SUSTAINABLE TAX PLANNING: A BIBLIOMETRIC ANALYSIS OF RESEARCH TRENDS IN THE CONTEXT OF GOVERNANCE AND REGULATION

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Abstract

Re-evaluating tax planning is critical to achieving long-term sustainability. Taxation can be a powerful policy tool to balance economic growth, social welfare, and environmental preservation. The purpose of this study is to analyze trends and future directions in sustainable tax planning studies. This study employs bibliometric analysis using the Scopus database and the Bibliometrix R program to examine the dynamics of literature and research topics. The findings show that the dominant themes in sustainable tax planning research include tax, corporate social responsibility (CSR), and sustainability. These themes indicate a need for further research on the relationship between sustainability and tax to provide insights and recommendations for policymakers, business practitioners, and academics. One potential implementation is to use environmental, social, and governance (ESG) factors to mask tax aggressiveness and avoidance. Government policies and regulations play an important role in shaping the tax landscape and promoting sustainable tax planning. Governments can use taxation as a policy instrument to incentivize or discourage behaviors that contribute to sustainable development as highlighted in the studies of Bashir et al. (2022), Wang et al. (2022), and Cheng et al. (2021). This research contributes to the understanding of sustainable tax planning research and highlights the importance of considering ESG factors in tax policy.

Keywords: Bibliometrics, Taxation, Sustainability, Sustainable Tax Planning

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1. INTRODUCTION

To achieve the Sustainable Development Goals (SDGs), taxation plays an essential role that cannot be ignored. Taxes are not just a way to finance public services; they are also crucial for fostering inclusive and sustainable social and economic development. The SDGs cover various aspects of life, including eliminating poverty, improving education, providing healthcare, protecting the environment, and creating decent jobs. To support these goals, adequate funding is necessary, most of which comes from national tax revenues.

However, the relationship between sustainability and taxation is complicated and involves several dimensions. Tax experts often face difficulties when trying to align sustainability with public and corporate tax governance (Gribnau & Jallai, 2019). The complexity of tax laws and the uncertainty in regulations can make it challenging for companies to implement sustainable tax strategies (Belegu & Fejzullahu, 2023; Guenther et al., 2013; Ifere et al., 2023; Yaguchi, 2022; Zangari et al., 2017). While several studies have explored this subject, there is still a need for a comprehensive analysis using a bibliometric approach to gain better insights into current research trends in sustainable tax planning. Therefore, it is essential to conduct a systematic review of the existing literature to address this gap.

Government policies and regulations significantly influence the connection between sustainability and taxation. For instance, governments can implement tax policies that either promote or hinder sustainable practices. They might impose a carbon tax or a tax on polluting activities to discourage harmful behavior and encourage sustainable development. Conversely, governments can provide tax incentives, such as tax credits for investments in renewable energy or waste reduction, to support companies that adopt sustainable practices (Bashir et al., 2022; Wang et al., 2022; Cheng et al., 2021). However, these policies can have potential downsides. For example, they may lead to tax aggressiveness or tax avoidance strategies that could undermine sustainability objectives. Companies might exploit loopholes in sustainability reporting policies to minimize their tax liabilities. This situation underscores the necessity of carefully designing tax incentives related to environmental, social, and governance (ESG) practices. If not managed properly, these incentives could encourage companies to inflate their ESG performance while lacking genuine sustainability efforts (Bonham & Riggs-Cragun, 2024; Ekawati, 2025).

Companies face numerous challenges when planning for tax sustainability. They need to take into account various factors, such as local and international tax regulations, tax incentives related to sustainability, and the potential reputational risks associated with inadequate tax practices from environmental and social viewpoints. Additionally, there is increasing pressure from shareholders, customers, and the public to enhance sustainability performance while also maintaining tax efficiency, making corporate tax planning even more complex. Although companies may understand tax and sustainability separately, integrating the two requires a more comprehensive perspective. The primary challenge lies in the tension between minimizing tax liabilities to boost profits and adhering to corporate responsibility toward the environment and society (Carroll & Shabana, 2010). Moreover, current tax regulations do not always align with sustainability principles, compelling companies to navigate careful adjustments and compromises in their tax planning to meet both objectives.

