Journal of Law and Bibliometrics Studies
Homepage : https://journal.i-ros.org/index.php/JOLABIS
Email : jolabis@i-ros.org

e-ISSN 3109-3310
Vol. 2, No. 2, August 2026

ESG Implementation through Management Control Systems in Developed and Developing Countries: A Literature Review and Bibliometric Analysis

Dahlia Tri Anggraini[1,2*], Tubagus Ismail[1], Elvin Bastian[1], Nurhayati Soleha[1]

[1]University Sultan Ageng Tirtayasa, Banten, Indonesia
[2]University Muhammadiyah Jakarta, Jakarta, Indonesia

DOI : https://doi.org/10.63230/jolabis.2.2.218

Sections Info

Article history:
Submitted: May 25, 2026
Final Revised: June 06, 2026
Accepted: June 07, 2026
First Available Online: June 27, 2026
Published: August 27, 2026

Keywords:
ESG;
Literature;
Management Control;
MCS.

ABSTRACT

Objective: *This study aims to identify and synthesize research developments on the role of Management Control Systems (MCS) in supporting Environmental, Social, and Governance (ESG) implementation and to identify future research opportunities.* ***Method:*** *A literature study using a Systematic Literature Review (SLR) approach to articles examining the relationship between MCS and ESG across various organizational contexts. Data were analyzed qualitatively by identifying, selecting, and classifying themes and synthesizing relevant research findings.* ***Results:*** *the study indicates that most studies still focus on MCS aspects of internal control, internal control quality, internal control personnel experience, and internal control costs in supporting ESG performance. In addition, the dominant theories used are legitimacy theory, institutional theory, stakeholder theory, and signaling theory. The findings also indicate that a good quality internal control system contributes to improved ESG performance and stakeholder trust. The implications of this study underscore the importance of strengthening MCS as a strategic instrument for supporting ESG-based sustainable business transformation.* ***Novelty:*** *The novelty of this research lies in the comprehensive synthesis of the relationship between MCS and ESG and the identification of research gaps, which show that previous studies are still dominated by the internal control perspective, thus opening up opportunities for the development of a broader MCS model with a qualitative, multidimensional approach, and focusing on ESG implementation in developing countries.*

INTRODUCTION

The purpose of establishing a company is to increase shareholder profits. However, orientation towards short-term profits alone can cause many negative effects, namely instability and imbalance in the company (Kantabutra & Siebenhuner, 2011; Liu et al., 2025; Nagy, 2025; Smara et al., 2024). This is reflected in the inevitable manipulation of financial report figures to create short-term profits, which leads to incorrect decision-making by users of information, especially in investment decisions. In many countries, especially Indonesia, there are real examples of this being done by companies of different types (Gojali, 2023; Usman, 2023)—both financial and non-financial services. In 2008, PT Jiwasraya Insurance experienced a case of default on claims for matured policies of JS Saving Plan customers, amounting to IDR 12.4 trillion. This incident marked the beginning of this insurance company's financial difficulties. In 2019, the company's financial report recorded debt of IDR 49.6 trillion, which was 2 times its assets of IDR 25.68 trillion, resulting in total negative equity of IDR 23.92 trillion (Alimirruchi &

Chariri, 2023; Lubi et al., 2025). The misallocation of investment to mutual funds and low-quality stocks triggered this default. Before it was traced to experiencing financial difficulties, the company's management tried to cover them up by manipulating its financial report figures, resulting in deliberate misrepresentation (Kassem & Omoteso, 2024; Pritty et al., 2024). This manipulation caused losses to investors who had invested capital in this Tbk company.

In addition to Jiwasraya insurance, financial report manipulation was also carried out by PT. Bank Bukopin, which was revealed in 2018. To beautify the 2015-2017 financial report, this banking company modified credit card data that had been recorded for years, causing Bukopin's credit position and commission-based income to increase inappropriately. This manipulation certainly caused losses for investors and potential investors, as they made the wrong investment decisions (Jonkarlo et al., 2022; Rangapur et al., 2023). From these cases, it is clear that an orientation towards short-term profits undermines business sustainability by deceiving all stakeholders. Furthermore, this lie will destroy the company's glory. The implication is that the idea of corporate sustainability is increasingly echoed by decision-makers (Anwar et al., 2026), environmental organizations, consultants, and stakeholders in the search for corporate sustainability strategies (Buch et al., 2024; Gond et al., 2024; Oliever et al., 2005).

Companies are not only assessed by the size of their business profits but also by the seventeen sustainable development agendas, specifically, reducing poverty, ending hunger, promoting health and well-being, gender equality, access to clean water and sanitation, clean and affordable energy, decent work and economic growth, industrial infrastructure and innovation, equality reduction, sustainable cities and communities, responsible production and consumption, tackling climate change, protecting marine and terrestrial ecosystems, peace, justice, and strong institutions and partnerships to achieve goals (https://sdgs-un-org.translate.goog/). These seventeen sustainable development agendas are a shared responsibility, namely, the state, supported by businesspeople who establish companies within it (Bonfanti et al., 2023; Mahajan et al., 2024; Shandryk et al., 2023). This Sustainable Development Agenda has been a long process, from 1992 to 2015, when it was adopted as a blueprint, with the hope of being realized simultaneously in 2030 for the prosperity of nature (planet), humans (people), and companies (profit).

Many researchers believe that short-term profits cannot provide sustainable business success, so they are seeking alternative ways to maximize shareholder value outside countries that support the Sustainable Development Agenda (Avery, 2005; Kantabutra, 2011; Rodrigues, 2019). According to Avery, the capitalist system has serious flaws and does not offer people and society a high standard of living (Tran et al., 2024). According to Kantabutra, the Thai concept of sufficiency—which encompasses tenacity, fortitude, stakeholder focus, and other qualities—can be used to ensure corporate sustainability. Rodrigues asserts that an organization's market position and resources are critical to implementing corporate sustainability. According to Rogers, Jalal, and Boyd (2008),

business sustainability is the capacity to strike a balance among the "triple bottom line," which comprises financial performance, corporate social responsibility, and the environment. Strong financial success, enduring in challenging economic times, and retaining market leadership positions are some other characteristics that some people define as company sustainability (Avery, 2005; Egieya et al., 2023; Obeng et al., 2025).

As a result, the corporation must consider social responsibility, environmental concerns, and governance across all its commercial operations and processes, in compliance with relevant laws and regulations (Kandpal et al., 2024; Ye & Dela, 2023). The creation of ESG, which focuses on business sustainability, was sparked by politicians and entrepreneurs who realized that the pursuit of short-term profits has had, and will continue to have, even more detrimental effects. This is in line with capitalist economic theory, which holds that a company should be established with the least amount of capital possible to maximize profit (Heise, 2023). This knowledge offers a theory that makes it acceptable to use any method to make a significant income.

Each company's business model determines how ESG is implemented. ESG is applied in manufacturing enterprises (factories) through quality standards, audits, energy efficiency, waste management, and community empowerment initiatives. OJK Regulation (POJK) No. 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies serves as the basis for regulations governing ESG in the financial services industry. The national economic system, which places a high value on harmony between economic, social, and environmental factors, is the subject of this regulation. The principles of responsible investment, sustainable business practices and strategies, governance, inclusive and informative communication, social and environmental risk management, coordination, and collaboration are used to implement sustainable finance.

According to POJK No. 51/POJK.03/2017, Article 1, Paragraph 8, Sustainable finance is the financial services industry's all-encompassing assistance in fostering sustainable economic growth through the alignment of social, economic, and environmental interests. Nature, the continuation of life, and the well-being of humans and other living things are all affected by the environment, a unified space that encompasses all elements, forces, conditions, and living beings, including humans and their behavior. Financial services organizations play a role in directing creative funding, particularly toward environmentally conscious and environmentally friendly enterprises, or "green financing." In addition, OJK has finished Phase II of the Sustainable Finance Roadmap (2021–2025), which focuses on building an all-encompassing sustainable financial environment. It is anticipated that this roadmap will serve as a basis for the financial services industry and a guide for relevant ministries and institutions as they create creative financing projects.

