered on time as it can impact investor's decisions. The literature review uses bibliometric analysis to analyse research trends related to Audit Report Lag (ARL). The sample consists of 202 publications from the Scopus database covering 1996 to 2023. According to bibliometric analysis findings, the International Journal of Auditing and Journal Auditing are the most relevant journals for ARL research. The three authors with the highest publication rates are Habib A, Aljaaidi K, and Khilf H. The countries that produce publications related to ARL are primarily centred in the USA, New Zealand, Tunisia, Australia, and Saudi Arabia. With its leadership in regulating ARL standards, the USA stands out as the leading country in publishing research related to ARL. This makes the topic interesting for further exploration in countries with financial reporting regulations, such as Indonesia under the financial services authority regulations. Another important finding is the emergence of keywords like "Finance", "Financial Statement", "Corporate Governance", and "Firm Size", which have a significant level of relatedness to the ARL keyword. This reflects the central role of these keywords in ARL research and should be considered for future research. Future analysis could focus on countries with limited research on ARL, which could provide more focused results. Additionally, the analysis could delve deeper into topics that have emerged from previous analyses and use a sample in countries with financial reporting regulations, such as Indonesia.

Keywords: audit report lag, bibliometric analysis, corporate governance, finance, financial statement, firm size

1. Introduction

Public companies are business entities that aim to improve the welfare of shareholders. This is the impact of activities carried out by shareholders who invest their capital in the company so that the company can carry out operational business activities. A form of corporate prosperity can be a periodic increase in company value. If share prices increase, shareholder prosperity also increases. In this regard, it can be seen that company value is significant for investors. One of the objectives considered fundamental for the company is its effort to optimize the value of the company, which in this case serves as a key strategy to enhance the prosperity of the shareholders who have invested their capital in the company[1].

The estimate of company value sought by investors is influenced by information published by the company, which is reflected in the financial reports published by the company. The published financial report will be an illustration of the company's financial performance in

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achieving certain goals or targets in accordance with provisions[2]. The financial report firms indicates the value of the organization, as evidenced by the company's stock price in the capital market, which reflects all available information about the company[3].

The agency relationship between the manager and the investor necessitates the provision of financial reports as a form of accountability of the manager to the company's owner. The agency relationship between management and investors demands transparency and accountability, which is manifested through the delivery of financial reports regarding all types of company operations. Information that companies disclose to the public, especially those related to company finances, has the potential to influence investor responses[4].

Financial reports are very important and useful for many parties, so the momentum for submitting financial reports must be timely. Suppose the submission of financial reports is not timely. In this regard, there is a need for something aimed at creating a reduction in uncertainty in the decision-making of stakeholders, including shareholders, investors, and potential investors, who rely on the information contained in financial reports. Audit Report Lapse (ARL) is the duration of time required by the independent auditor to complete the independent audit report concerning the company's financial statements from December 31 to the date indicated in the independent auditor's report in the published financial statements[5].

The more time the auditor takes to complete the financial audit report, the greater the delay in submitting the report. The existence of problems in the company's financial reports causes delays in the publication of financial reports, thereby extending the audit completion time [6]. Several previous studies have attempted to conduct in-depth studies regarding the factors influencing ARL. One of the research results shows that ARL is influenced by client profitability and financial conditions, client complexity and audit opinion modifications increase audit report delays[7].

Apart from the factors mentioned above, several studies have been carried out and show other factors, such as the characteristics of the audit committee in the company[8], [9]. The characteristics of the board of commissioners are also factors that leverage ARL[8], [10]. Until now, research on ARL continues to develop with a focus on several aspects. One thing to keep in mind when doing research related to ARL is the factors that influence the emergence of ARL, like how big the company is, the complexity of its industry, and how effective the audit process is within the company. Some studies show that the size of the company being researched and the complexity of its industry can affect ARL. According to several articles, it's mentioned that bigger and more complex industries tend to experience longer ARL[5].

