International Journal of Business, Economics and Management
2025 Vol. 12, No. 2, pp. 28-57
ISSN(e): 2312-0916
ISSN(p): 2312-5772
DOI: 10.18488/62.v12i2.4285

A comparative analysis of the IFRS prototype standard and current climate-related disclosures by FTSE/JSE financials 15 listed companies in South Africa

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Article History
Received: 7 January 2025
Revised: 28 May 2025
Accepted: 16 June 2025
Published: 11 July 2025

Keywords
Climate change
Climate-related risks
Disclosure
IFRS S1
IFRS S2
Sustainability.

JEL Classification:
Q56; Q54; M00; M10; M49.

ABSTRACT

This study examines the disparity between current climate risk disclosure practices and IFRS S1 and S2 requirements, using the precursor Climate-related Disclosures Prototype Standard as a benchmark. A qualitative, cross-case analysis, and deductive coding approach on archival data of the largest 15 financial companies listed on the FTSE/JSE Financials 15 index, focusing on their 2020 sustainability reports is employed. Key findings underscore a prevalent trend: companies strategically non-disclose climate-related risk scenarios' results and impacts on business models; they utilise non-economic disclosures, supported by impression management and minimal narrative disclosures; prioritise stakeholder legitimacy and reputation over disclosure of substantive information. This approach, reminisce greenwashing, reluctance to fully disclose climate-related risks, particularly through scenario analysis which exposes diverse CRRO outcomes. Proprietary cost theory might explain this phenomenon. A significant subset of examined companies exhibited distinct lack of disclosure in strategy, and matrices and targets reporting. Non-disclosure patterns have considerable implications of possessing potential to substantially impede climate change and hinder future capital formation. Failure to address identified disparities exacerbates financial risks, heightens reputational risks, impedes business continuity planning, and perpetuates short-termism regarding climate risks issues. Insights in the complex interplay between transparency, reputation, financial concerns, and legitimacy in sustainability reporting are provided.

Contribution/Originality: This study identifies and accentuates discrepancies between current climate-related disclosure practices and CDPS requirements. As such, it contributes to industry, policy and academia by highlighting potential challenges entities may encounter in complying with IFRS S1 and S2 requirements. Governance structures become appraised with areas requiring closer oversight for effective governance and reporting practices.

1. INTRODUCTION

The extant impact of climate change and apparent sustainability constraints are undeniable (Orazalin, Ntim, & Malagila, 2024). This has made climate change and sustainability highly topical in many strategic business contexts. Moreover, stakeholders like investors, regulators, creditors, and society at large, are now advocating for a multifaceted approach to performance evaluation – to not only focus on financial performance but also integrate and evaluate non-financial disclosures that reflect the impact of the company's contribution to climate change and sustainability aspects in general-purpose financial reports. The coalescence of stakeholders on demanding

transparency in the disclosure of climate-related risks and opportunities (CRROs) has substantially contributed to the evolution in financial reporting and accounting.

The importance of mitigating the impact of climate change has heightened sustainability reporting to a higher level of corporate accountability and responsibility (Dahlmann, Branicki, & Brammer, 2019). Although some companies acknowledge their contributions to climate change and are willing to account, concerns on the quality and effectiveness of current disclosures persist. An example of such a concern is the notable pervasiveness of "tokenism reporting". This is where companies publish capacious and aesthetically designed reports that may lack substantive content (Dahlmann et al. (2019) as cited in UNEP, 2015; UNFCCC, 2015). "Tokenism reporting" creates apertures between what is reported or disclosed, and observable climate and sustainability impacts in communities.

To reasonably narrow or eliminate the chasm between sustainability disclosures by companies and observable impacts from climate change, the International Financial Reporting Standards (IFRS) Foundation established the Technical Readiness Working Group (TRWG). The TRWG developed the Climate-related Disclosures Prototype Standard (CDPS) which evolved into IFRS S1 and S2. The IFRS S1 and S2 were first published as exposure drafts which aimed at enhancing the comparability, consistency, and transparency of sustainability reporting. The subsequent issuance of the standards attracted the researcher to evaluate potential gaps between the recently issued IFRS Sustainability Reporting Standards (IFRS S1 and S2) and the current climate-related disclosure practices of the 15 largest financial companies listed on the FTSE/JSE stock exchange in South Africa. The evaluation focuses on the precursor to these standards, the Climate-related Disclosures Prototype Standard (CDPS).

1.1. State of Sustainability Disclosures before CDPS and Subsequent IFRS S1 and IFRS S2

Academics, policymakers, and other interested stakeholders are now closely scrutinising the efficacy of current climate-related and sustainability disclosures due to concerns about the lack of substance and transparency in the reports presented. Several studies have discovered and highlighted the lack of substance and transparency in reports. The International Integrated Reporting Council & Kirchhoff Consult AG (2020) identified a prevalence of "tick-box" reporting, where companies focus on meeting minimal requirements rather than providing meaningful information. Likewise, Gulluscio, Puntillo, Luciani, and Huisingh (2020) observe greenwashing practices, where companies focus on presenting a positive environmental image over substantive reporting of the effect of their business activities on the environment and society.

The aforementioned dissonance between reported sustainability efforts and the reality of environmental and social challenges is further supported by Güler Aras and Crowther (2009); Siew (2015) and Tóth, Suta, and Szauter (2022). Let us suppose that sustainability reports truthfully mirrored actions taken by companies. The expectation would be to observe improvements in the prevailing environment and socio-economic conditions. However, the persistence of environmental degradation and socio-economic inequities tells a different story from what is contained in most sustainability report. Consequently, one is inclined to suggest that many reports may not be disclosing the full picture.

Additional concerns accentuated by Smith, Haniffa, and Fairbrass (2011) and Tóth et al. (2022) relate to the current lack of consistency in sustainability reporting practices. These authors noted that companies employ diverse content formats, approaches, topics, and matrices, making comparisons across companies challenging. Furthermore, Tóth et al. (2022) identified disconnections between sustainability reports and financial reports in their study of European automotive companies. These disconnections amplify the suggestion that there is limited integration and ameliorate the potential for greenwashing information. These findings collectively support the assertion that "tokenistic reporting" is widespread in current sustainability disclosure practices.

An additional disclosure concern is the potential for "capture" or control of sustainability reporting by prevailing internal groups comprising senior management and those charged with governance (Smith et al., 2011).

The "capture" or control of sustainability reporting by these internal groups is motivated by self-interest or the quest to maximise shareholders' financial returns. Consequently, internal groups have the incentive to manipulate sustainability reports, policies, procedures, and language used in disclosures. To alleviate the potential for "capture" or control of sustainability reporting, companies must implement robust internal controls and sustainability-related disclosure standards. This ensures that the sustainability reporting accurately narrates the impacts of a company's business activities.

For a considerable period, there was an absence of a universally acceptable sustainability-related accounting disclosure standard. This has been a concern for practitioners, policymakers, and academics because it contributed to mixed research findings observed in studies on corporate sustainability practices and disclosures (Orazalin et al., 2024). Moreover, lack of standardisation creates inconsistencies in publicly available data that is used in research. This is because companies may employ diverse frameworks for compiling and measuring their sustainability targets and matrices. The introduction and adoption of IFRS Sustainability Reporting Standards (IFRS S1 and S2) are designed to close this critical gap by establishing a comprehensive framework for sustainability disclosures.

This study seeks to evaluate the current landscape of corporate reporting on CRROs and identify potential disparities between existing practices and the disclosure requirements outlined in IFRS S1 and S2 prior to the full adoption of the standards. In addition to identifying skills needed to achieve better transparency, the anticipation is to provide valuable insights into the potential for improved transparency and comparability in sustainability reporting.

The issuance of IFRS S1 and S2 standards in 2023, following their CDPS precursor, availed a unique research opportunity. This is a point or an interregnum that calls for reflections and opportunities to investigate the lacunae in climate-related and sustainability disclosure literature. In seizing this research opportunity, this study focuses on identifiable discrepancies between current disclosure practices and the requirements outlined in the CDPS. The release of the CDPS by the Technical Readiness Working Group (TRWG) and subsequent issuance of IFRS S1 and S2 raises a critical question: *How do the disclosure requirements of the CDPS and the IFRS S1 and S2 differ from current corporate practices in climate-related disclosures?*

Addressing this question will offer comparative insights that are informed by the lacuna between current disclosure practices and the requirements of the CDPS. In discovering these comparative insights, the study contributes to the ongoing evolution in climate-related and sustainability disclosure practices. Additionally, the study seeks to inform future research and guide companies in their transition to the new IFRS standards.

1.2. Contribution of the Study

The focus of the study is on identifying and accentuating discrepancies between current climate-related disclosure practices and requirements outlined in the CDPS. By highlighting these gaps, this study aims to make valuable contributions in several key areas.

Firstly, the analysis of disclosure gaps can shed light on the potential challenges entities may face in complying with the new IFRS S1 and S2 requirements. This insight can inform stakeholders about the investments and adjustments companies may need to make to achieve the desired level of sustainability reporting. Moreover, the absence of certain disclosures can serve as red flags, prompting further evaluation by investors and stakeholders.

Secondly, this analysis informs preparers about the necessary competencies required to comply with the CDPS prototype and subsequent IFRS S1 and IFRS S2 to achieve consistency, comparability, and standardised qualitative characteristics in climate-related disclosures. By identifying the linkages between financial and non-financial content that should be integrated into reports, the standards aid in improving the coherence of reporting, avoiding the segregation of sustainability information into separate reports or sections.

Thirdly, it apprises those charged with governance of specific areas within their frameworks of what needs improvement and closer oversight to ensure effective governance and reporting practices.

Furthermore, this analysis provides investors and stakeholders with insights into the adjustments and modifications required in their models for screening impact or ESG investments. It may necessitate the adoption of new models to align with sustainability standards.

The identified gaps assist audit firms in developing appropriate terms of engagement, scoping the work, and planning assurance services for climate-related information presented in integrated reports. This is particularly relevant for risk-based audit approaches.

Moreover, the analysis sheds light on whether the CDPS prototype and subsequent IFRS S1 and IFRS S2 represent positive milestones in advancing sustainability reporting or if they signify a regression from current practices.

Lastly, the findings have the potential to reveal areas of research within the fields of climate and sustainability reporting, opening avenues for future studies.

Overall, the study serves as a valuable contribution by providing insights and implications across various stakeholders, while also identifying potential areas for further research in the realm of climate and sustainability reporting.

This study's comparative approach contributes to the evolution that now characterise corporate reporting. The evolution is responding and adapting to investors' and stakeholders' requirements. The adaptations in response to investors' and stakeholders' needs require companies to disclose information on the financial implications of climate change and sustainability (risks and opportunities), which is currently limited in reporting (Lombardi, Schimperna, Paoloni, & Galeotti, 2022). While there are progressions in climate-related disclosures in general-purpose financial reporting in the accounting profession, Gulluscio et al. (2020) asserts that academic research is lagging. Gulluscio et al. (2020) recommend that academics in accounting must emphasise sustainability reporting and the integration of climate change reporting into financial reports as research focus areas. Adams and Abhayawansa (2022) advocates research in sustainability to identify and highlight any decline in corporate accountabilities.

The study's contributions are part of bridging the knowledge gap in sustainability reporting, especially in the integration of climate change disclosures into financial statements. The issuance of the CDPS and subsequently the IFRS S1 and S2 presents valuable research opportunities.