Due to a lack of government or regulatory backing and sector-specific legislation, the current state of ESG implementation in businesses is subpar (Kumari, 2025). Naturally, this will impede the adoption of ESG in other industries. To be a whip for Indonesian

enterprises that have not focused on implementing ESG, there needs to be a legally enforceable law that is fairly balanced and imposes penalties for noncompliance. Then, to fulfill ESG requirements, there are several types of standards and criteria. A separate organization, business, or institution with a distinct emphasis on information presentation creates every standard. In addition to giving businesses a choice in how they provide information, these different standards can confuse businesses (Rahaman et al., 2023). Indonesia is a sustainable energy source with a wealth of biodiversity and natural resources. Therefore, ESG must be implemented in Indonesia in order for the global economy—and Indonesia in particular—to grow. One of the numerous advantages of ESG practices in businesses is that they promote sustainable, long-term growth, which in turn affects long-term profits. This can be attributed to ESG practices in the business sector benefiting the environment and local communities (Marfu et al., 2025; Wang et al., 2024).

Research related to the influence of ESG on future financial performance has been conducted by several researchers (Duque-Grisales & Aguilera-Caracuel, 2021; Yoo et al., 2018). Companies with stronger ESG characteristics can achieve higher growth, reduce corporate risk, increase investor confidence, thereby increasing corporate value, and reduce the risk of estimating the cost of capital by lowering transaction costs. In addition, transparency in ESG reporting can help potential investors and shareholders choose companies with a high level of responsibility when making investment decisions (X. Yu et al., 2021).

RESEARCH METHOD

Researchers conducted a bibliometric analysis related to research linking MCS and ESG. In bibliometrics, there are density, network, and overlay results. Then, researchers seek literature on the role of MCS in ESG implementation. This study uses a bibliometric approach to map the development of studies linking Management Control Systems (MCS) with Environmental, Social, and Governance (ESG) (Cahyono, 2023; Quesado et al., 2024). The initial stage of the research involved collecting relevant articles from the Scopus database published between 2014 and 2024. A literature search was conducted using the keywords "MCS" and "ESG" to obtain publications that directly discuss the relationship between the two concepts. The data obtained were then extracted and analyzed using bibliometric methods to identify publication patterns, relationships among keywords, and the development of research themes (Klarin, 2024; Ullah, 2022). The bibliometric analysis was conducted using three main types of visualizations: network, overlay, and density (Borgohain et al., 2022; Lintangesukmanjaya et al., 2025), thereby providing a comprehensive picture of the intellectual structure and research trends in the fields of MCS and ESG.

Following the bibliometric analysis, the study proceeded with a literature review to deepen understanding of the role of MCS in ESG implementation. At this stage, the identified articles were systematically analyzed to examine their research focus, methods,

and key findings. The literature review aimed to identify how MCS supports the achievement of ESG goals through organizational planning, control, performance measurement, and decision-making mechanisms (Frezatti et al., 2026; Khan, 2024). Furthermore, this process was used to identify research gaps and opportunities for future study development. By combining bibliometric analysis and a literature review, this study not only maps scientific development trends but also provides a conceptual understanding of MCS's contribution to supporting ESG implementation across various organizational contexts (Rani et al., 2025; Truant et al., 2025). From the tabulation results of articles related to MCS and ESG, 15 articles were found with titles and themes related to MCS in ESG. However, three articles were accessible only with limited access, leaving only 12 articles reviewable by researchers. These 12 articles were mostly studied in developed countries, namely the United States, Korea, Italy, and the European Union.

RESULTS AND DISCUSSION

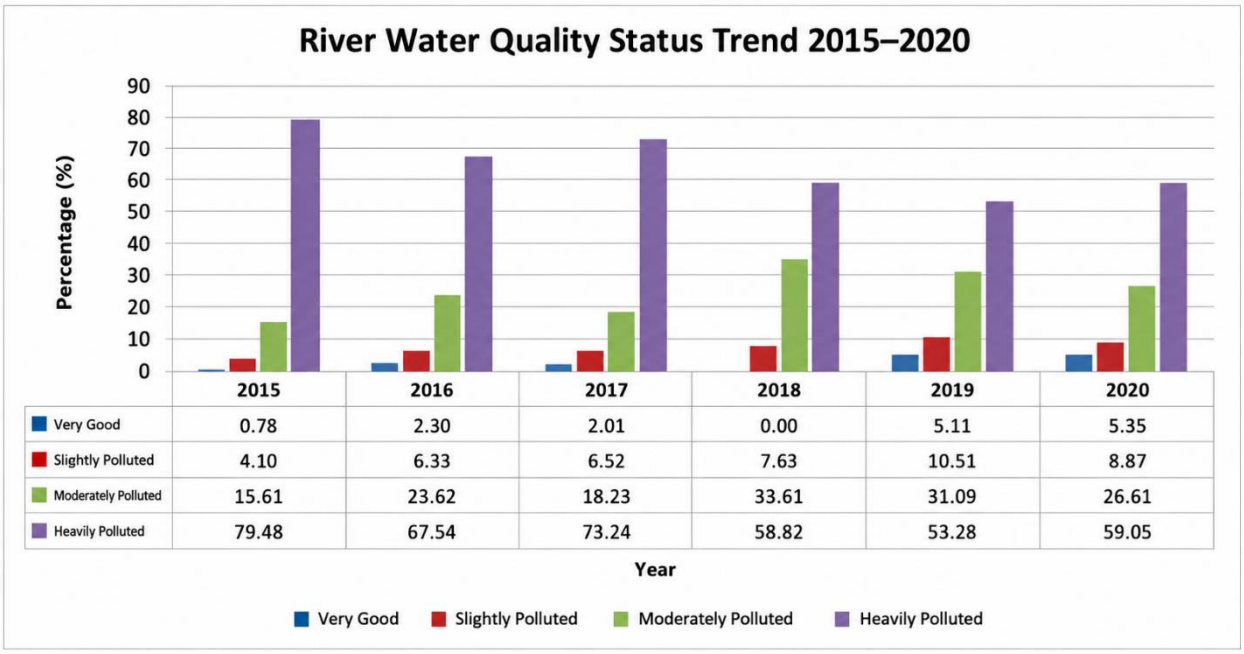
Results

Literature Background

An ESG implementation policy for infrastructure finance has been developed by the Indonesian Ministry of Finance (Pambudi et al., 2023; Wardana, 2024). Interest in greener, more sustainable infrastructure investment has increased due to the economic crisis, dramatic climate change, and the COVID-19 pandemic, which hindered infrastructure development. The ideas and standards used in company management that positively impact governance, society, and the environment are collectively known as the ESG Framework. ESG encompasses ten standards: 1) waste management and pollution prevention; 2) biodiversity conservation; 3) energy efficiency and natural resource management; 4) disaster risk and climate change adaptation and mitigation; 5) employment and work environment; 6) diversity, equality, inclusion, and access; 7) social interests; 8) cultural heritage; 9) leadership and governance; and 10) risk and control. Business and ESG practices need to coexist for a reason: Indonesia's forest acreage shrank between 2011 and 2018, then grew again in 2019 and 2020. In fact, forests serve as the world's lungs and help preserve the ecosystem's equilibrium. Commercial use—specifically, the pursuit of profit—is the cause of this decline in forest acreage. This is depicted as follows in Figure 1,

Figure 1. Forest area fluctuations in Indonesia 2011-2020

Based on Figure 1 above, in 2011 the forest area was 98.7 million H, and in 2012 it decreased by 0.5 million H to 98.2 million H. This decrease continued until its peak in 2018, at 93.5 million H. Then, in 2019 and 2020, it crept up by 0.6 million H and 1 H, to 94.1 million and 95.1 million, respectively. So it can be concluded that there has been a decrease in the area of forested land in Indonesia. Although there has been an increase, conditions have not returned to normal. In addition to the decreasing forest area, most water quality remains heavily polluted. This can be seen in Figure 2 as follows,



