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# **Sustainability Reporting Frameworks A Comparative Analysis of Reporting Standards and their Implications for Accounting and Reporting**

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## **Abstract**

The world is facing unprecedented environmental and social challenges, and companies are being held accountable for their impact on society and the environment due to their industrial activities. To address this issue, various sustainability reporting frameworks have emerged, but their effectiveness and implications for accounting and reporting in policy formulation have not been fully understood. This study aims to bridge this knowledge gap by analyzing and comparing three prominent frameworks namely; the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD) standards as the basis for assessment. The interpretive and analytic methodologies were used, drawn upon existing literature on the subject. The findings of this study indicate that the ESG frameworks are still fragmented and complex, with each framework having unique requirements and often overlap exist between frameworks, making it difficult to verify compliance. Conversely, companies take into account the preferences of their stakeholders and the ESG frameworks that align with their stakeholders' needs and expectations. Hence, it is pertinent to recommends integrating the GRI and SASB, GRI and TCFD, SASB and TCFD, or all three frameworks. As such the policy implications of this approach is that it would provide a more comprehensive view of the sustainability initiatives of companies which underscores the need for companies to adopt a more proactive approach to sustainability reporting by implementing a universal standard and integrating multiple frameworks. By doing so, companies can improve their sustainability performance, meet stakeholder expectations, and contribute to a more sustainable future for all.

**Keywords:** ESG Frameworks, GRI, SASB, TCFD.

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## **1. Introduction**

In today's world, one of the most distinctive features of the corporate world is the increasingly rigorous demand for organizations to disclose and report both financial and non-financial information of higher quality. Reports that are complete and transparent could serve as a means of holding businesses accountable for their environmental degradation and progress towards sustainable development (Babangida, 2023). Financial reports and statements are valuable only if they are conducive to informed decision-

making. Corporate accounts, reports, and information ought to be efficient, sufficient, precise, and detailed. As such, information that was once considered confidential, non-financial, and managerial is now a primary concern for a multitude of stakeholders (Babangida & Abdulsalam, 2023). These compelling considerations have led to an imperative for sustainability reporting, which encompasses environmental, social, and governance factors.

Conversely, as the world is facing unprecedented environmental and social challenges, and companies are being held accountable for their impact on society and the environment as a result of their industrial activities which led to biodiversity, environmental degradation among others. To address this issue, various sustainability reporting frameworks have emerged, but their effectiveness and implications for accounting and reporting in policy formulation have not been fully understood. This study aims to bridge this knowledge gap by analyzing and comparing three prominent frameworks - GRI, SASB, and TCFD - to determine the best course of action. This act result to a desire to mitigate the adverse impacts and address the potential risks associated with environmental challenges. It is against this background, this study attempt to provide answers to the questions raised in the literature because the unexplored dimension which past studies have ignored that lately attracted research interest and worthy of investigation is the credibility of the existing framework, comparison, analysis of reporting standards and their implications for accounting and reporting. Interesting, an analysis of this phenomenon is important because it provide insight to diverse stakeholders on the robustness of each framework and tailored to their needs. This is true especially stakeholders such as investors, civil society organizations, and regulators who monitor and critique the firm's sustainability reporting would have a deeper understanding the phenomenon.

The motivation for the study is triggered by the urgent demand by the United Nations Assembly on Climate Change in collaboration with nongovernmental organizations issued regulations and guidelines for reporting sustainability actions and released the influential report "Our Common Future," in which they popularized the term "sustainable development." Nations are expected to design, implement, encourage, and mandate ESG initiatives by establishing sustainability guidelines, standards, and frameworks. As awareness of sustainability issues increases, stakeholders such as investors and consumers are demanding more transparency from companies. As such, GRI, SASB, TCFD, and other numerous government and nongovernmental bodies provide standardized frameworks and established reporting guidelines for companies to track and disclose information related to their economic, social, and environmental impact, allowing for ease comparison between organizations. This is particularly crucial for small and medium-sized enterprises, as well as the public and private sectors. However, the effectiveness of the available sustainability reporting frameworks in policy formulation and their implications for accounting and reporting remain topics of debate. Hence, this study focused to provide answers to the growing debate over whether the available sustainability reporting frameworks have substantial policy formulation objectives and their implications for accounting and reporting. It is essential to recognize the importance of sustainability issues and the need for standardization, transparency, and accountability in creating a sustainable future.