In connection with the description of the results of the research that has been carried out, it can be seen that research related to ARL is very important because it relates to the interests and efforts to ensure shareholders' welfare. However, ARL research development cannot yet be mapped well, so research is needed to solve this problem. In connection with the background described above, this research intends to address this with the following research questions:

RQ1: What is the trend of research publication related to the topic of ARL?
RQ2: What are the keyword and journals that publish research related to the topic of ARL?
RQ3: Who are the authors, the origin institutions, and the countries that contribute to research related to ARL?
RQ4: Who are the main authors contributing to research related to ARL?
RQ5: What are the most frequently used keywords in research related to the topic of ARL?
RQ6: How is the cluster mapping in publications related to ARL research?

This article attempts to carry out bibliometric research regarding ARL to provide an overview of research developments on this topic. Bibliometric methods use extensive bibliometric data published by previous research in bibliometric databases, such as [11].

Through this analysis, research results can help develop science by recognizing the most trustworthy and authentic scientific publications from leading authors [12]. Bibliometric research can also provide an overview of gaps and areas that require further development in ARL research [13]. This research seeks to lead to suggestions based on broader cluster analysis of ARL.

The analysis was based on 202 articles extracted from the Scopus Database until October 2023. Next, we conducted a content analysis of these articles to determine the documents to be analysed. The analysis is used to help researchers find answers to research questions. This research makes several contributions to the literature, such as contributing to expanding the accounting literature and providing recommendations for future research related to ARL through bibliometric analysis. The outline of the paper that has been prepared is as follows: section 2 will discuss the research methods and stages of data collection; section 3 will present the descriptive bibliometric analysis results of the data obtained from the Scopus Database (the most contributing journals and authors, authors' countries of origin, clusters, co-occurrence networks); section 4 will contain a discussion and a research recommendation agenda that can be implemented related to ARL research; and section 5, will summarize the paper.