	2015	2016	2017	2018	2019	2020
Very Good	0.78	2.30	2.01	0.00	5.11	5.35
Slightly Polluted	4.10	6.33	6.52	7.63	10.51	8.87
Moderately Polluted	15.61	23.62	18.23	33.61	31.09	26.61
Heavily Polluted	79.48	67.54	73.24	58.82	53.28	59.05

Figure 2. River water quality status trends 2015-2020

As shown in Figure 2 above, the majority of Indonesia's Water Quality Index (IKA) values are in a severely polluted condition. In 2020, there was a slight increase over the previous year, but the majority remained unchanged. Eleven provinces in Indonesia contribute the largest weight of water pollution, namely East Java, Central Java, East Kalimantan, South Sumatra, and Riau, whose pollution has increased compared to the previous year. IKA in 2020 was 53.53, decreasing by 0.71 points to 52.82 in 2021. This data can be seen in Figure 3 below,

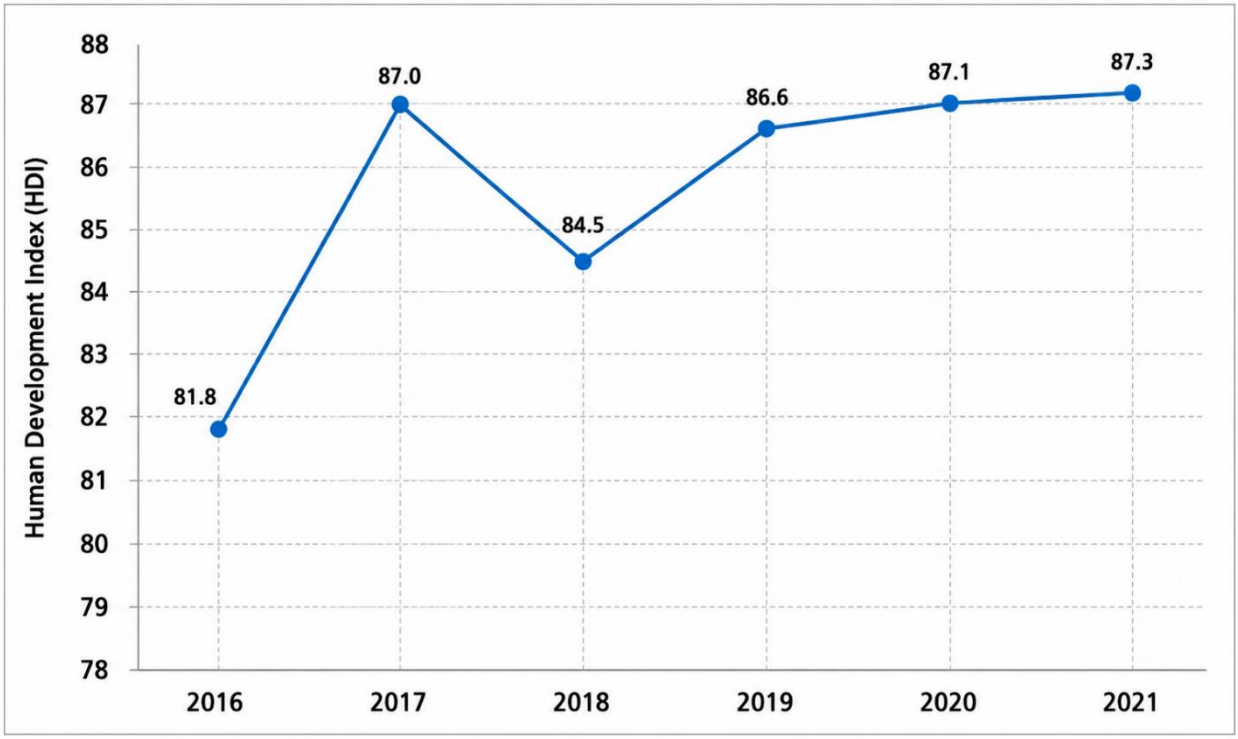


Figure 3. Average value of KPI 2016-2021

The IKU in 2021 increased compared to previous years, increasing by 0.15 points from 87.21 in 2020 to 87.36 points in 2021. This value exceeded the target set at 84.2. This was supported by the PSBB policy during the Covid-19 pandemic. Therefore, the world is very enthusiastic about promoting sustainable development. This spirit began in 1987, with the publication of the concept of sustainable development in Our Common Future by the World Commission on Environment and Development (WCED, 1987). According to the Brundtland Commission, sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is implied that the progress of current development must be accompanied by the preservation of the natural ecosystem, so that it is maintained for the future and can still be utilized by the next generation (Wiersum, 1995).

The company's sustainability performance can be measured by the ESG (Environment, Social, and Governance) score (Avetisyan & Hockerts, 2017). To achieve this, managerial encouragement is required to support and increase awareness and motivation. Encouragement can take the form of management control, so that all business lines focus

not only on short-term profits but also on the company's long-term (Fowler, 2023; Griep et al., 2025; Wei & Chengshu, 2024). So, managers play a very important role in motivating staff to care about the environment together and to implement the ESG concept across every business activity in the company.

Managerial drive can be framed by means of management control systems (MCS), which are used as effective strategies (Gond et al., 2012)and (Riccaboni & Luisa Leone, 2010). MCS has long been defined by Anthony (195) in Langfield-Smith (1997) as a process used by managers to ensure that resources are obtained and used effectively and efficiently in meeting organizational goals. MCS is also defined as a system of rules, practices, values, and other activities created by management to direct employee behavior (Malmi & Brown, 2008). MCS encompasses all management functions, including planning, directing, implementing, and monitoring.

Based on the typology of strategy, management can be classified into three types: prospector (future-oriented), analyzer (analyst), and defender (present-oriented), with strategic positions (competitive advantages) in price leadership and distinctive features (differentiators). In management, the prospector type with cost leadership has the potential to reap results because many consumers will choose it (Farida & Setiawan, 2022; Thukia et al., 2023). However, if a prospect has differentiation, it can build a business because it offers products or services that differ from its competitors'. In defender-type management with cost leadership, it can survive and reap the benefits directly (Alnoor et al., 2022). However, defenders with differentiation have the potential to survive and will reap the benefits (Langfield-Smith, 1997), so differences in management character can differentiate a company's business strategy (position and mission).

MCS issues, including (Ball & Milne, n.d.; Covaleski et al., 2006; Durden, 2008; Gond et al., 2012; Norris & O'Dwyer, 2004). However, only a few studies have focused on the role of SPM in implementing CSR activities (Laguir, 2016; Gond et al., 2012; Henri & Joumeaut, 2010; Perez et al., 2007). In the context of ESG, many studies focus on the relationship between Internal Control System and ESG (Koo & Ki, 2020; Harasheh & Provasi, 2023; Boulhaga et al., 2023; Gebhardt et al., 2023; Kim, 2023). However, a few studies still focus on the influence of MCS on ESG (Larsen et al., 2022; Ronalter et al., 2023). Moreover, even fewer have examined the influence of MCS on ESG in the banking sector (Palazzi et al., 2024). Searched for indexed Scopus articles related to the theme in Google Scholar, published in the last ten years (2014-2024), using the keywords MCS and ESG. We can see it in Table 1 Scopus articles related to the theme in Google Scholar,

Table 1. Relevance articles

No	Researchers	Access	Title	Rep	Publish
1	Ting-Tsen Yeh, Yuanzhang Xiao, Shirley J. Daniel, 2023	Close	Stakeholder influences on management control systems for ESG governance and reporting in the global automotive industry	Q2	Wiley

