Üçüncü Sektör Sosyal Ekonomi Dergisi Third Sector Social Economic Review 60(1) 2025, 1137-1158

doi: 10.15659/3.sektor-sosyal-ekonomi.25.03.2645

Research Article

Bibliometric Analysis of The Research in The Field of Accounting in Relation to Sustainability and Integrated Reporting

Sürdürülebilirlik ve Entegre Raporlama ile İlgili Olarak Muhasebe Alanında Yapılan Araştırmaların Bibliyometrik Analizi

Sedat COSKUN

Doç. Dr., Manisa Celal Bayar Üniversitesi

Salihli İktisadi İdari Bilimler Fakültesi

sedat.coskun@cbu.edu.tr

https://orcid.org/0000-0003-1364-6516

Selin COŞKUN

Dr. Öğr. Üyesi, Manisa Celal Bayar Üniversitesi

Ahmetli Meslek Yüksekokulu

<u>selin.coskun@cbu.edu.tr</u> <u>https://orcid.org/0000-0001-8114-5137</u>

İbrahim YAVUZ

Dr. Öğr. Üyesi, Kütahya Dumlupınar Üniversitesi

Simav Meslek Yüksekokulu

ibrahim.yavuz@dpu.edu.tr https://orcid.org/0000-0002-2099-0625

Makale Geliş Tarihi	Makale Kabul Tarihi
11.02.2025	15.03.2025

Abstract

This study examines the progression of publications on integrated and sustainability reporting within accounting field, seeking to offer a thorough overview of global trends and contributions. The study aims to identify the main authors, journals, countries, and relevant research topics, as well as to highlight possible future research directions. To achieve these goals, a bibliometric study was conducted utilising the Web of Science (WoS) database, covering 3066 documents published from 1998 to 2025 to attain these objectives. The keywords in the WoS database were "integrated reporting", "sustainability reporting" and "accounting". Performance analysis and bibliometric mapping approaches were applied to evaluate the retrieved data. Tools such as VOSviewer and Microsoft Excel were employed to generate visual knowledge maps, tables, and graphs for deeper insights. The results reveal a growing trend in accounting research toward sustainability and integrated reporting, in accounting research. The year 2024 demonstrates the highest number of publications with 469 publications. According to the results of the analysis, business finance, management, and environmental studies. Key themes identified include "sustainability reporting" "sustainability" and "integrated reporting". The most cited studies, authors, and institutions were also identified, with Australia, the UK, and Italy leading in citations. The findings underline the interdisciplinary nature of sustainability reporting and its growing importance in accounting. This study provides a strong foundation for future research and enriches the literature in the field of sustainability accounting, while also providing recommendations for future research. Given the evolving nature of sustainability reporting and integrated reporting, it is suggested that studies can be conducted within the scope of technology and digitalization, corporate governance and integrated reporting, regional and sectoral

Keywords: Bibliometric Analysis, Integrated Reporting, Sustainability Reporting, Accounting Research Öz.

Bu çalışma, muhasebe alanında entegre ve sürdürülebilirlik raporlamasına ilişkin yayınların gelişimini inceleyerek küresel eğilimler ve katkılar hakkında kapsamlı bir genel bakış sunmaktadır. Çalışma, başlıca yazarları, dergileri, ülkeleri ve ilgili araştırma konularını belirlemenin yanı sıra gelecekteki olası araştırma yönlerini vurgulamayı amaçlamaktadır. Bu hedeflere ulaşmak için Web of Science (WoS) veri tabanı kullanılarak 1998'den 2025'e kadar yayınlanan 3066 belgeyi kapsayan bibliyometrik bir çalışma yapılmıştır. WoS veri tabanında kullanılan anahtar kelimeler "entegre raporlama", "sürdürülebilirlik raporlaması" ve "muhasebe" olmuştur. Elde edilen verileri değerlendirmek için performans analizi ve bibliyometrik haritalama yaklaşımları uygulanmıştır. VOSviewer ve Microsoft Excel gibi araçlar, daha derin içgörüler için görsel bilgi haritaları, tablolar ve grafikler oluşturmak için kullanılmıştır.

Önerilen Atıf /Suggested Citation

Coşkun, S. & Coskun, S., Yavuz, İ., 2025, Bibliometric Analysis of The Research in The Field of Accounting in Relation to Sustainability and Integrated Reporting, Üçüncü Sektör Sosyal Ekonomi Dergisi, 60(1), 1137-1158.

Sonuçlar, muhasebe araştırmalarında sürdürülebilirlik ve entegre raporlamaya yönelik artan bir eğilimi ortaya koymaktadır. 2024 yılı, 469 yayın ile en fazla yayın yapılan yıl olmuştur. Analiz sonuçlarına göre, işletme finansmanı, yönetim ve çevre çalışmaları yayınlarda en çok kullanılan araştırma alanları olmuştur. Belirlenen ana temalar arasında "sürdürülebilirlik raporlaması", "sürdürülebilirlik" ve "entegre raporlama" yer almaktadır. En çok atıf alan çalışmalar, yazarlar ve kurumlar da belirlenmiş olup Avustralya, Birleşik Krallık ve İtalya atıflarda başı çekmektedir. Bulgular, sürdürülebilirlik raporlamasının disiplinler arası doğasının ve muhasebedeki artan öneminin altını çizmektedir. Bu çalışma, gelecekteki araştırmalar için güçlü bir temel oluşturmakta ve sürdürülebilirlik muhasebesi alanındaki literatürü zenginleştirirken, gelecekteki araştırmalar için de öneriler sunmaktadır. Sürdürülebilirlik raporlaması ve entegre raporlamanın gelişen doğası göz önüne alındığında, teknoloji ve dijitalleşme, kurumsal yönetim ve entegre raporlama, bölgesel ve sektörel çalışmalar kapsamında çalışmalar yapılabileceği önerilmektedir.

Anahtar Kelimeler: Bibliyometrik Analiz, Entegre Raporlama, Sürdürülebilirlik Raporlaması, Muhasebe Araştırmaları

1. Introduction

The financial crises, resource scarcity, climate change, poverty, and inequality businesses have faced in recent years have shown that financial reports that only present financial information are insufficient (Dumay et al., 2016; Dragu and Tiron-Tudor, 2013). As a result, a wide range of stakeholder groups, including customers, employees, competitors, investors, lenders, suppliers, government, and society, have become interested in sustainability accounting and reporting that goes beyond financial reporting to include environmental and social impacts (Misiuda ve Lachmann, 2022; Bosi et al., 2022; Ascani et al., 2021). Sustainability reporting, based on economic, environmental, and social performance reporting, has become widely accepted as an integrated reporting mechanism (Daub, 2007). Stakeholders see environmental, social, and governance performance indicators as marketing tools that strengthen the reputation of businesses (Lyon et al., 2011). Although the reliability of environmental, social, and governance disclosures is questionable, research shows that they do change investors' investment behavior (Jonsdottir et al., 2022). Therefore, as mentioned in Gaur et al. (2011), non-financial information, including sustainability performance information, guides businesses to improve their competitiveness within the sector.

Recent worldwide diseases, including pandemics and financial crises, have prompted companies to reevaluate the sustainability of their policies. According to Coskun (2024, p. 2983), the significance of environmental issues, particularly climate change, has facilitated the voluntary adoption of sustainability reporting (Subramaniam et al., 2023, p.5), which considers social and environmental effects, among companies (Nakhle et al., 2024, p.1). This growing interest in integrated reporting in the business world appeals to researchers working in accounting. Therefore, research being conducted in the field of this issue has been increased nowadays.

In previous studies in the existing literature, specific topics related to integrated reporting (e.g., Di Vaio et al., 2021; Baditoiu et al., 2021), the development of sustainability reporting (Effah et al., 2023), sustainability reporting along with ESG reporting (Bosi et al., 2022), and integrated reporting and group decision-making within the framework of sustainable development (Cunha and Duncan, 2024) have been the focus of research. Within this framework, Di Vaio et al. (2021) conducted a bibliometric analysis of studies in the literature aimed at determining the contribution of integrated reporting and integrated thinking to sustainable business models, using the Web of Science (WoS) and Google Scholar databases. In their research, a total of 60 English publications from the period between 1990 and 2019 were evaluated. On the other hand, Baditoiu et al. (2021) addressed integrated reporting in connection with performance and evaluated 262 studies conducted between 1999 and 2021 using the bibliometric analysis method, based on the WoS database. In a bibliometric analysis of integrated reporting, Minh et al. (2024) analysed 468 studies on integrated reporting between 2012 and 2024. Hurghiş et al. (2024) analysed the impact of voluntary adoption of IR on European capital markets. It investigated how integrated reporting affects investor decision-making and the presentation of financial and non-financial information and confirmed the importance of IR in providing investors with a holistic view of corporate performance.

On the other hand, some studies in the literature have addressed integrated reporting in the context of sustainability. Effah et al. (2023) examined a total of 1,624 documents from the Web of Science (WoS) database, covering the period from 2004 to 2021, using CiteSpace visualization and bibliometric analysis to identify developments in the field of sustainability reporting. Bosi et al. (2022) evaluated 358 publications indexed in the Scopus database between 1998 and 2022 through bibliometric analysis, focusing on the future of sustainability and ESG reporting. Cunha and Duncan (2024) conducted a bibliometric analysis of 1,050 articles related to sustainable development, integrated reporting, and group decision-making published between 2008 and 2023 in the WoS and Scopus databases. Additionally, Acar Uğurlu and Özbingöl (2024a) conducted a bibliometric analysis of articles on sustainability reporting using the Web of Science (WoS)

database. Between 2000 and 2023, 1,025 articles were obtained by searching in the field of business economics.

