MASTER'S THESIS

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Topic: *Examining Corporate Sustainability Reporting to Address Greenwashing*

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ABSTRACT

Until recently, sustainability matters were not a popular discussion agenda in corporate boardrooms and management meetings. However, with the advent of the current climate crisis, the disruptions in the supply chains, and the quest for a sustainable economy, companies have now begun to understand the importance of sustainability matters in their business operation.

Companies are required to report on their sustainability performance to keep their stakeholders informed about the impact of their business activities on the environment and people. Sustainability reporting is therefore relevant for this reason, to make companies understand the impact of their business operation on the environment and people and to foresee the risks and opportunities of their business model. However, The demand for such reports gave rise to the problem of greenwashing, in which the reports are mostly exaggerated, not transparent, and not accurate.

To avert this problem, several reporting standards and guidelines were developed to address greenwashing in companies' sustainability performance reports. The Non-Financial Reporting Directive (NFRD) was created in 2014 requiring big companies to provide clear and transparent information about their impact on the environment and people. Due to the fast-evolving nature of sustainability issues, the European Commission realized that the NFRD was lagging in terms of scope and detail of reporting requirements. The NFRD was replaced by the Corporate Sustainability Reporting Directive (CSRD) to address the challenges in corporate sustainability disclosure within the EU.

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CHAPTER: ONE

1.0 INTRODUCTION

Sustainability has now become a constant agenda in corporate boardrooms and stakeholder meetings. All the stakeholders including the shareholders of companies agreed that sustainability-related issues posed a serious risk to the business operation and the long-term survival of companies. The current climate crises, the COVID pandemic, and geopolitical conflicts like the war in Ukraine are clear indications of the vulnerability of the supply chain of companies that require the need for stronger resilience (Carmichael et al, winter 2023).

Companies are required to show their commitment to climate change by adopting sustainable business measures or practices that have a positive impact on the environment and society. Investors are also concerned about the abilities of investee companies to transition from high carbon-intensity operations to low carbon intensity and their capabilities to incorporate sustainability in their business operations. In essence, investors are concerned about how climate-related environmental risks affect their investments. In light of this, the European Parliament adopted the Corporate Sustainability Reporting Directive (CSRD) to enable investors, regulators, consumers, and other stakeholders to evaluate the non-financial information disclosure by companies. The CSRD has added several layers of transparency and accountability to its predecessor, the Non-financial Reporting Directive (NFRD) in terms of scope, granularity of data, and assurance of information.

The rise of sustainability issues in companies has also increased concern about the trustworthiness and the quality of Environmental, Social, and Governance (ESG) information reported by companies (Carmichael et al, winter 2023). Corporate sustainability reporting if effective and systematically done by companies, leads to corporate transparency concerning environmental and social considerations beyond the narrow economic perspective of shareholders (Kuzey et al, 2023).

Contrary to this fact, most companies tend to consider sustainability matters as a negative eternality to their business operation by associating it with cost and expenses as opposed to benefits for the long-term survival of their business.

The market for sustainability-related finances and assets has grown exponentially over the past few decades. According to the Global Sustainable Investment Alliance, since 2012, the total assets in sustainable investing have grown from USD13.3 trillion to USD35.2 trillion. The Global Impact Investing Network (GIIN) also estimates that the impact investing market, which is part of sustainable finance, now exceeds USD 1 trillion (Dr Kim Schumacher et al, 2023). It could be said that, because of these huge investments in the sustainability market, many companies are making claims about sustainability. To benefit from these pools of investment as well as to enjoy market advantages, but in reality, they are not sustainable as they claim. Corporate sustainable reporting is also important for this reason, to hold companies accountable for their sustainability claims to address greenwashing.