Nonetheless, given the current stage of sustainability disclosure, access to non-financial information, and the content of the sustainability reports, stakeholders cannot adequately estimate the gravity of unsustainable practices (Babangida, 2019). Necessary tools, information, frameworks, and regulations are not sufficient (Amokaye, 2001) for stakeholders to identify and say no to unsustainable products, practices, and services or to enable them to support green products and green initiatives (Abdullahi & Auwal, 2021). The viability, ease of use, and acceptability of the sustainability (ESG) frameworks are

still questionable. Babangida (2023) asserts that ESG metrics can influence organizational performance, although not all the frameworks impact every industry. Noticeably, the same sustainability frameworks can manifest differently across industries. ESG reporting standards and guidelines remain fragmented and perplexing (Vintró et al., 2012), in contrast to financial performance reporting, which adheres to well-defined format and content requirements. Every framework possesses a distinct collection of metrics and nuts and bolts, and there is an overlap of requirements among standards, necessitating intricate verification of solutions (IOSCO, 2021). Certification is necessary for most frameworks, and complex numerical calculations involving several non-financial data are sometimes necessary.

The presence of various interrelated elements, such as biophysical, institutional, and economic issues, is fueling the continuation of unsustainable practices (Lee, 2020; Liu et al., 2021). The interrelationship among these components can be effectively demonstrated by examining the circumstances in Nigeria, where historically there has been the depletion of resources, the destruction of biodiversity and the ozone layer, global warming, deforestation, drought, the extinction of aquatic and terrestrial animals, economic inequality, and numerous social issues (Gallego-Álvarez, Segura & Martínez-Ferrero, 2015). These challenges have been witnessed in Nigeria, where nearly 60% of the land area is degraded and about 75% of the landmass is prone to desertification (Babangida, 2023). Furthermore, acid rain in the areas where cement factories are located, air pollution in the major cities, soil contamination in regions with natural resources and oil and gas reserves, as well as social unrest virtually across the country. The agitations in the Niger Delta and Northwestern Nigeria, where militancy and banditry persist, could be traced to the incessant degradation of the environment, affecting people, animals, plants, and rivers. Nigeria ranks among the top six heavy environmental polluters in the world (Ibrahim, 2023; Abdullahi & Auwal, 2021; Gallego-Alvarez et al., 2015). Owing to this repercussion, entities are encouraged and, at times, mandated to implement sustainable actions and report their commitments towards sustainable development. Unsustainable practices have a negative impact on over 3.2 billion people globally (Babangida, 2023), resulting in a loss of biodiversity and ecosystem services that is equivalent to more than 10% (Abdullahi & Auwal, 2021) of the world's yearly gross product. The worldwide estimates of degraded land amount to approximately 6 billion hectares. Approximately 25% of the total land area is recognized as deteriorated or is currently experiencing deterioration (Bala, Ezeji & Babangida, 2022). After all, the masterminds and the beneficiaries of these negative practices tend to live far away from places that have negative precautions (Abdulsalam & Babangida, 2020).

Thus, it is worthwhile to examine how the widely used ESG frameworks, which originated in developed economies, are extended to developing nations and whether the frameworks need modification. The study also addresses questions on how to select which ESG frameworks to use and optimal methods for reporting to ESG frameworks. What, how, and when to report sustainability practices? Strategies for equipping firms to anticipate forthcoming ESG reporting patterns and where to seek further guidance. ESG reporting has become a critical and non-negotiable requirement for businesses. Reports often require comprehensive auditability and comparability across several industries and timeframes as the world is facing unprecedented environmental and social challenges, and companies are being held accountable for their impact on society and the environment. To address this issue, various sustainability reporting frameworks have emerged, but their effectiveness and implications for accounting and reporting in policy formulation have not been fully understood. This study aims to bridge this knowledge gap by analyzing and comparing three prominent frameworks - GRI, SASB, and TCFD - to determine the best

course of action. It is against this background that this study attempts to provide answers to the questions raised. The remain of the paper synthesis literature on the subject matter, highlight the methodology and inference were drawn from the findings. The study conclusion was established, and recommendations were given in line with established findings as well as its policy implication.

## **2. Literature Review**

The advancement of ESG reporting can be traced back to periods of corporate social responsibility (CSR), corporate governance, business ethics, and recently environmental accounting. These concepts gradually evolved into what is now known as sustainability (ESG) reporting (GRI, 2015). Accounting for human resource and social audits in the 1970s, triple bottom line reporting, environmental reporting in the 1980s, corporate social responsibility reporting in the 1990s, the United Nations Millennium Development Goals (UN-MDGs) in the year 2000s, and the Sustainable Development Goals (UN-SDGs) by the UN assembly on climate change in the year 2015 are the sources and roots of ESG frameworks. In practice, organizations used a variety of terminologies to describe ESG initiatives and reporting, such as Corporate Citizenship Report, Social Impact Review, Partnership Report, Corporate Social Responsibility Report, and Sustainability Report, among others (Abdulsalam et al., 2020; Abdulrahman et al., 2021).