Scaffolding from the context laid above, the subsequent section rummages into existing literature on climate-related and sustainability disclosures. The literature review seeks to identify main knowledge gaps and theoretical frameworks guiding this research and its analysis of identified incongruences between current practices and the requirements outlined in the CDPS.

2. BACKGROUND

Standardised reporting pertains to reporting content and approach, topics, matrices, and other disclosures (Hahn & Kühnen, 2013; Siew, 2015; Smith et al., 2011). The IFRS S1 and S2 standards would facilitate international benchmarking, comparability, and verifiability. The assertion is supported by the International Integrated Reporting Council & Kirchhoff Consult AG (2020) which highlighted the challenges faced by companies when using multiple reporting frameworks. These challenges often result in difficulties producing coherent reports that link financial and non-financial information regarding environmental, social and governance (ESG) aspects. Notably, the IFRS Sustainability Disclosure Standards recommend this integration to the newly established International Sustainability Standards Board (ISSB) for consideration. The ISSB is tasked with formulating comprehensive sustainability-related standards aimed at providing decision-useful information regarding sustainability-related risks and opportunities to capital market role players.

The ISSB released exposure drafts on Climate-related Disclosures and General Requirements for Disclosure of Sustainability-related Financial Information, which were open for public comments until 29 July 2022. According to the ISSB's timelines, the standards (that is, IFRS S1: General Requirements for Disclosure of Sustainability-related

Financial Information and IFRS S2: Climate-related Disclosures) was available for adoption by companies from January 2024. IFRS S1 provides guidance on preparing and presenting sustainability-related financial disclosures. It outlines comprehensive requirements for the content and presentation of such disclosures, with the primary objective of ensuring the information provided is decision-useful for users allocating resources to the entity. IFRS S2 focuses on the disclosure of climate-related risks to which the company is exposed (physical and transition risks) and climate-related opportunities available to the company.

The standards widely incorporate and have their backbone in the TRWG's Climate-related Disclosures Prototype Standard (CDPS hereafter and also referring to IFRS S1 and IFRS S2). The CDPS was published by the TRWG on 3 November 2021.

The CDPS is adopted as a comparative framework for analysing current climate-related disclosure practices. The CDPS was central in consolidating the previously fragmented landscape of climate-related and sustainability reporting frameworks. These frameworks were developed by organisations such as the Climate Disclosure Standards Board (CDSB), the IFRS Foundation, the Task Force on Climate-related Financial Disclosures (TCFD), the Value Reporting Foundation (VRF), and the World Economic Forum. The CDPS connected these diverse criteria, creating a more cohesive framework. This consolidation process significantly influenced the development of IFRS S1 and S2, which extensively integrate the principles established in the CDPS exposure drafts and ultimately the final standards. Employing the CDPS as a benchmark allows for the identification and assessment of potential gaps between current disclosure practices and the more comprehensive requirements outlined in the newly released IFRS standards. The evaluation focuses on the 15 largest financial companies listed on the FTSE/JSE stock exchange in South Africa.

While the introduction of the IFRS S1 and S2 has certainly sparked research interest in potential discrepancies between existing disclosure practices and the standards' requirements, there are also identifiable gaps in the existing literature. Prior research in this field has primarily focused on two key areas: process-based corporate climate initiatives (PCCIs) and the relationship between actual corporate carbon emissions (CCPE) and improvement in performance (Orazalin et al., 2024). Moreover, studies have explored the nexus between executive compensation (EC), sustainable compensation policies based on environmental, social, and governance (ESG)-criteria, carbon performance (CP), and market value (MV) (Haque & Ntim, 2020).

Haque and Ntim (2020) also conducted a comprehensive review of existing literature on the financial implications of corporate sustainability practices. Their literature review reveals a dominant focus on the relationships between various corporate governance (CG) elements, EC, CP, and MV. Prior studies have extensively investigated the nexus between CG, EC, and MV (Aktar, Hossain, & Rahman, 2018; Goergen & Renneboog, 2011) the direct impact of CP on MV (Kim, Park, & Wier, 2015; Trumpp & Guenther, 2015) and the association between EC and CP (Campbell, Craven, & Shrives, 2007; Maas, 2018). Additionally, other research has explored the broader link between corporate social and environmental performance and its valuation consequences (Busch & Hoffmann, 2011; Lins, Servaes, & Tamayo, 2017). A common thread across these studies is the predominant application of quantitative methods to examine the connections between specific corporate elements. In contrast, this present study seeks to utilise qualitative methods to explore the potential discrepancies between current climate-related disclosure practices and the requirements outlined in the newly released IFRS S1 and S2.

An appraisal of extant literature identifies concerning disparities between current corporate disclosure practices and the requirements outlined in the CDPS. Observably, there is scarcity of literature that examines disclosure expectations established by IFRS S1 and S2. It is the aim of this study to satiate this rift in literature by offering a renewed perspective on the potential incongruities between current practices and the disclosure requirements mandated by IFRS S1 and S2. The examination of identified disparities contributes to the evolving knowledge developments in the realms of climate-related and sustainability disclosure practices.

The contributions of this study magnify the current understanding of climate-related and sustainability disclosure practices by shifting attention to actual disclosures made by South Africa's listed financial companies. A comparative analysis of the actual disclosures against CDPS requirements identifies potential differences. A comparative approach using CDPS and the subsequent IFRS S1 and S2 is important because these two standards have been adopted as normative disclosure frameworks similar to established IFRS financial reporting standards. This comparative approach is prefaced on that a gap exists between the disclosure requirements of the CDPS (and its successors, IFRS S1 and S2) and the current climate-related disclosure practices employed by financial institutions in South Africa.

3. THEORETICAL FRAMEWORK

The most common theories applied in sustainability reporting are stakeholder theory and legitimacy theory (Hahn & Kühnen, 2013; Smith et al., 2011). The two theories place emphasis on the impact of a company's business activities within the broader context of society and the environment. However, the theories vary in the way they conceptualise external influences and levels of decisions in dealing with external groups (Smith et al. (2011) as cited in Gray et al., 1995).

The focus of stakeholder theory is on identifying stakeholders within the environment and society and examines how they are impacted by the company's business activities while legitimacy theory addresses environmental and societal concerns in general. Legitimacy theory postulates that a company is a social construct which is subject to social contracts. This social contract must align the company values to those of the broader environment and society and any incongruence in the value systems portends the company's existence.

Smith et al. (2011) allude to the two streams of legitimacy advanced by Suchman (1995) namely managerial legitimacy and institutional legitimacy. With managerial legitimacy, companies seek to legitimise their behaviour in manipulative ways. The manipulation is designed to create a perception of having values that are congruent with society's values. The contrasting approach of institutional legitimacy focuses on how societal values impact companies in their environment. The behaviour suggested in the managerial legitimacy aligns with tokenism or 'tick-box' reporting. This is designed to create impressions that the company cares and accounts to society for its business activities. While good impressions are created, self-centredness is exemplified and does what is best for shareholders at the expense of other stakeholders.

Arguably, institutional legitimacy seems less applicable because societal values do not effectively transform company values. Companies seem to be less accommodative in weaving environmental and societal values to shape their accountabilities. The adoption of IFRS S1 and IFRS S2 standards as reporting frameworks attempts to strike a balance between the interests of the company and its shareholders, and those of other stakeholders. Thus, this promotes congruence of values and accountability of companies to all stakeholders.

The implementation of IFRS S1 and IFRS S2 standards creates prospects for researchers to investigate corporate sustainability reporting practices through the double lenses of stakeholder theory and legitimacy theory. IFRS S1 and IFRS S2 mandates disclosures of specific material CRROs that are important to stakeholders (highlighting application of stakeholder theory). Additionally, the standards facilitate a more nuanced understanding of how companies tackle concerns of varied groups of stakeholders. The standards advocate disclosing broader CRROs and this aligns with tenets of legitimacy theory. As such, legitimacy theory posits that companies endeavour to attain congruence between their values and societal norms. The comparative analysis employed in the study is couched in both stakeholder theory and legitimacy theory. This theoretical approach provides a solid foundation for scrutinising current climate-related disclosure practices. Examining these disclosure practices against IFRS S1 and S2 disclosure requirements highlights the magnitude to which companies are addressing stakeholder concerns while aligning operations with broader climate-action expectations.

The neo-institutional theory is another theory that is applied in this study. Smith et al. (2011) avers that the neo-institutional theory explains the increased adoption of national and international reporting standards. Smith et al. (2011) further accentuates that the neo-institutional theory draws from legitimacy theory. The theory seeks to expound on how companies espouse similar practices to conform to the accountability demands of external stakeholders. By so doing, companies obtain legitimacy and support for their business activities (Smith et al., 2011). As such, neo-institutional theory extends to consider interactions between companies. The proposition of the neo-institutional theory persuades the researcher that it aligns with the objectives of the CDPS prototype, IFRS S1 and IFRS S2. The application of the neo-institutional theory creates an avenue to compare what the standards aims to achieve by their reporting requirements. In this study, CDPS's climate-related disclosures are juxtaposed against current practices, which are arguably influenced by stakeholder and legitimacy theories.

The IFRS S1 and IFRS S2 ameliorate consistency, comparability, standardised qualitative characteristics, and verifiability of climate-related disclosures. They are designed to satisfy the information needs of specific material stakeholders while embracing broader environmental and societal values that shape entities' business activities. The three theories provided lenses for the comparative analysis. Stakeholder and legitimacy theories offered an approach to analyse current climate-related disclosure practices, while neo-institutional theory provided the basis for comparing the prototype standard's requirements with those of IFRS S1 and IFRS S2.

In addition to the aforementioned three theories, there is need for a theoretical lens that explains the reluctance of entities to disclose certain information. In this regard, the proprietary cost theory was applied. Insufficient provision of detailed disclosures on carbon emissions and forecasts, energy consumption, energy efficiency, use of renewable energy, and GHG emissions reduction initiatives and plans can be explained by the proprietary costs theory (Lombardi et al., 2022). This theory suggests that a company may be reluctant to disclose information that is potentially harmful (Lombardi et al., 2022). The information potentially harms reputation, brand, good stead in the eyes of stakeholders, and so forth. The proprietary cost theory was applied in the analysis to assess the potential harmfulness of discovered non-disclosures. The multi-theory approach adopted in this study provides holistic explanations for climate-related and sustainability reporting (Hahn & Kühnen, 2013).

Figure 1 combines the discussed theoretical frameworks (i.e., stakeholder theory, legitimacy theory, neo-institutional theory, and proprietary cost theory) together to offer a comprehensive analysis of corporate sustainability disclosure practices. The multi-theory approach in dissecting company disclosures seeks to acquire in-depth insights into dynamics that influence disclosure decisions. The study also seeks to potentially explain the observed inconsistencies between current practices and the requirements of IFRS S1 and S2.

This study also applies a unique blend of frameworks, i.e., minimal narrative disclosure (MND), impression management (IM), and proprietary cost theory, to go beyond the commonly used theories such as legitimacy theory, resource dependence theory, stakeholder theory, and agency theory. This style is a response to the call for researchers to apply new theoretical frameworks to discover or explain incongruencies between sustainability disclosures and the reality of discernible climate risks.