The issue of greenwashing in corporate sustainability reporting has become a very big problem that requires monumental efforts and strategy to address it. Many companies claim to be sustainable but in reality, most of them do not understand what it takes to be sustainable. Sustainability is more than just reporting, it involves translating the reported information into measurable performance and impact. The misconception about sustainability reporting is the belief that reporting equals being sustainable which often involves a trade-off of hiding negative information whilst reporting on positive information.

This thesis starts by understanding the different meanings and definitions of greenwashing in sustainability reporting and how this impacts firms' actual sustainable growth. The different types of greenwashing companies are engaged in when they report their sustainability performance, thus enabling a comprehensive understanding of the dynamics of greenwashing and the typologies. The competency of people responsible for sustainability matters in companies will also be delved into to evaluate the level of understanding concerning sustainability matters in companies. The research will later shift focus to sustainability reporting standards with a special concentration on the Corporate Sustainability Reporting Standard (CSRD) and the International Sustainability Standard Board (ISSB). The research will deliberate on the key features of these standards and how they are envisaged to address the issue of greenwashing. Most importantly, the analysis will be centered on the materiality assessment of the two standards to determine which of the standards could be prone to greenwashing. The conclusion will consist of key findings from the analysis of the materiality assessment.

1.1 RESEARCH PURPOSE

Given the issues highlighted above on sustainability and in particular sustainability reporting, this research is envisaged to make a resounding contribution to the issue of corporate sustainability reporting in general with a particular focus on the Corporate Sustainability Reporting Directive (CSRD). The aim is to investigate the key areas of sustainability reporting standards and frameworks to determine if they can address the problem of greenwashing. To achieve these objectives, the research will evaluate:

1. Sustainability assurance reporting
2. The materiality assessment process including the steps
3. Comparing double materiality under CSRD and single materiality under ISSB

1.2 THESIS PROBLEM STATEMENT & RESEARCH QUESTIONS

The inclusion of sustainability matters in the corporate culture and operation should be a key priority for companies that wish to be resilient in the face of unforeseen future business disruptive events. Companies now understand that sustainability is the new game changer for the prosperous and continued survival of their business and the ability to report effectively and efficiently is the secret weapon.

Despite this, there still exists the underlying problem of greenwashing when reporting their sustainability performance. What is even more concerning, is the number of approaches used by companies to engage in greenwashing. Reporting on sustainability is a serious matter that requires serious consideration and should not be used by companies as a marketing tool to enjoy a competitive market advantage. The problem of greenwashing is getting even more serious considering the current climate crisis in which corporate greenwashing is the biggest contributing factor. Regulators are challenged to devise a lasting solution to the problem, which has become a heavy burden due to the complexity of greenwashing in corporate sustainability disclosure.

With that in mind, the research question that this thesis should answer is:

- Whether the nature of reporting contributes to greenwashing, that is to say, the lack of enforcement on greenwashing claims?
- The vagueness or complexity of the materiality assessment which implies a certain level of discretion?
- The general perception within the company that sustainability reporting equals sustainability rather than action?
- The efficiency of the limited assurance process?
- Lack of reliable data?
- Whether ISSB or CSRD-based reporting could be prone to greenwashing

1.3 RESEARCH METHODOLOGY

The methodology of this research is based on investigative research and scientific studies to evaluate and examine sustainability reporting standards and frameworks. Researchgate, ScienceDirect, and Google Scholar are the academic search engines used to search relevant materials. The research will identify key areas that are prone to greenwashing in sustainability reporting standards. The literature review will concentrate on sustainability assurance reviews to determine, among other things, whether a limited assurance review of sustainability reporting can help reduce greenwashing in corporate disclosure.

Most importantly, the analysis will evaluate the steps that are followed by companies in conducting the materiality assessment process. This will enable a first-hand understanding of the challenges and complexity of materiality assessment. The research will further explore scientific studies on single materiality assessment under ISSB. This together with the research on the materiality assessment process will form the comparative analysis to determine whether double materiality assessment is prone to greenwashing or whether single materiality is more prone to greenwashing. A table with anti-greenwashing features will also be included in the analysis to determine the levels of greenwashing between the CSRD and ISSB.

