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## EVOLUTION OF SCIENTIFIC RESEARCH ON AUDIT QUALITY REPORTING IN THE GLOBAL ECONOMIC CONTEXT

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**Abstract.** The development of the economy and the capital markets has led to substantial changes over time, both in terms of audit reporting and determining the quality of the audit. The primary purpose of the present study is to conduct an empirical evaluation of the most relevant scientific publications, which target the topic of quality of reporting in audit, determining the dominant factors for quality assurance in auditing, as well as future research directions, both for other potential researchers and us. The study proposes a bibliometric analysis of the main articles encountered in SCOPUS and Web of Science databases, aiming to choose a sample of data to perform a meta-analysis. The obtained results certify that the audit report is the fundamental element in restoring the quality of the audit, followed by education, regulations and legislative changes and last but not least, by the steps taken by the audit team in carrying out missions to assure investment efficiency and to provide credibility for investors.

**Keywords:** quality in audit; bibliometric analysis; meta-analysis; audit report

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### 1. Introduction

Since the '80, themes regarding audit quality have been identified in the literature. Over the years, researchers worldwide have tried to identify the factors that determine quality in auditing. Therefore, the number of researchers concerned about this matter has increased considerably and the debated topics have diversified, developing the field of research and, at the same time, multiplying the factors characteristic of audit quality.

In Romania, the Authority for Public Supervision of the Statutory Audit Activity (ASPAAS) is the competent authority in the public interest supervision of the statutory audit. It exercises its tasks according to the provisions of Law 162/2017. This body shall carry out regular inspections of the quality of audit engagements.

The concern of professional organisations to ensure high-quality audit engagements has intensified, trying over time to educate and make auditors and audit firms aware of the influencing factors they need to take into account when performing audit engagements. Norms and regulations have been changed and adapted to the economic changes. At the same time, it has been demonstrated on countless occasions that quality in audit is not only provided by norms but also by many factors. Wedemeyer (2010) points out the use of professional reasoning in decision-making, risk assessment, choosing and applying appropriate risk-based audit procedures and assessing audit evidence to identify their quality and adequacy so that the opinion is well founded. Mansouri et al. (2009) argue that users can only rely on an auditor's findings when they are confident that the auditor has acted independently, drawing conclusions based on objective evidence. Factors such as compliance with the standards in force, accounting rules, the code of ethics of accounting professionals, experience in the field, continuous professional development, rapid adaptability to new circumstances, professional scepticism, and morality have a tangible impact on the quality of auditing. Regardless of the factors, the auditor's correct reasoning and ethical actions can lead to a qualitative audit. For this, however, an auditor must have a high level of professional knowledge and skills and have assimilated the ethical behaviour imposed by professional and societal norms (Chersan, 2019). The consolidation of the company's image, as well as the increase of the reputation among customers and stakeholders, is done by adopting a socially responsible behaviour, a behaviour superior to ethical reasons, to which the solution of social and environmental problems can effectively contribute (Socoliuc et al., 2020).

The main purpose of the proposed research is to conduct an empirical evaluation of the most relevant scientific publications that target the topic of the quality of reporting in audit, determining the essential elements in describing the quality of reporting in audit, as well as future directions of research both for other potential researchers and for us. The main question to which this research is meant to answer is: What are the determining factors for ensuring the quality of audit reporting?

To achieve the goal, the following objectives are outlined:

- Selection and analysis of the leading scientific papers with the words quality audit reporting in their titles and themes published in the Web of Science database.
- Selection of the database and definition of the sample.
- Identifying the main items in connection with the pursued topic, forming clusters and determining the research directions.

Considering these above, we will try to mirror, in a more complete picture, the determinants of quality assurance in audit.

## **2. Literature review**

Starting from the analysis of Gray and Ratzinger (2010) pursued the study of the perception of audit missions performed by "Big 4" auditors, both from the auditors' and users of audit reports' points of view. The analysis focused on group discussions which led to the following conclusion: stakeholders say that it is recommended for a company to use the services of an auditor who is part of the "Big 4" group, as they have more experience and expertise, interpret the standards in the same way and the deviations in the quality of assignments are thus reduced.

The quality of the services offered by audit firms outside the group can report a difference compared to the firms in the "Big 4" group. Given their scale, these auditors have better access to technology, training and facilities (Khurana & Raman, 2004).

Auditors in large "Big 4" firms are considered to be more independent than those in smaller audit firms because they suffer a higher reputational risk if they are negligent, they are less based on the revenues of an individual customer, and hence, they are less likely to be influenced by a single client. Their higher income base exposes them to a higher risk of litigation (Palmrose, 1988). Based on the literature, we expect "Big 4" auditors to be less likely to experience allegations of audit deficiency (Alhababsah & Yekini, 2021). The study conducted by Choi et al. (2010) on a sample of client firms in the USA for over five years monitored whether the size of the audit firm is a relevant factor, distinct from the commitment that influences the quality of the audit. In his study, it has been shown that the size of the audit firm positively affects both the quality of the audit and the fees charged by them, supporting the opinion that they offer high-quality audits compared to small offices. Siminică et al. (2020) emphasise the positive relationship between the quality of external audits made by auditors working in the Big 4 group (Pricewaterhouse Coopers, KPMG, Ernst & Young and Deloitte) and the financial performance assessed in terms of the main financial performance indicators.