In addition, Vysochan et al. (2021) conducted a bibliometric analysis using the keyword "sustainability accounting" in the Scopus Elsevier and Web of Science Core Collection databases for the period 2010-2020. Diwan and Amarayil Sreeraman (2024) investigated the dynamics of scientific contributions in the field of institutional reporting by analyzing 931 documents from the Scopus database using the PRISMA method. Thawani et al. (2024) examined current trends, patterns, growth barriers, and potential future research in integrated reporting studies through a bibliometric analysis of 605 Scopus articles (2011-2021) using VOSviewer and the R package. Kurt (2022) analyzed theses and articles written on integrated reporting in Turkey between 2012 and 2022 using the systematic literature review method. Can and Özarı (2023) examined scientific publications related to the concepts of sustainability accounting and carbon accounting in the Web of Science database between 1991 and 2022. Himmetoğlu (2023), in his study, analyzed articles published in the Web of Science (WOS) database on Corporate Sustainability (CS) and Corporate Social Responsibility (CSR). Güven (2024) investigated the development of academic studies on integrated reporting between 2011 and 2023. Özbingöl and Acar Uğurlu (2024b) analyzed 23 articles on greenwashing obtained from the TR Index database. Özçelik and Kaya (2024) conducted a bibliometric analysis of articles published in the WOS database on "Integrated Reporting" between 1980 and 2022. Özulucan et al. (2024) analyzed bibliometric techniques to determine the trends in the literature on sustainability accounting over the years and the level of academic interest in the subject. Mohamed et al. (2025) performed a bibliometric analysis of 2,282 academic publications on sustainability reporting in the Scopus database between 2010 and 2024.

It has been determined that bibliometric studies in the literature generally evaluate integrated reporting or sustainability reporting separately. This study aims to fill this gap in the literature by considering these two types of reporting together and focusing on a bibliometric analysis of research conducted in the accounting discipline over the last 27 years. In addition, this study intends to evaluate the recent development of academic research on sustainability and integrated reporting within the accounting discipline and to provide recommendations for global trends and future research directions. Initially, the literature pertinent to the conceptual framework addressing the evolution of integrated and sustainability reporting was scrutinised. The investigation employed the bibliometric method to assess academic productivity and discern trends within the specified research domain. The subsequent parts address the chosen model, the materials utilised for the research, along with its scope and findings.

2. Conceptual Framework

In recent years, problems including climate change, resourse scarcity, poverty, financial crises and inequality have shown that business reports not only should provide financial information but also non-financial information to their stakeholders. Thus, sustainability reporting, which covers non-financial environmental and social impacts in line with stakeholder expectations, has emerged as a needed reporting initiative alongside traditional financial reporting. Sustainability reporting based on economic, environmental and social performance reporting has been widely recognised as an integrated reporting mechanism (Lyon et al., 2011). Although non-financial reporting, which includes environmental, social and governance information, has been accepted by businesses for different reasons, it is considered to serve as a tool to guide businesses to increase their competitiveness in the sector. Therefore, it is seen that in recent years, a large number of studies have been published by researchers in the literature that includes research on this reporting.

There are many studies in the literature to provide evidence on the reasons for the transition from financial reporting to sustainability reporting. Flammer (2011), in his research on the impact of organizations' ESG management on stock prices, stated that the BP Oil Spill in April 2010 halved BP stock prices and shareholder value. Flammer (2011) analyzed how responsible and irresponsible activities of publicly traded companies affected share prices from 1980 to 2009. Flammer (2011) reported that shareholders prefer investing in environmentally responsible companies, leading to an 84% increase in their stock prices, while companies with environmentally irresponsible practices experience a 65% decline in stock prices. A research by Ernst & Young and the Boston College Centre for Corporate Citizenship (2013) revealed that reasons, such as transparency to stakeholders, competitive advantage, risk management, stakeholder pressure, corporate culture, and brand/reputation were stated as factors that cause companies to publish sustainability reports (Ernst & Young and Boston College, 2013). Again, Egginton and McBrayer (2019) argue that disclosures on environmental, social, and governance issues will significantly address the information asymmetry problem between management and shareholders. In the study by Wong et al. (2021), it is stated that it will guide in reducing shareholder monitoring costs and increasing shareholder value. Sustainability reporting initially

focused on environmental information. Subsequently, it has evolved to cover topics such as social and governance, aligning with global frameworks such as the United Nations Sustainable Development Goals (SDGs) and the Global Reporting Initiative (GRI) (Du Toit, 2024).

The United Nations Conference on Sustainable Development, known as Rio+20, occurred from June 20 to 22, 2012, to establish the Sustainable Development Goals (SDGs). During the conference, it was decided to initiate efforts to develop the 'Sustainable Development Goals' for the post-2015 period (United Nations, 2012). As a concrete result of this step, on September 27, 2015, in New York, the United Nations member states adopted the "Agenda 2030: Sustainable Development Goals (SDGs)" comprising 17 sustainable development objectives and 169 sub-goals (UN, 2015). Another study on sustainability reporting was conducted by GRI. In 2000, GRI published the GRI Reporting Principle, the first framework regulation to be taken as a guide when preparing sustainability reports. G2, the continuation and updated version of the GRI Reporting Principles, was published in 2000, G3 in 2006, and finally G4 in 2013 (GRI, 2025). The "G4 Sustainability Reporting Guidelines" published by GRI in 2013 support the presentation of sustainability information including social, environmental, economic, and governance issues to stakeholders in a transparent, accountable, and consistent manner (GRI, 2013).

Al-Shaer and Hussainey (2022) stated that, despite the increasing awareness of sustainability reporting, the requirements for such disclosures vary from company to company, and that as corporate reporting evolves, its scope also expands. Bosi et al. (2022) observed that social, environmental and governance information fluctuates due to the discretionary characteristics of non-financial reporting, which is voluntary and determined by management.

The International Integrated Reporting Council (IIRC) found that corporate governance, environmental, and sustainability reports published after the financial statements failed to link corporate strategy, management activities, non-financial information and financial information. It emphasized the need for a new tool for corporate reporting, known as integrated reporting (IIRC, 2011).

The term "integrated" in the context of integrated reporting was first used by Allen White on June 20, 2005, in a discussion titled "New Wine, New Bottles: The Rise of Non-financial Reporting" at Business for Social Responsibility, where Novo Nordisk's "Integrated, Balanced, and Honest Reporting" was addressed (Eccles and Saltzman, 2011). In this study, Allen White identified some sections of Novo Nordisk Company's 2004 annual report as next-generation reporting indicators (Vermiglio, 2012). Subsequently, in 2005, Solstice Sustainability Work Inc. published "Integrated Reporting: Issues and Implications for Reporters" to explain the issues related to integrated reporting and to improve the practice of integrated reporting by enterprises (Eccles and Saltzman, 2011). Prior to these developments in integrated reporting, corporate governance codes were published by the Institute of Directors South Africa (IODSA) as a basis for integrated reporting. In 1994, the "King I Report" (led by Prof. Mervyn King) was published. In this report, it was stated that non-financial capital elements should also be given importance in corporate reporting (IODSA, 1994). In 2002, IODSA published the King II Report on integrated sustainability reporting (IODSA, 2002). In the King III Report, the third of the King Reports, IODSA (2009) conducted studies on integrated reporting under the title "Integrated Reporting and Disclosures" (IODSA, 2009). Continuing its efforts to contribute to the development of integrated reporting, IODSA published the King IV Report in 2016. According to IODSA (2016), organization in society, ethical leadership, sustainable development, corporate citizenship, stakeholder inclusiveness, integrated reporting and integrated thinking are the foundation of King IV, as there is a shift in corporate reporting from separate reporting to integrated reporting (IODDA, 2016). Considering the content of the studies on the King Reports, it can be stated that very important contributions have been made towards integrated reporting.

Together with GRI and the International Federation of Accounting (IFAC), the Accounting for Sustainability Project (A4S) has also made significant contributions to the evolution of corporate reporting towards integrated reporting. In 2009, an agreement was reached under the A4S project to develop an integrated approach to corporate reporting (A4S, 2024). As a result of this collaboration, the IIRC was established in 2010. Following its efforts, the IIRC published the International Integrated Reporting Framework in 2013. The framework includes integrated reporting, integrated reports, the value creation process, capital elements, guiding principles, and content elements (IIRC, 2013).

In light of the aforementioned advancements in sustainability reporting, companies can enhance their contributions by adopting sustainable practices. Companies regularly disclose updates on their sustainable initiatives, as they significantly contribute to global advancements. Therefore, sustainability reporting has

gained notable attention in the last decade. At the same time, the field of sustainability reporting is broad and diverse as stakeholders attach importance to economic, social, and environmental issues (Effah et al., 2023). As mentioned above, the sustainable development goals adopted in 2015 encourage companies to integrate these SDGs into strategic goals. Companies should manage the sustainability management process to address stakeholders' informational requirements concerning the connection between these objectives and value generation (Di Vaio et al., 2021). Achieving the SDGs requires adopting a holistic approach based on "integrated thinking" that includes a solid understanding of environmental and social changes and political and regulatory initiatives, as well as the process of value generation (Busco et al., 2017). Despite these benefits of sustainability reporting, some studies on sustainability reporting show that there are still comparability issues related to disclosure (de Villiers et al., 2017). In fact, this is because disclosures serve solely an internal function and do not seek to instigate organizational change, including governance, decision-making and business planning mechanisms (Busco et al., 2019). On the contrary, the purpose of non-financial reporting is to foster creative responsibility and integrated thinking to ensure that the environmental and social commitments of organizations have an impact on corporate performance and value creation (Adams, 2015). Since existing corporate reporting tools do not take into account integrated thinking and value creation, they are inadequate in reporting the elements that affect corporate value, and a new reporting tool called integrated reporting is needed. Integrated reporting involves financial reporting and non-financial information as well as social, environmental, and governance information in a single report. Integrated reporting goes beyond integrating financial reporting and sustainability reporting to include the linkages between non-financial and financial drivers of a company's success (Cooray et al., 2020). Although integrated reporting was first introduced in 1994, it became mandatory for companies listed on the Johannesburg Stock Exchange in South Africa to publish it in 2010 (Hoffman, 2012). Over time, with the publication of the International Integrated Reporting Framework by the IIRC, the efforts of institutions and organizations, and academic evaluations, integrated reporting has gained global acceptance.

