

ОБЛІК І ОПОДАТКУВАННЯ

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Audit services market: bibliometric analysis

Modern challenges in doing business and functioning of enterprises, implementation of sustainable development goals require adaptation of Ukrainian legislation to international, in particular European, standards, including the sphere of audit activities. An audit is a reliable way to confirm the reliability and confidence of information about the financial statements and financial condition of an enterprise. The article considers the regulatory framework for the concepts of «audit» and «audit activity». The market of audit services is studied and its components are identified: the provision of audit, non-audit and related services by audit entities. Along with this, the analysis of the audit services market and the problems of providing audit services and, directly, conducting an audit is carried out. In the course of the study, methods of visualization of the main areas of research of scientists, publication activity of authors based on data from the Scopus scientometric database using VOSviewer and Bibliometrix software were used. Bibliometric, structural, cluster, and graphical analyses were used. The applied research methods in the field of audit activity made it possible to identify the leading countries in terms of publication activity of the topic under study. The most cited articles are presented, which are aimed at determining the most relevant areas of research of scientists and further monitoring of problematic issues.

Keywords: audit services market; auditing activities; audit; financial reporting; non-financial reporting; Scopus; VOSviewer.

Problem statement. Modern challenges in doing business and functioning of enterprises, European integration processes encourage the adaptation of Ukrainian legislation to pan-European norms, including the sphere of control over the preparation of financial statements and auditing activities. Ensuring the reliability and confidence of the information provided in the financial statements is confirmed by an audit, which acts as a reliable way to verify the information provided for shareholders, suppliers, investors and all possible stakeholders. Therefore, the issue of improving and developing audit activities in Ukraine is quite relevant.

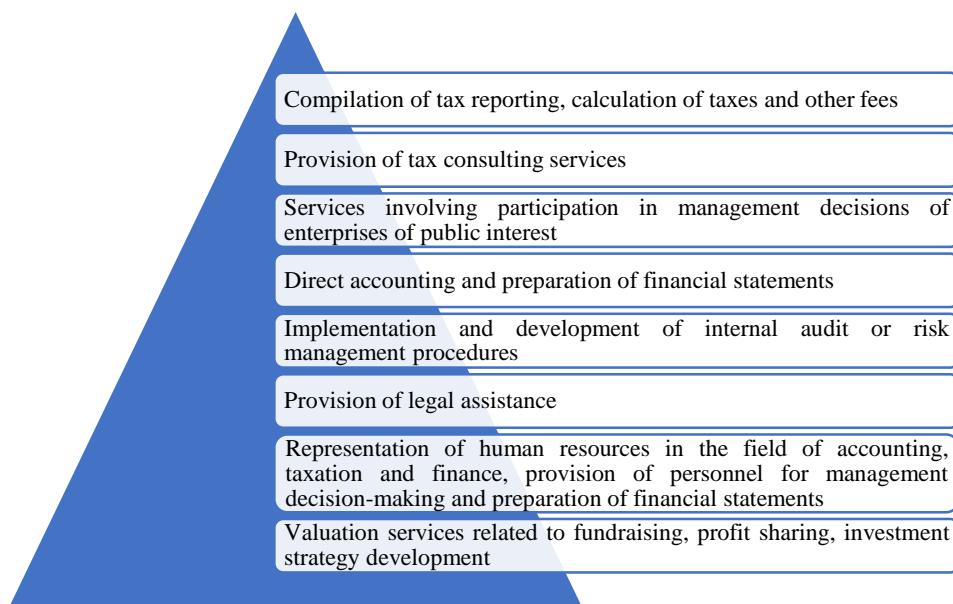
To identify the main problematic issues and areas of research in the field of audit and auditing, it is necessary to analyze the available scientific works, identify tangential areas of research, clusters of such studies, monitor the most relevant issues in the field of audit, auditing, provision of non-auditing services, financial and non-financial reporting.

Analysis of research and publications that the author relies on. The functioning of the audit services market, the development of audit activities, and the scope of audit were studied by such domestic scientists as: N.I. Dorosh, O.A. Petryk, Ya.I. Mulyk, O.Yu. Redko, M.M. Shyhun, T.H. Kaminska, A.A. Mykhalkiv, I.M. Hnoieva, N.I. Berenda etc. These studies are aimed at disclosing issues related to the development of audit activities, finding ways to improve audit, and improving the functioning of the audit services market [2]. For example, the scientist Ya.I. Mulyk believes that audit serves as a reliable way to confirm the financial statements and financial condition of the enterprise, is one of the most important types of services and becomes relevant every year, but audit activities also have a number of contradictions regarding the imperfection of regulation, confirmation of the quality and reliability of the studied financial statements, which entails the emergence of risks for enterprises and their activities [7].