In the study by Feleaga et al. (2013), which looked at the impact of trust on the auditor's professional judgement, it was confirmed that the auditor's trust in an audit client increases with the age of the mandate. The results highlighted the fact that the auditors spend less and less time in conducting audit missions at these clients, being a relationship based on trust, compared to the audit missions carried out at new clients, at which the number of hours remains constant, and the professional scepticism is at a high level. The credibility of accounting information is the fundamental element in the decision-making process, positively influencing the activity of entities and their financial results (Grosu, 2009). Due to the changes, companies are forced to "think" and report in an integrated way. This refers to the fact that a company must provide financial and non-financial information about the related activity's strategy, performance and forecasts. In the study conducted by Cosmulese et al. (2019) on a sample of 180 companies listed on the Stock Exchange, it was demonstrated that such an approach leads to the mirroring of an indisputable image of companies on the regulated market, imposing the development of information transparency to be able to meet the expectations of stakeholders, thus encouraging the strengthening of mutual relations and the trust of investors.

Taking into account the public's perception of the real financial statements of the companies, rendered by the auditor's opinion in the audit report, the authors Sercu et al. (2006) argue that the famous financial scandals (Enron) determined the auditors to act more carefully in the analysis of the financial statements, the opinions with reservations appearing more and more often, concluding that the effects were positive, as the auditors began to be much stricter and rigorous to regain investors' confidence. Audit reporting is a complex activity, and the opinion expressed by the auditor makes an essential contribution to investors' decisions (Condos & Fülöp, 2015). In the research carried out by Gaynor et al. (2016), the link between the quality of financial reporting and the quality of the audit is highlighted, examining the impact of them on investors, as well as on their efficiency and effectiveness. The results note that quality reporting leads to higher efficiency of investments, mitigating the gaps between suppliers and managers. In addition, the quality of audit is given by the audits conducted by the Big 4 firms, which provide their clients with a positive image in front of investors, as well as a reduction in the gaps that may arise in different contexts (Shahzad et al., 2019).

The advancement of technology influences the work of the auditor and the work and actions of the personnel dealing with entities' accounting. Companies' use of innovative digital technologies (Industry 4.0, 5.0) leads to a new way of approaching things, contributing to the extent of social and organisational effects, affecting the operational and managerial economic processes (Căpuşneanu et al., 2020). Auditors are increasingly using technologies to improve audit quality and keep pace with the development of the global economy. The study by

Christ et al. (2021) demonstrated that using drones and software for automatic counting leads to increased quality in auditing and more transparent financial reporting. The authors evaluate the three dimensions of quality in auditing: effectiveness, efficiency and documentation quality. The study shows us that using advanced technology (Industry 5.0/drones) increases the efficiency and effectiveness of the professionals and decreases the time allocated to counting and conducting the inventory (681h to 19h), the error rates being reduced (0.15% to 0.03%) while providing quality audit documentation. The incidence of a positive image of the audit process is reflected in the trust it generates.

In comparison, the auditor's credibility for stakeholders and clients depends significantly on the trust that all external users ascribe to the financial statements, which have received an audit attestation. In the literature, the perception that external users form regarding the characteristics of a good audit is associated with the quality of the audit, credibility, image, reputation of the auditor, as well as his ethics. In order to assess the quality of the financial reporting, which directly impacts the decisions of the stakeholders, the study uses the audit opinion and the critical audit elements presented in the audit reports issued by the companies listed on the Bucharest Stock Exchange. An unqualified opinion, but with some insignificant observations, indicates the existence of transparency in financial reporting and compliance with an applicable financial reporting framework (ISA 700-IAASB). All other situations where the audit reports contain modified opinions are judged to affect the clarity of financial reporting. The extent to which the stakeholders can rely on an audit opinion depends on the audit's quality. Despite the significance of audit quality for the stability of capital markets, the investors, regulators and researchers persevere in debating the topic, defining the composition and measurement of audit quality (Bedard et al., 2010; DeFond & Zhang, 2014; Francis, 2011; Knechel et al., 2013; Botez & Melega, 2020).

## **2. Research methodology**

This study aims to identify the direct and indirect links between variables directly connected to the pursued topic, respectively, "the quality of audit reporting." Thus, we initiated the research through a bibliometric analysis of the literature regarding the mentioned topic using the clusters method to obtain the desired results. In this study, the publications encountered on the Web of Science and SCOPUS research platforms were followed. The mission of evaluating important scientific publications is to identify determining factors for ensuring the quality of audit reporting and determining the less studied area so that future researchers and we can contribute to the homogenisation of the studied field.

Thus, the proposed work is based on empirical research on leading scientific publications. Regarding the research tools used, we can mention observation, induction, comparison, testing and evaluation. As databases used for data collection, we have the Web of Science and SCOPUS.

The stages of research will be tracked:

- To highlight the main items (terms) with which the topic is in connection, as well as the power of the links, the number of appearances and the evolution in time of the concepts, determining the directions of research by fields. Grouping items according to the strength of the links and defining the clusters, following their ranking and directing the research to the lowest rated clusters so that we can participate in the improvement of the targeted research field.
- Meta-analysis of the leading scientific publications based on the data obtained from the Web of Science research platform.
- Outlining the most important factors for assessing quality in auditing.

**3. Results and discussions**

Alan Pritchard first used the name "bibliometric" in 1969 in his book, and through "Statistical Bibliography" or "Bibliometrics", the aim was to transmit and statistically count the flows from the literature in a particular field, materialised in articles, reviews, books or other materials used for the transmission of information (Sancho, 1990). Thus, bibliometric analysis is a statistical analysis of written publications that offers the possibility of obtaining a quantitative analysis of the academic literature, which is widely used by researchers (Grosu et al., 2022). Using this method, we could describe and evaluate the most relevant manuscripts, considering the journals' quality and the recorded citations, geographical location and identification of the years in which they were published, knowing the authors by country and the institutions they represent. It also allows the structuring, organising and managing of the database in an objective and systematic manner, offering a wide range of key concepts and research directions, as well as the possibility of observing the efforts of researchers in a certain area and the redirection of research to the less developed areas, so that we can contribute and develop to the field of study to make it as homogeneous and useful as possible for future researchers. The contribution of information discovered through the bibliometric analysis competes to substantiate the research directions (Pritchard, 1969).