2. Methodology

2.1. Research Purpose

The growing interest among scholars in integrated reporting (Cunha and Duncan, 2024) and sustainability reporting (Pasko et al., 2021), particularly within the framework of sustainable development, emphasizes the need for a bibliometric analysis of this theme in the literature. Based on the aforementioned explanations, the objective of the study is to seek solutions to what the evolution of publications is on integrated reporting or sustainability reporting in the field of accounting. In addition, the research encompasses several specific objectives that facilitate the attainment of the ultimate aim, namely: 1) to provide a comprehensive overview of global publications pertaining to integrated and sustainability reporting over the years; 2) to define the main contributors in the field, along with the leading journals, publications, countries, authors, and topics; 3) to highlight the emergent keywords and elucidate potential directions for future research.

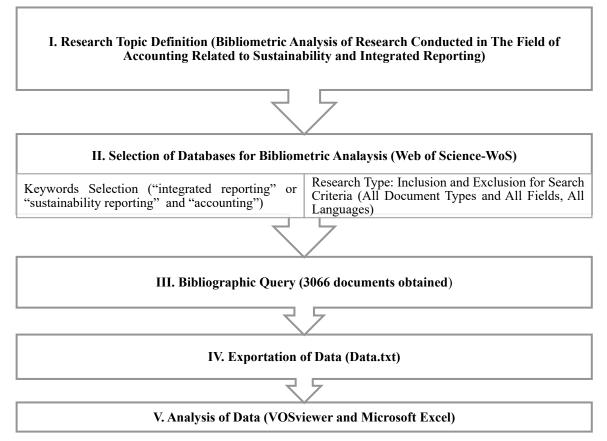
2.2. Research Materials and Model

Diverse methodologies exist for the review and analysis of extant studies in the literature, encompassing the scrutiny of authors, research themes, publishers, and publication headings (Teh and Khan, 2024). In recent decades, bibliometric assessments have attained growing attention across various academic disciplines (Turzo et al., 2022). This methodology is employed by researchers as an effective instrument to analyze scientific outputs and identify prevailing and emerging research trends (Quesado et al., 2024). The collection of bibliometric data necessitates the selection of the database(s) that explain and enrich the bibliographic data (Pasko et al., 2021). A variety of databases including Google Scholar, Dimensions Database, Scopus, and Web of Science are used for the purpose of mapping bibliographic data. (Kalbouneh et al., 2023). This research utilizes Web of Science (WoS) as a comprehensive database, a trustworthy and reputable source, to conduct bibliometric analysis (Nyantakyi et al., 2023). Bibliometric analysis is generally fostered by network displaying tools, including accessible software such as VOSviewer (Van Eck and Waltman, 2010).

In light of the previously noted, this study seeks to furnish academics with a quantifiable and visible overview of the field of sustainability reporting or integrated reporting in the field of accounting, embracing all publications available in the Web of Science. To achieve the purpose of the research, the study launched with the definition of the research topic. The first step involved selecting the databases to use for bibliometric analysis. This step included two sub-steps, which are the selection of keywords to be queried and the type of research to be included or excluded. The third step was a bibliometric query. Before the last step, the exportation of the obtained data was carried out. Finally, the data was analyzed using mapping software. At

this stage, tabulation software (program) was also utilized to summarize the data and create tables and graphs. The steps of the study process are summarized in Figure 1.

Figure 1. The Research Steps for Bibliometric Analysis



As illustrated in Figure 1, studies on integrated or sustainability reporting in the field of accounting were identified in the WoS database. All fields and all languages were included in the query field in WoS and "integrated reporting" or "sustainability reporting" and "accounting" were selected as search query keywords. In order to provide an overview of the studies on the subject and to identify examples of early implementations, no specific time period was preferred. The query was conducted on the 10th of January, 2025 and no exclusion criteria were added to the aforementioned criteria. This query obtained 3066 documents in the WoS database. Subsequently, this paper utilized VOSviewer version 1.6.20 to visually represent the knowledge maps and networks pertaining to integrated and sustainability reporting studies in the field of accounting. VOSviewer mapping software enables the examination of multiple analyses, including citation, co-authorship, bibliometric coupling, co-occurrence, and co-citation, along with customized analytical features such as authors, countries, or organizations (Teh and Khan, 2024). In addition to VOSviewer, the study employed Microsoft Excel to edit tables and graphs for the graphical display of particular outcomes from the WoS query (see also Brabete et al., 2024; Rodríguez-Insuasti et al., 2022).

Performance analysis, an approach of bibliometric analysis, allows the evaluation of publications and their numerous aspects. However, the bibliometric mapping approach visually presents the scientific mapping of publications (Rodríguez-Insuasti et al., 2022). Therefore, the results derived from the inquiry were evaluated both using performance analysis and bibliometric mapping approaches.

3. Findings

3.1. Performance Analysis

In this part of the study performance analysis of existing literature on integrated and sustainability research in the field of accounting has been conducted in order to evaluate the publications and their various aspects.

3.1.1. Annual Scientific Publications Related to the Research Inquiry, Document Types of Publications, Source of Publications and Research Areas

Following the query in WoS detailed in the methodology section, a total of 3066 documents were retrieved from 1998 to 2025.

Figure 2. Distribution of Publications Over Years in Accounting Pertaining to Sustainability and Integrated Reporting

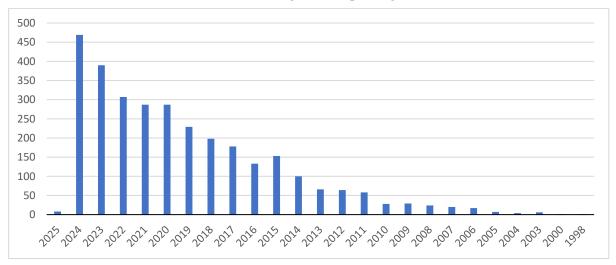


Figure 2 demonstrates that from 1998 to the present, there has been a growing trend in accounting research towards integrated and sustainability reporting. This trend highlights a growing scholarly interest in these topics over time. The topic was first published in 1998, and the number of articles peaked in 2024, with 469 studies, underscoring the increasing significance and relevance of integrated and sustainability reporting in the field of accounting.

The categorization of publications by document type and subsequent analysis of their quantities yielded the results presented in Table 1.

Table 1. Distribution of Published Documents by Document Types

• • • • • • • • • • • • • • • • • • • •	
Record Count	% of 3066
2535	82.68
323	10.54
159	5.19
158	5.15
117	3.82
44	1.44
4	0.13
3	0.10
2	0.07
1	0.03
1	0.03
1	0.03
	2535 323 159 158 117 44 4 3 2

Table 1 presents an analysis of 3066 studies, demonstrating articles constitute the predominant category of publications, with a total of 2535 contributions. Reprints, on the other hand, are the least researched publication type, indicating minimal research output in this format. Following articles, other publication categories – such as proceedings books, review articles, and early access publications – are noticeably less frequent, reflecting a secondary yet notable presence within the overall body of research. The results presented in Table 2 were obtained by ranking the published documents according to the highest 10 categories and research areas in WoS.

Table 2. Distribution of Published Documents by WoS Categories and Research Areas

	Web of Science Categories	Record Count	% of 3066	Research Areas	Record Count	% of 3066
1	Business Finance	966	31.51	Business Economics	2015	65.72
2	Management	855	27.89	Environmental Sciences Ecology	915	29.84
3	Environmental Studies	679	22.15	Science Technology Other Topics	660	21.53
4	Business	676	22.05	Engineering	227	7.40
5	Green Sustainable Science Technology	638	20.81	Social Sciences Other Topics	143	4.66
6	Environmental Sciences	503	16.41	Public Administration	118	3.85
7	Economics	250	8.15	Government Law	75	2.45
8	Engineering Environmental	156	5.09	Computer Science	72	2.35
9	Public Administration	65	2.12	Education Educational Research	50	1.63
10	Others	949	30.95	Others	370	12.07

Table 2 highlights that the research predominantly centers on the fields of Business Finance, Management, and Environmental Studies. Within these domains, the most extensively studied areas include "Business Economics", "Environmental Sciences Ecology", and "Other Topics in Science and Technology". This distribution underscores the multidisciplinary nature of the research and its emphasis on the intersection of business, management, and environmental concerns. The findings based on the distribution of studies according to WoS indexes are displayed in Table 3.

Table 3. Distribution of Published Documents by WoS Indexes

	Web of Science Index	Record Count	% of 3066
1	Social Sciences Citation Index (SSCI)	1342	43.770
2	Emerging Sources Citation Index (ESCI)	1101	35.910
3	Science Citation Index Expanded (SCI-EXPANDED)	571	18.624
4	Conference Proceedings Citation Index – Social Science & Humanities (CPCI-SSH)	239	7.795
5	Conference Proceedings Citation Index – Science (CPCI-S)	119	3.881
6	Book Citation Index - Social Sciences & Humanities (BKCI-SSH)	116	3.783
7	Book Citation Index – Science (BKCI-S)	11	0.359
8	Arts & Humanities Citation Index (A&HCI)	6	0.196

The analysis of accounting research on sustainability and integrated reporting indicates that the top three categories, as indexed by Web of Science (WoS), are SSCI, ESCI, and SCI-EXPANDED. This distribution reflects the prominence of these indexes in capturing and disseminating high-quality research within the field, emphasizing their central role in the academic discourse surrounding sustainability and integrated reporting.

3.1.2. Co-Word Analysis

Co-word analysis of keywords across several study domains can be employed to determine research areas of interest (Siao et al., 2022; Zhu and Hua, 2017). Co-word analysis posits that words that regularly co-occur exhibit a thematic connection (Donthu et al., 2021). Author keywords serve as the primary markers of a study's fundamental objective (Lu et al., 2020). Table 5 illustrates the findings of the 20 prominent keywords employed by authors.