Presentation of the main material. The regulatory framework for the concept of «audit» and «audit activity» is defined by the Law of Ukraine «On the audit of financial statements and audit activities», which regulates the legal basis for the audit of financial statements, relations between the subjects of audit activity and the actual implementation of audit activities. According to the Law, «audit activity» is an independent professional activity of auditors to provide audit services, which must be registered in the Register of auditors and audit entities [66].

Ukraine's integration into the European Space and audit reform in 2017 were the impetus for improving Ukrainian legislation and compliance with Directive 2006/43/ of the EU and Regulation 537/2015 [4], the implementation of which will contribute to the harmonization of national legislation with the legislation of the European Union in the field of audit of financial statements and auditing activities, which in turn increases the investment attractiveness of enterprises and the economy as a whole and ensures an increase in the level of trust [5].

The market for audit services is quite wide, so audit entities also provide non-audit or related services. With the entry into force of the new law of Ukraine «On audit of financial statements and auditing activities» of December 21, 2017, the concept of «non-auditing services» was highlighted and a list of them was provided, which is shown in Figure 1 [8].



Source: compiled by the author on the basis of the Law of Ukraine «On audit of financial statements and auditing activities» [6]

Fig. 1. Generalized list of non-auditing services by audit entities

The public oversight body for audit activities, which since January 01, 2023 is the holder and administrator of the Register of auditors and audit entities, ensures its updating, maintenance and operation and systematically covers information about such entities. The state of the audit services market is shown in Table 1.

*Table 1
Audit services market in Ukraine*

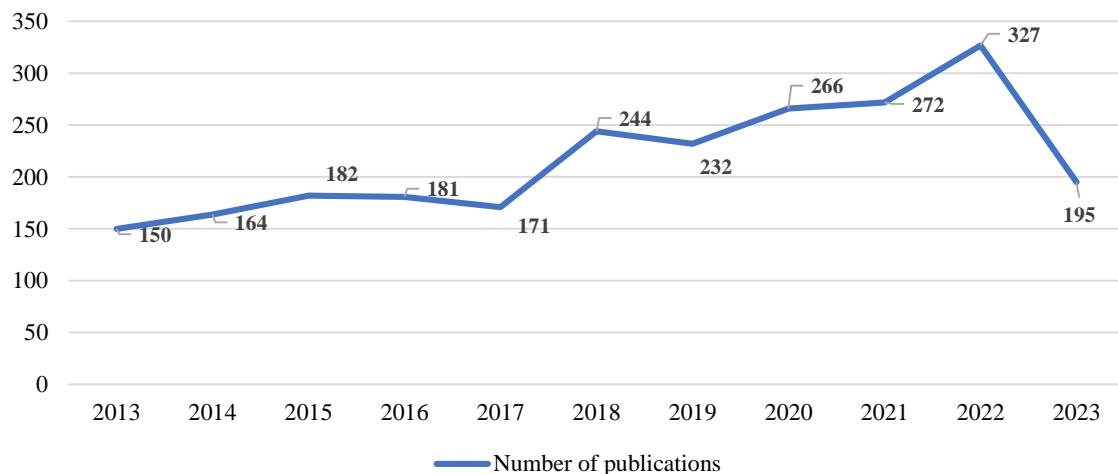
№	Characteristics of the entity	Quantity, pcs
1	Audit entities	836
2	Audit entities that have the right to conduct a mandatory audit of financial statements	211
3	Audit entities that have the right to conduct a mandatory audit of the financial statements of enterprises of public interest	78
4	Professional organizations of auditors and accountants included in the Register of auditors and audit entities	2

Source: Register of auditors and audit entities as of 09.06.2023 [1]

Conducting audit activities and providing services is a complex process, so business entities in the course of their activities face a number of problematic issues, such as terminological inconsistencies, differences between theory and practice, classification of types of audit services, insufficient methodological and organizational support for quality control of audit services, the presence of different approaches to evaluating indicators, ignorance of the client about the services provided, lack of qualified personnel and others [9].