This study aims to analyze current trends in research on sustainable tax planning, focusing on concepts related to sustainability, such as ESG criteria, corporate social responsibility (CSR), and tax practices like tax avoidance and tax aggressiveness. The research employs a bibliometric analysis approach, which allows for a systematic review of existing literature. This method helps identify trends and patterns from previous studies and offers insights and recommendations for future research opportunities in sustainable tax planning. The findings of this study are intended to serve as a valuable reference for both academics and practitioners on relevant topics, providing a foundation for further exploration. It contributes significantly to the understanding of sustainable tax planning, a subject that is becoming increasingly important as the awareness of social and environmental impacts of economic activities grows. Sustainable tax planning goes beyond simply managing tax obligations efficiently. It also considers the longterm effects on social. economic. and environmental sustainability. By adopting this approach, companies and individuals are expected not only to fulfill their tax responsibilities, but also to actively contribute to SDGs, such as poverty reduction, environmental protection, and enhanced social welfare.

To achieve this goal, the study uses advanced bibliometric techniques to analyze and map the existing literature on tax planning that supports sustainability. This method enables researchers to pinpoint significant trends, patterns, and advancements in sustainable tax research while revealing the connections among key concepts in the field. By leveraging bibliometric data, the study offers an objective, data-driven overview of how sustainable tax planning has developed across various regions worldwide. Additionally, this approach highlights the contributions of different researchers, journals, and institutions that enhance the discipline.

The structure of the study is organized as follows. Section 2 reviews relevant literature on the relationship between tax policy and sustainability, highlighting current trends in sustainable tax planning. Section 3 outlines the methodology, focusing on bibliometric analysis to identify the latest research patterns in sustainable tax planning. Section 4 presents the main findings from the bibliometric analysis, which are categorized into four key areas: analysis of publications and citations, analysis of subject areas, collaboration analysis among countries and organizations, and analysis of keywords and cluster topics. Finally, Section 5 concludes with a discussion of the research findings, limitations, suggestions for further studies, and practical implications for adopting more sustainable tax policies.

2. LITERATURE REVIEW

In the recent period, taxation, monetary policy and other fiscal policies are increasingly considered as elements that not only play a role in promoting growth and development, but also in supporting the achievement of sustainable development (Richards, 2021; Gemmell, 2020). Taxes play a very important role in supporting societal development,



especially in funding essential public goods and services. Taxes are not only a source of state revenue, but also a prerequisite for sustainable development (Ajeigbe et al., 2024). According to Gribnau and Jallai (2019), taxes are an important element in maintaining social cooperation that supports collective needs, such as education, health, and infrastructure that support general welfare. In addition, taxes are considered an important tool in achieving the SDGs agreed by almost United states all Nations (UN)member (Martinez-Vazquez & Bird, 2014). For example, funds obtained from taxes can be used to finance projects that support sustainable development, such as improving inclusive education systems or affordable healthcare (Rahman, 2023). In addition, a good tax system can also be an instrument to reduce damaging subsidies, environmentally such as fossil fuel subsidies, and redirect them to more environmentally friendly sectors, in line with commitments to the SDGs (Kuehl et al., 2021). Therefore, it is important for every country to create a tax system that is not only effective, but also fair, ensuring all parties fulfill their obligations with transparency and accountability. Good tax regulation, as part of good governance, is a crucial element in creating a transparent and accountable government (Végh, 2018).

On the other hand, modern companies are now faced with pressure to consider their social responsibility towards society through the practice of CSR. CSR refers to companies' acceptance of the social and environmental impacts of their operations, which focuses on more than just complying with existing regulations (Asemah et al., 2013; McBarnet, 2009). In this context, companies engaging in CSR are expected to not only focus on profitability, but also on social and environmental welfare. However, aggressive tax planning practices often contradict these CSR values, even though in many cases, such tax planning is lawful (Kumar, 2024). Tax aggressiveness can create inequalities in the tax system, which in turn can decrease public trust in such companies. Therefore, companies looking to implement CSR principles need to ensure that their tax strategies do not create unfairness or inequality in the wider tax system.