### **2.1 Sustainability (ESG) Reporting**

The term sustainability reporting has progressed from an extraordinary exercise carried out by a few pioneering organizations decades ago to an essential management tool. Certainly, organizations, through business activities, can contribute positively or negatively to the accomplishment of the sustainable development goals (SDGs). The Brundtland Commission, WCED (1987), defined sustainability reporting in 1987 as development that meets the needs of the current generation without degrading the environment and its surroundings for future use. ESG reporting is a systematic method of evaluating and disclosing a company's long-term and short-term economic, social, governance, and environmental performance. Corporate entities have been key players in environmental degradation (Bozzolan, Trombetta & Beretta, 2009), while at the same time their positive contribution has been perceived as an engine room for accomplishing the SDGs (Buallay, 2019; Atan et al., 2018; Aboud & Diab, 2018). ESG initiatives have been defined as a business practice that informs the public about a company's commitments to environmental, social, and governance (ESG) issues (Abdulsalam et al., 2020; Abdulrahman et al., 2021; GRI, 2018; Sachs, 2015), as well as its positive and negative contributions to SDGs (Bala et al., 2022). In the late 1990s, ESG reporting was incorporated into business models with the sole aim of examining the level of cohesion among competing business goals and social justice (Nwaiwu & Oluka, 2018). ESG reporting is an initiative that identifies and prioritizes direct (internal) and indirect (external) stakeholders and how to meet their various needs.

### **2.2 The Emergence of ESG Frameworks**

The ESG reporting landscape is crowded with various reporting frameworks. Applying different lenses to assess and categorize the various requirements can help corporate managers and sustainability practitioners understand the options and select the right ESG frameworks. As ESG becomes more important, companies are now obligated to reveal their impact using a diverse range of frameworks, guidance, and standards. However, large number of organizations in almost all part of the world did not embrace ESG reporting, despite the fact that the frameworks were mostly drafted and represented by officials from

affluent, industrialized countries (Abdulrahman, Babangida & Ibrahim, 2021; Cucari et al., 2018).

### **2.3 ESG Frameworks**

ESG frameworks are set of standards that investors and regulatory agencies used to evaluate firms' sustainability and social impact. ESG frameworks encompass a range of reporting metrics, standards, tools, guidance, and voluntary or legal reporting obligations (Abdullahi & Babangida, 2021). These frameworks assist organizations in identifying activities and issues that have significant financial impacts on the organization, as well as actions that affect people and the environment beyond the organization. Examples include greenhouse gas emissions, human rights, and supply chain practices, among other relevant matters. Ensuring the protection of the environment and society by using efficient, morally standing, and sustainable methods is imperative for our future. Companies are required to produce reports on their financial performance, and likewise, they are expected, and sometimes legally required, to disclose their ESG performance (Doni, Martini, Corvino & Mazzoni, 2019). ESG frameworks offer guidance on defining, identifying, recording, and presenting sustainability data, assisting stakeholders in ensuring uniform compilation of sustainability indicators.

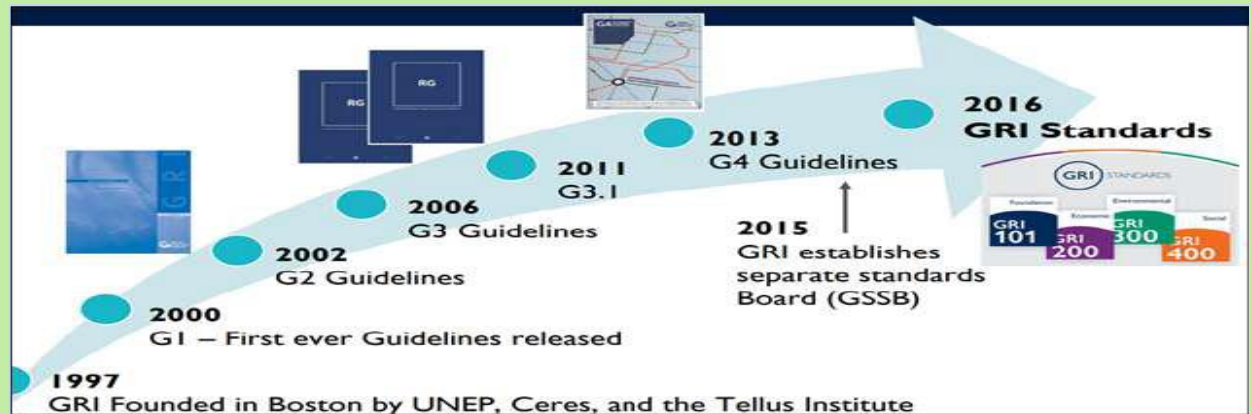
It is worthy noting that the Task Force on Climate-related Financial Disclosures (TCFD) established a structure that the U.S. Securities and Exchange Commission (SEC) suggested implementing to mandate the reporting of sustainability information. Similarly, the EU Taxonomy, a component of the sustainable finance package, together with the Sustainable Finance Disclosure Regulation (SFDR) and the Corporate Sustainability Reporting Directive (CSRD), require corporations to provide additional details regarding ESG aspects. India has reached a significant achievement in the realm of CSR. According to the modified Indian Business Act of 2014, Section 135 requires companies operating in India to give a minimum of 2% of their net earnings towards the development of the communities in which they operate (Babangida, 2023).