This research methodology will give a much wider view of the thesis topic and will help to provide answers to the research questions.

1.4 SUSTAINABILITY REPORTING

Sustainability reporting is the communication of companies' goals and objectives concerning Environmental, Social & Governance (ESG) performance. It communicates the company's progress and efforts to reach the targeted goals set by the legislation or by the company itself. Reporting on sustainability has become a game changer, especially in the investment world because investors rely on sustainability reports to evaluate their investment risks and opportunities. Investors are now more than ever concerned about the environmental and social aspects of sustainability (Kenneth P. Pucker May-June 2021).

Sustainability reporting goes beyond cherry-picking metrics to report on and using them as a marketing tool to attract investors. However, as the demand for sustainability-related matters has increased, the risks of greenwashing have also increased (Itasif 2022). Reporting on sustainability matters by companies makes them more resilient and gives them more visibility into the future regarding the risks and opportunities arising from their business operations.

Moreover, Sustainability reporting has a proxy on a firm’s value as investors are willing to invest in companies that are transparent and legitimate regarding their sustainability performance. Studies by (P. Guidry et al, 2010) have found that quality and consistent reporting on sustainability matters by firms have a positive effect on the firm's value and that a high-quality sustainability report has a significantly positive market reaction than a lower-quality sustainability report.

Companies use sustainability reporting as a tool to enhance corporate legitimacy. Which contributes to building a positive corporate impression and prestige, stimulates sales improvement, and boosts the company’s attractiveness to creditors, clients, and other parties (Kuzey et al, 2023). Sustainability reporting therefore not only gives visibility to companies into the future but also has economic benefits for companies. The disclosure of information on economic performance, market existence, indirect economic impacts, procurement, and anticorruption practices in a sustainability report is needed by investors, consumers, and other stakeholders. Companies can use this information in their marketing promotion to increase consumers' interest and attitude towards the company. Transparent disclosure of the economic dimensions of sustainability reporting helps to increase companies' ability to raise profit (Erna Hidayah et al, 2021). Sustainability reporting attracts both investors and consumers to the company, which enables an increase in the company's share value and profit. Reporting on material environmental, social, and governance (ESG) information enhances better identification of systemic risks and threats to financial stability (Bossut et al, 2021).

The relevance of data in sustainability reporting cannot be overemphasized, companies cannot communicate their actions and targets on Environmental, Social, and Governance (ESG) without sufficient information in terms of quality, scope, and level of data. Adequate data helps to enhance transparency and reduce information asymmetry, which are all big challenges in sustainability reporting.

1.5 GREENWASHING IN SUSTAINABILITY REPORTING

The rise in sustainability has also swayed ways for a rise in the issue of greenwashing in sustainability reporting by companies. Greenwashing is one of the biggest corporate scam of the 21st century which continue to affect the trustworthiness of information disclosed by companies regarding their performance on sustainability and ESG. The act of deliberately or negligently disclosing information about a company’s performance or commitment to sustainability matters when in reality is not true or overstating a company’s performance on sustainability is referred to as “Greenwashing”. It is also defined as an act of presenting a company’s products, services, goals, and policies as eco-friendly or environmentally friendly and sustainability compliance while behaving otherwise.

According to the European Securities and Market Authority (ESMA), greenwashing refers to "a practice where sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product or financial service. This practice may be misleading to consumers, investors, or other market participants”. The drivers of greenwashing are multifaceted and according to the European Banking Authority (EBA), these include the company's competitive quest to improve their sustainability profile, lack of consistency and clarity concerning certain regulatory provisions, poor data quality and availability, and lack of competent skill and expertise on sustainability matters.