Responsible business practices are also often viewed through the lens of ESG, which is one of the key indicators in making sustainable investment decisions (Ekawati et al., 2025). ESG focuses on how companies manage ESG factors in their operations. ESG and CSR, although different in approach and objectives, have complementary concepts, encouraging companies to act more sustainably and ethically (Kaźmierczak, 2022). Companies that integrate ESG principles in their operations are expected to pay attention not only to financial returns, but also to the social and environmental impacts resulting from their activities. Neglect of ESG principles in business management can damage a company's reputation, potentially affecting its market value and stakeholder relationships. Therefore, integrating ESG practices in tax planning becomes very important. Companies that have a strong commitment to ESG will be more cautious in using tax strategies that could damage their reputation. By adopting transparent and sustainable tax strategies, companies not only reduce legal and reputational risks, but also improve their brand image in the eyes of the public and investors (Karwowski & Raulinajtys-Grzybek, 2021).

Moreover, in corporate tax planning, there are often practices referred to as tax aggressiveness and tax avoidance. The difference between the two can sometimes be difficult to distinguish, especially as both are rooted in strategies to reduce tax liabilities that are legal in law, but can be controversial in practice. Aggressive tax avoidance is often associated with a lack of transparency and social responsibility, which goes against ESG principles prioritize integrity and accountability. that Aggressive tax avoidance practices, while lawful, can reduce public trust in companies and risk damaging relationships with stakeholders. In the context of ESG, companies that apply sustainability principles are more likely to avoid tax strategies that harm society or that may undermine the integrity of the tax system (Jiang et al., 2024; Maas, 2022; Yoon et al., 2021). ESG-concerned companies generally seek to support fair taxation principles and avoid aggressive tax avoidance, which could risk damaging their reputation and jeopardizing long-term sustainability. Therefore, it is important for companies to align their tax strategies with CSR and ESG principles to create a fairer and more sustainable tax system, and to avoid negative impacts on their image and reputation.

3. RESEARCH METHODOLOGY

The study employs advanced bibliometric techniques to analyze and map the current literature on tax planning that promotes sustainability. This approach allows researchers to identify key trends, patterns, and developments in sustainable tax research and uncover the relationships between important concepts in the field. By utilizing bibliometric data, the study provides an objective and data-driven overview of how sustainable tax planning has evolved across different regions of the world. This method also sheds light on the contributions of various researchers, journals, and institutions that enrich the field.

This research conducted a bibliometric analysis approach with the following procedures (see Figure 1).

Figure 1. Procedure for document collection and analysis



processing and analysing the In data. the researchers used the Bibliometrix R programs. Bibliometrix is an open-source software for bibliometric analysis based on the R platform. Bibliometrix R plays an important role in facilitating thematic mapping and trend analysis, allowing systematic categorization of data based on recurring themes and tracking the evolution of research focus over time. The data source for this research comes from the Scopus database. To obtain the database, users are usually required to log in through their respective institutions that subscribe to Elsevier. In a systematic literature review, a study must determine document eligibility criteria that are consistent with the research objectives. This includes the method of searching for documents in order to present reliable results to draw conclusions and support decisionmaking (Moher et al., 2010).

In the initial phase, the researcher determined the number of records identified through database searches and other sources. In this study, documents were obtained from Scopus database searches that included concepts or themes related to the topic of sustainable tax planning also represented by Sustainability, CSR, ESG, tax avoidance, and tax aggressiveness (or similar terms) in the title, abstract or keywords. The aim was to identify the existing literature on this topic published, including document types which in this research are represented by articles and reviews in English as a representation of the International or Global language and from any country. The search for research documents was conducted on the Scopus database using the following search equation: ALL FIELDS ("Sustainable tax planning") OR TITLE-ABS-KEY ("ESG" OR "CSR" OR "Sustainability") AND TITLE-ABS-KEY ("Tax Planning" OR "Tax Avoidance" OR "Tax Aggressiveness").

The next step was to sort the data according to certain criteria used in this study. In sorting documents, the researchers focused the on the following criteria: selecting only "article" and "review" document types and limiting documents that use English. The reason why this research uses certain types of documents is because this study focuses on analysing trends in research publications related to relevant topics. Other documents that did not fit the criteria were ignored. The selection of English as the primary language was chosen to be globally representative, as well as given the prevalence of English in academic literature. In addition, the selection of documents using English also reduces the risk of errors in the interpretation of documents in other foreign languages. Finally, the researcher also sorted the keywords by ignoring place names such as countries. This was done to avoid misinterpretation in the analysis. The keywords containing these elements were then checked again to ensure that the country of origin of the research had been adjusted. From the data search and sorting, 156 documents from 2004-2024 were obtained.