2. Method

2.1. Research Method

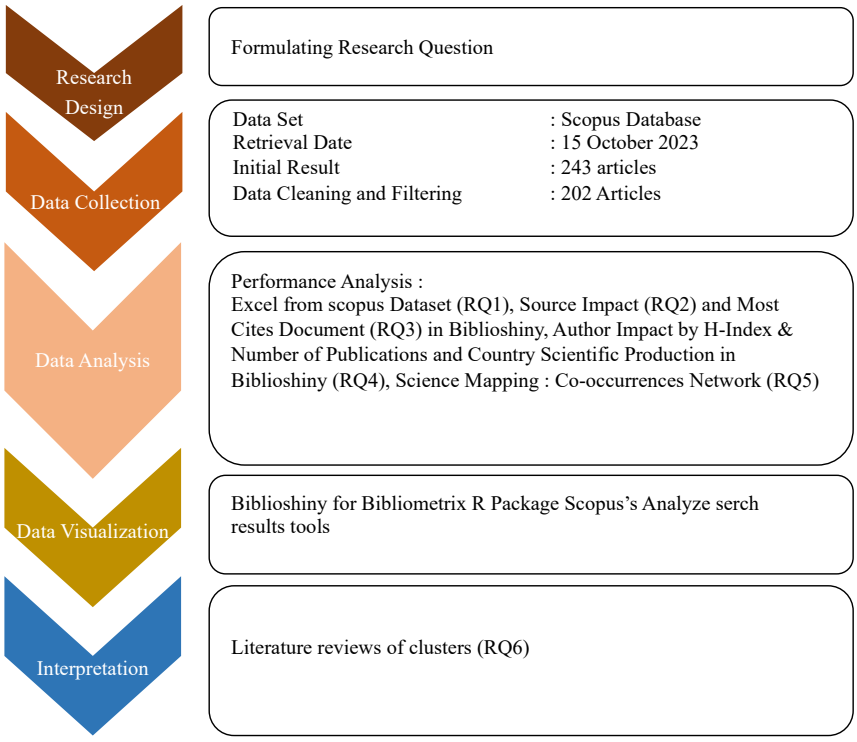

Figure 1: **Methodological procedures**
Source: Figure by Authors

This bibliometric analysis is the basis for the implementation of the phases of this research[14]. This research uses quantitative analysis, specifically employing a technique known as bibliometric analysis, which is carried out by analyzing the bibliometric and intellectual structure of a collection of literature using applications called R and VOSViewer, and then analyzed[15]. The techniques used will show the structural interactions between topics and research elements in a specific domain such as the most contributing authors, the authors' countries of origin, the journals that publish them, the authors' institutions, keywords, clusters, and others[16]. In addition, the process carried out for bibliometric analysis can be replicated scientifically and transparently, thereby reducing problems related to research subjectivity [17]. Figure 1 summarises the research methodology and findings. This research utilizes an approach adopted from previously published studies and structured with the following stages of data analysis: (i) determination of research design, (ii) stages of data collection for the research, (iii) data analysis using the Bibliometric R Package, (iv) stage of data visualization from the analysis results, and (v) interpretation of the analysis results[18].

2.2. Research Data Collection

The primary source of data used is the Scopus database. This source was chosen because it presents articles published by authors who have undergone a rigorous selection process and have published high-quality articles. In this research, the author focuses on the extraction of research data related to the theme of ARL. To select the samples, specific criteria were applied while searching in Scopus.

a. The researchers used the term ARL aimed at identifying all articles published in the Scopus database with one of the keywords in the title, abstract, or keywords created by the authors for further examination. ARL as a keyword or phrase is used to find keywords for a comprehensive search of articles or literature[18]. To identify a wide range of topics and include multiple contributions from various research streams, general keywords were selected in this study to produce a comprehensive and integrated view of ARL;
b. The search is limited to journal articles and conference proceedings to enhance the reliability of the results, and the process is currently at the final stage. The quality assurance process for articles sourced from the Scopus database is well-known for publishing quality articles since they go through a tough peer review process and meet publishing standards[18];
c. The articles being analyzed are limited to publications that are in English since it makes it easier for the authors to analyze the articles that will be extracted [19].

For further research, a total of 202 articles were used for further analysis (See Table 1).

Table 1. Search results from Scopus database

Step	Filtering Criteria	Query on Scopus	Documents count
1	Initial search result (on search term)	(TITLE-ABS-KEY (“Audit Report Lag”	243
2	Source type (journal and conference proceeding)	AND (LIMIT-TO (SRCTYPE, “p”) OR LIMIT-TO (SRCTYPE, “j”))	202
3	Language filter (English)	AND (LIMIT-TO (LANGUAGE, “English”))	202

Source: Table by Authors

3. Result

3.1. Trend Publications of ARL Research

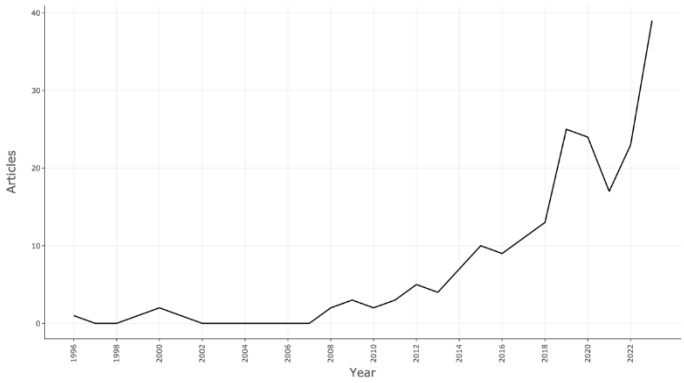

Figure 2: Trend of publications ARL Research
Source: Figure by Authors

The distribution of document numbers each year reflects research trends, and the number of publications indicates the level of interest in a topic [16]. Figure 2 depicts the number of publications obtained from the Scopus database with the data collection criteria from 1996 to 2023. Research using ARL has appeared since 1996, continued in 1999, and gradually increased until 2023. The number of publications per year of research using the keyword ARL still varies every year. Following Figure 2, it can be seen that a significant increase in research using the keyword ARL occurred in 2023, namely 16 publications in one year, from 23 publications to 39 article publications. Relevant keywords in research related to ARL vary greatly (Figure 3).