Thus, we propose that through a quantitative analysis of the scientific papers having the topic "quality of audit reporting", published between 1975 and 2021 and using data extracted on August 6, 2021, from SCOPUS and Web of Science research platforms, to identify the main scientific publications by years of appearances, type of document, the field of research, an affiliation of articles, countries...etc., as well as after the journals in which they were published. Therefore, we could reach the purpose we aspire to: determining the research directions and the researchers' perception of the quality of the audit reporting, starting from the first scientific writing in the concerned field and following its evolution by years.

SCOPUS is an interdisciplinary database created by Elsevier, and it is often compared to Google Scholar, the former being more complete and more dependable, with over 20,000 publications (Bar-Ilan, 2007). Web of Science is one of the most important sources of scientific documentation worldwide. Its scientific publications are recognised as the authority appreciated worldwide for the ISI evaluation of scientific writings created in collaboration with the renowned Institute for Scientific Information in the USA/Philadelphia. In an online format, it provides researchers access to over 12,200 scientific journals, 160,000 scientific conferences and over 30,000 books from 256 disciplines\*.

Therefore, in the first stage, the review of the literature was made by examining the Web of Science platform after the topic of quality of audit reporting (All fields). We obtained 6,205 scientific documents in which the topic was found, either in the title, summary, or keywords (see Table 1).

**Table 1.** The evolution of scientific publications by the topic "quality of audit reporting" in the Web of Science database

Period	No of scientific publications	The evolution in time of the interest of specialists in the field with the topic quality of audit reporting (Expressed as a percentage)
2011 - 2021	4.613	273,82 %
2000 - 2010	1.234	250 %
1989 - 1999	352	6.940 %
1978 - 1988	5	400 %
1975 - 1977	1	-
<b>Total</b>	<b>6.205</b>	-

Source: Own realisation, by Web of Science database

As we can see in the table above, there is a progressive evolution from one period to another; thus, starting from 1975, the first scientific publication containing words on the topic in question was identified as being in the field of paediatrics. In the next period, 1978-1988, 5 scientific papers were inventoried, of which two were from Business Finance. Once the development of the auditor profession, the interest of researchers in the field began to intensify, remarking a growing interest in the subject because of the increasing number of articles being written on this subject. In the period of 1989-1999, 352 scientific documents were identified (an increase of 6,940% compared to the previous period), followed by the stage of the 2000-2010 years in which 1,234 scientific papers were clocked, this being an increase of 250%, compared to the last period. The maximisation of the interest of specialists in the field of the analysed topic was noted in the latest period (2011-2021) when there were 4,613 articles, with 273,82% more scientific papers compared to the previous period (see Figure 1).

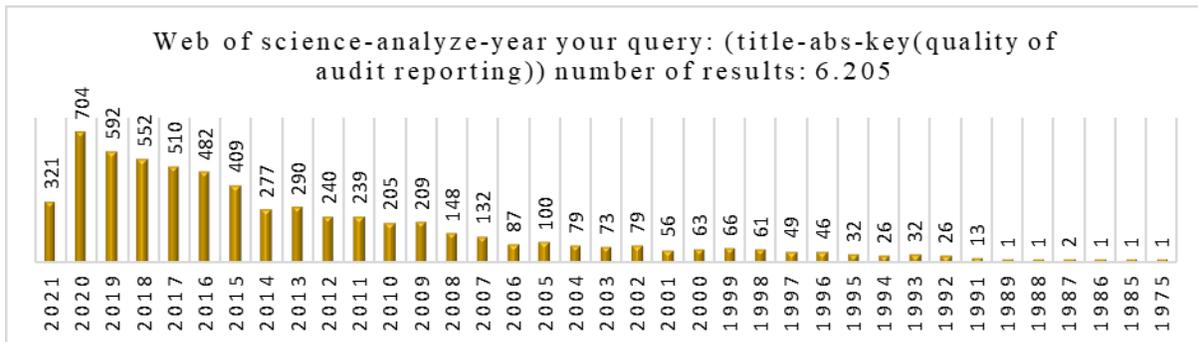


Figure 1. The evolution over time of scientific publications -Web of Science

Source: Own realisation, by Web of Science database

According to the diagram above, due to the changes that occurred both in the global economy and the auditor profession, the publications have expanded from one publication in 1975 to over 704 publications recorded in 2020. Publications are diverse, from articles and reviews to articles captured from various books and other significant publications.

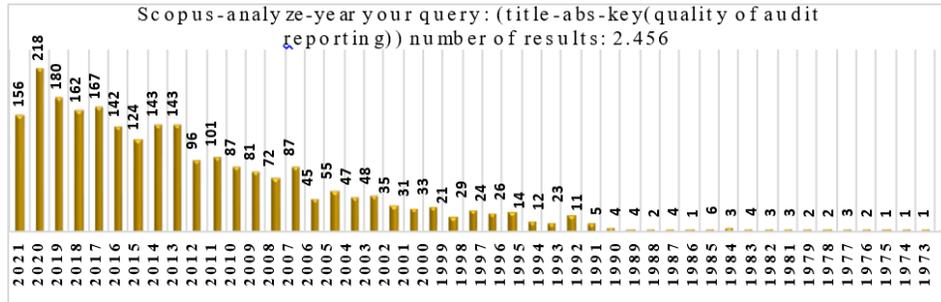
By going to the SCOPUS database by Article Title/Abstract/Keywords and sorting the documents by the words *quality of audit reporting*, we have identified 2,456 scientific papers (see Table 2), 152.64% fewer papers than those found on the Web of Science platform.