Publication and citation analysis is used to measure the number of publications and citations related to the topic of sustainable tax planning. This analysis provides an overview of how actively research is conducted and the extent to which the publications influence the development of science (Donthu et al., 2021). Regional or country analysis is used to identify and analyse the most dominant research subjects or areas in a particular field (Suharmono et al., 2022). The region or country analysis also includes collaborative networks of co-authors from different countries and institutions that help understand the geographical distribution of research, identify potential partners, and evaluate the effectiveness of research cooperation between countries and their institutions. Subject area analysis involves the use of subject categories defined in the database. Each publication in a scientific database is labelled with a specific subject area category, such as social sciences, life sciences, science, arts, humanities, and others.

Thematic analysis in the form of thematic map visualization generated by Bibliometrix R with the latent Dirichlet allocation (LDA) method is used in describing the results of the research. This method helps identify the main topics or themes in various documents, such as articles or scientific publications. Thematic maps allow organizing documents by topic and visualizing them in graphical form, providing insights in understanding the development of research topics and relevant topic categories. Thematic maps produce diagrams with two measures and four quadrants: development degree (density) and relevance degree (centrality) for the measures and basic themes, motor themes, niche themes, and emerging or declining themes for the topic's quadrant (Maghsoudi et al., 2023).

Alternative methods that could be used for thematic analysis include the use of bibliometric mapping tools such as VOSviewer or CitNetExplorer. These software tools also perform network-based visualizations, focusing on the relationships between documents, authors, and keywords. VOSviewer, for instance, uses co-occurrence analysis to visualize keyword or co-authorship networks, which can be particularly useful in identifying research clusters and trends. Another alternative approach could be using a manual coding method for thematic analysis, where a researcher categorizes themes based on a close reading of selected texts, though this method might not scale as effectively as automated tools. Additionally, a mixed-method approach could combine these quantitative analyses with qualitative insights derived from the full-text analysis of a subset of the documents. This approach would allow researchers to triangulate findings from different data sources and analysis techniques.

The level of development is used to measure how far a research topic has progressed based on the number of publications. The higher the level of development, the more publications related to the topic, signaling an established and significant research area. Relevance degree measures how relevant or central a research topic is to other topics in the literature corpus. The degree of relevance can be measured using a distance or relationship metric between a topic and other topics. The higher the degree of relevance, the more closely related the topic is to other topics, indicating its importance in the research network.

Basic themes reflect existing and widely recognized research topics in a particular field. Basic themes include topics that have been researched for a long time, and many publications are related to them. Motor themes are research topics that have a strong influence and are central to driving or initiating research developments in a field. Motor themes often influence or inspire other topics and have high centrality and density in research networks. Niche themes reflect research topics that focus on a more specific or narrow area of research. These themes have a high density in the context of a particular topic and can provide deep insights into a specialized field. Finally, there are emerging and declining themes. Emerging themes are research topics that have recently emerged and gained increased research interest within a period. Conversely, declining themes are research topics that have lost research interest over time.

4. RESEARCH RESULTS AND DISCUSSION

The number of publications and citations is an important indicator of research impact and influence. The documents that have been collected are data from various years. Each year, the number of documents and research citations are analysed to identify relevant trends and patterns. Research on sustainability and taxation has been conducted over the past few years, from 2004 to 2024, with 156 papers and generating an average annual citation of 498.53, with an average per paper of 22.56. On average there are 2.62 authors per paper (see Table 1).

 Table 1. Main information on sustainability and taxation research

Description	Results
Main information	·
Timespan	2004-2024
Sources (journals, books, etc.)	98
Documents	156
Annual growth rate (%)	12.2
Document average age	4.03
Average citations per document	22.56
Document content	
Author's keywords (DE*)	397
Authors	
Authors	369
Authors of single-authored documents	32
Author collaborations	
Single-authored documents	34
Co-authors per document	2.62
International co-authorships (%)	21.15

Note: In the context of academic research and bibliometric analysis, "DE" stands for "descriptors" or "author keywords".