Most scientists have been trying to solve problematic audit issues in the course of their research for years, revealing the theoretical foundations of audit, its methodology, quality, problems, areas of improvement, etc. The analysis of the works of scientists will allow us to understand the areas of improvement and clearly identify problematic issues of audit activity in Ukraine.

In the course of the study of scientific papers on audit and auditing activities, the publication activity of researchers in the period from 2013 to 2023 was determined based on data from the Scopus scientometric database, which is shown in Figure 2. The sample in the database concerned selected articles based on keywords such as «audit» and «financial statistics». This choice is due to the fact that the very concept of audit and financial statements should be taken into account for the analysis of audit activities, since the purpose of the audit is to highlight the auditor's report, namely, that the financial statements correspond to all aspects, are reliable, provide a sufficient idea of the state of the enterprise, and the data is undisclosed.

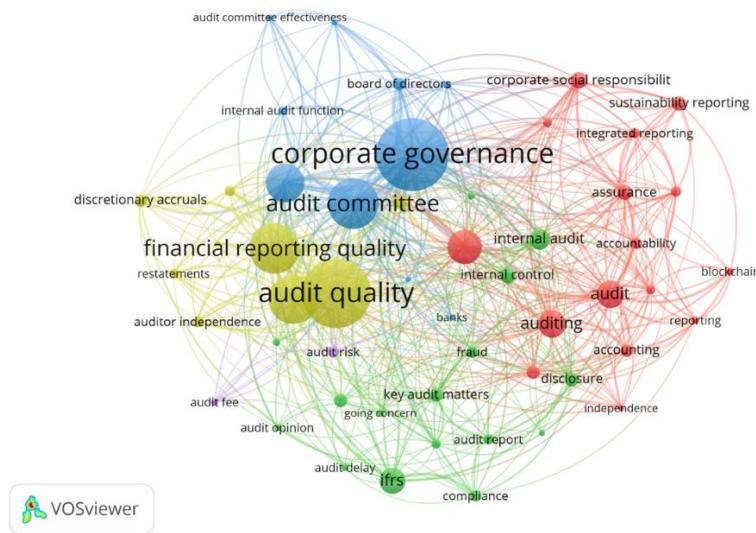


Source: data from the Scopus scientometric database

Fig. 2. Publication activity of authors on audit and financial reporting from 2013 to 2023

As can be seen from Figure 2, the number of publications on the topic of audit and financial reporting increased every year, compared to 2013 with 2022, there is an increase of more than 2 times, which indicates the interest of scientists in this topic and the search for new ideas and solutions on the issue of providing audit services, but if we compare 2022 and 2023, such activity fell by 40 %, such a drop may indicate saturation with scientific research on this topic and refocusing of researchers.

Publications on auditing and financial reporting can be grouped into such subject areas as business, management and accounting; economics and econometrics for which the network visualization of keywords was carried out according to the Scopus scientometric database in the period from 2013 to 2023, as shown in Figure 3.



Source: compiled by the author using VOSviewer

Fig. 3 Network visualization of keywords on the research topic audit and financial statements

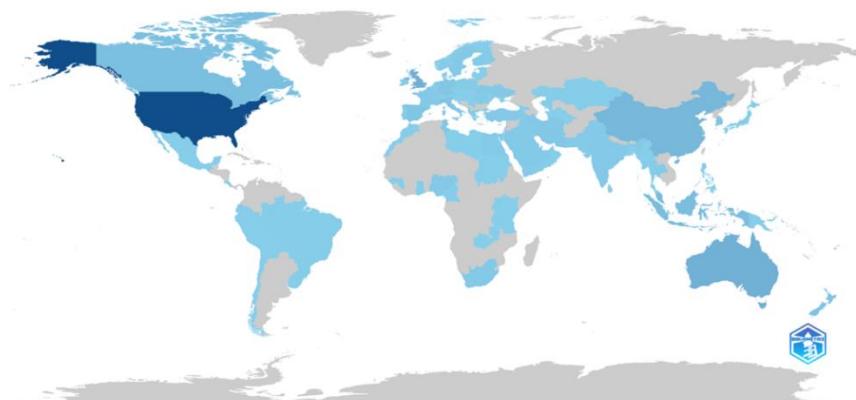
Network visualization of keywords consists of 4 clusters, which respectively have their own color, such links illustrate the corresponding research areas that are related to each other.