Table 4. Prominent Keywords Employed by Authors

Ranking	Keywords	Occurrences	Ranking	Keywords	Occurrences
1	sustainability reporting	1182	11	stakeholder engagement	84
2	sustainability	383	12	non-financial reporting	82
3	Integrated reporting	332	13	sustainable development goals	80
4	corporate social responsibility	267	14	legitimacy theory	78
5	sustainable development	193	15	CSR	77
6	integrated reporting	190	16	stakeholder theory	73
7	corporate governance	125	17	sustainability report	72
8	content analysis	125	18	global reporting initiative	71
9	GRI	107	19	corporate sustainability	70
10	ESG	99	20	assurance	69

The five most commonly utilized keywords in the studies are "sustainability reporting", "sustainability", "integrated reporting", "corporate social responsibility", and "sustainable development". This finding highlights the principal themes and recurring centers of attention within the research data, indicating a growing academic interest in these interrelated subjects.

The examination of word frequency in the abstracts of the research conducted by co-word analysis yielded the results presented in Table 5.

Table 5. Frequently Employed Co-words in Abstracts

Ranking	Keywords	Occurrences	Ranking	Keywords	Occurrences
1	firm	1511	1	IIRC	262
2	relationship	737	2	board	252
3	effect	579	3	Financial Performance	246
4	accounting	440	4	materiality	239
5	assurance	374	5	capital	238
6	university	357	6	variable	235
7	ESG	341	7	score	212
8	sustainability disclosure	314	8	size	208
9	bank	306	9	association	203
10	cost	299	10	enterprise	202

Table 5 reveals the analytical results of the frequency of co-words in the abstracts of the publications highlighting the 20 most commonly utilized terms. The most utilized words are found as "firm" with 1511 occurrences, "relationship" with 737 occurrences, "effect" with 579 occurrences, and "accounting" with 440 occurrences. This indicates that a significant portion of the publications focuses on "firms", with "sustainability disclosure" being examined in the context of accounting, exploring the "effects" of sustainability practices on business performance, "financial performances", or investor perception, with "accounting" serving as a pivotal subject in this domain.

3.2. Bibliometric Mapping Analysis

In this section, mapping approach which allows to bibliometric mapping analysis of existing literature on integrated and sustainability research in the field of accounting presents the scientific mapping of publications.

3.2.1. Co-word Mapping

Keyword analysis utilising the co-occurrence technique in VOSviewer was employed to elucidate the connections among every keyword (Teh and Khan, 2024) utilized in integrated and sustainability reporting within accounting research. Figure 3 depicts the keyword map. In this map, colors denote distinct groupings, which are determined by relationships (Siao et al., 2022).

Figure 3. Analysis of Co-Occurrence of Keywords Related to Integrated and Sustainability Reporting

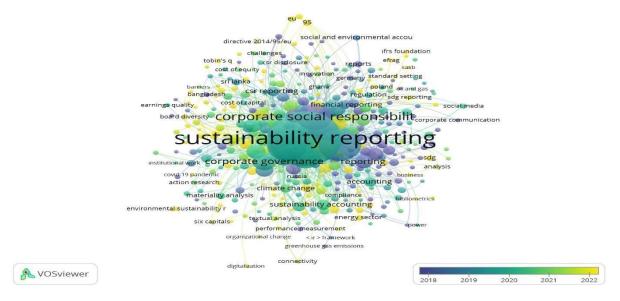
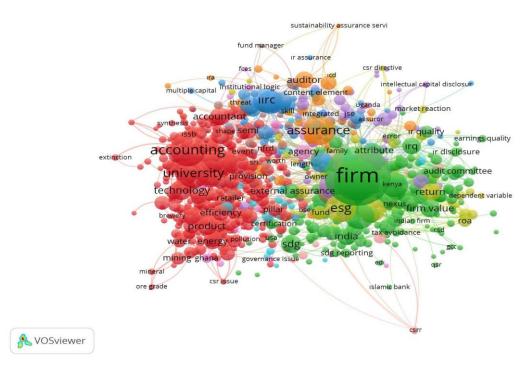


Figure 3 illustrates results based on the clustering results of keywords that appeared at least five times out of 5485, a total of 390 matches were identified. Sustainability reporting was the term most frequently associated with a total link strength of 2756. Subsequently, sustainability is followed by integrated reporting, with connection strengths of 1010 and 779, respectively.

Figure 4. Analysis of Co-Occurrence of Words in Abstracts Related to Integrated and Sustainability Reporting



According to the results of the word co-occurrence, which occurred at least 10 times out of the 41321 words in the abstract, 1829 matches were obtained. After selecting the 60% most relevant terms by default, this

resulted in 1097 matches. In Figure 4 the nodes are categorised into various colours, each signifying a unique thematic domain. Within the red cluster, the terms "accounting," "university," "technology," "efficiency," and "product" are the most frequently employed in the existing research. Green clustering encompasses terminology that frequently includes "firm," "ESG," "SDG," "India," "return," "firm value," and "audit committee." This likely signifies an emphasis on Environmental, Social, and Governance (ESG) considerations, Sustainable Development Goals (SDGs), and the financial performance of corporations. In the context of blue clustering, the terms "iirc," "auditor," and "assurance" indicate a focus on research pertaining to auditing practices, integrated reporting methodologies, and corporate assurance frameworks.

3.2.2. Co-Citation Mapping

This section presents mapping findings from VOSviewer derived from co-citations by organization, country, source, document, and author. Table 5 illustrates the clustering of the most cited studies by country.

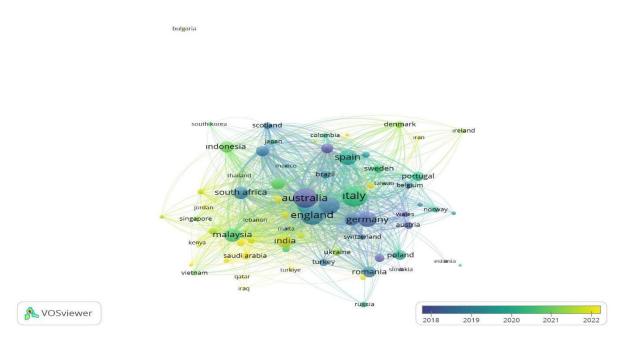


Figure 5. Clustering of the Most Cited Studies by Country

Figure 5 was obtained based on the criterion of having received a minimum of zero citations for at least five documents from a country. It was observed that 74 out of 101 countries fulfilled this requirement. According to Figure 5, the cluster results indicate that Australia had the highest number of citations with 15847, followed by England with 15422 citations, and Italy with 9936 citations.

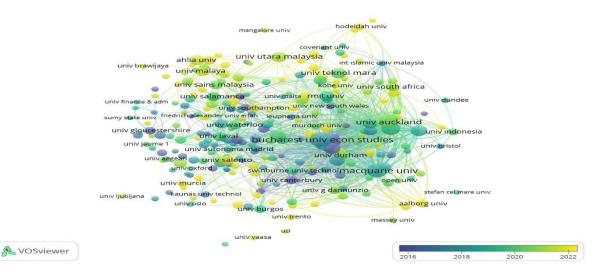


Figure 6. Clustering of the Most Cited Studies by Organisation

Figure 6 demonstrates the most cited organisations based on the criterion of having received a minimum of 5 documents and at least zero citations from an organisation. According to the criteria, 265 out of 2484 organisations fulfilled the requirement. Simon Fraser University leads with 2529 citations, followed by the University of Pretoria with 2421 citations and the University of Queensland with 2291 citations.

Figure 7. Clustering of the Most Cited Studies by Source

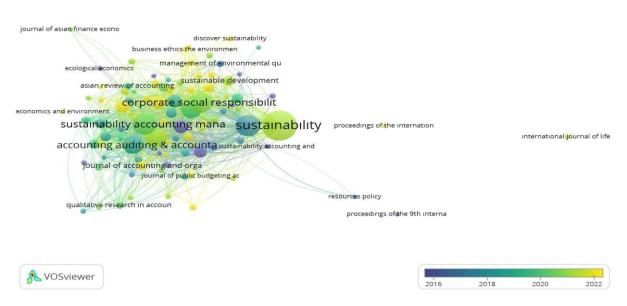


Figure 7 shows the most cited sources based on the criterion of having obtained a minimum of 5 documents from a source and at least zero citations. Therefore, 101 out of 943 sources fulfilled the requirement. The Journal of Cleaner Production ranked first with 10332 citations, followed by the Accounting, Auditing & Accountability Journal in second place with 5466 citations, and Business Strategy and the Environment in third place with 4665 citations.

Figure 8. Clustering of the Most Cited Studies by Document

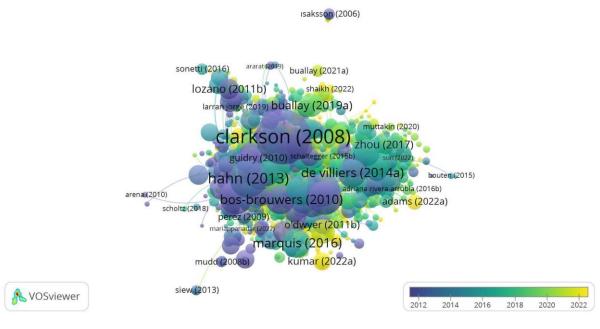


Figure 8 indicates the most frequently cited documents pertaining to sustainability and integrated reporting within the field of accounting. Out of the 3066 studies that qualify for a minimum of 10 citations, 1357 meet

this criterion. The most cited document, with 1792 citations, was the study by Clarkson et al. (2008), followed by Hahn and Kühnen (2013) with 849 citations, and Gray (2010) with 682 citations.

Figure 9. Clustering of the Most Cited Studies by Author

Figure 9 illustrates the authors with the highest number of citations. Results were obtained based on the criterion of obtaining a minimum of zero citations from at least five documents authored by an individual. According to the criteria, 180 out of 6,018 authors fulfilled this condition. Consequently, Charl de Villiers with 1921 citations, Rodrigo Lozano with 1883 citations, and John Dumay with 1612 citations were identified as the most referenced authors.