No	Researchers	Access	Title	Rep	Publish
2	Thea Tufte Larsen, Hans Erik Strifeldt , 2022	Open	Implementing ESG: The Role of MCS	Q1	University
3	Todd Cort, 2020	Close	ESG Risk Depends on MC Quality	Q1	Springer
4	Valeria Vannoni, Federica Palazzi, Annalisa Sentuti , Francesca Sgro, 2024	Open	The Role of the MCS in Supporting ESG-Focused Transformation in Financial Intermediaries: A Case Study of an Italian Bank	Q2	SRRN
5	Ja Eun Koo, Eun Sun Ki, 2020	Open	Internal Control Personnel's Experience, Internal Control Weaknesses, and ESG Rating	Q3	Sustainabi l ity (MDPI)
6	Murad Harasheh , Roberta Provasi , 2022	Open	A need for assurance: Do internal control systems integrate ESG factors?	Q1	Wiley
7	Mounia Boulhaga , Abdelfettah Bouri, Ahmed A. Elamer , Bassam A. Ibrahim, 2022	Open	Environmental, social, and governance ratings and firm performance: The moderating role of internal control quality	Q1	Wiley
8	Jacquelyn Sue Moffitt, Jeanne-Claire Alyse Patin, Luke Watson, 2023	Close	Corporate ESG Performance and Internal Control Environment	Q1	AAA
9	Suyon Kim, 2023	Open	Internal Control Manager's Accounting Experiences on Audit Quality-Focus on ESG	Q3	MDPI

No	Researchers	Access	Title	Rep	Publish
10	Shuying Li, Yujie Liu, Yang Xu, 2022	Open	Does ESG Performance Improve the Quantity and Quality of Innovation? The Mediating Role of Internal Control Effectiveness and Analyst Coverage	Q1	MDPI
11	Maria Gebhardt, Toni W. Thun, Marcel Seelfloth , Henning Zulch, 2022	Open	Managing sustainability Does the integration of environmental, social and governance key performance indicators in the internal management systems contribute to companies' environmental, social and governance performance?	Q1	wiley
12	Louis Maximilian Ronalter , Merce Bernardo, & Javier Manuel Romani, 2022	Open	Quality and environmental management systems as business tools to enhance ESG performance: a cross-regional empirical study	Q1	Springer
13	Emma Avetisyan, Kai Hockerts, 2016	Open	The Consolidation of ESG Rating Industry as an Enactment of Institutional Retrogression	Q1	Wiley
14	Valeria Venturelli, Alessia Pedrazzoli , Daniela Pannetta , 2024	Open	Assessing the Influence of ESG washing on bank reputational exposure : A cross-country analysis	Q1	Springer
15	Eduardo Duque - Grisales, Javier Aguilera-Caracuel , 2019	Open	ESG Scores and Financial Performance of Multilatinas : Moderating Effect of Geographic International Diversification and Financial Slack	**Q1**	Springer

Bibliometric Analysis

The researchers conducted a bibliometric analysis of research linking MCS and ESG, before conducting an article search with the following results in Figure 4.

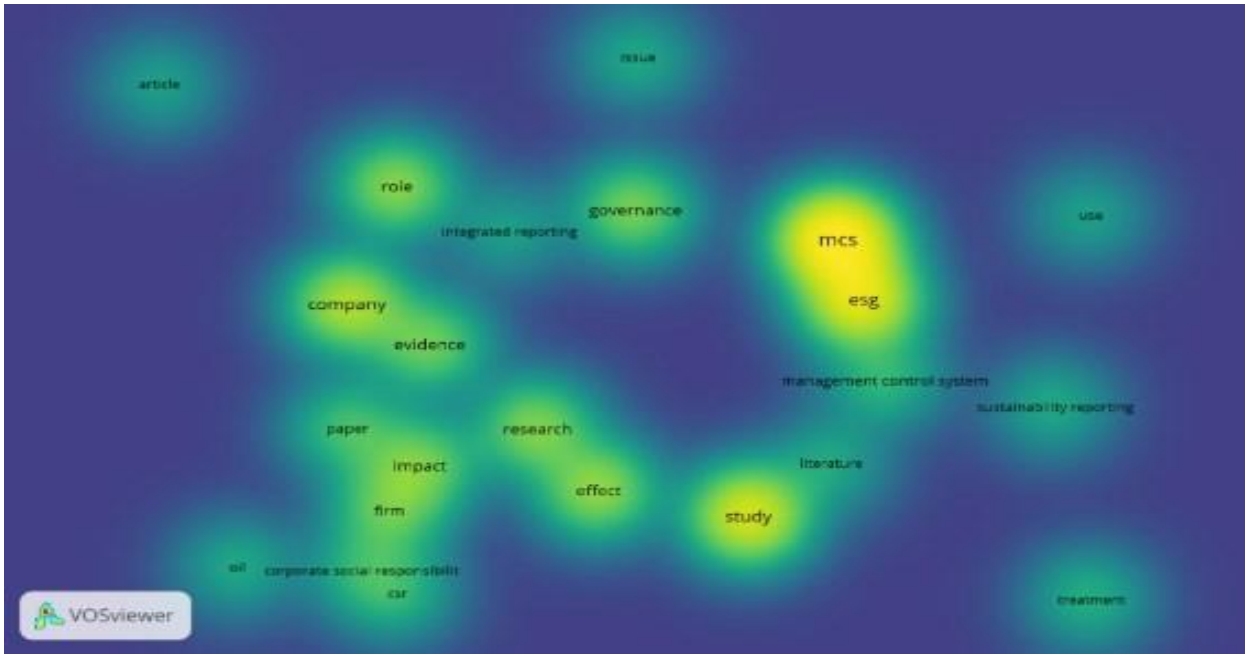


Figure 4. MCS-ESG Density

In Figure 4, bright light is visible in the writing of MCS and ESG. This implies that MCS and ESG research remains underdeveloped, as noted by previous researchers. Therefore, research on MCS and ESG remains a promising and relevant area for further exploration. In addition, the MCS-ESG network mapping can be seen in Figure 5 below.