3.2. Keyword and The Most Influential Journal Sources of ARL Research

Figure 3. World Cloud Audit Report Lag Research
Source: Figure by Authors

Based on Figure 3, the World cloud ARL Research indicates that there are several keywords frequently used by researchers when conducting studies related to ARL. These keywords may include variables, indicators, locations, types of research employed, and several others. In relation to audit report research, many keywords emerge and dominate, such as firm size, finance, corporate governance, management, as well as other keywords that do not dominate but appear often, such as corporate strategy, financial statement, and committee.

Table 2. The most influential journal sources of ARL Report

Sources	Country	Publications	H-Index	Total citations
International Journal of Auditing	United Kingdom	16	8	425
Auditing	United States	14	11	874
Managerial Auditing Journal	United Kingdom	10	5	210
Accounting Horizons	United States	9	6	265
Cogent Business and Management	United Kingdom	7	3	26
Journal Of Accounting and Public Policy	United States	6	3	63
Asian Review of Accounting	United Kingdom	5	4	78
Advances In Accounting	United States	4	3	117
International Journal of Accounting and Information Management	United Kingdom	4	2	45
Journal of Accounting in Emerging Economies	United Kingdom	4	2	45

Source: Table by Authors

Table 2 highlights the top ten sources related to ARL based on their H index. The International Journal of Auditing has the highest number of publications, while Auditing has the highest H-index and total citations. The Managerial Auditing Journal follows closely behind. The top ten journals are from the United Kingdom and the United States. The author groups the ten articles with the highest publications based on the university from which they were published.

Table 3. The most university sources of ARL Report

University	URL	Country	Publications
Massey University	https://www.massey.ac.nz/	New Zealand	16
Universiti Utara Malaysia	https://www.uum.edu.my/	Malaysia	13
Curtin University	https://www.curtin.edu.au/	Western Australia	10
Ferdowsi University of Mashhad	https://en.um.ac.ir/	Iran	10
Prince Sattam Bin Abdulaziz University	https://www.psau.edu.sa/en	Saudi Arabia	8
University of Sfax	https://univ-sfax.tn/	Tunisia	6
Bina Nusantara University	https://binus.ac.id/	Indonesia	5

University	URL	Country	Publications
International Islamic University Malaysia	https://www.iium.edu.my/v2/	Malaysia	5
Northern Border University	https://www.nbu.edu.sa/en	Saudi Arabia	5
Shaqra University	https://www.su.edu.sa/en	Saudi Arabia	5

Source: Table by Authors

Massey University is the highest university with publications that use the keyword ARL. Massey University has 16 publications and is located in New Zealand. Based on data collected by researchers, Massey University is the most influential university in publications with the keyword or theme ARL. The next universities are Universiti Utara Malaysia, Curtin University, and Ferdowsi University of Mashhad. The country in the spotlight is Saudi Arabia because there are 3 universities in the top 10 for research publications with the theme ARL, namely Prince Sattam bin Abdulaziz University, Northern Border University, and Shaqra University.

3.3. Most Influential Author and Title Articles of ARL Research

Table 4. Journal's top influential articles and authors based on total citations of ARL research

Title	Author(S)	Year	Journal	Total Citations	Average Citations Per Year
The Association Between Characteristics of Audit Committee Accounting Experts, Audit Committee Chairs, and Financial Reporting Timeliness	Abernathy Jl	2014	Advances In Accounting	104	10,400
Determinants of Audit Report Lag: A Meta-Analysis	Bhuiyan Mbu	2019	International Journal of Auditing	51	10,200
Audit Firm Industry Specialization and The Audit Report Lag	Habib A	2011	Journal of International Accounting, Auditing and Taxation	115	8,846
An International Perspective on Audit Report Lag: A Synthesis of The Literature and Opportunities for Future Research	Abernathy Jl	2017	International Journal of Auditing	48	6,857
Financial Statement Footnote Readability and Corporate Audit Outcomes	Masli A	2019	Auditing	33	6,600
Clients' Workplace Environment and Corporate Audits	Masli A	2017	Auditing	34	4,857
Audit Tenure, Auditor Specialization and Audit Report Lag	Dao M	2014	Managerial Auditing Journal	48	4,800