4.1. Analysis of publications and citations

Figure 2 illustrates the annual scientific publications in sustainability and taxation, with the dark blue bar chart showing the total publications and the light blue line showing the average total citations each year. The graph shows an increase in publications and a decrease in the number of citations over time which may be due to the growing interest in topics related to sustainability and taxation. Meanwhile, the decline in research output can be attributed to a combination of factors, including changes in policy that impact research funding, shifts in research priorities, and external factors such as economic or political events that may influence the research landscape.



Figure 2. Number of publications and frequency citations per year

Note: MeanTCperYear = average total citations per year.

Based on Figure 2, in 2004 sustainability and taxation were just beginning to receive research attention. Then for a span of five years, there was no development of publications related to the topic until 2010. Fluctuations in the development of this topic can be observed after 2010 until 2018 when only about one to seven documents were published. From 2019 to 2024, the development of this topic is still up and down, but the publication documents began to reach a peak of twenty publication documents. The publication of documents related to the topic of sustainable tax planning reached its peak in 2022, with a total of 29 documents.

Observing the increase in 2019, there are several factors that can explain why research topics on sustainable taxation are increasing such as the increasing awareness of environmental issues and climate change (Cheng et al., 2022; Mpofu, 2022; Rahman, 2023), new regulations and policies that are being implemented in various countries (Halim & Rahman, 2022; Leonard et al., 2023), demand for transparency in tax reporting and use of public funds (Gribnau, 2015; Gribnau & Jallai, 2019), and the impact of the COVID-19 pandemic (Ispriyarso & Wibawa, 2023). However, it should be noted that this research was conducted near the middle of 2024,

so it is possible that in that year publications on relevant topics will still continue and increase. This publication trend shows that sustainability and taxrelated research remains relevant and receives attention from researchers and academics.

In research on sustainability and tax, significant fluctuations are seen in the analysis of average citations per year (MeanTCperYear) using the Bibliometrix R. This metric reflects the average number of citations received by a group of publications each year, indicating their level of productivity and impact within the scientific community. If the number of published articles increases, but MeanTCperYear decreases, this may signify a relative decline in quality or impact, despite an increase in publication output. MeanTCperYear also measures the average citations received by an article in a given year, indicating how often that article is cited in other studies (Yudha, 2023). Overall, a higher MeanTCperYear indicates a greater impact of the research in that year.

In Figure 2, MeanTCperYear in 2012 increased dramatically compared to the previous year with 17.58 average citations. This indicates that, on average, articles published in 2012 were cited 17.58 times. This number gives a general idea of the total publications in that year, so the number of citations per article may differ significantly. The following year saw significant fluctuations. In the range of publication years presented, there was no indication of an average number of citations at zero, although, in 2011, MeanTCperYear only reached 0.36 average citations. It is important to note that this could be due to a variety of reasons, such as an absence of relevant research or limited academic interest in the topic at the time.

Figure 3. Co-citation network of publications



Figure 3 shows the co-citation network of the relevant topic publications. From the analysis, it can be seen that the articles published by Lanis and Richardson (2012) and Hoi et al. (2013) are the two most cited articles throughout the years of publication. The article written by Lanis and Richardson (2012) entitled "Corporate social responsibility and tax aggressiveness: An empirical analysis" has been cited 294 times. The authors examined 408 public companies listed on the Australian Stock Exchange in 2008-2009. The study found that, the higher the level of corporate CSR disclosure, the lower the level of corporate tax aggressiveness. Social investment commitment, corporate strategy, and CSR (including ethics and business behavior) are important elements of CSR activities that have a negative impact on tax aggressiveness. In other words, companies that are able to commit to adopting disclosing their corporate sustainability and are likely to comply with applicable taxation. In the same year, a study by Huseynov and Klamm (2012) entitled "Tax avoidance, tax management and corporate social responsibility" was cited 163 times. Their research is in line with Lanis and Richardson's (2012) research, where CSR affects tax avoidance.

In addition, the most cited article is by Hoey et al. (2013), which has been cited 459 times worldwide. This article also discusses the relationship

between CSR and tax avoidance. The results of this research are in line with the two previous studies. However, the statement made by the research emphasizes that companies with excessive irresponsible CSR activities are more aggressive in tax avoidance, and also gives credence to the idea that corporate culture affects tax avoidance.