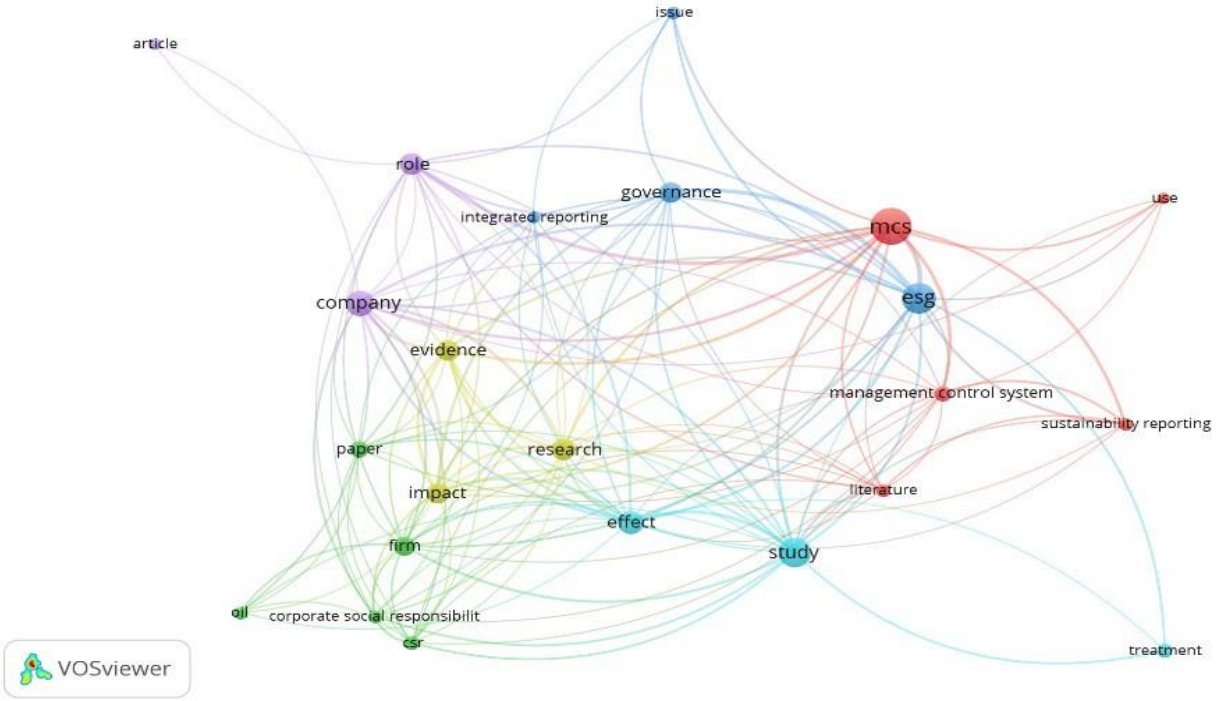


Figure 5. MCS-ESG network

From Figure 5, we can see the network connecting one research variable to another. We can see that MCS is shown in red, indicating a high number of studies. At the same time, ESG is shown in blue, indicating a low number of studies. Therefore, research combining

MCS and ESG variables can occupy a middle position, with still potential to be carried out in further research. In addition, the MCS-ESG Overlay mapping can be seen in Figure 6 below.

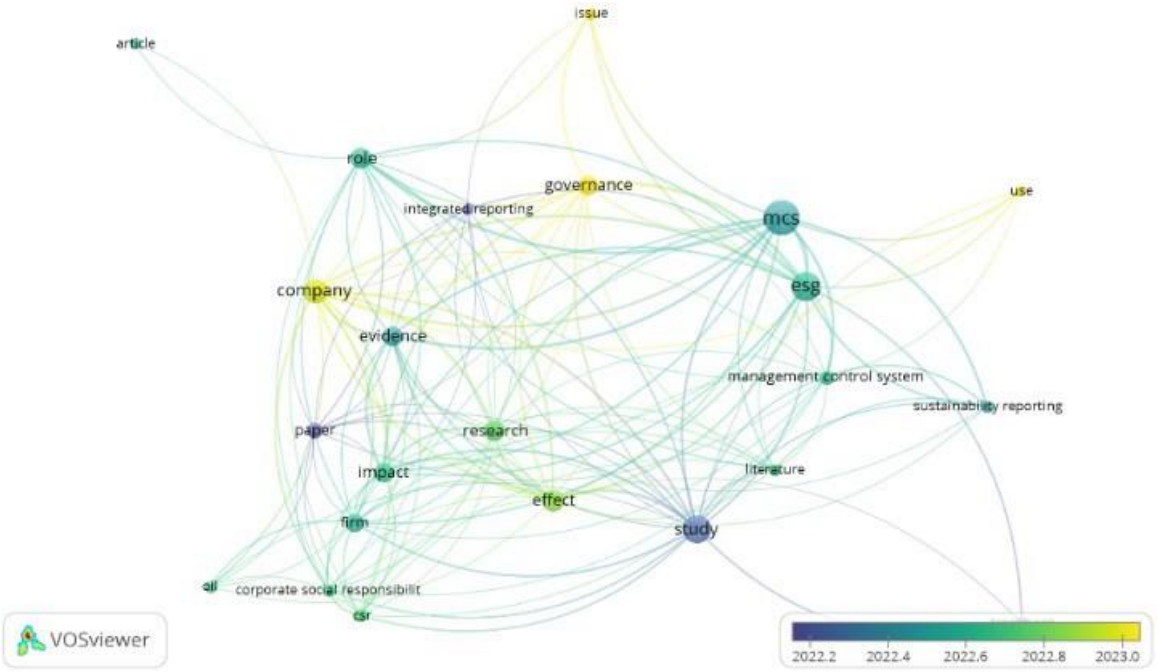


Figure 6. MCS-ESG Overlay

Figure 6 shows the years in which research related to a particular variable was conducted. conducted. The MCS and ESG variables are shown in turquoise, indicating that these variables have been used in research in 2022.

Literature Review

Originating from the concept of sustainability (Sustainable Development), the Brundtland concept (1987) introduced the Triple Bottom Line (TBL), consisting of 3 pillars: environmental, social, and economic. In the following year, it was discovered that TBL alternatives are 3P (People, Planet, and Profit). Then the government is under pressure to address poverty, hunger, and plague disease. This is summarized in the 17 SDGs, signed by all UN member states in 2015, which replace the concept of CSR. ESG has become a key indicator for addressing non-financial areas, comprehensive intangible factors, and supportive risk management expertise (Lanzalonga et al., 2025). Thus, ESG has evolved into a preferred term in capital markets, including ESG practices, performance, and reporting. Achieving development that meets current needs without sacrificing the ability to generate coming to meet their own needs is a motivation for the development of the ESG framework. Investors are increasingly placing value on data regarding sustainability issues for financial commitments.

A large number of companies worldwide rely on management systems (MS) to improve operations and systematically meet stakeholder needs. MS is a series of procedures to be followed to achieve stakeholder satisfaction with certain demands, so

that it is a " systematic process of how something is done. " Management System can be divided into two, namely QMS and EMS. Quality System Management (QMS) is oriented towards quality control, which directly affects business operations (Zhao et al., 2023). While the Environmental Management System (EMS) attempts to make organizations more competitive and more environmentally responsible by adopting purposeful techniques to reduce environmental impacts, such as waste reduction and process/product redesign. A Management Control System (MCS) includes various controls, among them planning, cybernetics, rewards and compensation, administrative, and cultural (Malmi & Brown, 2008).

The role of SPM in supporting the implementation of ESG strategies is highlighted through several functions. Main: Alignment with Corporate Objectives: MCS facilitates the integration of sustainability into the bank's overall corporate strategy, ensuring that ESG objectives align with business objectives. Monitoring and Reporting: MCS provides tools to track and report on ESG performance. Support Decision-Making: MCS supports the decision-making process by providing relevant data and insights on ESG performance. Cultural Integration: MCS promotes cultural sustainability in the organization by encouraging thinking that integrates economic and sustainability dimensions. Facilitate Accountability. MCS increasing accountability within an organization is very important for building trust with stakeholders and demonstrating the bank's commitment to sustainable practices. Compliance and Risk Management: MCS plays an important role in ensuring that banks meet regulatory obligations regarding ESG reporting and performance. MCS is important to implement ESG strategies effectively, because it provides the framework for the work required to monitor, report, and integrate sustainability into operations and the company culture.

Discussion

Literature Findings

After conducting a bibliometric analysis, the researcher analyzes the paper. There are MCS and ESG variables. The study (Larsen et al., 2022)answers the question of how the management control system can influence ESG implementation at Agder Energi AS through interviews, observations, and documentation. In this company, a lack of ownership was found among employees and the company, especially regarding sustainable strategies. The findings in this study are that competency development through interactive learning can foster an understanding of why individuals should take action towards a sustainable company. Researchers identified control systems that may exist in this company to encourage ESG implementation, namely real symbols, supportive leadership, communication, and interactive learning. Another thing that can influence ESG implementation is the existence of sustainable Key Performance Indicators (KPIs).

The study (Ronalter et al., 2023) states that quality management systems and environmental management systems are powerful tools for improving environmental,

social, and governance (ESG) performance. The study was conducted with a sample of 4,292 companies in Europe, East Asia, and North America. This is statistically proven: companies with a QMS and/or EMS achieve higher ESG scores than those without a management system. The study also finds that there is still little academic research linking management systems to ESG performance and empirically analyzing the relationship between the two, as evidenced by the lack of relevant search results in databases such as WoS (Web of Science) and Scopus.