Table 2. The evolution of scientific publications according to the topic "quality of audit reporting" in the Scopus database

Period	No of scientific publications	The evolution in time of the interest of specialists in the field, with the topic quality of audit reporting (Expressed as a percentage)
2011 - 2021	1.632	166,66 %
2000 - 2010	612	251,72 %
1989 - 1999	174	480 %
1978 - 1988	30	275 %
1973 - 1977	8	-
Total	2.456	-

Source: Own realisation, by Scopus database

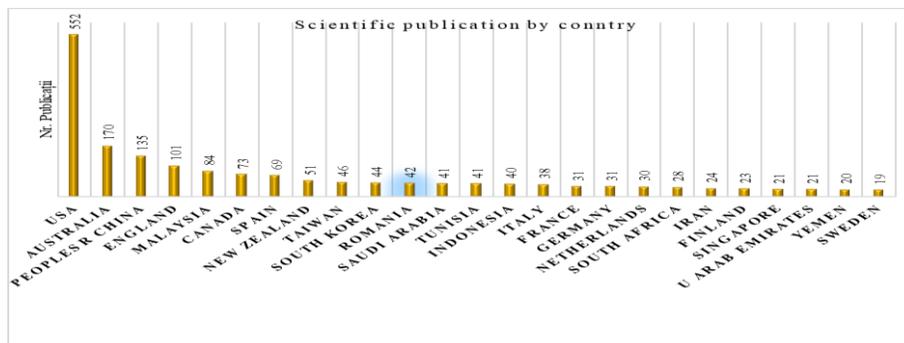
Here too, it is an upward trend of the interest of researchers in the field of the analysed topic; in recent years (2011-2021) being registered a significant increase in scientific publications in this area (see Figure 2), reflecting the importance of the chosen topic.



**Figure 2.** Evolution over time of scientific publications – Scopus  
 Source: Own realisation by Scopus database

Since the Web of Science platform is more complex and homogeneous, the research fields are much more diverse, and most of the scientific papers are also present in the SCOPUS platform, we will continue the bibliometric analysis focusing only on this the Web of Science platform. The database that we obtained is quite large; thus, we have selected the last ten years (2012-2021) and the domains of interest for this research which are: Business, Business Finance, Management, Economics, Public Administration, Ethics, Computer Science Information Systems, Green Sustainable Science Technology, Law, Telecommunications and Computer Science Cybernetics. The selection of the papers was done in a systematic and objective manner, considering the quality of the journals, as well as the targeted research segment. We obtained 1,570 scientific papers, sorting the selection by country, research areas, organisations involved and publication sources. The situation is set out below.

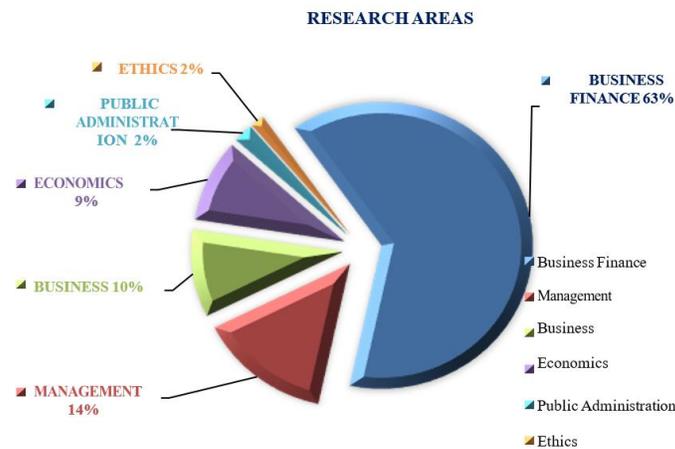
The United States of America, Australia, China and England are the countries that have contributed 61.019 % (958 scientific papers) to the development of the analysed field. Also among the countries with a substantial contribution are Malaysia, Canada, Spain, New Zealand, Taiwan and South Korea at a rate of 18,726%, representing 367 scientific manuscripts.



**Figure 3.** Top countries with scientific publications  
 Source: Own realisation, by Web of Science database

As for Romania, it participated with 2.675% in the approach of the quality of reporting in audit, the value that represents 42 documents that are globally recognised on the Web of Science research platform. We can point out that the attention of specialists in the field (Tiron, 2018; Istrate, 2019; Bunget, 2020) is moving in directions such as the quality of the made reports, the presented financial information and the audit report in which KAM (key audit aspects) are also included.