From the three most cited articles, it can be seen that the most discussed issue by all three is related to the relationship between CSR and tax avoidance. However, although this topic has received significant attention in the literature, further analysis shows that the relevant publications have not fully addressed ESG as one of the indicators in the context of sustainability that can be linked to taxes. This suggests that there is still room for more in-depth research in exploring the relationship between tax and ESG aspects in the context of corporate sustainability.

Taxes can influence a company's ESG activities by changing shareholder preferences. For example, regulators can use "interactive" tax schemes where the tax rate on one variable depends on the realization of another variable. Linear tax schemes change the average, convex or concave ones change the variance, and interactive tax schemes change the correlation between financial and ESG outcomes. A tax on one variable can affect other outcomes, depending on their correlation. However, taxes can also have side effects, such as changing the level of earning management or greenwashing behavior. The effectiveness of taxation to encourage ESG activities depends on the reliability of ESG measurement, which can be difficult due to several factors. However, regulators can use the natural correlation between variables to influence ESG outcomes that are difficult to measure by taxing or subsidizing variables that are easier to measure (Bonham & Riggs-Cragun, 2024). While the concepts of taxation and ESG have potential, their implementation can be hindered by political hurdles and high administrative costs.

4.2. Analysis of the subject area

Publications on the topic of sustainability and tax come from a variety of fields. Figure 4 shows which fields contribute to this topic.

Figure 4. Sustainability and taxation research topic subject areas



Figure 4 shows that the field that contributes the most to the topic of sustainability and taxation is "Business, management, and accounting", with 101 publications or about 31% of the total. This is followed by "Economics, econometrics, and finance" with 72 publications or about 22%. Furthermore, social science with 58 publications or 18%. The three lowest fields on the topic of sustainability and taxes are "Chemical engineering", "Mathematics", and "Medicine". This is of course not surprising, because this topic is indeed less relevant in these fields. In addition, it can also be seen that other fields in the middle level of sustainability and tax topics such as "Environmental science", "Energy", "Arts and humanities", "Decision sciences", "Engineering", and "Computer sciences" still have significant contributions to the research. This shows that the understanding of the importance of considering various aspects of sustainability in the context of taxation by researchers is still broad and can be attributed to certain fields.

4.3. Analysis of countries/organizations collaboration

The data in the table below shows the involvement of countries that carry publications on this topic.

Table 2. Number of documents per	country on sustainability	and taxation (Top 20)
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No.	Country	Docs	<i>No.</i>	Country	Docs
1	United States (USA)	28	11	Germany	7
2	Indonesia	17	12	Spain	6
3	China	16	13	Taiwan	5
4	United Kingdom	14	14	Saudi Arabia	4
5	Tunisia	11	15	France	4
6	South Korea	10	16	Pakistan	3
7	Malaysia	9	17	Netherlands	3
8	Canada	9	18	Japan	3
9	Australia	9	19	India	3
10	Italy	7	20	Hong Kong	3

Table 2 shows representatives of 20 countries out of 45 countries involved in publications related to sustainability and tax research. The USA is the most active country in publishing research on sustainability and tax with a total of 28 publications. In the second position, Indonesia followed with a total of 17 publications. The third to fifth positions are occupied by China with 16 publications, and Tunisia with 11 publications. From the data, it can be seen that European countries are the most dominant in contributing to publications on sustainability and tax, although they do not top the rankings with a total of 23 countries. Meanwhile, Asian countries ranked second with a total of 15 countries involved in contributing to related topics.

In country analysis, the co-authorship network of countries is one of the analyses in the bibliometric

approach that represents cooperative research relationships across national borders. In this network, each country is represented as a node, and an edge connects countries that have collaborated in co-authorship. The stronger the line connecting two countries, the more frequently co-authorship occurs between them. The country co-authorship network provides insights into global research collaboration patterns, identifies potential partners for cooperation, and analyses how effective a country is at collaborating with others in the context of scientific research (Glänzel et al., 1999; Zare-Farashbandi et al., 2014).