Following the release of King III in March 2010, South African companies were encouraged to implement sustainability reporting. This involves reporting on various aspects such as their strategies, corporate governance, risk management processes, financial performance, social and economic growth, environmental development practices, and overall sustainability reporting (Bernardi & Stark, 2018). The two prominent environmental regulations in Nigeria are NOSDRA (National Oil Spill Detection and Response Agency) and NESREA (National Environmental Standards and Regulations Enforcement Agency). The NOSDRA Establishment Act of 2006 and the NESREA Act of 2007, require all companies to actively participate in environmental conservation and advancement (Ladan, 2012). It is imperative for companies operating in Nigeria to conduct their activities with ethical and sustainable practices. The renowned ESG frameworks, including GRI, SASB, and TCFD, will be explored in the subsequent subsections.

#### **2.3.1 The Global Reporting Initiative (GRI) Guidelines**

The Global Sustainability Standards Board (GSSB) founded the Global Reporting Initiative (GRI) in 1997 as a self-governing body responsible for establishing sustainability reporting guidelines and standards. The GRI is a globally recognized and independent organization that supports companies and other entities in assuming responsibility for their impacts by providing them with a standardized framework for communicating such impacts. GRI is a body tasked with initiating and developing voluntary non-financial reporting standards and related interpretations under its terms of reference. Since its inception in the late 1990s, the body has developed and published a significant number of reporting guidelines. In the year 2000, the GRI released the first set of guidelines and

standards for voluntary disclosure. The most robust and sophisticated standards were released in 2016. The most recent is the GRI-G4. The GRI-G4 came into being to enhance the quality, comparability, thoroughness, and usefulness of ESG reporting. Figure 1. shows the historical development of the GRI standards (GRI, 2018).



Source: GRI, (2018).

Figure 2 shows that there are two kinds of disclosures in the recent GRI-G4, namely, the General Standard Disclosures and the Specific Standard Disclosures. The GRI-G4 deals with the overall context of the report, which describes the organization and its reporting process. Furthermore, it applies to all organizations irrespective of their materiality assessment. It can be grouped into seven subcategories: linking business strategy and management models with the sustainability agenda, stakeholder participation, approaches to governance, ethics and integrity (GRI, 2018).

### **2.3.2 Sustainability Accounting Standards Board (SASB) Standards**

The SASB guidelines facilitate the connection between firms and investors by providing information on the financial effects of sustainability. The SASB Standards facilitate the global identification, management, and communication of financially significant sustainability information to investors. The SASB Standards are tailored to individual industries and aim to provide valuable information for investors while being cost-efficient for enterprises. As of 2020, over 154 firms in 19 countries with over \$55 trillion in assets have adopted SASB standards as a voluntary reporting guideline. The guidelines delineate the specific sustainability challenges that have the greatest impact on the financial performance of industries. The Standards monitor ESG concerns and evaluate performance across 77 industry-specific benchmarks (SASB, 2020). Figure 2 shows the relationship between the five fundamentals of SASB frameworks.



Source: SASB Annual Report, (2020).

As depicted in Figure 2, the industry-specific guidelines encompass five fundamental areas of disclosure comprising of 13 accounting metrics of sustainability. These factors include the environment, social capital, human capital, business models and innovation, and leadership and governance. The SASB has become a subsidiary of the IFRS Foundation in order to provide support for the newly established International Sustainability Standards Board (ISSB). The ISSB urges enterprises and investors to fully endorse and utilize the SASB Standards. Corporations that use SASB standards to disclose ESG metrics include asset management, manufacturing giants, and even specialized industries among others (SASB, 2020).

### 2.3.3 Task Force on Climate-Related Financial Disclosures (TCFD)

The TCFD was formed in December 2015 at the behest of the G20 Finance Ministers, who asked the Financial Stability Board (FSB) to examine the connection between climate-related issues and the financial sector. The FSB is an international agency that offers guidance to the worldwide (TCFD Report, 2021) financial system. The primary purpose of the TCFD is to address climate-related risks to the business, focusing specifically on the ‘E’ component of ESG reporting. The TCFD supports global organizations in articulating the anticipated impact of ESG performance on future financial performance and value creation. The TCFD focuses on disclosure requirements pertaining to four fundamental aspects. Figure 3 enumerates the four pillars of disclosure.