The study (Palazzi et al., 2024) analyzes the role of SPM in supporting ESG-focused transformation in financial intermediaries: a case study of an Italian bank. Corporate sustainability involves the use of practical management control tools to monitor non-financial information and the decision-making process, and to guide strategic planning to achieve economic, social, and environmental goals together. Financial institutions have a role in supporting the country's economic growth, especially amid the monetary crisis and the COVID-19 outbreak. The Covid-19 outbreak caused a slowdown in the world economy, spurring the creation of a new world of business activities that more deeply embed the concept of sustainability in their models. In the financial sector, the implementation of a sustainability-oriented business model (ESG) is in credit distribution and investment. ESG is also closely related to risk management practices in banking, especially when distributing credit to customers. By referring to the Global Reporting Initiative (GRI) reporting framework, banks can plan, control, and report their ESG performance (Venturelli et al., 2024). Of the twelve studies that met the research criteria, researchers were able to critique the following findings:

a. *Scope of MCS*

   As stated above, the research related to MCS is quantitative, using secondary data. To be measurable, MCS is manifested in internal control costs, internal control weaknesses, internal control personnel's experience, and the quality and quantity of management systems aimed at improving ESG. At the same time, MCS is still rarely measured with primary data. For samples, previous studies focused on developed countries (the United States, Germany, Korea, Italy, Japan, and others).

b. *Research methods*

   Recent studies on MCS in ESG use both qualitative and quantitative methods, drawing on both primary and secondary data. Qualitative by conducting descriptive analysis related to the implementation of MCS carried out in a company to support ESG implementation. Two of the studies were conducted by Larsen et al. (2022) and Palazzi et al. (2024). (Larsen et al., 2022) conducted a case study on the company United States Energy, and (Palazzi et al., 2024) on companies' banking in Italy. Meanwhile, quantitative research with primary data was conducted by Avetisyan (2016, namely by interviewing the key informant from institution ESG rating (which performs consolidation) companies, as well as professional experts in the field of ESG ratings, including directors and managers. This research concerns institutions' ESG rating agencies that are suspected of implementing a decline. The research concluded that

consolidation is a sign of institutional decline, which causes a lack of movement and sustainability within the company. The majority of MCS and ESG research uses secondary data, namely financial and annual reports accessible from companies on each country's stock exchange. For example, regarding ESG washing and its impact on banks' reputations (Venturelli et al., 2024), a sample of 120 banks across 35 countries was used. ESG washing values were taken from ESG performance disclosures in annual reports accessed via Bloomberg and Revinitive, and compared with real ESG performance. Also, the ESG scores are below average for the same type and size.

The MCS measurement is implemented using an IC (Internal Control). (Koo & Ki, 2020) Focuses on the Internal Control Personnel's experience so that data can be measured from educational background, experience, and length of service. internal control members. (Harasheh & Provasi, 2023) focuses on internal control costs so that the company's financial data can also measure them. (Boulhaga et al., 2023) looks at the MCS of Internal Control Quality by examining weaknesses or deficiencies in internal controls, known as ICW (Internal Control Weakness).

c. *Use of Theory*

Research using the quantitative method draws on various theories, but still within a single-corner viewpoint, namely legitimacy theory, institutional theory, signal theory, assessment theory, and stakeholder theory. Legitimacy and institutional theory are used to examine how environmentally friendly companies engage in social activities, maintain good corporate governance, and can survive in the long term. Stakeholder theory argues that companies are responsible not only to shareholders but also to other stakeholders, namely God, the people around them, the environment and nature, employees, and other parties. The ESG score also signals to investors that the company has a strong ESG profile, which means it can survive in any condition. The incorporation of environmental, social, and governance (ESG) information into decision-making by investors and financial analysts is considered one of the major advances in financial markets (Boulhaga et al., 2023). According to a survey conducted by KPMG, responsible ESG investing can bring economic success in the stock market and positively impact company reputation (Kim, 2023).

CONCLUSION

Fundamental Findings: This literature review demonstrates that Management Control Systems (MCS) play a crucial role in supporting Environmental, Social, and Governance (ESG) implementation, particularly through their internal control function, internal control quality, internal control personnel experience, and internal control costs. Key findings indicate that previous research has been dominated by quantitative approaches that focus on the relationship between internal control quality and ESG performance and has largely utilized legitimacy theory, institutional theory, stakeholder theory, and signaling theory as conceptual foundations. These results indicate that MCS is viewed as a strategic instrument that can enhance transparency, accountability, and the success of ESG implementation within organizations. **Implication:** Importance of developing MCS

that function not only as a control tool but also as a mechanism supporting organizational transformation toward sustainable business practices. **Limitation:** Most studies focus on internal control aspects, use secondary data, and are predominantly set in developed-country contexts. Therefore, they do not fully describe MCS implementation in various business environments and cultures. **Future Research:** Recommended to expand the scope of MCS through qualitative and mixed methods approaches, utilize primary data such as interviews and questionnaires, examine the context of developing countries such as Indonesia, Malaysia, and Singapore, and adopt more diverse theoretical perspectives, including anthropocentric and ecological theories, in order to gain a more comprehensive understanding of the role of MCS in supporting ESG success.

AUTHOR CONTRIBUTIONS

Dahlia Tri Anggraini was coordinator research and manuscript writing. **Tubagus Ismail** processed and analysed bibliometric data. **Elvin Bastian** performed data validation and discussion. **Nurhayati Soleha** supported the literature search, reference compilation, and final editing. All authors approved the final manuscript.

CONFLICT OF INTEREST STATEMENT

The authors declare that there are no conflicts of interest, either financial or personal, that could influence the content or results of this study.

ETHICAL COMPLIANCE STATEMENT

This article has met the standards of research and publication ethics. The author affirms that this research is original, conducted with academic integrity, and free from unethical practices, including plagiarism.

STATEMENT ON THE USE OF AI OR DIGITAL TOOLS IN WRITING

The final responsibility for the content of the manuscript rests entirely with the authors. The author declares that this manuscript was prepared entirely without the assistance of artificial intelligence (AI) or other digital tools. The entire process, from planning, data processing, analysis, to writing and editing the manuscript, was carried out manually by the author. Thus, full responsibility for the content and authenticity of this article rests solely with the author.

REFERENCES

Alimirruchi, W., & Chariri, A. (2023). Revealing red flags of insurance fraud: A case study research of PT Jiwasraya Indonesia. *Theory and Practice of Forensic Science and Criminalistics*, *30*(1), 23-49. https://doi.org/10.32353/khrife.1.2023.03

Alnoor, A., Khaw, K. W., Al-Abrrow, H., & Alharbi, R. K. (2022). The hybrid strategy on the basis of Miles and Snow and Porter's strategies: An overview of the current state-of-the-art of research. *International Journal of Engineering Business Management*, *14*, 18479790221080214. https://doi.org/10.1177/18479790221080214

Anwar, R. S., Ahmed, R. R., Streimikiene, D., Ahmed, R., & Streimikis, J. (2026). Sustainability assessment criteria for green marketing practices. *Corporate Social*

Responsibility and Environmental Management, *33*(2), 1633-1655. https://doi.org/10.1002/csr.70251

Avetisyan, E., & Hockerts, K. (2017). The consolidation of the ESG rating industry as an enactment of institutional retrogression. *Business Strategy and the Environment, 26*(3), 316–330. https://doi.org/10.1002/bse.1919

Bonfanti, A., Mion, G., Brunetti, F., & Vargas-Sánchez, A. (2023). The contribution of manufacturing companies to the achievement of sustainable development goals: An empirical analysis of the operationalization of sustainable business models. *Business Strategy and the Environment*, *32*(4), 2490-2508. https://doi.org/10.1002/bse.3260

Borgohain, D. J., Zakaria, S., & Kumar Verma, M. (2022). Cluster analysis and network visualization of global research on digital libraries during 2016–2020: a bibliometric mapping. *Science & Technology Libraries*, *41*(3), 266-287. https://doi.org/10.1080/0194262X.2021.1993422