Title	Author(S)	Year	Journal	Total Citations	Average Citations Per Year
Internal Control Quality, Egyptian Standards on Auditing and External Audit Delays: Evidence from the Egyptian Stock Exchange	Khlif H	2014	International Journal of Auditing	47	4,700
Evidence On the Relation Between Managerial Ability and Financial Reporting Timeliness	Abernathy Jl	2018	International Journal of Auditing	27	4,500
A Meta-Analysis of The Determinants of Modified Audit Opinion Decisions	Habib A	2013	Managerial Auditing Journal	49	4,455

Source: Table by Authors

3.4. Analysis of Main Authors and Country of ARL Research

The most cited references form the knowledge base of a research field [20], and most related studies cite them to develop their ideas and hypotheses. Habib A, Aljaaidi KS, Khlif H, Abernathy JL, and Baatwah SR research results are the five most cited articles regarding ARL research. Habib A has 8 publications and is the top 1 author with the highest ARL publications with the titles "Local Creative Culture and Audit Fees" (2023), "The Gender-Diverse Audit Committee and ARL: Evidence from China" (2022), "Determinants of Audit Report Lag: A Meta-Analysis" (2019), "Abnormally Long ARL and Future Stock Price Crash Risk: Evidence from China" (2019), "Political Connections and ARL: Indonesian Evidence" (2018), "The New Chinese Accounting Standards and ARL" (2015), "A Meta-Analysis of the Determinants of Modified Audit Opinion Decisions" (2013), and "Audit Firm Industry Specialization and the ARL" (2011).

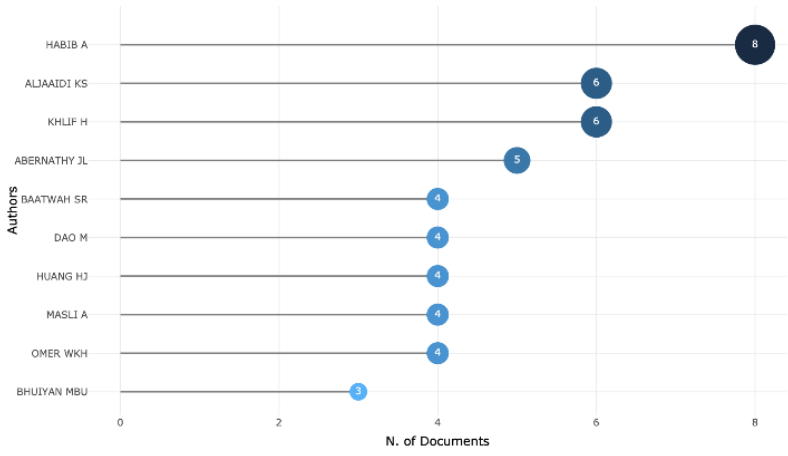

Figure 3. Most relevant authors
Source: Figure by Authors

Habib A's research results, which have the highest citations, are “Audit Firm Industry Specialization and the ARL” (2011), namely 115 citations. This research contributes to the articles published regarding ARL by documenting the relationship between the industry specialization of audit firms and ARL. The results from Habib's study show that industry-specialist auditors can develop specific industry knowledge and skills, allowing them to quickly grasp their clients' business operations. As a result, they tend to finish audits faster than their non-specialist counterparts. This study indicates that ARL can be shorter for companies audited by industry-specialist auditors according to their business criteria. It’s also shown that the implementation of International Financial Reporting Standards (IFRS) has increased ARL for all auditors except for industry-specialist ones[21].

Table 5. Top 10 countries of origin for article publication ARL

Country	Total Citation	Publications
USA	473	144
New Zealand	286	22
Australia	152	33
Tunisia	149	15
Malaysia	118	40
Hong Kong	109	40
Indonesia	81	40
United Kingdom	56	7
Saudi Arabia	55	19
Canada	35	11

Source: Table by Authors

List of the top 10 publications by country, the highest country position is the USA, with a total of 473 citations and 144 publications. This result is not surprising because the United States is a leader in regulatory settings regarding ARL (e.g., SAS No. 58, 1988). Also, it has many universities; according to Statista, in 2022, the United States, after India, will have the most universities [16]. Indonesia is in 6th position in terms of ARL publications, with 81 citations and 40 publications.