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
<b>Recommended Disclosures</b>	<b>Recommended Disclosures</b>	<b>Recommended Disclosures</b>	<b>Recommended Disclosures</b>
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Source: Babangida, (2023).

Figure 3 depicts the four pillars of the TCFD reporting guidelines. These pillars are governance, strategy, risk management, and metrics and targets. The 2021 TCFD "Annex" revises and replaces the 2017 edition of "Implementing the Recommendations of the TCFD." The document offers comprehensive information on how to execute the Task Force's disclosure recommendations, covering both general and sector-specific aspects. The updates demonstrate the progression of disclosure practices, methodologies, and user requirements. Unquestionably, in publishing sustainability report, the TCFD identified key features underlying their four recommendations. One, the recommendations were applicable to all organizations, regardless of industry. Second, the recommendations should be included in an organization's financial filings. The guidelines aimed to urge enterprises to furnish decision-relevant, prospective data regarding the financial consequences of climate-related risks and possibilities (TCFD, 2020). Organizations should prioritize the assessment of risks and opportunities associated with the shift towards a more environmentally friendly economy.

**2.3.4 Selection of ESG Frameworks**

The process of selecting the best ESG frameworks among equals requires careful assessment. That is, when deciding on a reporting structure, it is important to first analyze the concepts of materiality and relevance. Materiality enables firms to prioritize ESG concerns that are highly significant and will have a quantifiable influence on the business. In order to establish materiality, a business must initially identify its risks and subsequently evaluate the repercussions of such vulnerabilities. By employing a risk matrix, organizations can ascertain the ESG-related concerns that should be given priority, taking into account the risk profile (IBM Report, 2020). Organizations can also determine which of those repercussions may have substantial adverse effects on the organization. For instance, in its materiality assessment, a prominent e-commerce company may prioritize the examination of packaging materials and waste (environmental), supply chain labor standards (social), and business ethics (governance). This decision is based on the company's determination that these areas pose the highest risks in terms of environmental impact, overall shareholder and consumer confidence, and regulatory compliance. In this scenario, the organization should seek frameworks that encompass all three ESG areas. Table 1 provides an insight into the relevant frameworks, guidelines, regulations, and certifications based on industry specific and the disclosure typically required.

**Table 1: ESG Frameworks**

<b>Industry</b>	<b>Relevant Frameworks, Regulations &amp; Certifications</b>	<b>Disclosures Typically Required</b>
<b>Commercial Real Estate</b>	LEED, BREEAM, DGNB, WELL, GRESB, NABERS	Energy, Water, Waste, Capital Improvements, Climate Risk.
<b>Financial Services</b>	PRI, PCAF, SFDR, EU	Taxonomy Financed Emissions, DEI, Governance, Climate Risks.
<b>Oil and Gas</b>	IPIECA Principles, IRA 60113 CO2,	Methane, Water, EHS Compliance, Carbon Capture.
<b>Manufacturing</b>	ISO 14001, UN IDDI, cGMP	Materials, Waste/Recycling, EHS Compliance, Value Chain.
<b>Telecom</b>	EPEAT, GDPR, FAST-Infra	Energy, E-waste, Privacy and Security,



		Access, Reliability.
<b>Utilities</b>	FERC 2222, RPS / CES, RED	Emissions, Materials, Energy Mix & Use of DERs, Grid Reliability.

**Source:** IBM, (2023).

Table 1 shows that each of the prominent ESG reporting frameworks places varying degrees of emphasis on essential ESG performance measures. Gaining knowledge about the specific framework's emphasis on each indication can aid in selecting a framework and offer guidance on how firms can potentially report to several frameworks by utilizing current data. Some ESG reporting frameworks are only applicable in particular regions. Occasionally, this occurs due to legal requirements that necessitate reporting. In certain cases, this may be due to the fact that the framework is tailored to suit the particular circumstances of a country.

Organizations in a specific industry sector will naturally find a correlation between their sector and certain ESG reporting frameworks, such as the Global Real Estate Sustainability Benchmark (GRESB), which evaluates the sustainability performance of real estate and infrastructure portfolios. Organizations should also take into account the preferences and intentions of their stakeholders, as well as the ESG frameworks that these stakeholders want to utilize. Investors, boards, insurers, and creditors may favor the organization's reporting in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) or the standards set by the Sustainability Accounting Standards Board (SASB). While employees and consumers may anticipate disclosures aligned with the United Nations Sustainable Development Goals (UN-SDGs), governments or regulators may favor Streamlined Energy and Carbon Reporting (SECR) or National Greenhouse and Energy Reporting (NGER), depending on the specific location.