Each of these clusters forms a specific research group:

- The blue cluster includes enterprise management, preparation of financial statements and related reports, and functioning of the company's internal audit.
- The yellow cluster is responsible for the quality of audit services, financial statements, and audits.
- The green cluster is characterized by a general compliance with the issues of the audit report and the audit certificate, and covers current problems that may arise during the provision of audit services, such as fraud or delays in conducting an audit.

The red cluster is the most extensive, includes the most typical research on the topic of audit and financial reporting, namely various types of reports, direct audit, independence of audit, assurances regarding the information provided, accounting, reporting on internal audit, etc.

A map of publication activity on the topic of audit and financial statements is shown in Figure 4, where the saturation of blue and light blue colors highlights publication activity from the highest to the lowest, respectively.



Source: compiled by the author using Bibliometrix

Fig. 4. The map of publication activity of the world's countries on audit and financial reporting

The leading country for the largest number of publications in the period from 2013 to 2023 on the topic of audit is the United States, with 1,587 publications, followed by the United Kingdom – 348; Australia – 335, China – 252; Malaysia – 201, other countries have less than 100 publications for this period. Ukraine ranks 21st among the 90 proposed countries and has 45 publications in the Scopus scientometric database on this topic.

Table 2
The most cited articles on audit and reporting in the Scopus scientometric database in the range of 2013–2023

<i>№</i>	<i>Article title</i>	<i>Author</i>	<i>Source</i>	<i>Year of publication</i>	<i>Number of citations</i>
1	A review of archival auditing research	M.DeFond, J.Zhang	Journal of Accounting and Economics, 58 (2–3), p. 275–326	2014	1168
2	Business strategy, financial reporting irregularities, and audit effort	K.A. Bentley, T.C. Omer, N.Y. Sharp	Contemporary Accounting Research, 30 (2), p. 780–817	2013	254
3	Big data in accounting: An overview	M.A. Vasarhelyi, A.Kogan, B.M. Tuttle	Accounting Horizons, 29 (2), p. 381–396	2015	248
4	Measuring Country Differences in Enforcement of Accounting Standards: An Audit and Enforcement Proxy	P.Brown, J.Preato, A.Tarca	Journal of Business Finance and Accounting, 41 (1–2), p. 1–52	2014	200
5	What are the drivers of sustainability reporting? A systematic review	D.Dienes, R.Sassen, J.Fischer	Sustainability Accounting, Management and Policy Journal, 7 (2), p. 154–189	2016	198
6	Audit reporting for going-concern uncertainty: A research synthesis	E.Carson, N.L. Fargher, M.A. Geiger, K.Raghunandan, M.Willekens	Auditing, 32 (SUPPL.1), p. 353–384	2013	181
7	Truth-telling by third-party auditors and the response of polluting firms: Experimental evidence from India	E.Duflo, M.Greenstone, R.Pande, N.Ryan	Quarterly Journal of Economics, 128 (4), p. 1499–1545, qjt024	2013	156
8	Compliance with IFRS 3-and IAS 36-required disclosures across 17 European countries: Company-and country-level determinants	M.Glaum, P.Schmidt, D.L. Street, S.Vogel	Accounting and Business Research, 43 (3), p. 163–204	2013	153
9	Female auditors and accruals quality	K.Iitonen, E.Vähämaa, S.Vähämaa	Accounting Horizons, 27 (2), p. 205–228	2013	141
10	Sustainability Management and Small and Medium-Sized Enterprises: Managers' Awareness and Implementation of Innovative Tools	M.P. Johnson	Corporate Social Responsibility and Environmental Management, 22 (5), p. 271–285	2015	139

Source: data from the Scopus scientometric database

Changes in the presentation of financial statements and in general reporting of companies also reformat the approaches to auditing. Global trends in coverage and preparation of non-financial statements, social responsibility of companies makes conceptual changes in accounting under the influence of sustainable business development, which also leads to transformations in the field of audit. In the context of market globalization, the implementation of the sustainable development management mechanism and its main goals in the activities of companies increases competitive advantages and business confidence [3]. Table 2 provides information on the most cited articles in the scientometric database Scopus on the topic of audit and reporting, among which research is conducted specifically on the management of sustainable development, reporting, and the authors also pay attention to problematic issues of audit and audit reporting, its quality and reliability.