3.5. Inter-country, Co-occurrence of Keywords, Network Visualization, and Cluster Co-occuring of ARL Research

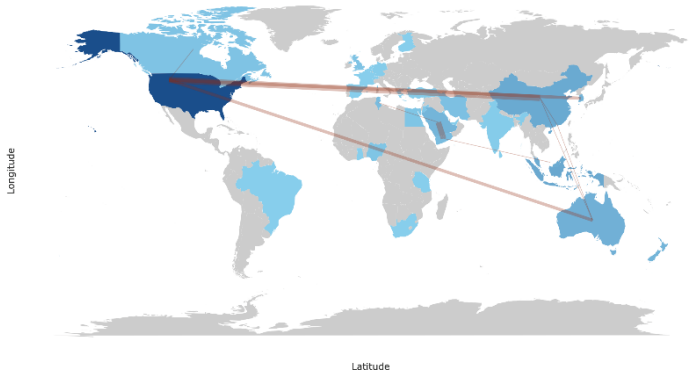

Figure 4. Inter-country relations related to ARL

Source: Figure by Authors

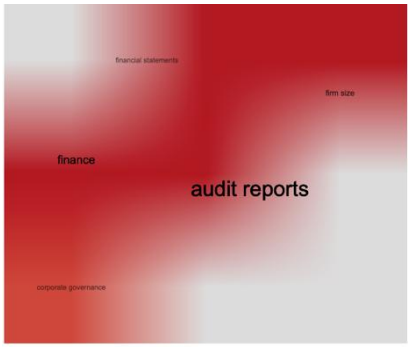

Figure 5. Co-occurrence network
Source: Figure by Authors

"Audit Report Lag", "Finance", "Financial Statement", "Corporate Governance", and "Firm Size" have a significant level of association with other keywords, which reflects their central role in this research. The occurrence of keywords, as shown in Figure 5 and 6, produces five large groups of various keywords listed in Table 6. These groups show a similar research focus which is marked with a different color for each group.

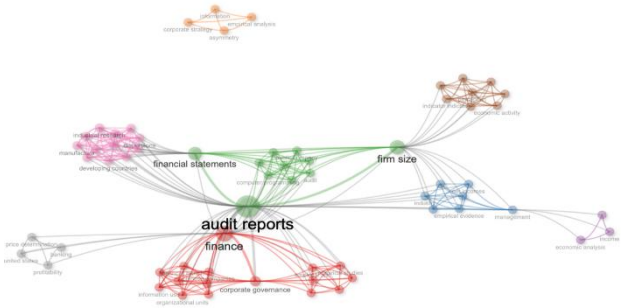

Figure 6. Network visualization of keyword co-occurrences
Source: Figure by Authors

The lines that pop up show the correlation between two terms; the more often two terms appear together, the stronger the line between them, which means they've been researched and linked in a lot of articles. A term is represented by a node (circle) where the diameter indicates the number of links that keyword has, and the color reflects the cluster it hangs out with and its related nodes. The co-occurrence of keywords is identified and visualized through Biblioshiny for Bibliometrix, and the terms in this analysis are taken from the keywords plus for the analysis. The keywords in the audit reports are related to finance, and there are a few other terms highlighted in red like corporate governance, organizational units, information use, and others. I'll break it down more in the next paragraph. The emergence of these terms creates a cluster that shows there's a connection. The lines that appear assume that terms popping up together indicate a thematic relationship. Keyword emergence analysis is used to predict future research in this field, meaning it will relate to what themes, and can be explored in more detail in further studies[16]. These terms are taken from "author's keywords", "article title", "abstract", and

"plus keywords". "Plus keywords" are effective keywords for bibliometric analysis. Plus Keywords are words or phrases generated automatically from the titles of cited articles, thereby limiting the bias and risks associated with manually tagging content [14].