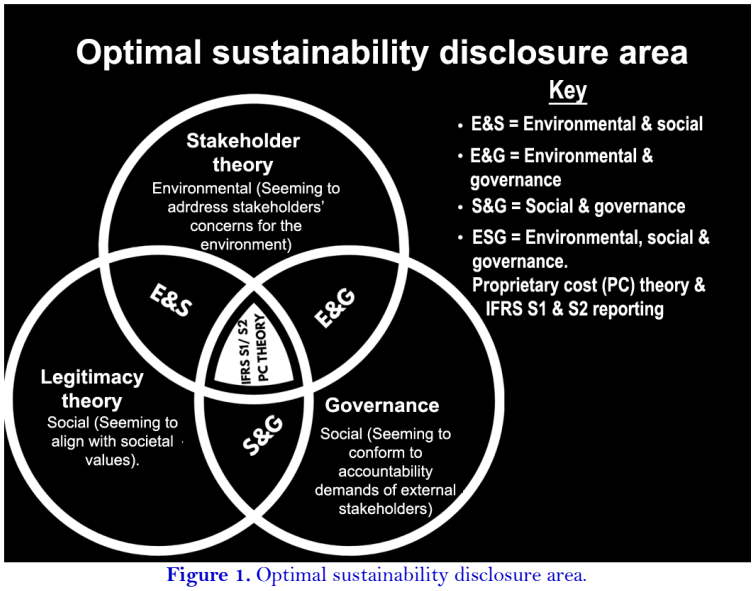

Figure 1. Optimal sustainability disclosure area.

The study employs stakeholder, legitimacy, neo-institutional, and proprietary cost theories to make sense of the disclosures and non-disclosures identified in sustainability reports. Disclosures that focus on.

- E&S (Environmental & Social) may aim to maintain or gain both social and environmental legitimacy to satisfy social contracts and meet stakeholders' requirements. Stakeholder and legitimacy theories would likely be the most appropriate theories to explain the identified disparities. Disclosures focusing only on the E could be explained by stakeholder theory, while those focusing on the S could be explained by legitimacy theory.
- E&G (Environmental & Governance) may be designed to signal to stakeholders that the entity is committed to solving environmental concerns. Strategies for achieving this may include establishing governance structures such as board committees or implementing new functions to manage environmental issues. However, a closer scrutiny of their effectiveness may reveal tokenistic activities unsupported by requisite investments. Disclosures focusing on governance to address environmental issues may appear to yield to external pressures for the company to commit to environmental accountabilities.
- S&G (Social & Governance) seeks to conform to expected reporting practices to maintain or gain legitimacy and demonstrate some level of commitment to society. Governance structures are often designed to signify commitment, yet there may be a prevalence of limited substance when considering substance over form in disclosure practices.
- Adoption and disclosures guided by IFRS S1 and S2 aim to achieve comprehensive reporting that reflects the impact of CRROs on the company's cash flows, investments, and financing decisions. This information is deemed decision-useful for users of general-purpose financial statements. The disclosures will encompass governance processes in place to monitor and manage CRROs, matrices being tracked, scenarios of various climatic events and their financial and non-financial impacts, and research on strategies to mitigate impacts of climate change events. The proprietary cost theory is applied to explain potential reluctance in disclosing potentially harmful information. As such, the study assesses the use of minimum narrative disclosure (MND) and impression management (IM) strategies. IFRS S1 and S2 make it possible to attain the desired optimal sustainability and CRRO disclosure, promoting accountability and balancing the interests of stakeholders and shareholders. The advocated disclosures safeguard against deceptive legitimacy and the management of stakeholder perceptions without undue focus on proprietary costs.

Reaching the optimal sustainability disclosure area requires integrated thinking. Integrated thinking serves as the foundation of certain trade-offs in decision making with regards to cost-benefit considerations in resource

allocation. The optimal disclosure area emphasises that it is not solely about shareholder value maximisation but also considers what is beneficial for the other five capitals (manufactured, intellectual, human, social and relationship, and natural) or optimising returns from all six capitals. Financial capital is not prioritised over all other capitals. Quality reporting in the optimal sustainability disclosure area recognises that ESG factors are inherent in business activities.

The above said, CDPS appears to place a premium on enterprise value. Companies failing to disclose in the optimal disclosure area inadvertently promote negative externalities. These negative externalities entail private benefits accruing to shareholders or investors at the expense of social and environmental aspects. Such negative externalities have led us to the alarming state of social and environmental stewardship we face today.

Having the CDPS, IFRS S1 and IFRS S2 in their present form, accentuating similar financial and economic aspects as the current shareholder primacy ideology, is not as forward thinking as intended. What the standard should aim for is to provide a disclosure framework that reveals positive externalities. Positive externalities involve the accrual of societal and environmental benefits at a lower cost to shareholders or investors. Positive externalities have the advantage of minimising and curtailing excessive profits made at the expense of society and the environment. More importantly, positive externalities are expected to minimise or reduce the wealth gap that has widened in recent decades. Arguably, it is time for wealthy investors (both individuals and institutions) who have 'milked the cow' to return to the 'cow's calf' to transition to a more egalitarian society.

4. LITERATURE REVIEW

Climate-related and sustainability reporting has been replete with frameworks and methodologies used by entities as they see fit (Eccles & Mirchandani, 2022; Gulluscio et al., 2020; Herzig & Schaltegger, 2006; Lombardi et al., 2022). This has led to a lack of consistency in sustainability reporting (Eccles & Mirchandani, 2022). The TRWG-proposed CDPS and the subsequent IFRS S1 and IFRS S2 standardise sustainability reporting in the same way as other International Financial Reporting Standards (IFRSs). For example, the standardisation mirrors how IAS 16 *Property Plant and Equipment*, IAS 12 *Income Taxes*, and IFRS 3 *Business Combinations* standardise the recognition, measurements, and disclosure of financial statements elements. Thus, the prototype standard provides guidance to preparers of sustainability reports in the same way as the stated IFRSs guide the preparation of general-purpose financial reports. In South Africa, listed companies are required to comply with IFRS reporting standards as part of the JSE listing requirements. Consequently, the expectation is that the sample of listed companies included in the study would be required to adopt and comply with IFRS S1 and S2. However, there is currently limited empirical evidence comparing current disclosure practices with the disclosures required by sustainability standards, specifically IFRS S1 and S2.

The adoption of CDPS is a plausible starting point to harmonise sustainability reporting across financial markets. However, the researcher acknowledges and decries CDPS' limitations in its current form. The limitation is that the prototype standard seems to focus on enterprise value – a concept imported into the exposure draft and subsequently into IFRS S1 and IFRS S2. As such, the researcher avers that the CDPS is crafted under the aegis of current shareholder primacy ideology (Eccles & Youmans, 2016). This ideology is aimed at creating value for shareholders, often at the disadvantage of other capital providers (such as providers of social and relational capital, natural capital, human capital, etc.). The shareholder primacy ideology draws heavily on mainstream assumptions that have shaped fields such as finance, investment, economics, financial accounting, and reporting. A disadvantage of this ideology is that these assumptions on shareholder value maximisation tend to undervalue the importance of the other five capitals. A similar weighting limitation is highlighted by Siew (2015) wherein there is an overemphasis on social disclosures in sustainability reporting tools (SRTs) such as the Global Reporting Initiative (GRI) framework. Skewed sustainability reporting creates imbalanced disclosures. CDPS, IFRS S1 and IFRS S2 need to be uniquely formulated. Largely, they should have been weaned from mainstream embedded assumptions

that have shaped the aforementioned subject fields. To achieve this, CDPS' formulation needed to fully embody the understanding that the subject fields are conceived and function within the realms of social and environmental ecosystems. These ecosystems necessitate companies' reliance on other stakeholders who provide resources (Güler Aras & Crowther, 2009; Herzig & Schaltegger, 2006). Companies are conceived and function within social and environmental ecosystems and not the other way around. The social and environmental domains should determine the pace and extent of what is sustainable in rewarding financial and economic returns. For this reason, maximisation of financial and economic returns should not be paramount to social and environmental factors and returns. The new standards should not perpetuate shareholder primacy ideology and must discourage greenwashing or leave no scope for it.

Further to the noted limitation above, the CDPS is still used as a comparative framework. The researcher also concedes that reporting social and environmental performance does not automatically translate into reporting social and environmental impact. Performance might just articulate how much CO_2 emissions or GHG the company's activities produced against own targets or benchmarks. This does not measure environmental impact. Because of this, specific matrices must be developed and applied to measure the impact of the company's activities on society and the environment. The company's disclosures on ESG performance may be presented in a glowing manner to portray the company in a positive light. However, the actual impact on the environment and society narrates a different story. In such situations, sustainability reporting becomes disingenuous and merely serves to perpetuate the company's continued existence.

Aras and Crowther (2008) argue that this narration of the company's continued existence does not reflect impact but is designed to create an impression of sustainability that reduces perceptions of risks faced and related cost of capital.

Further insights from the literature by Orazalin et al. (2024) highlight the presence of greenwashing, legitimation, and process-based climate change initiatives to give the impression that companies are acting on climate change. They posit that greenwashing disclosures are designed to protect their legitimacy in the eyes of stakeholders.

Orazalin et al. (2024) note that while companies establishing board sustainability committees seem to successfully garner positive impressions amongst stakeholders and safeguard their market value, they have also experienced ineffective outcome based corporate carbon performance, as evidenced by actual emissions and reduced mitigation of climate change risks. Additionally, Dahlmann et al. (2019) assert that companies often set symbolic climate-related risks targets to manage stakeholders' perceptions. They argue that policymakers, analysts, and academics should scrutinise executives' disclosure intentions, as climate targets may serve as mere techniques for impression management rather than leading to pragmatic improvements in climate change performance. However, some companies were found to engage in and disclose practical commitments and implementations of climate change initiatives (Dahlmann et al., 2019).

Those charged with the governance of companies have been observed employing signalling tactics to depict a serious consideration of climate change. They frame the issue in a manner nested in business rationale disclosures (Wright and Nyberg (2017) citing Bansal and Roth (2000); Sharma (2000). Wright and Nyberg (2017) argue that this framing strategy signals that action is being taken by executives while selectively disclosing desirable information and concealing potentially harmful disclosures. Similarly, Wright and Nyberg (2017) found that companies often disclose CRROs that create positive outcomes for them, aligning with proprietary theory.

Evidence from the study by Wright and Nyberg (2017) led them to conclude that companies are increasingly adopting business models that yield short-term results, which disconnects from the long-term nature of climate change impacts. The discovered myopic approach to climate change results in fragmented ways of dealing with and disclosing CRROs, as concluded by Wright and Nyberg (2017). On the other hand, Dahlmann et al. (2019) found

that companies implementing long-term climate change initiatives and targets experienced reduced emissions, leading to improved climate performance.

This section and the previous one provided a comprehensive review of the sustainability disclosure literature and examined the theoretical lenses that inform this study. These theoretical lenses propose an optimal area for sustainability disclosure, as advocated by IFRS S1 and S2. The empirical literature reviewed indicates that legitimacy theory, stakeholder theory, neo-institutional theory, and proprietary cost theory all support the proposed optimal sustainability disclosure area. These theories suggest that companies disclose sustainability information to maintain legitimacy with stakeholders, fulfil stakeholder expectations, comply with institutional norms, and signal their commitment to sustainability. Proprietary cost theory explains reluctance in negative disclosures.