4. Conclusion and Discussion

Sustainability reporting has emerged as a progressively widespread practice among corporations globally (Pasko et al., 2021). In addition, sustainability reporting, which involves the assessment of economic, environmental, and social performance, has gained widespread recognition as a comprehensive reporting framework (Daub, 2007). A contributing factor to this growing interest is the emergence of a novel requirement for the publication of corporate governance, environmental, and sustainability reports, as identified by the International Integrated Reporting Council (IIRC). This necessity aims to establish a connection between corporate strategy, management activities, and both financial and non-financial information, alongside the advancement of a corporate reporting framework referred to as integrated reporting (IIRC, 2011). However, the integrated reporting framework has developed into a sophisticated approach to reporting that combines financial and non-financial information to address the requirements of different stakeholder groups (Dumay, 2017). As a result, integrated reports, which consist of information regarding the sustainable practices and financial information of companies, have garnered considerable attention in recent years.

Notwithstanding the significant growth in scholarly research pertaining to sustainability reporting, there exists a dearth of comprehensive assessments of scientific output within this domain (Benameur et al., 2023). This study aimed to examine the evolution of publications on integrated reporting and sustainability reporting in the field of accounting and to evaluate the current state of research in this area. The study highlights the significance and growing academic interest in integrated and sustainability reporting in the accounting domain based on findings derived from a bibliometric analysis conducted using the Web of Science (WoS) database.

Research on integrated and sustainability reporting in accounting constitutes an evolving area of inquiry that has produced progressively tangible outcomes over the years. The findings revealed a steady increase in publications on this topic from 1998 to 2025. The highest number of publications was recorded in 2024, with 469 articles, demonstrating the increasing academic attention to this subject. These results are similar to the inference of Lopes and Penela (2022) depict that research on integrated reporting is currently in its nascent stages. In addition, this growth can be attributed to the rising need for businesses to adopt sustainability and integrated reporting practices and the global importance of these issues. Another reason for this may be the increasing demand for information disclosure by stakeholders regarding companies' social, environmental and governance performance. In this way, sustainability reporting has evolved into a fundamental component of the reports disseminated by large companies. (Benameur et al., 2023).

A significant majority (82.7%) among the 3066 studies examined were articles, highlighting the growing importance of this particular issue within scientific journals. It is not surprising that several bibliometric researchers have identified a concentration of research on identical document types (see also Pasko et al., 2021;

Gulluscio et al., 2020). Disciplines such as business finance, management, and environmental studies emerged as dominant themes, reflecting the interdisciplinary nature of sustainability reporting and its links with accounting. Keywords such as "sustainability reporting" (e.g. Pombinho et al., 2024; Boiral, 2013), "sustainability", "integrated reporting" (e.g. De Villiers et al., 2014; Dumay et al., 2016) and "sustainable development" (e.g. Gutiérrez-Ponce, 2023) represent the core focus areas of these publications. In addition, the frequent use of terms, such as "firm" "relationship" and "effect" indicates that much of the research focuses on the impact of sustainability practices on business performance, financial outcomes, and investor perceptions. Accounting plays a pivotal role in these discussions. Citation analysis revealed that the most referenced study was by Clarkson et al. (2008), with 1792 citations. Charl de Villiers, Rodrigo Lozano, and John Dumay were identified as the most cited authors, underscoring their central roles in the literature on integrated and sustainability reporting. Australia, England, and Italy were the most cited countries in the field of integrated and sustainability reporting. Simon Fraser University, the University of Pretoria, and the University of Queensland emerged as leading academic institutions contributing to this domain.

These findings reflect the increasing importance of integrated reporting and reporting on sustainability in the field of accounting. The dominant themes and focus areas highlight the critical role of these topics in understanding the impact of sustainability practices on business performance and environmental sustainability. The interdisciplinary approach observed in the studies demonstrates how accounting is integrated with other fields, such as environmental science, business management, and corporate social responsibility. The study may serve as a foundational reference for the expansion of subsequent research endeavours. Innovative topics, such as the impact of technology (e.g., artificial intelligence and big data analytics) on sustainability reporting, could also be considered. Future research may address topics such as the integration of technology within accounting education at universities, the influence of digital accounting technologies on operational efficiency, the application of artificial intelligence and automation in accounting processes, as well as the utilisation of artificial intelligence and data analytics in auditing procedures. Future research in this area could focus on less explored geographies, sectors, and themes. Moreover, topics including the influence of ESG criteria on corporate evaluation, the function of audit committees in executing ESG strategies, the effect of integrated reporting (as per the IIRC framework) on investor trust, and the role of independent audits in ESG and sustainability reporting remain unexplored areas for future research. Such research would help enhance the effectiveness of integrated and sustainability reporting while expanding its practical applications.

In conclusion, this study offers academics a comprehensive overview of the literature on integrated and sustainability reporting, identifying research gaps and opportunities for future studies. The findings underscore the importance of these topics and highlight the need for further exploration of sustainability practices within the field of accounting.

References

- A4S. (2024). Governance and collaboration establishing an "International Connected Reporting Committee". The Prince's Accounting for Sustainability Project. Retrieved from https://www.accountingforsustainability.org/content/dam/a4s/corporate/home/KnowledgeHub/Governance%20&%20Collaboration%20Establishing%20an%20IIRC.pdf.downloadasset.pdf (Accessed 16 January 2025)
- Acar Uğurlu, Y., & Özbingöl, A. (2024). Bibliometric Analysis of Articles on Sustainability Reporting: Web of Science Sample. *Journal of Accounting and Taxation Studies*, 17(2), 179-208. https://doi.org/10.29067/muvu.1420110
- Adams, C.A. (2015), The international integrated reporting council: a call to action, *Critical Perspectives on Accounting*, 27, 23-28. https://doi.org/10.1016/j.cpa.2014.07.001
- Al-Shaer, H.; Hussainey, K. (2022). Sustainability reporting beyond the business case and its impact on sustainability performance: UK evidence. *Journal of Environmental Management*, 311, 114883. https://doi.org/10.1016/j.jenvman.2022.114883
- Ascani, I., Ciccola, R., & Chiucchi, M.S. (2021). A Structured Literature Review about the Role of Management Accountants in Sustainability Accounting and Reporting. *Sustainability*, 13, 2357. https://doi.org/10.3390/su13042357
- Baditoiu, B., Partenie, M. V., & Alexandru, B. (2021). Integrated Reporting and Performance. A Bibliometric Analysis. *The Annals of the University of Oradea, Economic Sciences*, 30(1), 344-352. doi:https://doi.org/10.47535/1991AUOES30(1)038

- Benameur, K. B., Mostafa, M. M., Hassanein, A., Shariff, M. Z., & Al-Shattarat, W. (2023). Sustainability reporting scholarly research: a bibliometric review and a future research agenda. *Management Review Quarterly*, 74, 823-866. https://doi.org/10.1007/s11301-023-00319-7
- Boiral, O. (2013). Sustainability reports as simulacra? A counter-account of A and A+ GRI reports. *Accounting, Auditing & Accountability Journal*, 26(7), 1036-1071. https://doi.org/10.1108/AAAJ-04-2012-00998
- Bosi, M. K., Lajuni, N., Wellfren, A. C., & Lim, T. S. (2022). Sustainability Reporting through Environmental, Social, and Governance: A Bibliometric Review. *Sustainability*, 14(19), 12071. https://doi.org/10.3390/su141912071
- Brabete, V., Sichigea, M., Cîrciumaru, D., & Goagără, D. (2024). Bibliometric Mapping of the Relationships Between Accounting, Professional Accountants, and Sustainability Issues. *Sustainability*, 16, 9508. https://doi.org/10.3390/su16219508
- Busco, C., Fiori, G., Frigo, M.L. and Angelo, R. (2017), Sustainable development goals: integrating sustainability initiatives with long-term value creation, *Strategic Finance*, 28-37. Retrieved from https://iris.luiss.it/retrieve/handle/11385/175081/54484/BuscofioriFrigoRiccaboni2017.pdf
- Busco, C., Malafronte, I., Pereira, J. and Starita, M.G. (2019), "The determinants of companies' levels of integration: does one size fit all?", *The British Accounting Review*, 51(3), 277-298. https://doi.org/10.1016/j.bar.2019.01.002
- Can, E. N., & Özarı, Ç. (2023). Sürdürülebilirlik Muhasebesi Ve Karbon Muhasebesi Çalışmalarının Bibliyometrik Analizi. *Denetişim*(27), 55-71. https://doi.org/10.58348/denetisim.1177406
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society, 33*(4-5), 303-327. https://doi.org/10.1016/j.aos.2007.05.003
- Cooray, T., Gunarathne, A. D. N., & Senaratne, S. (2020). Does Corporate Governance Affect the Quality of Integrated Reporting? *Sustainability*, 12(10), 4262. https://doi.org/10.3390/su12104262
- Coşkun, S., 2024, Türkiye Varlık Fonunun BM SKH Çerçevesinde Sürdürülebilirliğinin Değerlendirilmesi, Üçüncü Sektör Sosyal Ekonomi Dergisi, 59(4), 2981-2997. https://doi.org/ 10.15659/3.sektor-sosyal-ekonomi.24.12.2455
- Cunha, C., & Duncan, L. (2024). Integrated Reporting and Group Decision-Making for Sustainable Development: A Bibliometric Review. *European Journal of Sustainable Development*, 13(1), 402-419. https://doi.org/10.14207/ejsd.2024.v13n1p389
- Daub, C.-H. (2007). Assessing the quality of sustainability reporting: An alternative methodological approach. *Journal of Cleaner Production*. 15, 75–85. https://doi.org/10.1016/j.jclepro.2005.08.013
- De Villiers, C., Hsiao, P.C.K. and Maroun, W. (2017), Developing a conceptual model of influences around integrated reporting, new insights, and directions for future research, *Meditari Accountancy Research*, 25(4), 450-460. https://doi.org/10.1108/MEDAR-07-2017-0183
- De Villiers, C., Rinaldi, L., & Unerman, J. (2014). Integrated Reporting: Insights, gaps and an agenda for future research. *Accounting, Auditing & Accountability Journal*, 27(7), 1042-1067. https://doi.org/10.1108/AAAJ-06-2014-1736
- Di Vaio, A., Syriopoulos, T., Alvino, F. and Palladino, R. (2021), "Integrated thinking and reporting" towards sustainable business models: a concise bibliometric analysis", *Meditari Accountancy Research*, 29(4), 691-719. https://doi.org/10.1108/MEDAR-12-2019-0641
- Diwan, H., Amarayil Sreeraman, B. (2024). From financial reporting to ESG reporting: a bibliometric analysis of the evolution in corporate sustainability disclosures. *Environment, Development and Sustainability*, 26, 13769-13805. https://doi.org/10.1007/s10668-023-03249-2
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296. https://doi.org/10.1016/j.jbusres.2021.04.070