Table 6. Clusters of co-occurring keywords analysis

Cluster 1 (Red)	Cluster 2 (Green)	Cluster 3 (Blue)	Cluster 4 (Pink)	Cluster 5 (Brown)	Cluster 6 (Grey)	Cluster 7 (Orange)	Cluster 8 (Purple)
Audit Report lag	Computer Programming	Management	Manufacture	Economic Activity	Profitability	Asymmetry	Income
Finance	Audit	Empirical Evidence	Industrial Research	Indicator	United States	Corporate Strategy	Economic Analysis
Financial Reporting	Public Company	Industry	Developing Countries	Perception	Banking	Information	
Information Use	Financial Statement	Net Incomes	Dispersions		Price Determination	Empirical Analysis	
Organizational Units	Firm Size						
Corporate Governance							

Source: Table by Authors

After making observations in Table 6, the following is the relationship between each keyword.

3.5.1 Cluster 1 (Red)

The red cluster contains keywords related to finance, financial reporting, information use, organizational units, corporate governance, and empirical studies. The quality of finance and financial reporting has a direct impact on the audit process. Errors in financial statements can extend the audit timeline. Efficient information use is crucial, as well-organized data can speed up the audit. Organizational units must effectively manage and communicate financial information to ensure a smooth process. Maintaining financial reporting integrity requires corporate governance practices, including internal controls and audit committee independence.

3.5.2 Cluster 2 (Green)

The green cluster covers computer programming, audit, public companies, financial statements, and firm size. Computer programming is increasingly used in auditing processes to analyze complex financial statements with greater precision and efficiency, especially for larger firms. Technology integration not only improves accuracy but also helps with regulatory compliance, making it crucial for public companies to maintain transparency and integrity in their financial statements, regardless of their size [22].

3.5.3 Cluster 3 (Blue)

The blue cluster discusses management, empirical evidence, industry, and net incomes. Effective management practices impact a company's performance within its industry, affecting efficiency, innovation, and cost control, which can impact net incomes. Empirical evidence derived from research and data analysis provides insights into how management strategies in different industries can affect net incomes. This evidence helps businesses make informed decisions about best practices and industry-specific factors that influence financial outcomes, enabling them to adapt and thrive in competitive landscapes.

3.5.4 Cluster 4 (Pink)

The pink cluster relates to manufacturing, industrial research, and developing countries. In developing countries, manufacturing is a crucial engine for economic development, generating employment and fostering innovation. Industrial research plays a key role in making manufacturing more competitive and sustainable, enabling the adoption of efficient processes, reducing production costs, and introducing innovative products. This synergy between manufacturing and industrial research helps developing countries capitalize on their strengths, leverage technology, and participate more competitively in the global economy, driving progress and prosperity [23].

3.5.5 Cluster 5 (Brown)

The brown cluster relates to economic activity, indicators, and perceptions are interconnected. While economic activity comprises actions and transactions, indicators like GDP, inflation, and unemployment rates serve as quantifiable metrics. Positive perceptions drive growth, while negative ones can result in downturns. Understanding this relationship is crucial for sound economic decisions.

3.5.6 Cluster 6 (Grey)

The grey cluster relates to profitability, banking, and price determinations in the US financial sector are deeply interconnected. Banks' profitability depends on factors like interest rates, loan quality, and investment returns, which can impact the pricing of banking services and products. This, in turn, can affect the broader economy. As banks adjust interest rates on loans and deposits, it can impact spending, saving, and investment patterns, thus influencing price determinations in the United States. The health and stability of the banking sector play a pivotal role in shaping the economic landscape and, subsequently, price dynamics within the country.

3.5.7 Cluster 7 (Orange)

The orange cluster relates to asymmetry in corporate strategy, particularly in information dissemination and utilization, which is a critical focus of empirical analysis. Information asymmetry occurs when one party has more and better information than others, potentially influencing strategic choices. Empirical analysis examines the extent and impact of this asymmetry on corporate strategies, assessing the effectiveness of various approaches on performance, competition, and market dynamics. Understanding these relationships helps businesses navigate complex environments while optimizing their strategic approaches.