This literature section briefly critiques the limitations of the current form of the CDSB prototype and subsequent IFRS S1 and IFRS S2 frameworks. However, it highlights the use of these frameworks as comparative frameworks due to their harmonised guidance for sustainability reporting, similar to the role that IFRSs play in financial reporting. The proposed standards incorporate climate-related and sustainability reporting criteria from various entities, such as the IFRS Foundation, the TCFD, the VRF, and the World Economic Forum. This makes the proposed standards a comprehensive framework for sustainability reporting. The subsequent section of the study delves into the methodology employed in the study.

5. METHODOLOGY

This study employs a meticulous qualitative research approach, deemed appropriate due to the swift changes in the field of climate-related and sustainability reporting in the past two years. These changes have seen several reporting institutions amalgamating (and their frameworks consolidating) as well as the formation of the International Sustainability Standards Board (ISSB). In 2021, the CDSB and the VRF, formed from a merger between the IIRC and SASB, consolidated into the IFRS Foundation. These changes require an understanding and analyses of qualitative characteristics of content presented in the amalgamated reporting frameworks and standards before testing proposed qualitative ideas and hypotheses using quantitative research (Lombardi et al. (2022) as cited in Hair et al., 2003).

5.1. Data Sources

Sustainability reporting serves as a medium to communicate the company's social and environmental performance to stakeholders. This method of communicating with stakeholders provides them with decision-useful information on CRROs. The titles and scope of reports used to communicate companies' social and environmental performance to stakeholders include sustainability reports, social reports, corporate social responsibility reports, social and community reports, environmental reports, and integrated reports (Ioannou & Serafeim, 2017). The researcher adopted a similar approach to Ioannou and Serafeim (2017) and Stolker, Keskin den Doelder, and Sidhu (2020) by collecting data from reports disclosing climate-related and sustainability matters. Henceforth, these reports are collectively referred to as sustainability reports.

The data for the sample of companies in this study was collected from various sources including Reports to Society, Integrated Reports (<IR>), ESG Reports, reports reporting TCFD Disclosures, Resilience Reports, SASB Index Reports, Annual Financial Statements or Reports, Governance Reports, Sustainable Development Reports, Sustainability Reports, and Responsible Business Impact Reports. The primary source of disclosure data was <IR> reports issued by holding companies. In cases where group reports were available, data was collected from those. For companies that do not belong to a group, data was collected from their individual reports. All reports were accessed from the official websites of the companies, which are considered credible sources as they contain sustainability reports filed with the Johannesburg Stock Exchange (JSE) as part of the listing requirements.

5.2. Sample used in the Study

The study utilised companies listed on the FTSE/JSE Financials 15 index as a sample. These companies wield significant influence in capital and credit formation, which is utilised to fund expansions or projects that either exacerbate or mitigate climate change (Spasić, Denčić-Mihajlov, & Poposki, 2021). This index includes insurance companies, which can play a pivotal role in shaping climate-resilient societies. Insurance companies manage and transfer risks, carry and price risks, and invest in sectors of the economy (Spasić et al., 2021). According to a survey conducted by the GRI (Eccles, Krzus, & Ribot, 2015) the global financial sector self-declared more integrated reports than any other sector. Financial institutions often face robust stakeholder pressures to address climate-related and sustainability issues in their funding and investment strategies and activities. Based on research by Eccles et al. (2015) it is reasonable to assume that sustainability reporting by large listed financial companies is more advanced than companies in other sectors.

Each of the 15 financial companies constitutes a unit of analysis in terms of its current climate-related and sustainability disclosures in reports. The 15 financial companies are assumed to have complied with JSE listing rules and reporting requirements. Analysts who are very significant role players in financial markets prefer to use data derived from companies' reports. They argue that these reports provide more insights into varied drivers of performance and value (International Integrated Reporting Council & Kirchhoff Consult AG, 2020). The researcher concurs with the argument and utilised climate-related and sustainability data collected from company reports for this study. This data allows for understanding of its purpose, business model and strategy, risks and opportunities, culture, governance, and performance (all principles of integrated thinking). If this is critical for practitioners, it should be critical for academic research to ensure relevance in making practice contributions. The analysed reports were for the financial year ending in 2020, representing the latest reports available before the release of the prototype in November 2021 and the January 2024 IFRS S1 and S2 adoption dates.

5.3. Research Design

A comparative research design, specifically a cross-case analysis, was employed using archival data (i.e., sustainability reports). A content analysis approach was chosen as the most suitable method due to recommendations from the CDPS and subsequent IFRS S1 and IFRS S2, which advocate for thematic and industry-specific disclosures. These standards focus on governance, strategy, risk management, and matrices and targets (important pillars in the operations of entities). Industry-specific disclosures require minimum disclosures, while companies are expected to provide detailed disclosures based on their business models. Thematic disclosure requirements facilitate market-wide comparability of disclosures spanning industries on various themes, while industry-specific disclosures enable specific topic comparability within industries.

Deductive coding was employed to analyse archival data, aligning with the specific disclosures outlined in the CDPS framework. The researcher established and followed a systematic coding process to meet CDPS' requirements. This systematic coding process involved examining the content of reports to identify meaning that matched the disclosure messaging required by the prototype standard. An alphanumerical coding system was applied to align the CDPS' reporting requirements to the gap identification template. The coding system was formulated as follows:

- The letter denotes the prototype standard's reporting subheading (e.g., S for Scope, G for Governance, etc.).
- The number aligns with the CDPS' section numbering (e.g., number '3' aligns with subsection 3).
- The letters 'a', 'b', 'c', etc., denote the subsection numbering under each section, and Roman numeral numbering (where applicable) follows the subsequent subsection numbering aligning with the prototype standard's reporting requirements.

Utilising this coding system facilitated the mapping of data points to their original sources within the company's sustainability reports. A similar coding and classification process was followed by Lombardi et al. (2022). The prototype standard requires disclosures to be in the following reporting aspects or categories:

1. Scope of reporting including, but not restricted to, physical and transition risks and climate-related opportunities available to the entity.
2. Governance, which allows users to evaluate the company's governance processes, controls, and procedures used to monitor and manage material climate-related risks and opportunities (hereafter referred to as CRROs).
3. Strategy is for users of general-purpose financial reports to assess the company's strategies in dealing with material CRROs.
4. Risk management disclosures, designed to inform how the company identifies, assesses, manages, and mitigates climate-related risks. The company is required to disclose how risk management processes are integrated into its overall risk management.
5. Matrices and targets disclosed to enable users of general-purpose financial reports to evaluate a company's performance in managing material CRROs and impacts on the environment and society.

Table 1 presents a key on how company disclosures were evaluated against these standards.

Table 1. Evaluation of disclosure levels.

Key	**The disclosure levels are ascribed based on the author's judgement about how comprehensively the standard's disclosure requirements are addressed in reports. The assigning of disclosure levels is conducted in consideration of TRWG's technical protocols for disclosure requirements.**
0	Non-disclosure (i.e., disclosure element not addressed at all in the report).
1	Low-level disclosure (i.e., descriptive reporting that largely resembles presenting the entity in a positive light and impression management through minimal narrative disclosures. Such reporting depicts tokenism reporting, provides little or no financial and non-financial impacts, and barely applies or discloses relevant accounting matrices as units of measurements. It suggests minimum disclosures to satisfy user expectations).
2	Medium-level disclosure (i.e., the reporting is descriptive, provides strands of the entity's impact of disclosure element. While some elements are extensively disclosed, the reporting falls short in providing financial and non-financial disclosures as required by the standard. Relevant accounting matrices, serving as units of measurements, are somewhat applied or disclosed, along with nexuses to CRROs and required adaptations to the business model).
3	High-level disclosure (i.e., the reporting is integrated, comprehensively addresses the standard's requirements, links impacts to financial and non-financial elements, highlights CRROs, and explains required business model adaptations. Relevant accounting matrices as units of measurements are widely applied or disclosed, and provides other voluntary decisions on useful disclosures)

All non-disclosures and disclosures per reporting category are presented as findings and analysed in subsequent sections.

This section presents discussions on the comparative research design, specifically, cross-case analysis. The study utilises Financials 15 as social entities with continuant characteristics (Jansen, 2015). The Financials 15 retain their identity even though their states and relations may change. These continuant traits are important for the study as the companies' business activities continue to impact the environment and society. Their identity is characterised by the maximisation of shareholder value even though they may profess to have changed their way of conducting business. Additionally, their identity is enshrined in the business models they use. As social entities do not exist in vacuums, they are interconnected to other social entities, including natural entities (Jansen, 2015). Similarly, through their business models, Financials 15 are interconnected in various economic and financial channels. It is through this interconnectedness that they transmit environmental and social effects. In conducting the cross-case analysis, the study examined categories across climate-related and sustainability reporting among Financials 15, and assessed how they diverge from or align with the CDPS' requirements. The basis of the cross-

case analysis is the prototype standard and subsequent IFRS S1 and IFRS S2. The companies were anonymised by allocating numbers to them instead of using actual names. The study's approach is similar to the one by Lombardi et al. (2022) in which the authors used qualitative methodology, content analysis, a sample of 34 listed companies, single country context (Italy), and reports from 2019. Their adopted coding and classification system examined current climate-related disclosure practices.

The next section presents the results of the comparative analysis, which was based on the CDPS' and subsequent IFRS S1 and IFRS S2 requirements.

6. EMPIRICAL FINDINGS

This section integrates the results and their analyses. The results represent the culmination of a meticulous deductive coding process applied to glossy sustainability reports of companies listed on the FTSE/JSE Financials 15 index. Data sourcing and coding was conducted as outlined in the methodology. The methodology facilitated the assessment of the extent to which current disclosure practices diverge from the CDPS prototype and subsequent IFRS S1 and IFRS S2 standards. Additionally, the identified disclosure gaps can indicate challenges companies may face in meeting the IFRS S1 and IFRS S2 requirements, providing insights into the investments required to achieve the desired reporting standards. Moreover, the absence of certain disclosures can serve as red flags, prompting further evaluation by investors and stakeholders.

The analyses and conclusions are not intended to be generalised to other industries and sectors. However, given the nascent stage of sustainability reporting guided by IFRS S1 and S2, the field requires understanding and analyses of qualitative characteristics of content presented in the amalgamated reporting frameworks and standards before testing proposed qualitative ideas and hypotheses using quantitative research (Lombardi et al. (2022) as cited in Hair et al., 2003). As such, qualitative subjectivity may form the foundations of building and exploring the field of sustainability disclosures and CRROs until quantitative lenses can be used to test the veracity of qualitative disclosures and relationships presented in reports prepared with the guidance of IFRS S1 and S2. In this regard, this study aims to provide a widespread understanding of the implications and significance of the variations within the sustainability reports of companies listed on the FTSE/JSE Financials 15 index. The insights derived from this analysis hold significant value for researchers, practitioners, and policymakers in the realm of CRRO disclosures. This contributes to the advancement of knowledge and informed decision-making in this field.

This section flows as follows, findings are first presented and then analysed. Where the findings are related, the analysis integrates the discussion of those findings.