Boulhaga, M., Bouri, A., Elamer, A. A., & Ibrahim, B. A. (2023). Environmental, social and governance ratings and firm performance: The moderating role of internal control quality. *Corporate Social Responsibility and Environmental Management, 30*(1), 134–145. https://doi.org/10.1002/csr.2343

Busch, T., Barnett, M. L., Burritt, R. L., Cashore, B. W., Freeman, R. E., Henriques, I., ... & York, J. (2024). Moving beyond "the" business case: How to make corporate sustainability work. *Business Strategy and the Environment*, *33*(2), 776-787. https://doi.org/10.1002/bse.3514

Cahyono, S. (2023). A bibliographic study for management control systems on journal of management accounting research. *Jurnal Bisnis Dan Akuntansi*, *25*(1), 1-16. https://doi.org/10.34208/jba.v25i1.1798

Covaleski, M., Evans, J. H., Luft, J., & Shields, M. D. (2006). Budgeting research: Three theoretical perspectives and criteria for selective integration. *Handbooks of Management Accounting Research*, *2*, 587–624. https://doi.org/10.1016/S1751-3243(06)02006-2

Durden, C. (2008). Towards a socially responsible management control system. *Accounting, Auditing & Accountability Journal, 21*(5), 671–694. https://doi.org/10.1108/09513570810872969

Egieya, Z. E., Ewuga, S. K., Omotosho, A., Adegbite, A. O., & Oriekhoe, O. I. (2023). A review of sustainable entrepreneurship practices and their impact on long-term business viability. *World Journal of Advanced Research and Reviews*, *20*(3), 1283-1292. https://doi.org/10.30574/wjarr.2023.20.3.2588

Farida, I., & Setiawan, D. (2022). Business strategies and competitive advantage: the role of performance and innovation. *Journal of open innovation: Technology, market, and complexity*, *8*(3), 163. https://doi.org/10.3390/joitmc8030163

Fowler, D. S. (2023). Ethical implications of deceptive earnings management practices. *Business Ethics and Leadership*, *7*(3), 84-96. https://doi.org/10.61093/bel.7(3).84-96.2023

Frezatti, F., Mucci, D. M., & de Souza Bido, D. (2026). Integrating governance and ESG through management control systems. *Journal of Management and Governance*, 1-32. https://doi.org/10.1007/s10997-026-09791-1

Gebhardt, M., Thun, T. W., Seefloth, M., & Zülch, H. (2023). Managing sustainability—Does the integration of environmental, social and governance key performance indicators in the internal management systems contribute to companies' environmental, social and governance performance? *Business Strategy and the Environment, 32*(4), 2175–2192. https://doi.org/10.1002/bse.3242

Gojali, D. S. (2023). Identifying the prevalence of cybercrime in indonesian corporations: A corporate legislation perspective. *International Journal of Cyber Criminology*, *17*(1), 1-11. https://doi.org/10.5281/zenodo.4766600

Gond, J. P., Brès, L., & Mosonyi, S. (2024). Consultants as discreet corporate change agents for sustainability: Transforming organizations from the outside-in. *Business Ethics, the Environment & Responsibility*, *33*(2), 157-169. https://doi.org/10.1111/beer.12649

Gond, J. P., Grubnic, S., Herzig, C., & Moon, J. (2012). Configuring management control systems: Theorizing the integration of strategy and sustainability. *Management Accounting Research, 23*(3), 205–223. https://doi.org/10.1016/j.mar.2012.06.003

Griep, Y., Hansen, S. D., Kraak, J. M., Sherman, U., & Bankins, S. (2025). Sustainable human resource management: The good, the bad, and making it work. *Organizational Dynamics*, *54*(2), 101112. https://doi.org/10.1016/j.orgdyn.2024.101112

Harasheh, M., & Provasi, R. (2023). A need for assurance: Do internal control systems integrate environmental, social, and governance factors? *Corporate Social Responsibility and Environmental Management, 30*(1), 384–401. https://doi.org/10.1002/csr.2361

Heise, A. (2023). A Keynesian–Minskian perspective on the transformation of industrial into financial capitalism. *Journal of evolutionary economics*, *33*(4), 963-990. https://doi.org/10.1007/s00191-023-00840-8

Jonkarlo, E., Sudirman, L., & Disemadi, H. S. (2022). Market manipulation on the Indonesian stock exchange by market maker: Investor protection?. *Jurnal Komunikasi Hukum (JKH)*, *8*(1), 219-232. https://doi.org/10.23887/jkh.v8i1.44061

Kandpal, V., Jaswal, A., Santibanez Gonzalez, E. D., & Agarwal, N. (2024). Corporate social responsibility (CSR) and ESG reporting: Redefining business in the twenty-first century. In *Sustainable energy transition: Circular economy and sustainable financing for environmental, social and governance (ESG) practices* (pp. 239-272). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-52943-6_8

Kassem, R., & Omoteso, K. (2024). Effective methods for detecting fraudulent financial reporting: practical insights from Big 4 auditors. *Journal of Accounting Literature*, *46*(4), 587-610. https://doi.org/10.1108/JAL-03-2023-0055

Khan, H. Z. (2024). Revisiting Performance Measurement and Management Control Systems at the Edge of Sustainable Development and Mandatory Sustainability and

Carbon Disclosure Standards. In *An Innovative Performance Measurement System & Sustainability: The Case of a Developing Country* (pp. 97-116). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-97-6843-1_4

Kim, S. (2023). Internal control managers' accounting experiences on audit quality—Focus on ESG. *International Journal of Financial Studies, 11*(2). https://doi.org/10.3390/ijfs11020065

Klarin, A. (2024). How to conduct a bibliometric content analysis: Guidelines and contributions of content co-occurrence or co-word literature reviews. *International Journal of Consumer Studies*, *48*(2), e13031. https://doi.org/10.1111/ijcs.13031

Koo, J. E., & Ki, E. S. (2020). Internal control personnel's experience, internal control weaknesses, and ESG rating. *Sustainability, 12*(20), 1–16. https://doi.org/10.3390/ijfs11020065

Langfield-Smith, K. (1997). Management control systems and strategy: A critical review. *Accounting, Organizations and Society, 22*(2), 207–232. https://doi.org/10.1016/S0361-3682(95)00040-2

Lanzalonga, F., Oppioli, M., Calandra, D., & Secinaro, S. (2025). The impact of ESG performance on intangible assets and intellectual capital in the food and beverage industry. *Management Decision*, *63*(2), 423-442. https://doi.org/10.1108/MD-09-2023-1664

Lintangesukmanjaya, R. T., Dwikoranto, Awwalina, D. P., Setiani, R., & Bergsma, L. N. (2025). Potential study SDGs 4 of deep learning approaches to improve problem solving with machine learning innovation: Empirical and bibliometric analysis. *E3S Web of Conferences, 640*, 02018. https://doi.org/10.1051/e3sconf/202564002018

Liu, C., Hu, Y., Qiu, Y., Li, D., & Zhang, Z. (2025). Impact of top managers' short-term orientation on the leap between exploration and exploitation: evidence from China. *Baltic Journal of Management*, *20*(4), 439-454. https://doi.org/10.1108/BJM-07-2024-0354

Mahajan, R., Kumar, S., Lim, W. M., & Sareen, M. (2024). The role of business and management in driving the sustainable development goals (SDGs): Current insights and future directions from a systematic review. *Business Strategy and the Environment*, *33*(5), 4493-4529. https://doi.org/10.1002/bse.3712

Malmi, T., & Brown, D. A. (2008). Management control systems as a package—Opportunities, challenges and research directions. *Management Accounting Research, 19*(4), 287–300. https://doi.org/10.1016/j.mar.2008.09.003