Figure 5. Co-authorship network of countries

Figure 5 shows that the countries that collaborate the most on this research topic are the USA and China. In addition, it can also be observed that countries that contribute to the publication of sustainability and tax topics collaborate with each other, including countries that only collaborate with one other country such as Indonesia and Malaysia. The data in this figure indirectly shows that countries around the world have diverse interests and contributions to sustainability and tax research. These findings provide insights into global research contributions related to sustainability and tax topics, comparisons of research performance between different regions or countries, and enhancing scientific collaboration between different countries or regions to strengthen research development and knowledge exchange on relevant topics.

Table 3 shows the main institutional affiliations that produced the most scientific output on this research topic. The University of Sfax ranked first with a total of 17 publications, meaning that around 10.89% of the total documents in this research came from this institution. This was followed by the Polytechnic of State Finance STAN with a contribution percentage of 8.97% of the total documents. Of the top 20 institutions, the country that shows the most affiliation is held by Indonesia with a total of eight institutions contributing to relevant topics. These results help to identify institutions in specific research areas and can provide insights into centers of research activity and collaboration.

Table 3. Leading affiliations

Affiliation	Docs
University of Sfax (Tunisia)	17
Polytechnic of State Finance STAN (Indonesia)	14
South China University of Technology (China)	9
Universitas Negeri Semarang (Indonesia)	9
Universitas Indonesia (Indonesia)	9
Monash University (Australia)	5
Trisakti School of Management (Indonesia)	5
Universitas Airlangga (Indonesia)	5
Lancaster University (England)	4
Multimedia University (Indonesia)	4
State Polytechnic of Malang (Indonesia)	4
Universitas Jambi (Indonesia)	4
University of Westminster (England)	4
Università Degli Studi Dell'insubria (Italy)	4
Colorado State University (USA)	3
Qut Business School (Australia)	3
University of Agricultural Sciences and Veterinary Medicine (Romania)	3
University of Jeddah (Saudi Arabia)	3
University of Macau (China)	3
University of Malaya (Malaysia)	3

4.4. Analysis of keywords and cluster topics

In Figure 6, the thematic map diagram produces two levels of measures and four quadrants of themes. Each of these contains clusters marked with colours. This research will address one representative topic per cluster of the thematic map.

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Figure 6. Sustainability and taxation thematic theme

(Centrality)

According to the research results, in the thematic map, the most discussed topics are "tax", "corporate social responsibilities (CSR)", and "sustainability". These topics belong to the motor themes, which means that these topics are very important or significant in the context of the main topics, but there is limited information or data available about them. In other words, this shows the important function of this view in the review of related literature, where most documents discuss the relationship between CSR, tax avoidance, and tax aggressiveness. Some documents provide results on how entities that adopt CSR are less aggressive in tax avoidance even in different contexts (Lanis & Richardson, 2012, 2018; Lasmana et al., 2019; Chouaibi et al., 2022; Ding et al., 2022; Kuo, 2023; Rakia et al., 2024). However, there are studies that reject this. For example, research conducted by Abid and Dammak (2022) stated that companies that have high levels of CSR are more likely to engage in aggressive tax avoidance practices. Furthermore, Laguir et al. (2015) also stated that corporate tax aggressiveness depends on the nature of the company's CSR activities.

The research trend moves from the basic themes of "sustainable development", "commerce", and "competition". This means that the topics in this group are highly relevant to the main topic under discussion and there is a lot of information or data available on these topics. Research conducted by Khan et al. (2023) found that motivating multinational companies based in developed countries to build green factories overseas or in developing countries can help developing countries reshape urban infrastructure and reduce greenhouse gas emissions. Moreover, offshoring costs (e.g., supply chain decentralisation losses and overseas shipping time costs) may be compensated by tax planning benefits due to developing countries' tax relief policies. Companies should also choose tax strategies that are compatible with sustainability goals, and considering the trade-offs between tax and non-tax costs to increase firm value holistically constitutes a corporate strategy in sustainability and taxation (Lee & Yoon, 2020; Shin & Park, 2022).

These results provide valuable insights for policymakers, business practitioners and researchers to understand the role and challenges of sustainable tax planning in the global and local context. In the case of the shadow economy, Popescu et al. (2018) stated that factors such as tax evasion, bribery, lack of trust in public officials, poor quality of business regulations, lack of government support for entrepreneurs, high social contribution, relatively high corruption, high tax rates, and regulatory policy uncertainty were shown to increase shadow economy activity. Regulators and stakeholders therefore need to focus on building reliable and transparent institutions with lower levels of corruption, regulation, and bureaucracy, regaining public trust in public institutions, and outlining effective strategies to deal with undeclared activities that will contribute to the achievement of SDGs through the fulfilment of the two main goals of the SDGs. In addition, research on these themes can serve as a basis for developing better solutions and initiatives.