- Dragu, I. M., Tiron-Tudor, A. (2013). The Integrated Reporting Initiative from an Institutional Perspective: Emergent Factor. *Procedia-Social and Behavioral Sciences*, 275-279. https://doi.org/10.1016/j.sbspro.2013.08.672
- Du Toit, E. (2024). Thirty Years of Sustainability Reporting: Insights, Gaps and an Agenda for Future Research Through a Systematic Literature Review. *Sustainability*, 16 (23), 10750. https://doi.org/10.3390/su162310750
- Dumay, J., Bernardi, C., Guthrie, J. & Demartini, P. (2016). Integrated Reporting: A Structured Literature Review. *Accounting Forum*, 40(3), 166-185. https://doi.org/10.1016/j.accfor.2016.06.001
- Dumay, J., Bernardi, C., Guthrie, J. and La Torre, M. (2017), Barriers to implementing the international integrated reporting framework a contemporary academic perspective, *Meditari Accountancy Research*, Vol. 25 No. 4, 461-480. https://doi.org/10.1108/MEDAR-05-2017-0150
- Eccles, R.G., Saltzman, D. (2011). Achieving Sustainability Through Integrated Reporting. *Stanford Social Innovation Review*, 9(3), 56-61. https://doi.org/10.48558/7xs8-mx90
- Effah, N.A.A., Wang, Q., Owusu, G.M.Y., Otchere, O.A.S., Owusu, B. (2023). Contributions toward sustainable development: a bibliometric analysis of sustainability reporting research. *Environ Sci Pollut Res* 30, 104–126. https://doi.org/10.1007/s11356-022-24010-8
- Egginton, J.F., McBrayer, G.A. (2019). Does it pay to be forthcoming? Evidence from CSR disclosure and equity market liquidity. *Corporate Social Responsibility and Environmental Management*, 26, 396–407. https://doi.org/10.1002/csr.1691
- Ernst & Young LLP. & Boston College Center for Corporate Citizenship. (2013). *Value of Sustainability Reporting*. Retrieved from https://www.eticanews.it/wp-content/uploads/2013/05/report-value-of-sustainability.pdf (Accessed 15 January 2025).
- Flammer, C. (2011). CSR Pays for Itself: Here's the Evidence. *Forbes*. Retrieved from https://www.forbes.com/sites/forbesleadershipforum/2011/08/30/csrpays-for-itself-heres-the-evidence/?sh=44c1fed67922 (Accessed 15 January 2025)
- Gaur, S.S., Vasudevan, H., Gaur, A.S. (2011). Market orientation and manufacturing performance of Indian SMEs: Moderating role of firm resources and environmental factors. *European Journal of Marketing*, 45(7/8), 1172-1193. https://doi.org/10.1108/03090561111137660
- Gray, R. (2010). Is accounting for sustainability actually accounting for sustainability...and how would we know? An exploration of narratives of organisations and the planet. *Accounting, Organizations and Society, 35*(1), 47-62. https://doi.org/10.1016/j.aos.2009.04.006
- GRI-Global Reporting Initiative. (2013). *G4 Sustainability Reporting Guidelines, Reporting Principles and Standard Disclosures*. Retrieved from https://commdev.org/wp-content/uploads/pdf/publications/Global-Reporting-Initiative-G4-Sustainability-Reporting-Guidelines.pdf (Accessed 15 January 2025)
- GRI. (2025). *Our mission and history*. Amsterdam: GRI (online). Retrieved from https://www.globalreporting.org/about-gri/mission-history/ (Accessed 16 January 2025)
- Gulluscio, C., Puntillo, P., Luciani, V., & Huisingh, D. (2020). Climate Change Accounting and Reporting: A Systematic Literature Review. *Sustainability*, 12(13), 5455. https://doi.org/10.3390/su12135455
- Güven, B. (2024). Entegre Raporlama Üzerine Bibliyometrik Bir İnceleme. *Akademik Araştırmalar ve Çalışmalar Dergisi (AKAD)*, 16(31), 474-487. https://doi.org/10.20990/kilisiibfakademik.1431657
- Hahn, R., & Kühnen, M. (2013). Determinants of Sustainability Reporting: A Review of Results, Trends, Theory, and Opportunities in an Expanding Field of Research. *Journal of Cleaner Production*, 45, 5-21. https://doi.org/10.1016/j.jclepro.2013.07.005
- Himmetoğlu, A. (2023). Kurumsal sürdürülebilirlik ve kurumsal sosyal sorumluluk: bir bibliyometrik analiz çalışması. *Erciyes İletişim Dergisi*, 10(2), 891-911. https://doi.org/10.17680/erciyesiletisim.1268583
- Hoffman, M. (2013). Integrated Reporting in Practice: The South African Story. Retrieved from https://assets.kpmg.com/content/dam/kpmg/pdf/2013/04/the-south-african-story.pdf. (Accessed 15 January 2025)

- Hurghiş, R., Tiron-Tudor, A., & Topor, D.I. (2024). Is Integrated Reporting Still Relevant For The Capital Markets? Evidence From a Voluntary Setting—The Case of Environmental and Social Sensitive European Companies. *Corporate Social Responsibility and Environmental Management*, 1–18. https://doi.org/10.1002/csr.3049
- IIRC. (2011). Towards Integrated Reporting Communicating Value in The 21st Century. Retrieved from https://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper2011_spreads.pdf (Accessed 15 January 2025)
- IIRC. (2013). International Integrated Reporting Framework. Retrieved from https://www.integratedreporting. org/wp-content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2- 1.pdf (Accessed 15 January 2025)
- IODSA. (1994). The King Report on Corporate Governance. Retrieved from https://cdn.ymaws.com/www.iodsa.co.za/resource/collection/94445006-4F18-4335-B7FB-7F5A8B23FB3F/King_1_Report.pdf (Accessed 15 January 2025)
- IODSA. (2002). The King Report on Corporate Governance for South Africa-2002. Retrieved from https://cdn.ymaws.com/www.iodsa.co.za/resource/collection/94445006-4F18-4335-B7FB-7F5A8B23FB3F/IoDSA King II web version.pdf (Accessed 15 January 2025)
- IODSA. (2009). King Report on Governance for South Africa 2009. Retrieved from https://cdn.ymaws.com/www.iodsa.co.za/resource/resmgr/king_iii/King_Report_on_Governance_fo.pdf (Accessed 15 January 2025)
- IODSA. (2016). King IV Report on Governance for South Africa 2016. Retrieved from https://cdn.ymaws.com/www.iodsa.co.za/resource/collection/684B68A7-B768-465C-8214-E3A007F15A5A/IoDSA_King_IV_Report_-_WebVersion.pdf (Accessed 15 January 2025)
- Jonsdottir, B., Sigurjonsson, T.O., Johannsdottir, L., Wendt, S. (2022). Barriers to Using ESG Data for Investment Decisions. *Sustainability*, 14 (9), 5157. https://doi.org/10.3390/su14095157
- Kalbouneh, A., Aburisheh, K., Shaheen, L., & Aldabbas, Q. (2023). The intellectual structure of sustainability accounting in the corporate environment: A literature review. *Cogent Business & Management*, 10(2), 2211370. https://doi.org/10.1080/23311975.2023.2211370
- Kurt, E. S. (2023). Türkiye'de entegre raporlama çalışmaları: Sistematik literatür incelemesi (2012-2022). *Muhasebe Enstitüsü Dergisi* (68), 15-42. https://doi.org/10.26650/MED.1224266
- Lu, W., Liu, Z., Huang, Y., Bu, Y., Li, X., & Cheng, Q. (2020). How do authors select keywords? A preliminary study of author keyword selection behavior. *Journal of Informetrics*, 14(4), 1-17. https://doi.org/10.1016/j.joi.2020.101066
- Lopes, A. I., & Penela, D. (2022). From little seeds to a big tree: a far-reaching assessment of the integrated reporting stream. Meditari Accountancy Research, 30(6), 1514-1542. https://doi.org/10.1108/MEDAR-01-2021-1174
- Lyon, T.P., Maxwell, J.W. (2011). Greenwash: corporate environmental disclosure under threat of audit. *Journal of Economics & Management Strategy*, 20, 3-41. https://doi.org/10.1111/j.1530-9134.2010.00282.x
- Minh, N. P., Anh, T. L., Thanh, H. P., & Van, N. V. (2025). Overview of integrated reporting: biliometric analysis. *Cogent Business & Management*, 12(1), 1-13. https://doi.org/10.1080/23311975.2025.2458166Misiuda, M., & Lachmann, M. (2022). Investors' perceptions of sustainability reporting—A review of the experimental literature. *Sustainability*, 14(24), 16746. https://doi.org/10.3390/su142416746
- Mohamed, A. I., Awale, A. A., & Mohamed, M. I. (2025). Sustainability reporting academic research: A bibliometric trends and future directions. *International Journal of Economics and Financial Issues*, 15(2), 106–112. https://doi.org/10.32479/ijefi.17675
- Nakhle, P., Stamos, I., Proietti, P., ve Siragusa, A. (2024, February). Environmental monitoring in european regions using the Sustainable Development Goals (SDG) framework. *Environmental and Sustainability Indicators*, 21, 1-14. https://doi.org/10.1016/j.indic.2023.100332