6.1. Finding 1

CRROs are reported in many reports, e.g., <IR>, ESG report, Resilience Report, Sustainable Development report, Responsible Business Impact report, Annual report, SASB index report, and TCFD Report. In some instances, the <IR> is used to report on CRROs, in some instances two to five reports are used to report CRROs. Other reporting companies outline their alignment with TCFD's disclosure requirements. Substantially, some disclosures are repeated or duplicated in mentioned multiple reports. Some companies explicitly report that they do not subscribe to any reporting framework, but they report on material issues.

> *"We currently do not prescribe to a reporting framework but have reported on issues material to our business." p.9. Company 11.*

Differences between current disclosure practices and what is prescribed by the new standard exist because the disclosure framework used (e.g., <IR> or TCFD) might not have addressed a particular disclosure aspect while the IFRS S1 and S2 imported that aspect from another reporting framework.

6.1.1. Analysis of Finding 1

This finding implies that the introduction of IFRS S1 and IFRS S2 is expected to bring about a harmonisation of sustainability reporting practices across jurisdictions. The design of these standards enables their integration with other disclosures specific to each jurisdiction. As capital market participants and stakeholders worldwide adopt these standards, there will be a growing demand for alignment of sustainability disclosures with IFRS S1 and IFRS S2, similarly to the alignment seen with other IFRS reporting standards used for general-purpose financial reporting. In South Africa, the expectation is that IFRS S1 and S2 will be adopted and complied with by all JSE listed companies as part of their listing requirements. Currently, the companies comply with the earlier mentioned sustainability reporting frameworks, e.g. TCFD and <IR>, which significantly contributed to the IFRS S1 and S2. This further suggests that companies may find it easier to measure, report, and comply with elements that were imported from their previous reporting framework into IFRS S1 and S2. If for example, greater parts of the TCFD framework were widely imported into IFRS S1 and S2, companies accustomed to reporting in accordance with the TCFD framework would likely find it easier to adopt and implement the requirements of the new standards. Also, fewer disparities would be identified. The convergence of reporting frameworks in IFRS S1 and S2 will contribute to a more standardised and consistent approach to sustainability reporting on a global scale. This is anticipated to reduce instances of disclosures aimed at seeking legitimacy through impression management and minimal narrative disclosures. Instead, the focus of disclosures would shift away from avoiding disclosures that are harmful to the company as suggested by the proprietary theory. The disclosures are envisioned to then be on the spectrum of the optimal disclosure area, thus achieving better transparency in reporting. This is critical for financial markets and its players, who are responsible for capital formation. Capital formation is imperative for economic growth, increased productivity, innovation and technological advancement, employment creation, infrastructure development, improved living standards, attracting foreign investment, long-term economic stability, diversification and economic resilience, and wealth creation.

6.2. Finding 2

Companies with the highest disclosures or lowest non-disclosures (described as level 3 in Table 1) aligned their sustainability reporting to the TCFD reporting requirements. These are companies anonymised as company 2, 4, 6, and 10. By and large, the companies indicate what they have done regarding CRROs, how they identified CRROs, assessed CRROs with defined assessment parameters, outlined responses to CRROs, aligned disclosures to categories outlined by TCFD, provided matrices and targets, and disclosed their way forward in CRRO disclosures.

The total number of disclosures in each category were as follows:

- Scope reporting has 3 disclosure requirements.
- Governance reporting has 7 disclosure requirements.
- Strategy reporting has 33 disclosure requirements.
- Risk management reporting has 7 disclosure requirements.
- Matrices and targets reporting has 20 disclosure requirements.

To further decompose the disclosure categories per company, findings reveal that four companies significantly disclosed aspects in the strategy category, risk management, and matrices and targets in accordance with the standards' requirements.

6.3. Finding 3

In the strategy disclosure category, a significant number of companies did not disclose on the following.

Coded disclosure category	Required disclosures

St.6.c: A description of significant CRRO and the time horizon over which each could reasonably be expected to have a financial effect on the entity.

St.8.a.ii: Disclosures on how the entity is advancing research and development related to climate-change mitigation, adaptation, or opportunities.

St.8.b: Articulation of assumptions on legacy assets that are environmentally heavy and decommissioning plans.

St.9.a: Disclosure on how material CCROs have impacted reported financial performance, financial position, and cash flows.

St.9.b.i: Disclosures on current and committed capital allocation plans and their anticipated impact on the financial position.

St.9.c: Disclosures on how management expects the entity's financial performance to change over time given the adopted strategies to address CCRO.

St.9.d: Articulation of how the entity's assessment of significant CCRO has affected judgements made or presented sources of estimation uncertainty in financial statements.

St.10.a.v: Disclosures of the inputs into the scenario analysis, including but not limited to the scope of risks (for example, the scope of physical risks included in the scenario analysis), the scope of operations covered (for example, the operating locations used), and the level of detail in the assumptions (for example, geospatial coordinates specific to company locations or national- or regional-level broad assumptions).

St.10.a.vi: Articulation of management's assumptions on how transition risks will impact the entity.

St.10.b.i: Presentation of analyses and assessments articulating how assets and investments are aligned with, or are sufficiently flexible to reallocate, decommission, repair and be upgraded, in the event of physical disruption or chronic changes in weather patterns resulting from climate change.

Figure 2 shows the minimum, maximum and average non-disclosures per category.

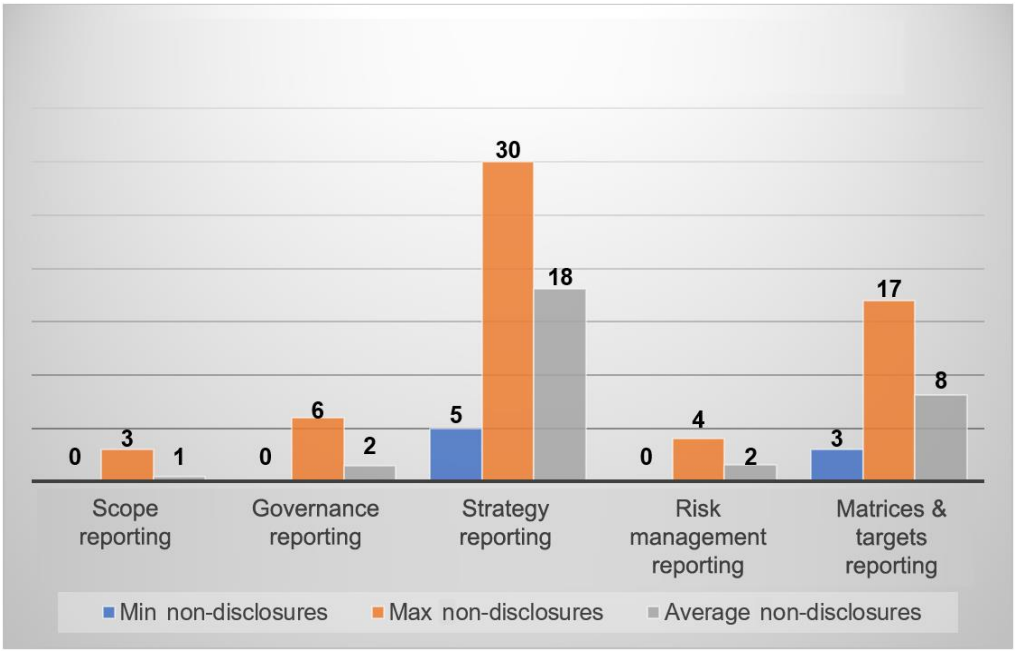

Figure 2. Non-disclosure levels per category.

Strategy reporting and matrices, as well as targets reporting categories, exhibit the highest number of non-disclosures (i.e., level 0 as described in Table 1). A further breakdown of the non-disclosure categories is depicted in Figure 3, showing non-disclosures per company and category.

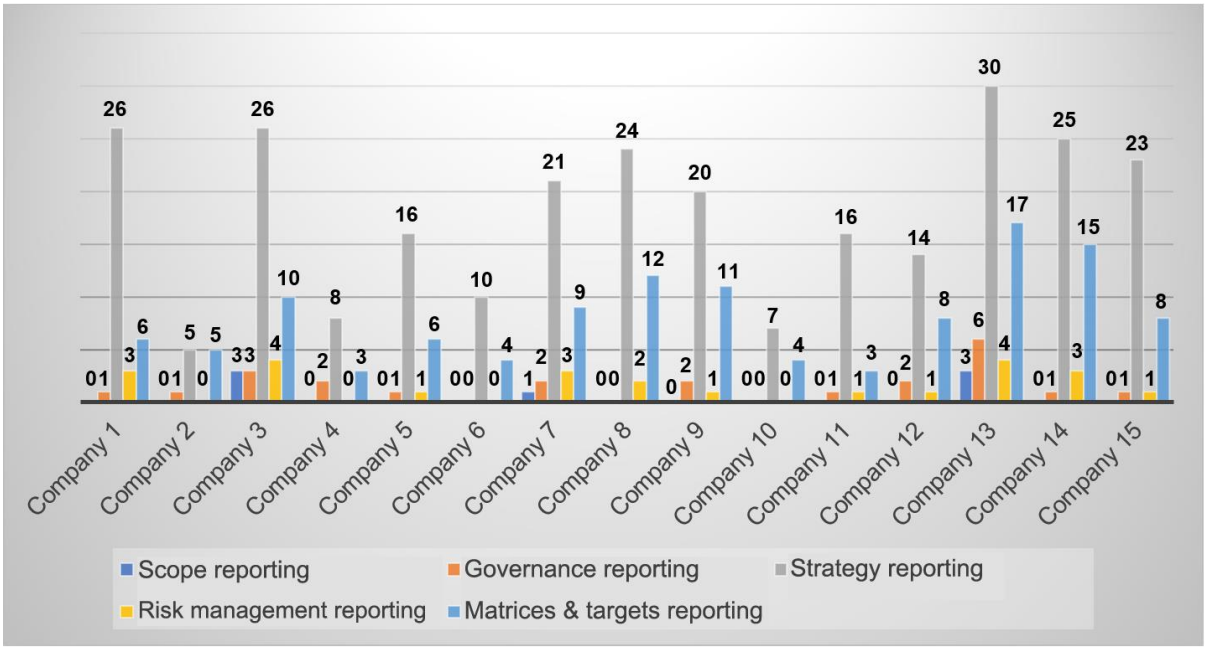

Figure 3. Non-disclosure levels per company and category.

The highest number of non-disclosures were in the strategy reporting category. Companies 1, 3, 7, 8, 9, 13, 14 and 15 had the greatest number of non-disclosures in the strategy reporting category. Companies 3, 7, 8, 9, 12, 13 and 14 had the highest non-disclosures of matrices and targets reporting category (described as level 0 in Table 1). In this category, significant non-disclosures were as follows:

Coded disclosure category	Required disclosures
MT.12.a:	Inclusion of cross-industry matrices in the disclosures.
MT.13.b:	Disclosure of transition risks (vulnerable value of assets and business activities).
MT.13.c:	Disclosure of physical risks (vulnerable value of assets and business activities).
MT.13.f:	Disclosure of internal carbon pricing and its application in decision making expressed in the reporting currency per metric tonne of CO_2 equivalent.
MT.13.g:	Disclosure of the proportion of executive management's remuneration affected by CRRO.
MT.15.d:	Disclosure on whether targets were derived using sectorial decarbonation approach or not.

In the governance reporting category, two main non-disclosures were conspicuous. These were:

Coded disclosure category	Required disclosures
G.4.c:	Availability of skills and competencies overseeing strategies related to CRRO.
G.4.f:	Details are provided on CRRO target setting, monitoring and how performance matrices are embedded in remuneration policies.