The study also highlights the importance of government's role in combining these the two concepts. If governments fail to incorporate sustainability considerations into their policies and regulations, it will lead to environmental degradation and social injustice. Entities may not implement sustainable tax planning strategies, resulting in missed opportunities to save costs and enhance reputation. Researchers may not identify new areas to explore, limiting the understanding of sustainable tax planning and its potential application. Future research is thought to benefit regulators with a better understanding of the complex relationship between sustainability and taxation. This could provide input for policymaking that promotes sustainable development while ensuring the responsibility of each entity.



Research on sustainable tax planning that focuses on tax systems that encourage sustainable and environmentally friendly business practices should be developed. This includes analysing the effectiveness of tax incentives for investment in green technology, renewable energy, or other business practices that contribute to sustainability. In addition, research needs to be conducted on the impact of tax policies on consumer behavior, the impact of carbon taxes on emission reductions, and the exploration of legal and social justice aspects in the implementation of sustainable tax policies, including the distribution of tax burdens and incentives for low-income communities. Evaluation of the effectiveness of tax incentives for green technology innovation should also be considered, such as tax credits for investment in green technology, to encourage innovation and development of sustainable solutions. Tax policies the development of that support green infrastructure are also important to review, as well as an exploration of how the application of taxes can be used as a tool to protect the environment. In addition, the previously discussed topic of greenwashing is an interesting idea for future research, where ESG instruments can be used to mask tax avoidance practices. By combining both aspects, future research can explore how tax policies can be designed to encourage more sustainable business practices, while addressing the challenges of greenwashing and tax avoidance.

5. CONCLUSION

This research shows that publications related to sustainability and tax in the context of sustainable tax planning are still in the development stage. The bibliometric analysis reveals that while the trend of citations has decreased, the trend of publications related to sustainability and taxation has increased over time. This suggests that the topic of sustainable tax planning is gaining attention and relevance in both academic and practical spheres. The most active fields in sustainability and taxrelated publications are business, management, and accounting, indicating that practitioners and policymakers are seeking to integrate sustainability into their practices. The country analysis shows that the USA had the highest number of contributors and collaborators, highlighting the importance of international cooperation and knowledge sharing. The increasing trend of sustainable tax

planning research suggests that governments should

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consider revising their policies and regulations to support sustainable development. Moreover, this study emphasizes the importance of government support for sustainable tax planning initiatives to encourage businesses to adopt environmentally friendly practices. Future research should focus on exploring the implications of ESG reporting on tax planning and vice versa. This research can help policymakers and regulators develop targeted tax policies that promote sustainable development and discourage unsustainable practices. For instance, governments can use taxation as a policy instrument to incentivize or discourage certain behaviors that contribute to sustainable development. The result suggests that sustainable taxation planning requires a deeper understanding of the complex interplay between sustainability and tax. Therefore, future research should focus on developing a framework that integrates sustainability principles with tax planning to support sustainable development. By doing so, researchers can provide policymakers and regulators with actionable insights to inform their decision-making processes. This study has the potential to contribute to the development of more effective taxation policies that promote sustainable development and reduce the risk of greenwashing practices. Ultimately, this study aims to inform policymakers and regulators about the importance of considering sustainability in taxation.

While this study provides important insights into research trends and sustainable tax planning, there are some limitations that need to be noted. First, the bibliometric analysis in this study relies on data drawn from a limited database, i.e., literature published in academic articles and recorded in specific databases. As such, there may be other important research or publications that are not included in this analysis. Second, while this study emphasizes the importance of integrating sustainability principles in tax planning, it does not discuss in depth the challenges or barriers that companies and policymakers may face in implementing tax policies that support sustainability. Several factors, such as regulatory uncertainty, lack of knowledge about the implementation of sustainable tax policies, well as the potential mismatch between as the objectives of reducing tax liabilities and CSR, are issues that need to be investigated further. Therefore, future research should delve deeper into the practical challenges that exist and the strategies that can be taken to overcome them.



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