- Nyantakyi, G., Sarpong, F. A., Sarfo, P. A., Ogochukwu, N. U., & Coleman, W. (2023). A boost for performance or a sense of corporate social responsibility? A bibliometric analysis on sustainability reporting and firm performance research (2000-2022). *Accounting, Corporate Governance & Business Ethics*, 10(2), 2220513. https://doi.org/10.1080/23311975.2023.2220513
- Özbingöl, A., & Acar Uğurlu, Y. (2024a). Sürdürülebilirlik raporlaması konusundaki makalelerin bibliyometrik analizi: web of science örneği. *Muhasebe ve Vergi Uygulamaları Dergisi*, 17(2), 179 208. https://doi.org/10.29067/muvu.1420110
- Özbingöl, A., & Acar Uğurlu, Y. (2024b). Yeşil aklamanın bibliyometrik analizi: 2000-2024 Dönemi için Türkiye'deki ulusal eğilimler. *Muhasebe ve Finansman Dergisi*(103), 21-50. https://doi.org/10.25095/mufad.1459854
- Özçelik, H., Kaya, İ. (2024). Entegre raporlama ile ilgili Web of Science veri tabanında yayımlanmış makalelerin bibliyometrik analizi. *Mali Çözüm*, 34(183), 705 723.
- Özulucan, A., Keleş, D., & Temel, E. (2024). Sürdürülebilirlik muhasebesi yazınına bibliyometrik bakış: Web of Science ve Scopus veri tabanında karşılaştırmalı bir analiz. *Niğde Ömer Halisdemir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 6(2), 223-243. https://doi.org/10.56574/nohusosbil.1556565
- Pasko, B. O., Chen, F., Oriekhova, A., Brychko, A., & Shalyhina, I. (2021). Mapping the literature on sustainability reporting: A bibliometric analysis grounded in Scopus and Web of Science Core Collection. *European Journal of Sustainable Development*, 10(1), 303-322. https://doi.org/10.14207/ejsd.2021.v10n1p303
- Pombinho, M., Fialho, A., & Novas, J. (2024). Readability of sustainability reports: A bibliometric analysis and systematic literature review. *Sustainability*, 16(1), 260. https://doi.org/10.3390/su16010260
- Quesado, P., Silva, R., & Oliveira, H. C. (2024). Management control systems and sustainability: A bibliometric analysis. *Sustainability*, 16(12), 5067. https://doi.org/10.3390/su16125067
- Rodríguez-Insuasti, H., Montalván-Burbano, N., Suárez-Rodríguez, O., Yonfá-Medranda, M., & Parrales-Guerrero, K. (2022). Creative economy: A worldwide research in business, management and accounting. *Sustainability*, 14(23), 16010. https://doi.org/10.3390/su142316010
- Siao, H.-J., Gau, S.-H., Kuo, J.-H., Li, M.-G., & Sun, C.-J. (2022). Bibliometric analysis of environmental, social, and governance management research from 2002 to 2021. *Sustainability*, 14(23), 16121. https://doi.org/10.3390/su142316121
- Subramaniam, N., Akbar, S., Situ, H., Ji, S., ve Parikh, N. (2023, July 20). Sustainable development goal reporting: contrasting effects of institutional and organisational factors. *Journal of Cleaner Production*, 411, 1-14. https://doi.org/10.1016/j.jclepro.2023.137339
- Teh, D., & Khan, T. (2024). Sustainability-focused accounting, management, and governance research: A bibliometric analysis. *Sustainability*, 16(23), 10435. https://doi.org/10.3390/su162310435
- Thawani, B., Panigrahi, T. ve Bhatia, M. (2024). Eleven years of integrated reporting: a bibliometric analysis. *International Journal of Disclosure and Governance*, 21, 666–684. https://doi.org/10.1057/s41310-024-00229-4
- Turzo, T., Marzi, G., Favino, C., & Terzani, S. (2022). Non-financial reporting research and practice: Lessons from the last decade. *Journal of Cleaner Production*, 345, 131154. https://doi.org/10.1016/j.jclepro.2022.131154
- UN. (2015). *The 17 goals*. United Nations. Retrieved from https://sdgs.un.org/goals (Accessed 16 January 2025)
- United Nation. (2012, June 20-22). *United Nations Conference on Sustainable Development, Rio+20.*Sustainable Development Goals Knowledge Platform. Retrieved from https://sustainabledevelopment.un.org/rio20 (Accessed 16 January 2025)
- Van Eck, N., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84, 523–538. https://doi.org/10.1007/s11192-009-0146-3
- Vermiglio, C. (2012). Integrated Reporting for Italian Local Governments: Background for a debate. *In Proceedings of the 3rd Financial Reporting Workshop*, Naples, Italy, 14–15 June 2012.

- Vysochan, O., Hyk, V., Vysochan, O., & Olshanska, M. (2021). Sustainability accounting: A systematic literature review and bibliometric analysis. *Quality Access to Success*, 22(185), 95-102. https://doi.org/10.47750/QAS/22.185.14
- Wong, W.C., Batten, J.A., Ahmad, A.H., Mohamed-Arshad, S.B., Nordin, S. & Adzis, A.A. (2021). Does ESG certification add firm value? *Finance Research Letters*, 39, 101593. https://doi.org/10.1016/j.frl.2020.101593
- Zhu, J., & Hua, W. (2017). Visualizing the knowledge domain of sustainable development research between 1987 and 2015: a bibliometric analysis. *Scientometrics*, 110, 893–914. https://doi.org/10.1007/s11192-016-2187-8

Araştırma Makalesi

Bibliometric Analysis of The Research in The Field of Accounting in Relation to Sustainability and Integrated Reporting

Sürdürülebilirlik ve Entegre Raporlama ile İlgili Olarak Muhasebe Alanında Yapılan Araştırmaların Bibliyometrik Analizi

Sedat COSKUN

Doç. Dr., Manisa Celal Bayar Üniversitesi

Salihli İktisadi İdari Bilimler Fakültesi

sedat.coskun@cbu.edu.tr
https://orcid.org/0000-00031364-6516

Selin COSKUN

Dr. Öğr. Üyesi, Manisa Celal Bayar Üniversitesi

Ahmetli Meslek Yüksekokulu

<u>selin.coskun@cbu.edu.tr</u> <u>https://orcid.org/0000-0001-8114-5137</u>

İbrahim YAVUZ

Dr. Öğr. Üyesi, Kütahya Dumlupınar Üniversitesi Simav Meslek Yüksekokulu

ibrahim.yavuz@dpu.edu.tr https://orcid.org/0000-0002-2099-0625

Genişletilmiş Özet

Son yıllarda iklim değişikliği, kaynak kıtlığı, yoksulluk, finansal krizler ve eşitsizlik gibi sorunlar, işletme raporlarının paydaşlarına sadece finansal bilgiler değil, finansal olmayan bilgiler de sunması gerektiğini göstermiştir. Böylece paydaş beklentileri doğrultusunda finansal olmayan çevresel ve sosyal etkileri de kapsayan sürdürülebilirlik raporlaması, geleneksel finansal raporlamanın yanı sıra ihtiyaç duyulan bir raporlama girişimi olarak ortaya çıkmıştır. Ekonomik, çevresel ve yönetsel performans raporlamasına dayanan sürdürülebilirlik raporlaması, entegre bir raporlama mekanizması olarak kabul görmüştür. Çevresel, sosyal ve yönetişim bilgilerini içeren finansal olmayan raporlama, işletmeler tarafından farklı nedenlerle kabul görmüş olsa da, işletmelerin sektördeki rekabet güçlerini artırmalarına rehberlik edecek bir araç olarak hizmet ettiği düşünülmektedir. Bu nedenle son yıllarda araştırmacılar tarafından literatürde bu raporlamaya ilişkin araştırmaları içeren çok sayıda çalışmanın yayınlandığı görülmektedir.

Sürdürülebilirlik raporlamasına ilişkin artan farkındalığa rağmen, bu tür açıklamalara ilişkin gerekliliklerin şirketten şirkette farklılık gösterdiği ve kurumsal raporlama geliştikçe kapsamının da genişlediği belirtilmiştir. Yine, sosyal, çevresel ve yönetişim bilgilerinin, gönüllülük esasına dayanan ve yönetim tarafından belirlenen finansal olmayan raporlamanın ihtiyari özellikleri nedeniyle dalgalandığı gözlemlenmiştir. Buna ek olarak, Uluslararası Entegre Raporlama Konseyi, finansal tablolardan sonra yayınlanan kurumsal yönetim, çevre ve sürdürülebilirlik raporlarının kurumsal strateji, yönetim faaliyetleri, finansal olmayan bilgiler ve finansal bilgiler arasında bağlantı kurmakta başarısız olduğunu tespit etmiş ve entegre raporlama olarak bilinen kurumsal raporlama için yeni bir araca duyulan ihtiyacı vurgulamıştır. Uluslararası Entegre Raporlama Konseyi, yapılan çalışmaların ardından 2013 yılında Uluslararası Entegre Raporlama Çerçevesi'ni yayınlamıştır. Çerçeve; entegre raporlama, entegre raporlar, değer yaratma süreci, sermaye unsurları, yol gösterici ilkeler ve içerik unsurlarını içermektedir.

Bu çalışmada, muhasebe alanında sürdürülebilirlik ve entegre raporlama üzerine yapılan akademik araştırmaların gelişimi incelenerek, küresel trendler ve gelecek araştırmalar için öneriler sunulmuştur.