3.5.8 Cluster 8 (Purple)

Income plays a central role in economic analysis as it serves as a critical indicator of an individual's or household's financial well-being while also being a key determinant of a nation's overall economic health. In economic analysis, income data is used to assess the distribution of wealth, measure economic inequality, and evaluate the standard of living within a given population. It also influences consumer spending patterns, which in turn affect overall demand for goods and services. Additionally, income data informs policy decisions, tax structures, and government welfare programs. A deep understanding of income and its patterns is fundamental in comprehending the complexities of an economy and formulating effective economic policies.

4. Discussion

This research aims to analyse the structure of ARL research using various bibliometric techniques. To achieve this goal, six questions were developed to guide this research in mapping the thematic and conceptual structure of ARL. The first question is regarding the growth of research related to ARL. The research results show that research themes using the keyword ARL have increased until 2023 and are balanced by an increase in citations. The second question relates to which leading journals contribute to research related to ARL, the International Journal of Auditing is at the top in the number of publications and Auditing occupies the highest position in the h-index and total citations with a number of citations of 874 and an h-index of 11 Followed by the Managerial Auditing Journal with a total of 10 articles published and 210 citations. Overall, the journals included in the top 10 are journals from the United Kingdom and the United States. Massey University is the highest university with publications that use the keyword ARL. Massey University has 16 publications and is located in New Zealand. Based on data collected by researchers, Massey University occupies the position of the most influential university in publications with the keyword or theme ARL. The next universities are Universiti Utara Malaysia, Curtin University, and Ferdowsi University of Mashhad. The country in the spotlight is Saudi Arabia because there are 3 universities in the top 10 for research publications with the theme ARL, namely Prince Sattam bin Abdulaziz University, Northern Border University, and Shaqra University. List of the top 10 publications by country, the highest country position is the USA, with a total of 473 citations and 144 publications. Indonesia is in 6th position in the ARL publications, with 81 citations and 40 publications.

Furthermore, it can be seen that the countries that produce publications related to ARL are still based in the USA, New Zealand, Tunisia, Australia and Saudi Arabia. The USA is the country to publish research related to ARL because it is a country that is a leader in setting regulations regarding ARL (for example, SAS No. 58, 1988) (16). So, this topic becomes interesting if it is developed in a country with similar regulations. regulates the publication of financial reports, such as in Indonesia, namely in the Financial Services Authority Regulations (POJK), which are updated regularly. Therefore, for further research related to Bibliometrics, you can reduce the scope of analysis to countries that still have little discussion of ARL so that the results are more focused. For overall research can develop research related to keywords that have emerged from the analysis results. carried out and used Indonesia as a sample because Indonesia also has regulations governing the publication of financial reports. The most cited references form the knowledge base of a research field (20), and most related studies cite these references to develop their ideas and hypotheses. The research results of Habib A, Aljaaidi KS, Khlif H, Abernathy JL, and Baatwah SR are the five authors with the most cited articles regarding ARL research. Habib A has 8 publications and is the top 1 author with the highest ARL publication. “Audit Report Lag”, “Finance”, “Financial Statement”, “Corporate Governance”, and “Firm Size” have a significant level of association with the keyword ARL. This reflects the central role of these keywords in ARL research so that it can be considered for future research.

5. Conclusion

This research aims to analyse the structure of ARL research using bibliometric techniques. Six questions were developed to guide this research in mapping ARL's thematic and conceptual structure. The research shows increased research themes related to ARL, with the International Journal of Auditing being the top contributor. Massey University is the most influential

university in publications related to ARL, followed by Universiti Utara Malaysia, Curtin University, and Ferdowsi University of Mashhad. The USA is the highest country to publish research related to ARL, followed by New Zealand, Tunisia, Australia, and Saudi Arabia. The authors cited are Habib A, Aljaaidi KS, Khlif H, Abernathy JL, and Baatwah SR. Keywords with a significant level of association with ARL include "Audit Report Lag", "Finance", "Financial Statement", "Corporate Governance", and "Firm Size". It is predicted that this will develop in the future.

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