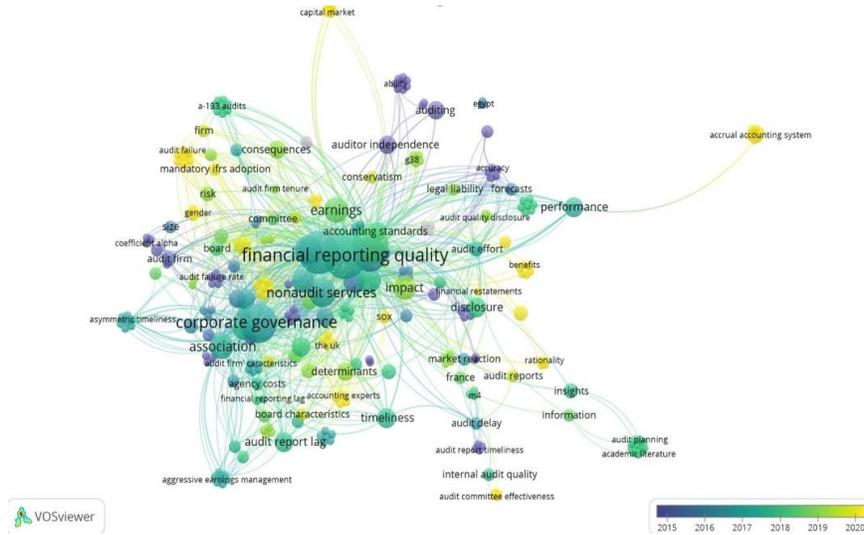
Going back to the global level regarding the targeted topic and following the main selected research areas, we note that, at the top of the ranking, the Business Finance field is located, with a total of 1,223 scientific papers (which is 76.452%). Therefore, it is the most debated area of the topic researched, as is natural, given the place and role of auditors, who are at the heart of the relationship between companies and users of accounting information. Without their contribution, the financial reports of firms would have been called into question, or even more, would not have been recognised. The top five areas of research are: Management 17.302%, Business 11,868%, Economics 11,181%, Public Administration 2,561%, and Ethics 1,811%. The other areas, Law, Computer Science Information Systems, Green Sustainable Science Technology, Computer Science Interdisciplinary Applications and Telecommunications, account for 2,373%. The graphic representation according to the first six areas of research on the quality of audit reporting (Figure 4) shows us which is the field of high interest and at the same time the most affected by the quality of the audit carried out by the auditors.



**Figure 4.** Representation of publications by research areas  
*Source:* Own realisation, by Web of Science database

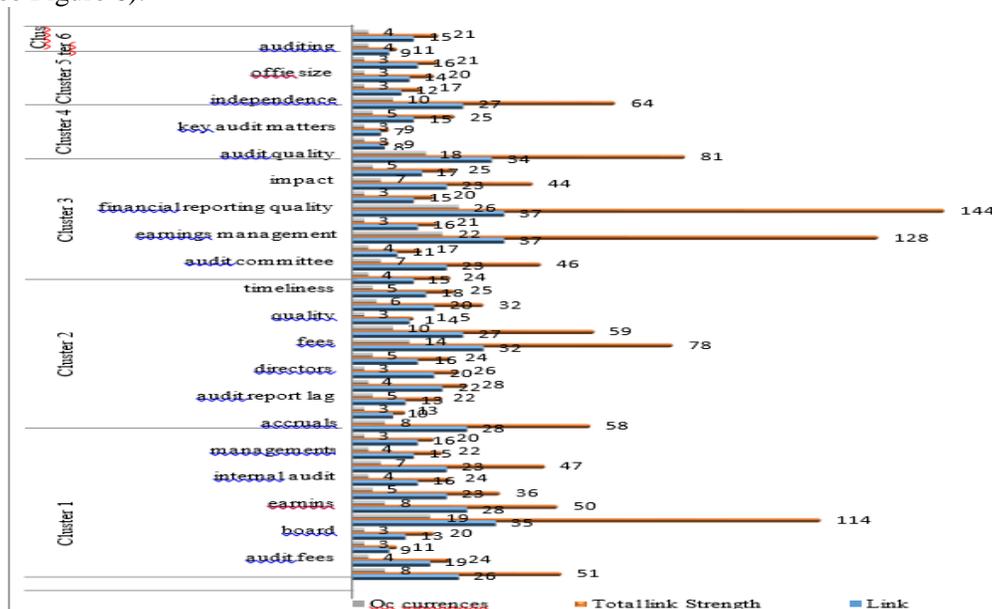
According to the tables and figures presented in the previous stage, we can see an upward growth outlined over time at a global level, specific information regarding the intensification of the effort made by the academic environment - and not only - to extend the research and their classifications to a higher level. Aiming at this dimension makes us turn our attention to the less debated components in these works to strengthen the existing research or, why not, to fill in the gaps so that the pursued results become as cohesive and helpful as possible for future readers.

To develop the quantitative debate of the scientific interest regarding the quality of the audit report, the VOS viewer software version 1.6.15 was used, which allows the analysis of the keywords from the content of the existing publications in the Web of Science database to extract and highlight the links between these keywords. The software offers the possibility of making a map, which illustrates the relations between the terms that appear most frequently in the scientific papers for which the platform was interrogated. Therefore, in the first stage, we have made an interdisciplinary map that includes the main keywords associated with the researched topic. VOS viewer lets us create a complete map of existing connections (Figure 5). The size of the "nodes" indicates the items most closely linked and used concerning the quality of reporting in an audit.



**Figure 5.** Links between the keywords of scientific publications 1975-2021  
 Source: Conceptualisation in VOS viewer, based on Web of Science data

There have been identified 288 terms (items), and next, we will follow the connection between the elements, namely, the co-occurrence links between the terms. A positive numerical value represents the power of links between terms - the higher the value, the stronger the connection. The strength of a relationship indicates the number of publications in which two words appear. Words are organised in groups (clusters) that do not overlap, which means that a term belongs to a single cluster. Between any pair (clusters) of words, there is a link. They receive attributes depicted by a number, a weight and an externalised score by numeric values. The weight of the cluster indicates the importance of the term, and on the map, they are represented more pronounced. The weight of the cluster is given by the links and their total power; in other words, the links of a term to another term represent the total power of the connections between the items. Thus, we obtained 78 terms (items) grouped into six clusters (see Figure 6).

