

The Role of IFRS S1 and S2 in Enhancing Transparency and Accountability of ESG Disclosures: A Systematic Review

ABSTRACT

This study aims to analyze the role of IFRS S1 and S2 in improving transparency and accountability of Environmental, Social, and Governance (ESG) disclosures. This study uses the Systematic Literature Review (SLR) method by analyzing 35 articles published in Scopus reputable international journals. The results show that IFRS S1 and S2 have the potential to improve the quality of sustainability reporting by providing clear and standardized guidance. The implementation of these standards can assist companies in disclosing relevant information regarding ESG policies and strategies, as well as related impacts and risks that may affect long-term business sustainability. The research also highlights challenges in the implementation of IFRS S1 and S2, such as differences in interpretation across countries, companies' unpreparedness to comply with regulations and the lack of standardized data and methodologies. This research provides insights for companies, regulators, and policymakers on the importance of transparency and accountability in ESG disclosures and how IFRS S1 and S2 can contribute to achieving these goals.

Keywords: IFRS S1, IFRS S2, ESG Disclosure, Transparency, Accountability

1. RESEARCH BACKGROUND

In an era of environmental uncertainty and growing demands for corporate social responsibility, the move towards transparency and accountability in sustainability reporting is gaining attention. In an effort to address this challenge, the International Sustainability Standards Board (ISSB) has released new standards that will change the way companies report their performance in terms of sustainability. The two main standards emerging from this initiative are IFRS S1 and S2, which bring new hope in sustainable business reporting and sustainable financial reporting ([au-partner.com](https://www.issb.org/)). The advent of IFRS S1 and S2 is a response to the shifting perspectives taking place in the field of business and investment. Today, companies are evaluated not only on financial results, but also on how they affect society, nature and governance. The need for greater transparency from various stakeholders, including investors, consumers and the general public, has driven the need for consistent and comparable sustainability reporting standards.

The International Financial Reporting Standards (IFRS) responded to this need by introducing sustainability reporting standards, namely IFRS S1 and IFRS S2. IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information) aims to regulate general disclosures related to sustainability information relevant to investor decision-making, while IFRS S2 (Climate-related Disclosures) is more specific to disclosures related to climate change risks. The existence of these two standards is expected to provide

clear guidance for companies in preparing ESG reports that can be accessed and understood by various parties, especially by investors who need accurate and relevant information for decision making.

Along with the increasing need for transparency in ESG disclosures, the implementation of IFRS S1 and S2 is expected to improve the quality of reporting and reduce the uncertainty that has been present in reports related to sustainability issues. Although these standards have been issued, there are still challenges in their implementation, especially related to how companies can effectively measure and report their social and environmental impacts. Therefore, a deeper understanding of the role of IFRS S1 and S2 in improving the transparency and accountability of ESG disclosures is crucial.

Based on this background, the main objective of this study is to conduct a systematic review of the existing literature on the role of IFRS S1 and S2 in enhancing ESG disclosure transparency and accountability. This research will identify the benefits, challenges, and implementation of both standards in various industry sectors and countries. In addition, it will also explore how these two standards can contribute to enhancing the credibility and integrity of ESG reports published by companies.

This research also aims to provide insight for companies, regulators, and policy makers on how IFRS S1 and S2 can be optimized to achieve the goals of transparency and accountability in ESG reporting. With a systematic literature review, it is hoped that useful recommendations can be made in dealing with the various problems that exist in sustainability reporting, as well as how to overcome obstacles in the implementation of these standards. The research questions posed in this article are 1) What are the research trends on the role of IFRS S1 and S2 in improving the transparency and accountability of ESG disclosures in terms of topics, research settings, methods and analysis techniques used? 2) What are the future research opportunities regarding the role of IFRS S1 and S2 in improving ESG disclosure transparency and accountability?