In this scope reporting category, non-disclosures were minimal.

6.3.1. Integrated Analysis of Finding 2 and 3

Findings 2 and 3 focus on disclosure and non-disclosure practices in line with the prescribed standards. It was observed that companies adhering to the requirements of the TCFD exhibited the highest level of disclosures, as anticipated. Notably, these companies held dual listings, implying a higher level of maturity or a motivation to align with TCFD guidelines in other jurisdictions. Furthermore, their operations within the banking sub-sector

corroborate the earlier assertion that this sector is more prepared to engage in comprehensive reporting on CRROs. The adoption of climate-related policies and disclosures may be attributed to external pressures exerted on these companies, highlighting the influence of external forces in shaping their disclosure practices.

That said, a significant number of companies in the sample did not disclose information on strategy reporting, matrices, and targets reporting categories. The extensive array of non-disclosures found (depicted in Figure 2 and 3) has significant implications on crucial facets that, if not adequately disclosed, will significantly impede efforts to combat climate change and capital formation in future, with the financial services industry playing a pivotal role in this endeavour. It is imperative for companies to embrace transparency in disclosing information in several key areas, including.

- Climate-insensitive legacy assets.
- Decommissioning plans for such assets.
- The climate's impact on financial performance, position, and cash flows.
- Committed capital allocations to mitigate climate change in business models.
- Vulnerable asset values and business activities in relation to transition and physical risks.
- Internal carbon pricing mechanisms employed.
- The proportion of executive management's remuneration influenced by CRROs.
- The establishment, monitoring, and integration of performance matrices tied to CRRO targets within remuneration policies.

These aspects hold critical importance for investment analysts, investors, and other participants in the capital market, as well as stakeholders whose economic, environmental, and social returns are susceptible to the consequences of climate risks.

The absence of CRRO disclosures has detrimental effects on the trust placed by customers, investors, and regulators in companies regarding their efforts to address these issues. This lack of transparency erodes stakeholders' confidence in understanding the actions and initiatives undertaken by companies in relation to CRROs. As such, trust is diminished, potentially impeding effective engagement and collaboration. Moreover, non-disclosures erode the legitimacy that stakeholders place on companies. According to stakeholder and legitimacy theory, once a company's legitimacy is depleted, its social contracts aligning its values with those of the broader environment and society become questionable. This incongruence threatens the company's existence. Consequently, the company's attempt to safeguard itself through non-disclosures is undermined, ultimately endangering the very objective it sought to protect. Despite the company's intention to conceal certain information and engagement in tokenistic behaviour, the lack of disclosure still poses risks. The concealment of information potentially compromises its reputation, stakeholder relationships, and overall well-being. An alternative approach to concealment that companies may embark on to gain legitimacy may involve greenwashing and impression management. Orazalin et al. (2024) found a similar approach by the sample of companies in their study.

The absence of explicit guidance within the standards regarding the requisite qualifications for individuals overseeing strategies associated with CRROs could potentially contribute to instances where information about the availability of skills and competencies is not disclosed. This absence of clear directives pertaining to recommended qualifications, such as ACCA, CFA, and similar designations, might be an underlying reason for the prevalent non-disclosure pattern observed. However, these professional bodies seek to address this gap in competencies through enforcement of continuous professional development requirements on their members.

6.4. Finding 4

Climate risks are considered not to impose threats in some companies. This finding was observed for company 1, 3 and 4 as follows.

i. The reporting context (that of protecting the group's balance sheet and capital) suggests that company 1 will continue with current business model while figuring out the roadmap of dealing with climate change. This falls in the description of level 1 in Table 1.

> *"As referenced in the CEO's report, this new disclosure provides an overview of [company 1's] governance and risk management frameworks relating to climate change. It also covers the financing of climate-sensitive industries and presents the group's current roadmap to developing a complete framework for managing climate change." p.32. Company 1.*
>
> *"Climate change transition or physical risks do not necessarily present a significant threat to achieving our business strategy in the short to medium-term (over zero to three years)." p.4. Company 4.*

ii. It is not mentioned among key risks in business models and risk management frameworks (company 3). Some reporting insinuates that the group is not climate sensitive.

> *"The diagram (referring to a figure in the <IR>) defines the 6 risk categories and shows the relevant oversight structures." p.83. Company 3.*

The diagram referred lists the 6 risk categories as operational risk, business risk, credit risk, market risk, capital and liquidity risk, and reputational risk. CRROs are not specifically disclosed in any of the 6 risk categories stated in the report (described as level 0 in Table 1).

6.4.1. Analysis of Finding 4

In the context of companies elucidated in this finding, an apparent deficiency emerges concerning how CRROs are not considered a threat to these companies. Staggering is the presence of financial services companies upholding the belief that "*climate change transition or physical risks do not necessarily present a significant threat to achieving our business strategy in the short to medium-term*". This assertion or perception by a South African financial institution regarding climate change risks stands in stark contrast to the findings of Wright and Nyberg (2017). Their research identified two financial institutions (one in 2001 and another in 2008) that demonstrably recognised the significant socio-economic and environmental impacts of climate change on their business strategies. This counterpoint highlights the intriguing discrepancy between the aforementioned financial institutions and the South African case. It is particularly noteworthy given the substantial responsibilities entrusted to financial institutions within the economic landscape. By acknowledging and mitigating climate change risks, financial institutions can ensure the long-term sustainability of their operations and contribute to a more resilient economy. If anything, these financial institutions should be driving and assisting customers, employees, and communities at large to transition to low carbon footprints lifestyles. In so doing, the financial institutions may be able to identify climate-related opportunities that require pivoting their existing business strategies and models.

Remarkably, certain companies neither allude to nor acknowledge the existence of CRROs within their underlying business model and overarching risk management framework. This is particularly noteworthy considering the operational expanse of one quoted bank, which at the time of reporting, boasted 14,029 employees, 6.7 million digital clients, 13.8 million active customers, 852 branches, and 2,380 ATMs. The exposure of these resources to potential climatic disruptions, such as floods and energy crises, is a pertinent consideration.

Of additional concern is the apparent oversight within the bank's risk identification and evaluation protocols, as they seemingly failed to discern the substantial implications posed by climate risks, especially regarding their potential impact on the company's loan portfolio. The bank's target market is susceptible to natural disasters, such as floods, which subsequently strain their loan repayment capacity and exacerbate the bank's non-performing assets. Strikingly, the bank's 'integrated risk management' framework excludes any reference to, or reporting on, CRROs. These exclusions may be explained by the proprietary cost theory. Additionally, Wright and Nyberg (2017) found and asserted that some companies connect climate change to their preferred discourses. In this case, companies may

choose to remain silent on climate change because disclosing its impact on the business model and strategies could be deemed unsavoury.

This intricate interplay between operational vulnerabilities, risk management lacunae, and CRROs imperatives underscores the intricate web of challenges confronting financial institutions in aligning their strategic, operational, and risk-oriented models with the exigencies of contemporary sustainability imperatives. Companies will need to transparently learn to navigate this CRRO terrain and the IFRS S1 and S2 may just be the tool to help them achieve this.

6.5. Finding 5

An informed individual who is knowedgeable about sustainability disclosures can plausibly opine that the CRRO narratives in sustainability reports are more akin to public relations stunts or designed for impression management. No substantive issues are disclosed to show the impact of business models on the environment. Additionally, there is more focus on reporting alignment with sustainable development goals (SDG) rather than reporting on CRROs. However, the SDG reporting is more about presenting the entity in a posititve light, rather than on quantifiable impacts. These two aspects satisfy the level 1 description outlined in Table 1. This was apparent in company 3.

> *"We are creating value by contributing to positive outcomes for the sustainable development goals (SDG 1, 4, 5, 8 and 10)." p.34. Company 3.*

6.6. Finding 6

Companies 5, 6 and 8 provide a description of transition and physical risks as opposed to what they encounter as CRROs and their impact on business models currently used. There is no articulation on the extent to which these risks impact the companies from a strategic perspective. For example.

> *"Transition risks: These are associated with the transition to a low-carbon economy, motivated by policy, market, technological, or reputational factors affecting the value of financial assets." p.58. Company 5.*
>
> *"Transition risk: In the context of operational risk, climate risk refers to risks that will arise from how [company 6] operates from an own-operations perspective (employees, buildings, storing of data, etc) in the transition to a zero-carbon economy." p.11. Company 6.*
>
> *"Physical risks: Acute and chronic physical climate change effects include extreme weather events, high rainfall and flooding, high temperatures, drought, and sea level rise." p.3. Company 8.*

These are repetitions of definitions and or descriptions provided by the standards. There is no translation of definitions to articulate the extent or how CRROs impact the business model as required by the standards. The disclosures were considered to range between level 0 and 1 as described in Table 1.

6.6.1. Integrated Analysis of Finding 5 and 6

The sample companies are yet to effectively address the multifaceted dimensions of climate change, encompassing its ramifications on financial dynamics, performance matrices, cash flow trajectories, the intricacies of value chains, and the requisite technological adaptations necessary to navigate these challenges as mandated by prevailing standards. Notably, the trajectory of sustainability reporting appears to pivot on a narrative that predominantly accentuates the persistence of the company itself, rather than prioritising a substantive evaluation of its ecological and societal footprint. This reasoning is aligned to Orazalin et al. (2024) conclusion that companies are more likely to protect their market value using impression management as they report to stakeholders. Orazalin et al. (2024) highlight that Maas (2018) and Berrone and Gomez-Mejia (2009) reached similar conclusions. Concurringly, Haque and Ntim (2020) conclusion seems to suggest that gaining legitimacy drives the adoption of climate change initiatives rather than those that bring substantive positive climate impact. For this reason, the

disclosures are minimal and focused on impression management aimed at depicting a picture that the company has potential to persist in the future.

This prevalent narrative orientation, while projecting an image of enduring sustainability, appears poised to engender perceptions of reduced risk exposure and a concomitant mitigation of the associated capital cost. Thus, it orchestrates a strategic portrayal that diverges from the holistic impact of the company's activities on the broader environmental and social landscape. Disclosures by companies 5, 6, 8, and others must transparently articulate the multifaceted dimensions of climate change and the impact of their activities on the broader environmental and social landscape. This reluctance can be explained by the proprietary theory as companies seek to protect their market value, reputation, and other costs or investments related to CRROs. Investments and costs of embarking on initiatives that comply with reporting standards' requirements are often high and erode financial returns. As such, companies disclose elements that make them seem to be doing something, e.g., setting board committees that focus on sustainability, connecting climate change to preferred issues that are extensively disclosed, aligning topical climate change issues with socio-economic aspects designed to divert attention from negative climate impacts, and introducing newly labelled sustainable products or services (Wright & Nyberg, 2017) to comply with the standards' requirements to gain or maintain legitimacy. Unfortunately, these impression-managed disclosures are ineffective in mitigating CRROs – a conclusion also reached by Orazalin et al. (2024).

6.7. Finding 7

Sustainability reports are prepared with a strong emphasis on shareholder primacy ideology. Executives are remunerated based on returns delivered to shareholders (providers of financial capital), while other providers of capitals (environment, human, manufactured, intellectual, and social and relationship) are subordinated. Observable examples come from reports produced by companies 1, 3, 7, 9, 11, 12, and 14. Priority has not been given to protecting the environment and society but rather to the balance sheet, aiming to benefit shareholders by focusing on maximising economic returns.