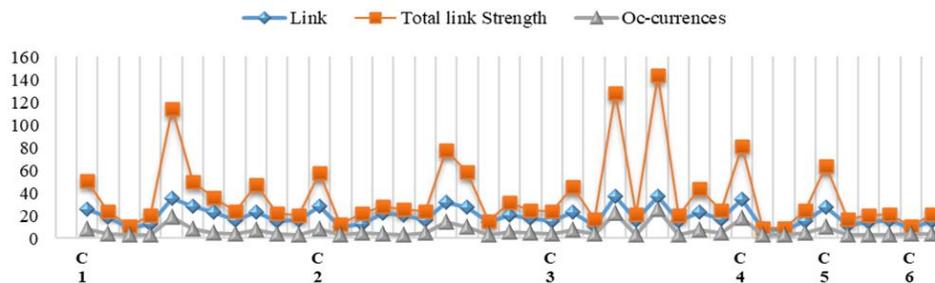


**Figure 6.** Grouping items by clusters  
 Source: Own creation according to data created in VOS viewer by Web of Science database

Looking at the classification of items by link, total link strength, occurrences and the years of appearance, we can see which clusters with a higher and lower intensity are. Therefore, the first two clusters are composed of 11 items each, indicating a high intensity. In the next step, we find the 3rd cluster that has 9 items, meaning it also has consistency. The most relevant items from the first three clusters that have a connection with the target topic, the following link, Total link strength and occurrences are: corporate governance (35/114/19), fees (32/78/14), earning management (37/128/11) and financial reporting quality (37/144/26). A higher level of the power of links is noted, indicating the high presence of terms in various specialised publications. Going down in the cluster standings, the last three are of lower intensity, so cluster 4 has a total of 4 items, such as insights, key audit matters, performance and audit quality; cluster 5 also has four items, such as industry expertise, office size, restatements, independence and the last cluster has only two items: auditing, and auditor independence. As the main items in these groups, we can name audit quality (34/81/18), independence (27/64/10) and auditor independence (15/21/4).

Therefore, the intensity of the connections between the items and the fluctuations encountered are shown in the following figure (see Figure 7).

Figure 7. The power of links between items



Source: Own creation according to data created in VOS viewer by Web of Science database

Considering the goal we set for ourselves at the beginning of the study, namely the one to identify less developed niches in the research area, it is observed that the last three clusters are poorly founded, the main items in these groups (see Figures 6,7) being: audit quality, independence, auditing, insights, industry expertise, auditor independence, critical audit matters, office size, performance and auditing.

Further, we present a meta-analysis of the literature on "quality of audit reporting" from 2017 to 2022. A meta-analysis is a research tool that "allows us to review a field of research and determine the extent to which a particular result has been successfully replicated by various research" (Eden, 2002). This technique is based on a quantitative analysis of the results obtained from studies carried out in a particular field of research. The purpose of meta-analysis is to reach a "super-result" that could describe the intensity of the studied phenomenon in the general population (Leeuw & Hox, 2003). And, like any scientific research endeavour, we will start from our hypothesis, i.e., "quality of audit reporting." Discussing the issue of hypotheses in a meta-analysis, Mullen (1989) confesses that this stage is decisive for the proper conduct of the entire activity.

Therefore, to deepen our quantitative research and bring it from the general to the private so that I would be able to achieve the proposed objective, I have reinitiated searching on research platforms, but this time with the following conditions: the pursued topic has to be included in the title and the subject of scientific publications, and the chosen period is 2017-2021. Therefore, we obtained 224 scientific documents (Web of Science 109 and Scopus 117). We have noticed that most of the scientific papers on the Web of Science are also present in SCOPUS; we will continue the research - as we did in the previous section - on the Web of Science platform, this research is considered more relevant and with a higher impact factor.

Hence, on the Web of Science platform, we have identified 109 scientific papers, of which 73 are articles, 23 are summaries of conference meetings, 11 are procedural documents, 3 are editorial materials, are pre-access, one is a note, and another one is a review article. We can see that the research fields have narrowed down, observing only areas such as Business, Business Finance, Management, Economics, Public Administration and Law, the years of publication of scientific papers being extended to 2021. We have selected 30 relevant articles (with the most citations) that focus on the quality of reporting in the audit.

The theme of quality of audit reporting is found from the perspective of internal and external auditors. The top 6 most cited articles from the created sample (see Figure 8) contains research referring to both perspectives. Still, the sample will be separated, as we are following only the articles referring to the quality of reporting in external/statutory audits.

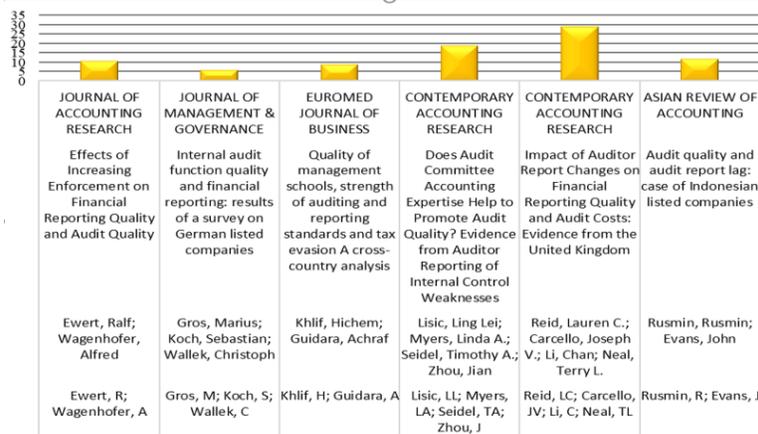


Figure 8. Top 6 most cited articles in the Web of Science regarding the topic quality of reporting in audit

Source: Web of Science database creation

In other words, the research presented by Reid et al. (2019) - which is at the top of citations - addresses the impact of the new audit reporting requirements on the quality of financial reporting, as well as on the costs incurred in the audit engagement. The study provides conclusive and timely evidence of the costs and benefits of the new audit reporting requirements applied to a relevant number of UK companies for over 2 years, highlighting those regulations that improve the quality of financial reporting with no consequences for the fees charged by auditors or on the duration of the assignment. However, it cannot be demonstrated whether these changes impacted the auditor's turnover. The auditors may have counted some additional costs related to the new standards, but these were not reflected in the fees of the audit clients nor did the deadlines set for the submission of the audit reports.