The contribution of this study lies in a deeper understanding of the application of IFRS S1 and S2 in improving the transparency and accountability of ESG disclosures in global companies. This study fills a gap in the more general literature on the effect of international reporting standards on ESG disclosures by focusing on two newly introduced IFRS standards. In addition, this study will provide insight into the challenges faced by companies in implementing these standards. Thus, this study is expected to make practical and theoretical contributions to the development of policies and best practices related to sustainability reporting.

2. LITERATURE REVIEW

IFRS S1 and S2: Concepts and Applications

International Financial Reporting Standards (IFRS) are financial reporting standards adopted globally to improve transparency and consistency in the presentation of corporate financial statements. IFRS S1 and S2, newly introduced by the International Accounting Standards Board (IASB), aim to improve the disclosure of non-financial information, particularly relating to environmental, social and governance (ESG). IFRS S1 focuses on reporting on sustainability and the company's environmental impact, while IFRS S2 emphasizes on disclosing risks related to climate change and how it affects the company's financial performance. The adoption of these two standards is expected to facilitate companies to provide more transparent and accountable information on their ESG performance, which in turn supports better decision-making by stakeholders.

The objective of IFRS S1 is to require entities to disclose information about sustainability-related risks and opportunities that is useful to general purpose users of financial statements in making decisions about providing resources to the entity. IFRS S1

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requires entities to disclose information about all sustainability-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, access to finance or cost of capital in the short, medium or long term (collectively referred to as 'sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects'). (<https://www.ifrs.org>). Meanwhile, the objective of IFRS S2 is to require entities to disclose information about climate-related risks and opportunities that is useful to general purpose users of financial statements in making decisions about providing resources to the entity. IFRS S2 requires entities to disclose information about climate-related risks and opportunities that can reasonably be expected to affect the entity's cash flows, access to finance or cost of capital in the short, medium or long term (collectively referred to as 'climate-related risks and opportunities that can reasonably be expected to affect the entity's prospects') (<https://www.ifrs.org>).

The implementation of IFRS S1 and S2 leads to the disclosure of various key metrics and targets. An important metric that must be disclosed in accordance with IFRS S2 is absolute greenhouse gas (GHG) emissions, measured in accordance with the GHG Protocol Corporate Standard. Disclosures should include how and why a company uses certain inputs, assumptions, and estimation techniques to measure its GHG emissions, including any changes.

Companies with emissions related to investments or other forms of funding (such as asset management, commercial banks, insurance) are required to report on financed emissions. Disclosures by industry S2 requires companies to provide disclosures by industry, however the metrics by industry provided are guidelines for illustrative assistance rather than requirements that must be met. The exception to this is the information on financed emissions that must be provided.

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Transparency and Accountability in ESG Disclosure

In modern financial reporting, transparency and accountability in ESG disclosures have become important issues. IFRS S1 and S2 are essential to ensure that disclosures are made in a standardized, clear, and accountable manner, thus providing an accurate picture of a company's commitment to sustainability. While transparency means that companies provide adequate and easily accessible information to the public, accountability means that companies take responsibility for the impact of their actions on ESG. Corporate reporting offers an accountability perspective. Accountability in ESG disclosure refers to the responsibility of companies for the impact of their actions on environmental, social and governance. This means that companies not only disclose information about their ESG performance, but also show how they take responsibility for those impacts and take action to improve their own performance. Accountability in the form of corporate reporting is a form of agent accountability to company owners. The owner of the company will traditionally try to protect his capital, so the focus of information to the owner is financial information and how the capital has developed from the beginning to the present (Pratama et al., 2024).

Transparency refers to how much information companies provide to the public and how much companies take responsibility for their impacts. To understand ESG transparency, intra-organizational visibility is necessary because ESG disclosures require organizations to manage the coexistence of environmental and social issues as well as economic, legal and technological considerations, which often demand joint attention within the organization (Siaw et al., 2024). In this context, IFRS S1 and S2 play an important role in ensuring that such disclosures are standardized, clear and accountable, so as to provide an accurate picture of the company's commitment to sustainability. In particular, the implementation of ESG policies requires the adoption of qualified disclosure tools to provide consistency in a company's representation of its performance (Caputo & Fasiello, 2024).