Literatürde, hali hazırdaki çalışmaların incelenmesi ve analiz edilmesi için yazarların, araştırma konularının, yayıncıların ve yayın başlıklarının incelenmesini konu alan çeşitli yöntemler söz konusudur. Son yıllarda yapılan çalışmalar göz önüne alındığında, bibliyometrik değerlendirmeler çeşitli akademik disiplinlerde giderek artan bir ilgi görmektedir. Bu metodoloji, araştırmacılar tarafından bilimsel çıktıları analiz etmek ve mevcut ve gelişmekte olan araştırma eğilimlerini belirlemek için etkili bir araç olarak kullanılmaktadır. Bibliyometrik verilerin toplanması, bibliyografik verileri açıklayan ve zenginleştiren veri tabanlarının seçilmesini gerektirmektedir. Bibliyografik verilerin haritalanması amacıyla Google Scholar, Dimensions

Database, Scopus ve Web of Science gibi çeşitli veri tabanları kullanılmaktadır. Bu araştırmada, bibliyometrik analiz yapmak için güvenilir ve saygın bir kaynak olan kapsamlı bir veri tabanı olarak Web of Science'ı (WoS) kullanılmıştır. Bibliyometrik analiz genellikle VOSviewer gibi erişilebilir yazılımlar da dâhil olmak üzere ağ görüntüleme araçları ile desteklenmektedir.

Muhasebe alanında sürdürülebilirlik ve entegre raporlama üzerine yapılan akademik araştırmaların gelişimini incelemek için bibliyometrik analiz yöntemi kullanılmıştır. Bibliyometrik analiz yöntemi, belirli bir araştırma alanındaki akademik üretkenliği ölçmek ve trendleri belirlemek için kullanılan yaygın bir yöntemdir.

Çalışmada bibliyometrik analiz yönteminin uygulanması beş adım üzerine tasarlanmıştır. İlk olarak arastırmanın amacına ulasmak için çalısma, arastırma konusunun tanımlanmasıyla başlamıştır. Sonrasında, bibliyometrik analiz için kullanılacak veri tabanı seçimi gerçekleştirilmiştir. Bu adım, sorgulanacak anahtar kelimelerin seçimi ve dahil edilecek veya hariç tutulacak araştırma türü olmak üzere iki alt adımı içermektedir. WoS'ta sorgu alanına tüm alanlar ve tüm diller dahil edilmiş ve arama sorgusu anahtar kelimeleri olarak "entegre raporlama" veva "sürdürülebilirlik raporlaması" ve "muhasebe" secilmistir. Konuvla ilgili çalışmalara genel bir bakış sağlamak ve erken uygulama örneklerini tespit etmek amacıyla belirli bir zaman dilimi tercih edilmemistir. Sorgulama 10 Ocak 2025 tarihinde gerçeklestirilmis ve yukarıda belirtilen kriterlere herhangi bir dışlama kriteri eklenmemiştir. Üçüncü adım ise bibliyometrik sorgulamadır. Bu sorgu sonucunda WoS veri tabanında 3066 doküman elde edilmistir. Son adımdan önce, elde edilen verilerin dısa aktarımı gerçekleştirilmiştir. Son olarak, veriler haritalama yazılımı kullanılarak analiz edimiştir. Ayrıca sonuçların grafiksel gösterimi için tablo ve grafikleri düzenlemek üzere Microsoft Excel kullanılmıştır. Muhasebe alanındaki entegre ve sürdürülebilirlik raporlaması çalışmalarına ilişkin bilgi haritalarını ve ağlarını görsel olarak temsil etmek için VOSviewer 1.6.20 sürümü kullanılmıştır. Microsoft Excel ile yayın eğilimleri, yayınlardaki yıllık artışlar ve en çok atıf alan çalışmaların grafikleri oluşturulup performans analizi gerceklestirilirken, VOSviewier haritalama analizi ile en cok atıf alan yazarlar, dergiler ve üniversiteler belirlenmiştir.

Yapılan analiz sonucunda elde edilen bulgular, yayın sayılarının yıllara göre dağılımı, yayın türleri, en çok çalışılan araştırma alanları, en çok kullanılan anahtar kelimeler, en çok atıf alan çalışmalar ve yazar başlıkları altında yorumlanmıştır. Yayın sayılarının yıllara göre dağılımı kapsamında, araştırma konusu ile ilgili ilk çalışma 1998 yılında yayınlanmış olup, 2000'li yıllarda istikrarlı bir artış görülmüştür. 2024 yılı 469 makale ile en fazla yayın yapılan yıl olmuştur. 2010 yılından sonra özellikle Birleşmiş Milletler Sürdürülebilir Kalkınma Hedefleri ve GRI (Global Reporting Initiative) Standartları gibi küresel girişimlerin etkisiyle yapılan araştırmaların arttığı görülmüştür. Yayın türleri kapsamında, yapılan çalışmaların %82,7 oranında makale olarak yayımlandığı tespit edilmiştir. Konferans bildirilerinin payı %10,54 ve derleme makalelerinin payının ise %5,19 olduğu görülmektedir. Kitap bölümleri ve editöryel yazıların yayın türleri icinde daha düsük paya sahip olduğu tespit edilmiştir. En çok çalışılan araştırma alanları içerisinde, işletme finansı çalışma alanının payı %31,51, yönetim çalışma alanının payı %27,89, çevresel çalışmaların payı %22,15 olarak tespit edilmiştir. Mühendislik ve kamu yönetimi de ilgili alanların da çalışma alanı içerisinde yer aldığı görülmektedir. En çok kullanılan anahtar kelimeler analizine göre Sürdürülebilirlik Raporlaması terimi 1182 kez, Sürdürülebilirlik terimi 383 kez, Entegre Raporlama terimi 332 kez, Kurumsal Sosyal Sorumluluk 267 kez, Sürdürülebilir Kalkınma terimi 193 kez kullanılmıştır. Elde edilen bu sonuçlara göre, araştırmaların büyük ölçüde şirketlerin sürdürülebilirlik cabaları, cevresel, sosyal ve yönetsel kriterler ve paydas iliskileri üzerine yoğunlastığını göstermektedir. En çok atıf alan çalışmalar ve yazarlar analizi sonuçlarına göre, Clarkson et al. (2008)'nin çalışması 1792 atıf alarak en çok atıf alan makale olmuştur. Yine Charl de Villiers, Rodrigo Lozano ve John Dumay en çok atıf alan akademisyenler arasında yer almıştır. En çok atıf alan ülkeler içerisinde, Avustralya 15847 atıf, İngiltere 15422 atıf ve İtalya 9936 atıf ile sıralanmıştır. İlgili ülkeler, entegre raporlama ve sürdürülebilirlik muhasebesi üzerine en fazla akademik katkıyı sağlamaktadır. En çok atıf alan üniversiteler ve dergiler kapsamında, Simon Fraser Üniversitesi, Pretoria Üniversitesi ve Queensland Üniversitesi en çok atıf alan akademik kurumlar olmustur. En fazla atıf alan dergiler sıralamasında, Journal of Cleaner Production 10332 atıf, Accounting, Auditing & Accountability Journal 5466 atıf ve Business Strategy and the Environment 4665 atıf ile ilk üç sırayı yer almıştır.

Araştırma kapsamında elde edilen bulgular, muhasebe alanında sürdürülebilirlik ve entegre raporlama konusundaki araştırmaların evrimsel gelişimini göstermektedir. Muhasebe alanında sürdürülebilirlik raporlaması ve entegre raporlamanın giderek daha fazla önem kazandığı ve özellikle büyük şirketler, akademisyenler ve düzenleyici kurumlar tarafından daha fazla benimsenmeye başlandığı görülmektedir.

Baskın temalar ve odak alanları, sürdürülebilirlik uygulamalarının iş performansı ve çevresel sürdürülebilirlik üzerindeki etkisini anlamada bu konuların kritik rolünü vurgulamaktadır. Çalışmalarda gözlemlenen disiplinler

arası yaklaşım, muhasebenin çevre bilimi, işletme yönetimi ve kurumsal sosyal sorumluluk gibi diğer alanlarla nasıl entegreolduğunu göstermektedir. Çalışma, sonraki araştırma çabalarının genişletilmesi için temel bir referans görevi görebilir. Teknolojinin (örneğin, yapay zekâ ve büyük veri analitiği) sürdürülebilirlik raporlaması üzerindeki etkisi gibi yenilikçi konular da dikkate alınabilir. Gelecekteki araştırmalar, teknolojinin üniversitelerde muhasebe eğitimine entegrasyonu, dijital muhasebe teknolojilerinin operasyonel verimlilik üzerindeki etkisi, muhasebe süreçlerinde yapay zeka ve otomasyonun uygulanması ve denetim prosedürlerinde yapay zeka ve veri analitiğinin kullanımı gibi konuları ele alabilir. Bu alandaki gelecekteki araştırmalar, daha az keşfedilen coğrafyalara, sektörlere ve temalara odaklanabilir. Ayrıca, ESG kriterlerinin kurumsal değerlendirme üzerindeki etkisi, denetim komitelerinin ESG stratejilerinin yürütülmesindeki işlevi, entegre raporlamanın (IIRC çerçevesine göre) yatırımcı güveni üzerindeki etkisi ve ESG ve sürdürülebilirlik raporlamasında bağımsız denetimlerin rolü gibi konular gelecekteki araştırmalar için keşfedilmemiş alanlar olmaya devam etmektedir.

Bu çalışma, gelecekteki araştırmalar için güçlü bir temel oluşturmakta ve sürdürülebilirlik muhasebesi alanındaki literatürü zenginleştirmekle birlikte, gelecek araştırmalar için öneriler de sunmaktadır. Sürdürülebilirlik raporlaması ve entegre raporlamanın gelişen doğası göz önüne alındığında, teknoloji ve dijitalleşme, kurumsal yönetim ve entegre raporlama, bölgesel ve sektörel çalışmalar kapsamında çalışmalar yapılabileceği önerilmektedir.