Moving on to the empirical study of Rusmin and Evans (2017) on data presented by listed companies on the Indonesian Stock Exchange from 2010 to 2011, where the connection between the auditor's experience and reputation with the quality of the audit was tracked and the gaps in the audit report encountered, respectively Big 4 auditors versus non-Big 4 auditors. Thus, a discrepancy is noted between audits conducted by firms/auditors that are part of the Big 4 group and those outside the ranking in terms of updating the audit report (qualitatively) and the speed and complexity of the executed missions (quantitatively). Besides, this study relates a statistical and significant relationship between the profitability of companies, audit complexity, audit risk and membership of the Big 4 group as regards the reporting gap in the audit. The data shows that non-Big 4 auditors have longer reporting delays than those in the Big 4 group, and financial performance is lower.

In their analysis, Ewert and Wagenhofer (2019) present that the legislative changes and the increase in their application harm the audit quality and financial reporting. Quality in audit and financial reporting is given when managerial strategies and the auditor's strategies intersect, when they are balanced and depend on each other. The intensity of legislative changes increases the auditor's effort, and compliance with the application of the legislation only sometimes leads to a quality of financial reporting. Concluding that, to improve the quality of the audit and the quality of reporting, there is a need to consider the production risks, characteristics of the accounting system and the scope of the audit. Another empirical research, based on a sample of 137 countries (Reid et al., 2019), tells us about the link between the quality of higher education systems in modelling integrity behaviour and adaptability to tax systems, which complies with the rules of applicability of the legislation in force and are not associated with facts related to tax evasion. This paper aims to examine the relationship between the quality of management schools and tax evasion and to test whether the power of audit standards influences moderate reporting. These are just three of the most cited scientific papers (see Table 3) that address issues related to education, experience, reputation, and the new requirements for reporting the quality of audit reporting.

**Table 3.** Articles concerning the quality of reporting in statutory audit

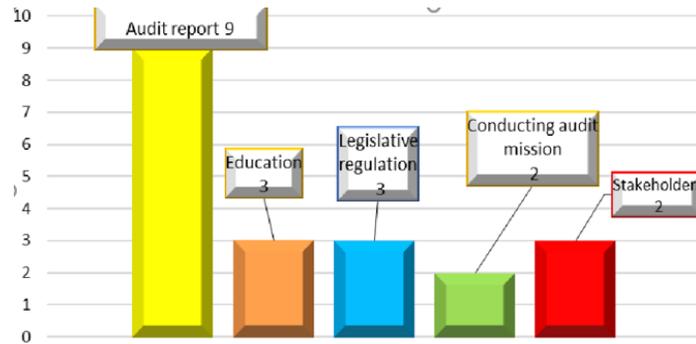
Authors	Article Title	KEYWORDS	Cit.
Rusmin & Evans (2017)	Audit quality and audit report lag: case of Indonesian listed companies	Auditor reputation, auditor industry specialisation, audit report lag	12
Khlif & Guidara (2018)	Quality of management schools, the strength of auditing and reporting standards and tax evasion A cross-country analysis	Tax evasion, quality of management schools, strength of auditing, reporting quality standards	9
CPA Australia (2019)	Audit Quality, Compensation, Effectiveness of Regulation and Extended External Reporting	Assurance, corporate social responsibility, extended external reports	1
Albany (2019)	The impact of audit committee, CEO, and external auditor quality on the quality of financial reporting	Quality of financial reporting, external audit, audit quality	4
Boolakay, Soobaroyen & Quick (2019)	The Perceptions and Determinants of Auditing and Reporting Quality in the Asia-Pacific Region	IFRS adoption, accounting quality, standards	2
Ewert & Wagenhofer (2019)	Effects of Increasing Enforcement on Financial Reporting Quality and Audit Quality	Accounting standards, Financial reporting quality	11
Louis, Pearson, Robinson & Robinson (2019)	The Effects of the Extant Clauses Limiting Auditor Liability on Audit Fees and Overall Reporting Quality	Litigation, risk earnings, quality of financial reporting	1
Nadhir & Wardhani (2019)	The effect of audit quality and degree of international financial reporting standards (IFRS) convergence on the accrual earnings management in ASEAN countries	Accounting standards, audit quality, financial reporting quality	3
Reid, Carcello, Li, Neal, & Francis (2019)	Impact of Auditor Report Changes on Financial Reporting Quality and Audit Costs: Evidence from the United Kingdom	Earnings quality, investor protection, BIG-4	29
Shahzad, Rehman, Hanif, Asim & Baig (2019)	The influence of financial reporting quality and audit quality on investment efficiency Evidence from Pakistan	Emerging markets, investment efficiency, financial reporting quality, audit quality	8
Bakheet (2020)	Quality Audit Template for Learning and Teaching Process of the Self-Study Report for National Accreditation and Assurance, Saudi Arabia	Quality education, quality education auditing	1
Furqan, Wardhani, Martani,	The effect of audit findings and audit	Public services quality,	3