Relationship between IFRS S1, S2, and ESG Disclosure

IFRS S1 and S2 have a close relationship with ESG disclosures because these standards are specifically designed to improve the quality and consistency of sustainability reporting (Simorangkir & Shauki, 2024). The implementation of IFRS S1 and IFRS S2 will help companies simplify their sustainability reporting process, providing better information to help investors in the investment decision-making process. In terms of investment, the concept of sustainability is also one of the topics considered in decision making (Kusuma & Gani, 2024).

ESG disclosures that meet IFRS S1 and S2 standards provide companies with clearer guidelines for disclosing sustainability-related information in a systematic and measurable manner. These standards require companies to disclose relevant information about their ESG policies and strategies, as well as related impacts and risks that may affect the long-term sustainability of the business. ESG disclosures prepared under IFRS S1 and S2 enable companies to present relevant, measurable and accountable information to stakeholders. The application of IFRS S1 and S2 supports transparency, accountability and better decision-making in the context of sustainability.

3. RESEARCH METHODOLOGY

In this study, the methodology used to analyze the role of IFRS S1 and S2 in improving transparency and accountability of ESG disclosures adopts the Systematic Literature Review (SLR) approach. This method was chosen because it allows researchers to objectively identify, evaluate, and synthesize relevant evidence from various existing literatures. This SLR process will be carried out in several stages which include literature search, article selection, data extraction, and analysis and synthesis of the findings obtained.

The first stage was a **literature search** conducted using reputable academic databases such as Scopus which includes articles from (Emerald Insight, Pringer Link, Wiley, Science Direct and EBSCO Host). The search focused on studies relevant to the application of IFRS S1 and S2, and their impact on ESG disclosures. The keywords used in the search included "IFRS S1", "IFRS S2", "transparency in ESG", "accountability in ESG". Inclusion criteria for the selected studies included articles published in Scopus reputable international journals in the Business, Management and Accounting category as long as the articles appeared in the Scopus database search results.

Once the literature is found, the second stage is **article selection** which is done based on more specific inclusion criteria, such as relevance to the main topic, quality of the research methodology and its contribution to the understanding of IFRS S1 and S2 in the context of ESG disclosure. Articles that are not relevant to the topic or have invalid methodologies will be excluded from the review. The selection process also took into account factors such as journals published in Scopus under the Business, Management and Accounting category, language of publication i.e. international language (English) and keywords relevant to the topic and no limitation on the year of the research to ensure a wide coverage in order to find novelty.

After the selection of articles, the third stage is **data extraction**, which involves collecting key information from the selected articles, such as key findings related to the application of IFRS S1 and S2, its effect on transparency and accountability in ESG disclosure, and the methodology used in each study. This data extraction process was done systematically by creating a table that summarizes relevant information such as research methods (type of research and data analysis techniques).

The last stage is **analysis and synthesis** of findings which is done by reviewing and combining the results of the articles that have been analyzed. This analysis aims to provide a comprehensive picture of the role of IFRS S1 and S2 in improving transparency and accountability of ESG disclosures. The synthesis of the research results will be done by comparing findings from various sources to assess the extent to which the implementation of the two standards affects ESG disclosures in globally listed companies, as well as providing

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recommendations for further policy development in order to support more transparent and accountable reporting practices.

Table 1 Study investigating the role of IFRS S1 and S2 in Enhancing Transparency and Accountability of ESG Disclosures before the removal of reconciliation requirements

Keyword Term	Article in Scopus
IFRS S1	14
IFRS S2	9
Transparency in ESG	523
Accountability in ESG	175
Total	721

Table 1 shows the results of a search for research literature with 4 types of keyword terms ("IFRS S1", "IFRS S2", "Transparency in ESG" and "Accountability in ESG") on the Scopus website, which found 721 articles with various categories of journal areas and types of articles published. For the next stage, we selected articles according to more specific inclusion criteria.