Table 3 provides information on citation of articles from the beginning of publication, after analyzing the data, we can conclude that the authors' research has interested scientists in the last 4 years, which confirms the further relevance of the study of problematic issues on audit and auditing activities and research directions on this topic.

*Table 3
Number of citations per year in the period from 2013 to 2023 of the most cited audit and reporting articles in the Scopus scientometric database*

№	Article title	Number of citations per year										Number of citations total	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
1	A review of archival auditing research	X	2	14	43	78	110	130	168	212	258	153	1168
2	Business strategy, financial reporting irregularities, and audit effort	X	2	7	12	17	12	23	23	46	63	49	254
3	Big data in accounting: An overview	X	X	4	9	21	24	38	33	41	48	30	248
4	Measuring Country Differences in Enforcement of Accounting Standards: An Audit and Enforcement Proxy	X	1	6	14	15	32	22	30	33	29	18	200
5	What are the drivers of sustainability reporting? A systematic review	X	X	X	X	7	15	24	27	39	51	35	198
6	Audit reporting for going-concern uncertainty: A research synthesis	X	12	11	11	13	19	19	31	23	28	12	181
7	Truth-telling by third-party auditors and the response of polluting firms: Experimental evidence from India	X	5	6	12	9	24	13	28	26	23	10	156
8	Compliance with IFRS 3-and IAS 36-required disclosures across 17 European countries: Company- and country-level determinants	1	1	10	17	14	22	9	27	22	16	14	153
9	Female auditors and accruals quality	0	2	9	1	18	14	17	19	18	24	19	141
10	Sustainability Management and Small and Medium-Sized Enterprises: Managers' Awareness and Implementation of Innovative Tools	X	X	3	10	19	18	16	25	22	14	12	139

Source: data from the Scopus scientometric database

Conclusions and prospects for further research. Modern challenges in doing business and functioning of enterprises, implementation of sustainable development goals require adaptation of Ukrainian legislation to international, in particular European, standards, including the sphere of audit activities. An audit is a reliable way to confirm the reliability and confidence of information about the financial statements and financial condition of an enterprise.

The analysis of scientific research confirms the relevance of the topic of the audit services market, auditing and auditing activities, taking into account the citation of publications in the period from 2013 to 2023 confirms the growth of scientists' attention to issues in the field of audit and reporting. For many years, scientists have been working on solving problematic issues of audit, studying its theoretical foundations, methodology, quality, as well as areas of improvement. By analyzing the scientific works of researchers, you can get important conclusions about ways to improve and clearly identify problematic aspects of auditing and auditing activities.

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- customs risk;
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Ринок аудиторських послуг: бібліометричний аналіз

Сучасні виклики щодо ведення бізнесу та функціонування підприємств, запровадження цілей сталого розвитку вимагають адаптації українського законодавства до міжнародних, зокрема європейських, норм, враховуючи сферу аудиторської діяльності. Аудит є надійним способом підтвердження достовірності та впевненості інформації щодо фінансової звітності та фінансового стану підприємства. У статті розглянуто нормативно-правову базу поняття «аудит» та «аудиторська діяльність». Досліджено ринок аудиторських послуг та ідентифіковано його складові: надання суб'єктами аудиторської діяльності аудиторських, неаудиторських та супутніх послуг. Водночас проведено аналіз ринку аудиторських послуг та проблематики надання аудиторських послуг та безпосередньо проведення аудиту. У процесі дослідження були використані методи візуалізації основних напрямів дослідження вчених, публікаційна активність авторів за даними науковометричної бази Scopus за допомогою програмного забезпечення VOSviewer та Bibliometrix. Використано бібліометричний, структурний, кластерний та графічний аналіз. Застосовані методи дослідження у сфері аудиторської діяльності дозволили визначити країни-лідери щодо публікаційної активності досліджуваної теми. Наведено найбільш цитовані статті, які спрямовані на визначення найактуальніших напрямів дослідження вчених та подальшого моніторингу проблемних питань.

Ключові слова: ринок аудиторських послуг; аудиторська діяльність; аудит; фінансова звітність; нефінансова звітність; Scopus; VOSviewer.

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