### **2.3.5 Reporting and Accounting for Sustainability Practices**

The increasing visibility and transparency of corporate reporting, accounting expertise, and proficiency in emerging markets have had a favorable influence on the adaptation, implementation, accounting, and disclosure of ESG initiatives. Accounting technologies have been identified as a possible tool for advancing sustainability (ESG) practices (Ball & Bebbington, 2008) through the reporting of an organization's sustainability strategies, activities, and results. Sustainable development is intended for external reporting through the use of metrics (quantitative data), narratives (descriptive accounts), or a combination of both. According to Abdullahi and Auwal (2021), sustainability reporting is primarily voluntary in most countries. Various groups advocate for reporting sustainability issues for a multitude of reasons. The primary objective, as previously said, was to oversee and evaluate firm's commitments towards sustainability reporting. Nevertheless, both the public and private sectors select sustainable frameworks that they perceive will enhance their reputation (Babangida, 2023).

Various international projects have been launched to establish criteria for accounting and reporting ESG initiatives in response to the growing interest and the existence of misconceptions and differing perspectives on sustainability activities. The Sustainability Reporting Guidelines put forth by the Global Reporting Initiative (GRI, 2015) are one of the most significant examples to date. Other organizations, like the OECD (2006), the World Bank (WBG 2007), Accountability (2008), and the United Nations (UN-SDG, 2015), have also developed global sustainability reporting standards. The primary objective of these guidelines can be succinctly stated as the imperative to cultivate organizational sustainability practices that are mindful of the requirements of the present

while ensuring that the demands of future generations are not compromised (GRI, 2018). However, these endeavors have been approached from distinct viewpoints and implemented through varying methods.

The incorporation of other sustainability criteria alongside the UN-SDG can indicate a certain degree of inadequacy in the GRI, SASB, and TCFD recommendations. Essentially, the IFRS and SASB refer to this when justifying the creation of various sector supplements (Abdulrahman & Babangida, 2022). Indeed, certain industries have distinct requirements that necessitate tailored advice in addition to the generally relevant fundamental guidelines. Sector supplements address these requirements and constitute an essential component of the reporting framework, intended to supplement the guidelines. Hence, it is evident that a universal approach to sustainability reporting is unattainable, and the sector supplements are specifically created to bridge this void. However, the GRI addition for the public sector seems to have failed to achieve the intended success. Dumay, Guthrie & Farneti (2010) analyzed a limited number of public sector supplement-based GRI reports and discovered that these reports inconsistently and irregularly utilized the particular indicators. This is in line with the findings of an Australian study that Guthrie and Farneti (2008) documented.

The problem with sustainability reporting frameworks (such as, SASB, GRI, and TCFD) is that they do not provide a specific threshold at which an organization can confidently claim to be sustainable when following these rules. These criteria clearly delineate the necessary equilibrium. The objective of sustainability is to attain equilibrium between the inputs and outputs of an organization, and the rules do not endorse a specific quantifiable measure of sustainability. The issue at hand is how organizations can determine their level of “sustainability.” In response, Milne (1996) suggests that operationalizing sustainability can be challenging due to the differing perspectives of practitioners, academicians, corporate managers, and ecologists over its definition. Consequently, this can lead to misunderstandings and entrenched values when identifying, summarizing, analyzing, accounting, reporting and at a stage of formulating policies.

### **2.3.6 Steps in Accounting and Reporting Sustainability Initiatives**

There are various steps that guide the accounting, treatment, and disclosure of sustainability initiatives. The most notable ones are cost identification, unit of measurement, uncertainty, estimates, reporting period and definitions, scope, implementation, compilation, and presentation of the sustainability metrics. Hence, when sustainability indicators include financial data (such as revenues, cost of sales, and stated expenses for fines), it is required that this financial data align with the equivalent financial data presented in the entity's financial statements (SASB, 2022). Unless stated otherwise, reporting should be in the International System of Units (SI units). However, if the reporting currency is indicated as the unit of measurement, the entity must utilize the reporting currency in its financial statements. Measuring or reporting certain sustainability statistics can be subject to uncertainty (Ball & Bebbington, 2008). The unpredictability may result from factors such as dependence on data from third-party reporting systems or the use of new technology for collecting and managing environmental and other data. If there is any ambiguity over the reporting of data, the organization should engage in a conversation about its characteristics and probability (Tang & Higgins, 2022).