Table 2 Journals and Scopus Indexing Selected in the Data Inclusion Process

Journal Name	Scopus Rating	Number of articles
Accounting Education	Q1	1
Accounting, Auditing and Accountability Journal	Q1	1
Agricultural and Resource Economics	Q3	1
Asia Pacific Journal of Management	Q1	1
Business Strategy and the Environment	Q1	2
California Management Review	Q1	1
Chinese Management Studies	Q2	1
Corporate Social Responsibility and Environmental Management	Q1	1
Financial and Credit Activity: Problems of Theory and Practice	Q4	1
International Journal of Operations and Production Management	Q1	1
International Journal of Production Economics	Q1	2
Journal of Cleaner Production	Q1	3
Journal of Financial Reporting and Accounting	Q2	1
Journal of Governance and Regulation	Q4	1
Journal of Operations Management	Q1	1
Journal of Risk and Financial Management	Q2	1
Journal of Sustainable Finance and Investment	Q1	4
Management Decision	Q1	2
Problems and Perspectives in Management	Q3	1
Review of Accounting Studies	Q1	1
Spanish Journal of Finance and Accounting	Q3	1
Social Responsibility Journal	Q1	1

Strategic Management Journal	Q1	1
Sustainability Accounting, Management and Policy Journal	Q1	2
Utilities Policy	Q1	1
Theoretical Accounting Books	Q4	1
Total		35

Table 2 is the result of data inclusion according to more specific criteria so that 35 articles were obtained with 27 Scopus indexed journals ranging from Q1 to Q4. The most journals that publish topics on "The Role of IFRS S1 and S2 in Increasing Disclosure Transparency and Accountability" are obtained by the Journal of Sustainable Finance and Investment with an H-index of 35 which is included in the Q1 index.

4. RESULTS

After going through 4 stages in this literature review process, namely the first stage of "literature search", the second stage is "article selection", the third stage is "data extraction" and the fourth stage is "analysis and synthesis", the final results of the selected articles that will be analyzed and synthesized are 35 articles with various numbers of citations obtained ranging from the most in 2018 to those that have not been cited at all. This can be seen in table 3

Table 3 Selected Articles After the Reconciliation Process

Author	Title	Cited
Holland (2011)	A conceptual framework for changes in fund management and accountability relative to ESG issues	10
Cuesta & Valor (2013)	Evaluation of the environmental, social and governance information disclosed by Spanish listed companies	33
Cheng et al.,(2014)	Corporate social responsibility and access to finance	2018
Tamimi & Sebastianelli (2017)	Transparency among S&P 500 companies: an analysis of ESG disclosure scores	265
Rietz Du (2018)	Information vs knowledge: Corporate accountability in environmental, social, and governance issues	25
Lambooy et al.,(2018)	Biodiversity and natural capital: investor influence on company reporting and performance*	13
Wardle & Mills (2018)	Transparency and disclosure—do policy frameworks enhance financial centre reputation?	0
López-Arceiz et al.,(2018)	The role of corporate governance and transparency in the generation of financial performance in socially responsible companies	24
Elshahoubi et al.,(2019)	Challenges To Compliance With Corporate Governance Mechanisms And Accountability In Emerging Markets: Evidence From Libyan Listed Companies	2
Gualandris et al.,(2021)	The association between supply chain structure and transparency: A large-scale empirical study	91
Makarenko et al.,(2022)	Transparency Of Agriculture Companies: Rationale Of Responsible Investment For Better Decision Making Under Sustainability	5
Garst et al.,(2022)	Materiality Assessment Is an Art, Not a Science: Selecting ESG Topics for Sustainability Reports	28