> *"Looking ahead, we will continue to invest responsibly in areas that maximize customer returns and meet our ESG objectives across all the markets we operate in." p.2. Company 9.*
>
> *"Remuneration Committee is to review some of the critical elements of remuneration in light of recent dynamics, which require a focus on flexibility, long-term incentivisation and agility in adapting to variations in business performance and shareholders' returns." p.145. Company 12.*

Coupled with this shareholder primacy ideology in disclosures, there seems to be the promotion of negative externalities. Because the focus is on delivering good returns to providers of financial capital, this occurs at the expense of returns to providers of the other five capitals. Additionally, responsible investing is not articulated but is couched or nested in shareholder value maximisation ideology.

6.8. Finding 8

Reporting by companies 3 and 12 seem to resemble signalling and impression management (IM) as well as minimal narrative disclosures (MND) akin to level 1 descriptor in Table 1. Company 2 appears to focus on reporting on what it worked on, while the reporting is silent on actual disclosures required by the standard.

> *We are working toward aligning our climate risk reporting with the principles of the TCFD.... We updated our ESG Risk Governance Framework in 2020 to strengthen processes and accountability for climate-related risk identification, classification, analysis, monitoring, and reporting... We are reviewing our policies to appropriately support ESG risk management, including climate risk." p.67. Company 2.*

6.8.1. Integrated Analysis of Finding 7 and 8

The assessment of performance and the consequent compensation of executives continue to be entrenched in the pursuit of maximising shareholder returns (providers of financial capital). This approach notably relegates other capital contributors to a secondary position, as the prevailing performance evaluation framework neglects to encompass these diverse forms of capital. Evidently, a considerable number of companies within the sampled cohort exhibit a predilection for safeguarding their financial position primarily for the benefit of shareholders, thereby concentrating on the augmentation of economic gains. This emphasis on economic maximisation serves to mitigate outwardly adverse consequences.

The repercussions, known as negative externalities, manifest as individual gains accrued by shareholders or investors while concurrently externalising the social and environmental dimensions. To obfuscate these adverse external consequences, companies subsequently adopt alternative non-economic disclosures, intricately interwoven with elements of signalling, IM and constrained narrative disclosures. These narrative disclosures often assume a resemblance to the practices of greenwashing and IM, evident through strategies such as MND, a pattern notable in the instances of company 3 and 12. Conversely, company 2 appears to focus its reporting on the exposition of endeavours undertaken; however, this reporting approach remains reticent in addressing the full spectrum of requisites prescribed by IFRS S1 and IFRS S2. This also suggests that the companies may struggle to implement the provisions of the new standards.

6.9. Finding 9

Reporting narrative for company 12 appears to be more concerned with compliance than on reporting substantive CRRO issues or disclosures (described as level 1 in Table 1).

> *"... a Policy Framework Procedure has been implemented, aiming to encourage common rules and processes at Group level, as well as to maintain permanent alignment with the legal and regulatory environment, thus avoiding mainly compliance risks and consequently reputational and/or financial loss risks." p.134. Company 12.*

6.9.1. Analysis of Finding 9

Centering on mere compliance often sidesteps the broader and deeper commitments necessary for fostering genuine sustainability and building meaningful relationships with stakeholders. This approach tends to limit actions to the bare minimum required by regulations and tokenism, missing the opportunity to proactively address environmental, social, and ethical concerns. The finding highlights that mere compliance, while meeting regulatory requirements, may yield similar outcomes to what Wright and Nyberg (2017) articulate as 'framing'. Framing involves the interpretation, definition, and communication of an issue to garner support from both external and internal stakeholders. This suggests that simply adhering to regulations without actively and pragmatically engaging with CRROs may result in limited transformation of business strategies and practices aimed at mitigating the impacts of business activities. As a result, such an approach may be insufficient to effectively manage CRROs and mitigate their impact.

Moreover, a compliance-focused strategy might create an atmosphere of distrust with stakeholders. When companies predominantly emphasise adherence to regulations without demonstrating a sincere commitment to broader sustainability goals, stakeholders may perceive this as a superficial approach. This erodes trust, particularly among socially conscious investors and consumers who increasingly demand genuine corporate responsibility.

A compliance-centric stance might inadvertently encourage a "tick-box" mentality, where the primary aim becomes meeting regulatory requirements rather than driving continuous improvement. This can hinder innovation and exploration of more effective and innovative approaches to sustainability challenges. By contrast, an approach anchored in sustainability and transparent disclosures demonstrates a company's dedication to the greater good

beyond legal mandates. It encourages a holistic perspective on long-term environmental, social, and economic impacts, potentially leading to more meaningful contributions to mitigation of climate risks. Such an approach can also enhance stakeholder trust and loyalty, fostering brand reputation and positive relationships.

While compliance is essential, it should serve as a foundation for more comprehensive sustainability initiatives and open dialogue with stakeholders. Balancing compliance with proactive transparent disclosures makes a positive impact and maintains strong relationships with all stakeholders.

6.10. Finding 10

A handful of companies disclosed independent or third-party verification statements of their disclosed matrices. This is better articulated by company 8.

> *"Company 8 engaged [Entity X] to conduct an independent third-party verification of the Group's greenhouse gas (GHG) emissions inventory for the financial reporting period 01 July 2019 to 30 June 2020 (FY2020) ...". p.1. Company 8.*

6.10.1 Analysis of Finding 10

A handful of sample companies stated the independent verification of their GHG emissions. The independent verification complies with the recommendations arising from the study by Orazalin et al. (2024). Independent verification is critical because it augments the reliability of reported emissions data and supports the transparency necessary for effective climate risk mitigations. The verification ensures that disclosed GHG emissions and other targets are accurate, reliable, and in compliance with established standards, reinforcing stakeholder trust and regulatory compliance. Moreover, the verification needs to evaluate traits that hint at the existence and application of impression management and minimum narrative disclosure tools, as found in a study by Dahlmann et al. (2019).

While GHG verification is very important, the GHG emission verification industry is in its nascent stages, and levels of competence and expertise have yet to fully mature. This verification industry continues to evolve, with standard practices being established, accreditation processes developed, and ongoing professional development. These developments are expected to ensure the reliability and consistency of third-party verification outcomes.

That said, there are still notable limitations that hinder the swift progress of the verification industry. Firstly, it can be resource-intensive and costly for companies, especially those with complex operations or intricate supply chains. Secondly, the lack of standardised verification methodologies across industries can result in variations in verification quality. Thirdly, the rapid evolution of emission sources and measurement technologies can pose challenges in creating consistent verification protocols. Lastly, the subjectivity involved in the verification process can lead to varying interpretations, potentially affecting the consistency and comparability of verified climate data.

Moreover, complexities arise from the fact that third-party verifiers might not have full access to all necessary data due to proprietary information concerns. This potentially compromises the thoroughness of the verification data and process. There is also expectation that verifiers will maintain their independence and objectivity in conducting verifications to avoid scandals similar to those observed in the audit industry where audit firms find themselves entangled in a series of audit scandals.

6.11. Finding 11

A group of companies operating across multiple jurisdictions (e.g., companies 2, 4, and 8), especially African ones, seem to have focused their CRRO disclosures for South African operations with no to very little disclosures on CRROs in all other African operations as required by the prototype standard.

6.11.1. Analysis of Finding 11

CRRO disclosures that are predominantly focused on South Africa can be construed as discriminatory climate risk disclosures, as they do not represent the broader African and other contexts. This phenomenon may stem from two primary motivations: firstly, companies could be aiming to refine their CRRO disclosures within South Africa before extending them to encompass other African operational jurisdictions; secondly, the scarcity of credible CRRO data in various African countries might be impeding comprehensive disclosures. Evidently, the latter rationale seems pertinent, particularly evidenced by the circumstances surrounding companies 2, 5, and 9, as discerned from contextual allusions in their disclosure reports.

The implications of such discriminatory climate risk disclosures are multifaceted and significant. They encompass incomplete risk depiction, resource misallocation driven by underestimated climate risks, and susceptibility to unforeseen repercussions. Additionally, this approach overlooks the universal nature of climate risks, potentially marginalising operational realms already susceptible to climate-related risks. The resultant absence of engagement with excluded operational jurisdictions curtails collaboration, knowledge sharing, and collective mitigation endeavours, impinging on holistic climate risk management.

Consequently, these practices might cast doubt on a company's dedication to global climate concerns, thereby affecting its reputation. They also induce discords in reporting and hinder alignment with emerging international standards. These practices fail to capture the dynamic nature of CRROs, leading to inappropriate or inaccurate risk assessments. In essence, CRROs and their impact transcend geographic confines (Dahlmann et al., 2019). As such, focusing CRRO disclosures on specific operational jurisdictions substantially detracts from the comprehensive and inclusive approach required to effectively address the complexities of climate change.

6.12. Finding 12

A subset of companies, including companies 1, 2, 5, 6, 7, 8, and 15, disclosed CRRO scenarios to assess impacts of various climate issues. Notably, company 6 and 15 demonstrated a robust articulation (described as level 3 in Table 1) of their scenarios, while companies 5 and 7 displayed feeble and superficial disclosures marred by possible IM and MND (described as level 1 in Table 1).

6.12.1. Analysis of Finding 12

The absence or inadequacy of CRRO scenario disclosures could stem from a lack of competence and proficiency in crafting scenarios that closely mirror reality. Alternatively, it might result from the inability to construct scenarios that are valuable to audit firms when determining terms of engagement, scoping the work, and devising assurance strategies for climate-related information within integrated reports. This dimension assumes critical importance within the context of risk-based audit methodologies.

Such absence and weakness in CRRO scenarios raise concerns around managerial legitimacy and institutional legitimacy, as outlined by Suchman (1995) and expanded upon by Smith et al. (2011). Within managerial legitimacy, companies endeavour to legitimise their actions through manipulative means, crafting perceptions of values aligned with societal and communal sustainability advocacies. Consequently, CRRO disclosures risk devolving into tokenistic or "tick-box" reporting to superficially garner legitimacy through greenwashing, as recorded by Dahlmann et al. (2019) who cite Berrone et al. (2017), Pinkse and Busch (2013), and Delmas and Burbano (2011) with similar findings. The lack of scenarios and tokenism reporting seem to align with the findings from Wright and Nyberg (2017) study, which concluded that companies translate climate change mitigations into humdrum and easy concerns of "business as usual or routine operations". As such, establishing various climate scenarios becomes a "business unusual" situation that dents legitimacy and market value.