Another factor to consider in reporting sustainability activities is uncertainty when measuring sustainability activities. Quantitative disclosures may rely on specific conversion factors or exclude values that are considered insignificant. The frameworks allow for the use of estimations, ranges, and the exclusion of insignificant data when it is suitable to do so. To ensure a meaningful and relevant representation of the measure, the

entity should provide a detailed explanation and evidence for the inclusion of an estimate, range, or exclusion of a de minimis value (SASB, 2020). The reporting period will correspond to the entity's fiscal year(s) unless stated otherwise. Investor disclosure must be both precise and dependable. Hence, it is imperative for a reporting company to establish, execute, and uphold a governance system for the creation and disclosure of sustainability information. This system should encompass management participation, board supervision, and internal control measures that closely resemble those employed for financial reporting (SASB-Report, 2020).

### **2.3.7 Principles for Effective Disclosures**

There are seven fundamental principles for effective disclosure of sustainability initiatives. The principles stipulate that disclosures must accurately convey pertinent information and must be both precise and comprehensive. Furthermore, it is imperative that disclosures are unambiguous, equitable, and comprehensible. Disclosures should be composed with the aim of effectively conveying financial and nonfinancial information that caters to the requirements of various users such as investors, lenders, among many other stakeholders. This necessitates reporting at a level that surpasses just adherence to the basic criteria. The disclosures should be detailed enough to inform knowledgeable users while still providing succinct information for those who are less specialized. Effective communication (Babangida, 2023) enables consumers to efficiently locate crucial information. The principle also emphasized the importance of maintaining consistent disclosures across time. This allows users to comprehend how sustainability issues have affected or changed the organization's business over its development or evolution (GRI, 2018).

Consistent forms, phrasing, and measurements should be used when presenting disclosures in order to facilitate comparisons between different periods. While it is generally desired to provide comparative information, there are certain circumstances where it may be more appropriate to include a new disclosure, even if it is not possible to compile or restate comparative information. Disclosures should exhibit comparability across companies within a given sector, industry, or portfolio (Abdulsalam & Babangida, 2020). Disclosures should enable significant comparisons of strategy, business operations, risks, and performance among firms and among sectors. Disclosures must possess qualities of reliability, verifiability, and objectivity. Disclosures ought to furnish information that is of superior quality and can be relied upon. The information should be precise and impartial, meaning it should be devoid of any bias. Timely disclosures should be provided. Users should receive or have access to information timely (SASB, 2020), at least once a year inside the main financial report (Integrated report) or as a separate report (Standalone report).

## **2.4 Comparative Analysis of Sustainability Frameworks**

Sustainability reporting has become very important to nations and other multifarious stakeholders, regardless of their economic status and stake in the business. Due to this, companies and other organizations prioritize the disclosure of information that is necessary for each stakeholder group. ESG disclosures largely depend on a firm's capacity to swiftly, efficiently, and effectively integrate various sustainability frameworks. This strategy would maximize corporate transparency and create trust among firms and their stakeholders. The governance, strategy, and risk management processes of an organization should align with and influence sustainability reporting frameworks. This alignment should create a continuous feedback loop, similar to how other important performance indicators and risk indicators are used to provide insight into business management (Bala et al., 2022).

The metrics provided by GRI, SASB, and TCFD frameworks are compatible for sustainability reporting. Although, their standards are interdependent and specifically tailored to serve distinct objectives. However, both sets of criteria are universally applicable to organizations of any magnitude, whether they are public or private, regardless of their geographical location (Babangida & Abdulsalam, 2022). SASB's industry-specific criteria pinpoint the sustainability-related risks and opportunities that are most likely to impact a company's financial health and state (balance sheet), operating performance (income statement), or risk profile (cost of capital). These elements have an influence on both the firms present and future market valuation (SASB, 2020).

The GRI Standards specifically address the economic, environmental, and social effects of a company's operations, and hence its role in promoting sustainable development. The underlying assumption is that if these impacts are not already financially significant at the time of reporting, they may become financially significant in the future. The GRI Standards facilitate extensive and thorough reporting by offering a structure and accompanying standards that enable a comprehensive comprehension of the organization's effects on the economy, environment, and society, including consequences that are financially significant (GRI, 2018).

The primary objective of the TCFD is to address climate-related risks to the business, focusing specifically on the "E" component of ESG reporting. The TCFD mainly highlights disclosure requirements related to four essential factors (TCFD, 2020). The first factor is governance, which refers to the practice of disclosing an organization's governance specifically relevant to sustainability risks and opportunities. The second principle is known as strategy. Strategy provides guidance on how to disclose the current and anticipated effects of sustainability risks and opportunities on the organization's enterprises, strategy, and financial planning, particularly where such information is significant. The third aspect is risk management, which involves the organization's process of identifying, evaluating, and controlling climate-related risks. The final component is measurements and targets, which focus on evaluating and controlling significant climate-related risks and opportunities, particularly when such information is significant (TCFD, 2020).