Borrvalho et al.,(2022)	Environmental, social and governance disclosure's impacts on earnings management: Family versus non-family firms	38
Bhimavarapu et al.,(2022)	Does the Impact of Transparency and Disclosure on the Firm's Valuation Depend on the ESG?	7
Tilba (2022)	Appearance or substance of Stewardship and ESG reporting? The challenges of translating 'commitment' into tangible outcomes	7
Dworzak (2022)	Financial and ESG reporting in times of uncertainty	7
Dong et al.,(2023)	When do firms deliver on the jobs they promise in return for state aid?	0
Gerged et al.,(2023)	How does transparency into global sustainability initiatives influence firm value? Insights from Anglo-American countries	20
Reid & Castka (2023)	The impact of remote sensing on monitoring and reporting - The case of conformance systems	7
Moalla & Dammak (2023)	Do media coverage and audit quality of US companies affect their Environmental, Social and Governance transparency?	3
Makarenko et al.,(2023)	Energy companies' transparency: Toward competitiveness and SDG 7 progress	3
Venturelli et al.,(2023)	Biodiversity accountability in water utilities: A case study	19
Xia et al.,(2023)	Doing well by doing good: unpacking the black box of corporate social responsibility	4
Khosa et al.,(2024)	Accounting curricula and climate-related sustainability: evidence from Australia and New Zealand universities	1
Schiehl & Kolahgar (2024)	Common ownership and investor-focused disclosure: Evidence from ESG financial materiality	0
Zhao & Wang (2024)	Who cares about environmental, social and governance performance? Family versus non-family firms	0
Cerquetti et al.,(2024)	Measuring museum sustainability within the framework of institutional theory: A dictionary-based content analysis of French and British National Museums' annual reports	1
Makarenko et al.,(2024)	Sustainability Transparency In Sovereign Wealth Funds: Benchmark And Case Study Approach	0
Wu et al.,(2024)	Mitigating the bullwhip effect through supply chain ESG transparency: roles of digitalization and signal strength	0
Liu et al.,(2024)	Legitimacy and transparency in dyadic supply chains: Does competition intensity Matter?	0
Zhang et al.,(2024)	Do fairness concerns matter for ESG decision-making? Strategic interactions in digital twin-enabled sustainable semiconductor supply chain	0
Bai et al.,(2024)	Corporate culture and ESG performance: Empirical evidence from China	21
Du & Nik Azman (2024)	The impact of ESG performance on corporate risk-taking: empirical evidence from China	0
Andreoli et al.,(2024)	ESG and impact litigation: identifying and governing the causes through strategic accountability patterns	0
Millar & Slack (2024)	Global investor responses to the International	0

Table 4 Frequency Distribution of Articles Based on Research Methods

Research Method	Years				Total	Total (%)
	< 2015	2016 - 2018	2019-2021	2022-2024		
Archival	2	2	1	12	17	49%
Survey	0	1	0	1	2	6%
Analytic	0	0	0	5	5	14%
Case/Field Study	0	0	0	3	3	9%
Interview	1	2	1	1	5	14%
Simulation	0	0	0	1	1	3%
Other	0	0	0	2	2	6%
Total	3	5	2	25	35	100%

Table 3 shows articles that have gone through data extraction through reconciliation of specific characteristics with the number of articles to be synthesized totaling 35 articles with the most citations owned by Cheng et al.,(2014) totaling 2018 citations. Table 4 shows data extraction based on research methods. The archival method has the largest number carried out at 49% where in the year before 2015 there were 2 articles, 2016-2018 there were 2 articles, 2019-2021 there were 1 article and 2022-2024 there were 12 articles, followed by analytic and interview methods by 14%, then case / field study by 9%, survey and other by 6% and finally simulation by 3%.