Transcending the potential lack of competence and expertise, another plausible explanation for the reluctance in disclosing CRRO scenarios could be proprietary costs. Inadequate or non-existent disclosures regarding realistic

CRRO scenarios, including projections of carbon emissions, energy consumption, efficiency deficiencies, limited renewable energy deployment, and underwhelming greenhouse gas reduction strategies, might be due to the adverse implications of such scenarios for executive remuneration, company reputation, brand equity, and stakeholder trust. These adverse implications reveal pressures that exist between protecting company insiders' economic interests and investments required to mitigate climate risks in the short term. This may be exacerbated by the short-term (1 to 3 even 5 years) nature of performance contracts offered to CEOs. Wright and Nyberg (2017) cite the study by Bansal and DesJardine (2014) who assert that the tenure of executives continues to shrink. Any CRROs investments that take longer to yield financial results will economically inconvenience executives with these short-term performance contracts. Over time, CRROs mitigation performance of the company will deteriorate (Wright & Nyberg, 2017) due to the short-term focus of each successive executive while the impact of CRRO mitigations is realised in the long-term (Dahlmann et al., 2019). This contrast creates situations where performing various climate risk scenarios expose unpleasant realities that force climate sensitive investors to divest and that erode the value of the company. The temptation to engage in impression management and minimum narrative disclosure behaviour becomes high. Due to the ugly realities unearthed by climate scenarios, executives (responsible for preparing disclosures) and boards (that approve minimum narrative disclosures) resort to impression management to signal to all stakeholders that they take CRROs seriously, supporting their signalling with polished business rationales. This is what Wright and Nyberg (2017) termed framing of environmental communication.

The finding of absence and weakness in CRRO scenarios seems convincing enough to be labelled as a framing of CRRO disclosure. This framing is couched in local context (socio-environmental) to give it a legitimate effect, especially when its communication gains traction with investment analysts, managers, and funders.

Disclosure of comprehensive CRRO scenarios could highlight potential insurance claims escalation in the short term and heighten credit default risks within loan portfolios for these financial companies. In this context, the dearth or feebleness of CRRO scenario disclosures might be a deliberate choice, serving to downplay climate risks and reduce the cost of capital, thereby influencing company cash flows and valuations. Scenarios will elucidate the inherent conflict between companies' pursuit of short/medium-term growth objectives and their allocation of resources towards activities that effectively address CRROs. This conflict underscores the tension between immediate financial gains and the imperative to invest in pragmatic initiatives aimed at mitigating long-term sustainability risks and societal impacts. This complex landscape underscores the intricate interaction between information transparency, reputation management, financial considerations, and multifaceted dimensions of legitimacy, within the dynamic context of contemporary sustainability reporting.

The academic findings of this study accentuate the extent of alignment between sustainability reports of these companies and the established reporting standards. The results reveal variations and deviations from the requirements of standards, highlighting areas where companies fall short in their CRRO disclosures. By employing a rigorous coding process, this study provides valuable insights into the current state of sustainability reporting practices within the FTSE/JSE Financials 15 index and offers a foundation for further analysis and improvement.

7. CONCLUSIONS

A significant subset of companies in the examined sample exhibited a distinct lack of disclosure in the realms of strategy reporting, as well as matrices and targets reporting. This extensive pattern of non-disclosures carries considerable implications for pivotal aspects that, if not adequately rectified, possess the potential to substantially impede efforts to combat climate change and hinder future capital formation. Particularly, the financial services industry, with its fundamental role, becomes a central player in this overarching endeavour. The extensive omissions within strategic disclosures related to CRRO scenarios can signal a lack of company accountability and commitment to addressing climate risks and their associated socio-economic impacts. The signals permeate and magnify the financial risks encountered by the company. Consequently, funders may underestimate their required

risk premium because of the company's exposure to undisclosed climate-related liabilities and may misprice their debt instruments. Moreover, the company may continue to invest in soon-to-be legacy assets, rendered redundant by transitioning to less carbon-intensive emission practices. This could lead to an exponential rise in the cost of capital, thus creating financial difficulties.

Furthermore, once the non-disclosed information becomes public through other means (e.g., analyses by investment analysts and academics), the company may face elevated reputational risks, fines imposed by regulators, and financial losses to the company. Moreover, the lack of business continuity due to an absence of contingency plans to deal with disruptions (e.g., supply chain disruptions and infrastructure damages) caused by climate-related disasters exacerbates these risks.

The comprehensive execution of CRRO scenarios, as detailed in IFRS S2 standard, could have facilitated the identification and mitigation of these potential consequences. However, the current disclosure practices observed in this study suggest a reluctance on the part of companies to fully embrace this aspect of the standard.

The paucity of explicit guidance within prevailing standards concerning the necessary qualifications for individuals responsible for CRRO-related strategies can give rise to situations where details regarding the availability of pertinent skills and competencies remain undisclosed. The paucity of explicit guidance contributes to inconsistent applications of CRRO targets and matrices, measurements, and quality non-financial disclosures. These disclosures aid decision making by stakeholders, closes the knowledge gap, and improves credibility of reports (doing away with the prevalence of greenwashing, impression management, and minimum narrative disclosure practices).

The intricate interplay between operational vulnerabilities, gaps in risk management, and imperatives related to CRROs underscores the complex web of challenges that financial institutions encounter when aligning their strategic, operational, and risk-focused paradigms with the demands of contemporary sustainability imperatives.

Observably, sustainability reporting frequently centres on a narrative that predominantly emphasises the company's continuity, overshadowing the paramount focus on a thorough evaluation of its ecological and societal impacts. The sampled companies are yet to comprehensively address the multifaceted dimensions of climate change, spanning its implications on financial dynamics, performance matrices, cash flow patterns, value chain intricacies, and the requisite technological adaptations stipulated by prevailing standards. Remarkably, executive compensation and performance evaluations continue to be predominantly anchored in the pursuit of maximising shareholder financial returns at the cost of other capital providers. If this practice continues unabated, it implies that short-termism on CRRO issues may persist, long-term CRRO costs will continue to be absorbed by other capital providers (i.e., subsidising providers of financial capital and executive payouts), missed opportunities to harness clean technologies that are less impactful on the environment, and building companies that improve the climate resilience of economies.

In various instances, companies resort to alternative non-economic disclosures, intricately woven with elements of impression management and minimal narrative disclosures. These narrative manoeuvres frequently mirror practices associated with greenwashing.

While compliance undoubtedly serves as a foundational requirement, the true potency arises from the fusion of compliance with proactive and transparent disclosures, yielding a positive impact and fostering robust relationships with stakeholders.

It is evident that the GHG emission verification industry is still in its nascent stages, with levels of competence and expertise yet to reach full maturation. This industry needs to mature and evolve quickly to keep pace with improvements in the disclosure sector as evidenced in the promulgation of IFRS S1 and S2.

Focusing CRRO disclosures primarily on specific operational jurisdictions detracts significantly from the comprehensive and inclusive approach required to effectively tackle the intricacies of climate change. The transnational nature of climate risks necessitates a comprehensive approach to corporate sustainability reporting.

Unlike jurisdictional boundaries, climate change transcends geographic limitations, and its impacts can be far-reaching. Companies, therefore, have a responsibility to report on the environmental consequences of their operations across all jurisdictions in which they function. Furthermore, climate risks encountered in a single operational jurisdiction can have cascading effects, generating a ripple impact that can potentially threaten the entire company's survival and resilience.

The deficiency of CRRO scenario disclosures is conspicuous and could arise from a lack of proficiency in crafting scenarios reflecting reality. Beyond potential competence gaps, the reluctance to disclose CRRO scenarios could be the prospect of proprietary costs. Inadequate or absent disclosures concerning realistic CRRO scenarios might be attributable to the adverse consequences of such scenarios for executive remuneration, corporate valuations and reputation, brand equity, and stakeholder trust.

To conclusively answer this study's research question of *"how do the disclosure requirements of the CDPS and the IFRS S1 and S2 differ from current corporate practices in climate-related disclosures?"*, the findings reveal a notable disparity between current CRRO disclosures by South African financial institutions and the comprehensive standards outlined in IFRS S1 and S2. Furthermore, a concerning trend emerges in current disclosure practices: a reluctance among these institutions to fully disclose climate-related risks, particularly through scenario analysis that examines diverse CRRO outcomes. This reluctance appears to stem from a prioritisation of short-term shareholder returns, potentially overlooking the significant and long-term financial risks associated with climate change. The averseness is managed through impression management, minimum narrative disclosures, and greenwashing. As recorded by other cited studies, current disclosure practices exhibit significant tendencies of greenwashing and impression management, which can be explained by stakeholder and legitimacy theories. In addition, this study applies the proprietary cost theory to understand or explain the aversiveness observed in current disclosure practices. The current crevasse between company disclosure practices and the comprehensive requirements outlined in IFRS S1 and S2 is anticipated to narrow as companies fully integrate these new standards into their reporting processes. This, in turn, is expected to address the observed reluctance to disclose what executives may perceive to be harmful climate-related and sustainability information.

Concluding this study, the researcher acknowledges the intricate interplay between transparency, reputation management, financial considerations, and the multifaceted dimensions of meeting the present and future socio-economic and environmental needs while upholding transparency. It is anticipated that IFRS S1 and IFRS S2 will play a crucial role in harmonising this delicate equilibrium. Moreover, the standards are expected to take sustainability reporting by companies to "optimal sustainability disclosure areas". This is a realm that necessitates integrated thinking to holistically address multifaceted dimensions of sustainability performance.

As a decisive recommendation, this study asserts that prudential authorities should integrate CRROs into the risk assessment of financial institutions. Additionally, a re-evaluation of reporting practices in alignment with the evolving landscape of sustainability imperatives is warranted for the Basel Committee on Banking Supervision Standard number 239 (BCBS 239). A third critical research recommendation is for regulators to extend their scrutiny beyond the financial risk aspects of CRROs to encompass the climate-related practices of executives. This comprehensive approach on CRRO disclosures would mitigate potential impression management strategies. By scrutinising both financial risks and executive actions related to climate concerns, regulators can enhance transparency and accountability within companies, thereby fostering more robust risk management practices, incentive structures, and disclosure standards.

9. LIMITATIONS AND AVENUES FOR FUTURE STUDIES

This study has certain limitations that readers should consider when reading the results and conclusions. Firstly, the analysis was limited to the top 15 listed financial companies in South Africa. Consequently, the generalisability of the findings and their applicability to other industries and companies of different sizes within the

country, as well as to those operating in different geographical areas is limited. Secondly, the study employed a qualitative research design, emphasising an in-depth investigation of disclosure practices of these 15 financial institutions. While this approach provides useful insights into disclosure practices, it does not establish statistically significant relationships or provide empirical evidence of causal relationships between specific components and CRRO reporting behaviour, as this was beyond the scope of the study.

These identified limitations suggest potential avenues for future studies. For instance, a future study could adopt a quantitative approach with a larger sample size, covering a broader range of industries and potentially including companies from several countries. Also, future research could examine the quality of disclosures to contribute to a better understanding of CRRO reporting practices in the era of IFRS S1 and S2. This can be expanded to include companies from industries with high carbon footprints and conducting cross-jurisdictional analyses.

Company	Available and type of sustainability report used for 2020
1	Report to Society & Integrated Report
2	ESG Report & Report to Society
3	Integrated Report
4	ESG, Integrated Report & TCFD Report
5	Integrated Report, Resilience Report, SASB Index
6	Annual Financial Statements, Governance Report, Integrated Report, Society Report & TCFD Disclosures
7	Integrated Report & Sustainable Development Report
8	ESG, Sustainability Report & Integrated Report
9	Integrated Report & Responsible Business Impact Report
10	Integrated Report & TCFD Disclosures
11	ESG & Integrated Report
12	Annual Report
13	Annual Report
14	Integrated Report
15	Annual Report

Funding: This study received no specific financial support.
Institutional Review Board Statement: Not applicable.
Transparency: The author states that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Data Availability Statement: Tapiwa Muzata can provide the supporting data of this study upon a reasonable request.
Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

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