The GRI reporting framework assists firms in choosing themes that accurately represent their most substantial ESG effects, in collaboration with their stakeholders (GRI, 2018). These themes may encompass matters that have significant financial consequences for the business, as well as topics that affect individuals and the environment beyond the organization. Examples include greenhouse gas emissions, human rights, supply chain practices, and various other issues. The SASB Standards delineate sustainability subjects that have a reasonable probability of influencing the financial performance and long-term enterprise value of a typical company within an industry. In order for an issue to be included in the Standards, SASB's approach necessitates the provision of proof demonstrating investor interest and evidence demonstrating financial effect. SASB's approach to materiality is grounded in a widely acknowledged, financially oriented definition that is recognized by capital markets worldwide (SASB, 2020). SASB's Standards provide an industry-specific viewpoint by identifying the specific difficulties that are likely to have a financial impact on a typical company in a certain industry (SASB, 2020). Each set of criteria, thus, complements rather than substitutes for one another. Companies can utilize both standards to fulfill the requirements of their target customers.

### **3. Methodology**

The paper employed interpretive and analytic methodologies by drawing upon articles, guidelines, accounting standards and publications from the existing literature as well as

various sustainability frameworks on the subject matter. Through content analysis, the study aimed to identify both convergent and divergent perspectives in the existing literature, with the ultimate goal of determining an appropriate approach to sustainability frameworks. The GRI, SASB, and TCFD guidelines and standards served as a theoretical foundation for evaluating the management, consequences, recording, and disclosure of sustainability initiatives.

#### **4. Discussion of Findings**

The literature reviewed reveals contrasting perspectives regarding the appropriateness of sustainability frameworks. The study's findings indicate that ESG frameworks remain fragmented and perplexing. Every framework presents a distinct collection of inquiries and prerequisites, and there is an overlap between frameworks, necessitating intricate verification of solutions. Supporting documentation is typically necessary for most structures, and several quantitative problems involve intricate numerical computations that rely on various data sources. The study corroborates Babangida's (2023) findings that firms take into account the preferences of their stakeholders and the ESG frameworks that these stakeholders intend to employ. Investors, boards, insurers, and creditors may favor the organization's adherence to the recommendations of the TCFD or the standards set by the SASB. While governments and regulators may favor SECR or NGER, employees and consumers may want disclosures based on the UN SDGs. Similarly, the Global Real Estate Sustainability Benchmark (GRESB) is a tool utilized to evaluate the sustainability performance of real estate and infrastructure portfolios.

#### **5. Conclusions**

The study comparatively examined various sustainability reporting frameworks and their implications for accounting and reporting. Conceptually, the study uses accounting policy, procedure, and treatment of sustainability practices prescribed in IFRS, GRI, SASB, and TCFD to deduce its logical conclusion. The study therefore concludes that adherence to reporting standards and guidelines will put firms in good standing and a favorable ranking and eliminate avoidable fines and penalties that increase firm expenditures. The study also concludes that there are no generally accepted sustainability reporting guidelines, standards, or frameworks. Organizations are allowed to disclose any form of metric that they deem can promote their corporate image. The study also concludes that, to achieve sustainable development goals, there must be continued advocacy for each of the sustainability metrics (economic, social, governance, and environmental indicators), promoting an inclusive approach to development and incorporating a granular and local approach.

#### **6. Recommendations**

Sustainability frameworks can influence organizational performance, but not all frameworks influence each and every industry. The same frameworks can manifest differently across industries. The study thus suggests the integration of GRI and SASB frameworks, GRI and TCFD frameworks, SASB and TCFD frameworks, or the integration of GRI, SASB, and TCFD sustainability frameworks. This is predicated on the premise that employing both methods will yield a more comprehensive assessment of the sustainability initiatives. The paper proposes that the Sustainability Accounting Standard Board (SASB) should develop a universal sustainability standard to offer direction on quantifying, managing, and disclosing companies' sustainability efforts. The board should adopt International Sustainability Accounting Standards (ISAS) that will incorporate the legal, accounting, religious, economic, political, geographical, educational, and cultural

disparities among nations. This will greatly advance the implementation of sustainability reporting techniques.

### **7. Policy Implications**

The study is applicable to various stakeholders interested in sustainability reporting, including policymakers, non-governmental organizations, management teams, green investors and lenders, academicians, researchers, and practitioners. This study would be pertinent for global and international accounting bodies in shaping their perspectives on sustainability reporting frameworks.

### **8. Research Limitations**

The study is limited in scope as it mostly relies on conceptual analysis and draws findings based on scholarly articles published in refereed journals, conference proceedings, and symposiums. As a result, there is no concrete and statistically evidence to support the research conclusions.

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