& Setyaningrum (2020)	recommendation follow-up on the financial report and public service quality in Indonesia	Financial report quality, Audit findings	
Halibas, Mehtab, Al-Attili, Alo, Cordova & Cruz (2020)	A thematic analysis of the quality audit reports indeveloping a framework for assessing the achievement of the graduate attributes	Constructive alignment, graduate attributes, learning outcomes, outcome-based education	2
Kitiwong & Sarapaivanich (2020)	Consequences of the implementation of expanded audit reports with key audit matters (KAMs) on audit quality	Audit quality, financial restatements, key audit matters	3
Krishnan & Tanyi (2020)	Does Regulating Audit Pricing Enhance Audit Quality and the Timeliness of Audit Reporting? TheTexas Experience	Audit fees, Texas, audit quality, audit lag	2
Nguyen & Kend (2021)	The perceived impact of the KAM reforms on auditreports, audit quality and auditor work practices: stakeholders' perspectives	Audit quality, Audit reports, Key audit matters	1
Sutton (2021)	Impact of key audit matters (KAMs) reporting onaudit quality: evidence from Thailand	Key audit matters (KAMs) reporting, Audit quality, Thailand, Communication theory	1
Zeng, Zhang, Zhang & Zhang (2021)	Key Audit Matters Reports in China: Their Descriptions and Implications of Audit Quality	Key audit matters, critical audit matters, audit quality, content analysis	3

Source: Web of Science database creation

Summarising the authors' approaches, we can see that we have one publication each in 2017 and 2018, covering the quality of the audit and the gaps in the audit report, as well as the importance of education. In 2019, there have been written eight articles that aimed at associating the quality of the audit with terms such as education, the efficiency of regulations and numerous legislative changes, extensive reporting, the link between internal audit-CEO-statutory audit, auditor limited liability, convergence effect of IFRS, the impact of changes in the audit report and investment efficiency. The year 2020 brings us related topics with the word quality, such as education, recommendations of the auditor and the link between fees - quality - timeliness of the audit report. Also, in 2021 there are three articles, and they are all linked to the audit report, respectively, the impact of KAM on the reports and the quality of the audit. In other words, to be able to successfully outline the proposed research and find an answer to the question formulated at the beginning of the research, namely, What are the determining factors for ensuring the quality of audit reporting?, we can find the answer by grouping the keywords into five groups (see Figure 9).

As you can see, we grouped these factors by colour. The colour yellow represents the first group 1/Audit report, with an occurrence frequency of 9 per cent; the next group, 2/Education/orange, with 3 per cent, then group 3/ Legislative Regulations/ blue - 3 appearances, group 4 green/ Conducting the Audit Mission which was twice ticked the same as group 5/red/Stakeholders.



**Figure 9.** Frequency of determinants in assessing the quality of audit reporting  
 Source: Web of Science database creation

Hence, we noticed an association between the number of keywords with our topic, highlighting the importance of research. The most vital link of quality in auditing is the audit report. In other words, after accessing the Web of Science database after searching words *quality audit reporting*, for the 2017-2021 period, it resulted in 109 scientific publications that had the analysed terms in their title or topic.

There were selected the top 30 articles that have a high citation index. Following a qualitative analysis, it was noticed that 12 of the papers are in the field of internal audit. Thus, they were excluded from our analysis because the research aims to track the quality of the statutory audit. As a result, the remaining 18 articles out of 30 were analysed by the identified keywords, aiming at associating them with the term quality in the audit. There have been obtained five categories of terms with which the topic can be associated. Therefore, the audit report is the fundamental element in quality rendering in audit, followed by education and legislative changes, as well as by the steps taken by the audit team in carrying out the mission to provide credibility and efficiency for investors and stakeholders.

**Conclusions**

Considering the aim that we proposed at the beginning of the study, to identify less developed niches in audit reporting quality, it is observed that the last three clusters, resulting from the bibliometric analysis, are less explored. These include topics related to keywords such as: audit quality, auditor independence, industry expertise, key audit issues, audit office size and performance, which are emerging research themes. Therefore, we, as well as future researchers, can initiate research on issues related to the form and content of the audit report and elements related to auditor ethics and integrity to make a significant contribution to the audit reporting quality and to complement the databases queried. Therefore, audit quality assessment should focus more on the auditor's integrity and the content of the audit report.

At the same time, the results of the bibliometric analysis support the idea that communication is the primary determinant of the quality of reporting in the journal. Through effective communication, any audit team can achieve proper performance and develop innovative solutions that provide a competitive advantage to their company and clients. As a result, the audit report should present relevant information to users/stakeholders so that they can develop a strategy for action based on the information received. Effective communication and continuous improvement of communication skills should be encouraged to build lasting relationships that help customers create the value they seek.

According to the results of the bibliometric analysis, we can also conclude that two essential components render the determination of quality in auditing: the audit work must be carried out in a way that allows the

identification of possible dysfunctions in the way the client's financial statements are prepared, on the one hand, and secondly, the audit firm must continuously assess the quality control concerning the proper organisation and operation according to the rules, so that no possible threats to its integrity and objectivity can occur. Audit quality should be assessed in terms of the two components listed above.

The importance of the study is given by the current economic context, characterised by a marked instability in economic, political, energy and health terms, which accentuates the importance of quality in auditing. Communication in times of crisis is an essential element underpinning the relationship between businesses and stakeholders. The quality of audit information that businesses report gives value and integrity to companies, helping maintain investor interest.

The main limitation of the research is that the bibliometric analysis was based only on the two scientific databases, Scopus and Web of Science, which sometimes overlap, some articles that are indexed on Scopus may also be indexed on Web of Science and vice versa. At the same time, the use of the two databases has excluded a large proportion of articles which are not indexed in these databases. At the same time, the bibliometric analysis focused only on articles written in English, omitting articles written in other languages, which may provide relevant results to our study.

This research outlines the main research trends and highlights the emergence of research directions that are relevant to business and have been overlooked by researchers. This research can be used as a starting point for future audit quality analysis and assessment research.

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