The following is a synthesis of research for selected articles to add in-depth knowledge and understanding. Research on IFRS S1 and S2 from Khosa et al.,(2024) states that there is a significant gap in the integration of climate-related sustainability topics in accounting education, indicating the need for further development in this area to prepare accountants for the challenges posed by climate change. Then regarding transparency in ESG conducted by Wu et al., (2024) which states that provides strong evidence that increasing ESG transparency in the supply chain can significantly reduce the bullwhip effect, especially when supported by digitization and strong signal characteristics. Moalla & Dammak (2023) research provides results that audit quality has a direct positive effect on ESG transparency. The findings also suggest that the higher a company's exposure to public media, the more they commit to high audit quality which leads to more transparent disclosure of ESG information. Furthermore, regarding accountability in ESG conducted by Andreoli et al.,(2024) stated that the "great noise" around the world of impact investing and the rise of impact washing, the lack of common standards for measuring impact, and the misalignment of interests among the actors involved in these initiatives have the potential to become 'litigation bombs'. There is no common standard for measuring impact, which leads to differences in expectations and accountability.

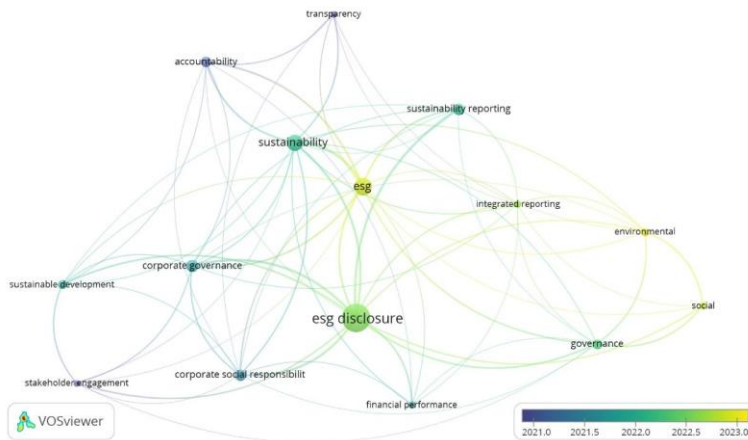


Figure 1. Mapping results of previous research from the Scopus website

Mapping the results of the literature review (35 publications) after data extraction in accordance with the criteria using VOS viewer software (Figure 1) allows researchers to conclude that over the past 10 years, the most emerging issues are ESG disclosure issues. Related to the issue of transparency and accountability, research is still rarely carried out, which can be seen in the purple cluster with a small circle shape. In addition, IFRS S1 and S2 are not visible in the mapping above so that future opportunities to research topics regarding the implementation of IFRS S1 and S2 can be done with an approach in Indonesia because the policy was only implemented on January 1, 2024 so further research is needed regarding the effectiveness of its application, especially in Indonesia because it is still voluntary for sustainability and ESG reports.

5. CONCLUSIONS

This study examines the role of IFRS S1 and S2 in improving the transparency and accountability of ESG disclosures. Through a systematic literature review, this study finds that IFRS S1 and S2 have the potential to improve the quality of sustainability reporting, although there are challenges in their implementation. The implementation of these standards is expected to provide clear guidance for companies in preparing transparent and accountable ESG reports, so as to support better decision-making by stakeholders.

This study also highlights the importance of transparency and accountability in ESG disclosure. Transparency and accountability are key in building investor and public trust in companies' commitment to sustainability. By applying IFRS S1 and S2, companies can demonstrate their commitment to sustainability and increase credibility in the eyes of stakeholders. While IFRS S1 and S2 provide a comprehensive framework for ESG disclosures, this study also identifies some challenges in their implementation. These challenges include different interpretations of the standards in different countries, companies' unpreparedness in complying with new regulations, lack of standardized data and methodologies for measuring and reporting social and environmental impacts and limited resources and expertise in implementing the standards effectively. This study has several limitations that need to be considered. first, this study is limited to a literature review and does not involve empirical studies. second, this study only analyzes articles published in reputable international journals, so there may be bias in sample selection. Third, this study

does not discuss in detail the impact of IFRS S1 and S2 implementation on the company's financial performance.

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