Marfu, A., Abbas, H., Sya, A., Purwanto, A., Sumargo, B., Wulandari, S. S., ... & Pratiwi, D. I. (2025). Building long-term value: A practical guide to integrating ESG into business strategies. *Sustainable Futures*, *10*, 100955. https://doi.org/10.1016/j.sftr.2025.100955

Nagy, M. (2025). The paradox of performance: Profit growth amid structural financial instability. *Ekonomicko-Manazerske Spektrum*, *19*(2), 1-11. https://doi.org/10.26552/ems.2025.2.1-11

Norris, G., & O'Dwyer, B. (2004). Motivating socially responsive decision making: The operation of management controls in a socially responsive organisation. *The British Accounting Review, 36*(2), 173–196. https://doi.org/10.1016/j.bar.2003.11.004

Obeng, H. A., Arhinful, R., Mensah, L., & Mensah, C. C. (2025). The mediating role of service quality in the relationship between corporate social responsibility and sustainable competitive advantages in an emerging economy. *Business strategy & development*, *8*(1), e70099. https://doi.org/10.1002/bsd2.70099

Pambudi, J. A. A., Dayana, I., Alfirman, D. M., Susanto, D., & Widianingrum, R. (2023). Accelerating Indonesia sustainable infrastructure development through ESG initiatives in PPP ecosystem. *IOP Conference Series: Earth and Environmental Science, 1266*(1), 012020. https://doi.org/10.1088/1755-1315/1266/1/012020

Pritty, A. A., Ibrahim, M., Fahim, A. S. M., & Zadid, M. U. (2024). Generative AI and US financial reporting integrity: Detecting narrative manipulation, risk disclosure gaming, and fraud signals in 10-K filings. *Journal of Economics, Finance and Accounting Studies*, *6*(4), 113-129. https://doi.org/10.32996/jefas.2024.6.4.11

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

Rahaman, M. M., Rani, S., Islam, M. R., & Bhuiyan, M. M. R. (2023). Machine learning in business analytics: Advancing statistical methods for data-driven innovation. *Journal of Computer Science and Technology Studies*, *5*(3), 104-111. https://doi.org/10.32996/jcsts.2023.5.3.8

Rangapur, A., Wang, H., & Shu, K. (2023). Investigating online financial misinformation and its consequences: A computational perspective. *arXiv preprint arXiv:2309.12363*. https://doi.org/10.48550/arXiv.2309.12363

Rani, R., Vasishta, P., Singla, A., & Tanwar, N. (2025). Mapping ESG and CSR literature: A bibliometric study of research trends and emerging themes. *International Journal of Law and Management*, *68*(4), 601–627. https://doi.org/10.1108/IJLMA-09-2024-0301

Riccaboni, A., & Leone, E. L. (2010). Implementing strategies through management control systems: The case of sustainability. *International Journal of Productivity and Performance Management, 59*(2), 130–144. https://doi.org/10.1108/17410401011014221

Ronalter, L. M., Bernardo, M., & Romaní, J. M. (2023). Quality and environmental management systems as business tools to enhance ESG performance: A cross-regional empirical study. *Environment, Development and Sustainability, 25*(9), 9067–9109. https://doi.org/10.1007/s10668-022-02425-0

Shandryk, V., Zhebelev, I., Deliatynchuk, A., Maksymov, V., & Shelest, V. (2023). Modern concepts of public administration in the context of sustainable development. *Economic Affairs*, *68*(04), 2105-2117. http://dx.doi.org/10.46852/0424-2513.4.2023.21

Smara, R., Bogatyreva, K., Laskovaia, A., & Van Wagoner, H. P. (2024). Does striking a balance pay off? Implications of innovative ambidexterity for SMEs during COVID-19 crisis. *Journal of Entrepreneurship in Emerging Economies*, *16*(3), 649-674. https://doi.org/10.1108/JEEE-05-2022-0139

Thukia, W. J., Munyiri, E. K., & Maingi, S. W. (2023). Prospects of cost leadership strategy for tourism performance: are cost-reduction techniques a solution?. *Journal of Hospitality and Tourism Management*, *6*(4), 32-45. https://doi.org/10.53819/81018102t4194

Tran, T., Do, B. G., Ngo, A., Krishtipati, S., Dang, N. A., & Sarkar, S. (2024). *The impacts of layoffs announcement on cybersecurity breaches*. In *PACIS 2024 Proceedings*. Association for Information Systems. https://aisel.aisnet.org/pacis2024/track07_secprivacy/track07_secprivacy/10

Truant, E., Crocco, E., Culasso, F., & Alshibani, S. M. (2025). Fifty years of management control systems research: a bibliometric review of the literature and research agenda. *International journal of productivity and performance management*, *74*(2), 491-519. https://doi.org/10.1108/IJPPM-07-2023-0334

Ullah, R., Asghar, I., & Griffiths, M. G. (2022). An integrated methodology for bibliometric analysis: a case study of internet of things in healthcare applications. *Sensors*, *23*(1), 67. https://doi.org/10.3390/s23010067

Usman, R. (2023). Exploration of nexus between legal liability and corporate fraud: where do business laws and criminology converge?. *International Journal of Criminal Justice Sciences*, *18*(1), 232-243. https://doi.org/10.5281/zenodo.4756251

Venturelli, V., Pedrazzoli, A., Pennetta, D., & De Novellis, G. (2025). Assessing the influence of ESG washing on bank reputational exposure: A cross-country analysis. *Business Ethics, the Environment & Responsibility*, *34*(4), 1540-1560. https://doi.org/10.1111/beer.12727

Wang, N., Pan, H., Feng, Y., & Du, S. (2024). How do ESG practices create value for businesses? Research review and prospects. *Sustainability Accounting, Management and Policy Journal*, *15*(5), 1155-1177. https://doi.org/10.1108/SAMPJ-12-2021-0515

Wardhana, Y. M. A. (2024). Environmental Social Governance (ESG) Framework for Public Private Partnership (PPP) in Indonesia. *Journal of Civil Engineering*, *39*(1), 28-28. https://doi.org/10.12962/j20861206.v39i1.7333

Wei, L., & Chengshu, W. (2024). Company ESG performance and institutional investor ownership preferences. *Business Ethics, the Environment & Responsibility*, *33*(3), 287-307. https://doi.org/10.1111/beer.12602

Ye, J., & Dela, E. (2023). The effect of green investment and green financing on sustainable business performance of foreign chemical industries operating in Indonesia: the mediating role of corporate social responsibility. *Sustainability*, *15*(14), 11218. https://doi.org/10.3390/su151411218

Zhao, L., Gu, J., Abbas, J., Kirikkaleli, D., & Yue, X. G. (2023). Does quality management system help organizations in achieving environmental innovation and

sustainability goals? A structural analysis. *Economic research-Ekonomska istraživanja*, *36*(1), 2484-2507. https://doi.org/10.1080/1331677X.2022.2100436

***Dahlia Tri Anggraini (Corresponding Author)**
Doctoral Program in Accounting, University Sultan Ageng Tirtayasa , Indonesia
Jl. Raya Palka Km 3, Sindangsari, Kec. Pabuaran, Serang Regency, Banten 42163
Email: 7783230032@untirta.ac.id

Tubagus Ismail
Doctoral Program in Accounting, University Sultan Ageng Tirtayasa , Indonesia
Jl. Raya Palka Km 3, Sindangsari, Kec. Pabuaran, Serang Regency, Banten 42163
Email: ismailtb@untirta.ac.id

Elvin Bastian
Doctoral Program in Accounting, University Sultan Ageng Tirtayasa , Indonesia
Jl. Raya Palka Km 3, Sindangsari, Kec. Pabuaran, Serang Regency, Banten 42163
Email: elvinbas69@untirta.ac.id

Nurhayati Soleha
Doctoral Program in Accounting, University Sultan Ageng Tirtayasa , Indonesia
Jl. Raya Palka Km 3, Sindangsari, Kec. Pabuaran, Serang Regency, Banten 42163
Email: nurhayatisoleha@untirta.ac.id