The European Commission has requested a report from the European Supervisory Authorities (ESA) to advise the Commission on greenwashing risks and sustainable-related supervision to protect investors and the integrity of the market against greenwashing risks. Following the draft progressive report, the final report aimed to investigate the role of supervision in mitigating greenwashing risks. The findings from the investigation reveal that the National Competent

Authorities (NCA) are taking the necessary steps to prioritize sustainability-related claims and critical scrutiny of documentation. The key priority finding from the investigation by the ESA is to better equip the National Competent Authorities (NCA) with advanced tools to be able to perform supervision on sustainability claims. In addition, the ESA also requested the European Commission to reinforce NCA and ESMA mandates in certain areas which includes the Commission's support for the NCA to have access to data through a legislative framework. The enhanced supervision will help the NCA to hold companies legally accountable for greenwashing related to false environmental claims.

Greenwashing in sustainability reporting can destabilize the financial system, especially for financial institutions such as banks and other credit institutions. For investors, greenwashing can lead them to capital misallocation on companies or financial products under the pretense that they are environmentally sustainable. Once the truth is revealed about the company's sustainability performance or the sustainable nature of the financial product, the investors may incur losses and cause market distortion due to capital misallocation.

In the financial system such as banks/credit institutions, if companies continue in their greenwashing behaviors, they will succumb to such behavior which will continue to aggravate climate change crises. Climate change has two effects on companies, the physical risks and the transition risks. A physical risk scenario such as the combination of thunderstorms and drought could result in asset impairment for companies thereby posing financial stability risks (Emambakhsh et al, 2022). Similarly, in an instance where a company's productive capital through its supply chain is destroyed by any of the physical hazards such as flood or drought, this will also result in credit risks such as an increase in the probability of default (PD) for the creditors. In the case of transition risks, in a scenario of disorderly transition for high emission intensity firms, higher expected losses at the bank level are what is anticipated for such firms (Emambakhsh et al, 2022). This is due to the expected spending that will be incurred to transition to lower emission operation which could also increase the probability of default (PD).

Greenwashing-related financial risks can arise from reputational risk and litigation risks for companies. Reputational risks arising from the firm's greenwashing allegations affect its credibility and could trigger further risks to its financial standing. According to studies by (Ben Caldecott et al 2021), the impact of physical climate risks alone (direct impact and residual damages) on global financial assets in a business-as-usual scenario is at 1.8%, or US $2.5 trillion, and in a worst-case scenario of 99^{th} percent placing 16.9% of assets at risks or more than US$24 trillion. This is a clear projection of the financial risks that might be incurred if companies fail to generate systematic sustainability reports and continue with business as usual thereby contributing to the climate crises.

Of recent, there have been three identified strategies in which companies are engaged in greenwashing practices and these are:

1.5.1 Manipulative Greenwashing: Manipulative greenwashing is the deliberate disclosure of unverified or exaggerated information to increase company valuation. It occurs when companies overstate their real environmental performance, which is the so-called "greenwashing" strategy. Firms that adopt manipulative greenwashing strategies try to escape from their poor environmental performance by disclosing large quantities of environmental data to mislead their stakeholders (Pei-yi Yua et al 2020).

Companies that are involved in such a form of greenwashing do so by focusing on a single positive environmental effect whilst concealing or ignoring the significant negative environmental effects. For instance, a company can advertise that the products that are used for its paper production came from sustainably harvested forests but will fail to disclose the pollution caused by the manufacturing of the same paper. Similarly, companies also greenwash by identifying a positive environmental impact that is true but not relevant to the product or the company's operation. The most identified features of manipulative greenwashing are vagueness, hidden trade-offs or concealment, irrelevance, and intentional misstatement.

The issue of manipulative greenwashing in sustainability reporting is very broad and it includes companies that seemingly pretend to be transparent by engaging in independent sustainability reporting assurance. According to the International Auditing and Assurance Standard Board (IAASB), an assurance process is an engagement in which practitioners aim to obtain sufficient and appropriate evidence to boost the confidence of the end users.

Very few companies are engaging in ESG assurance reporting, a survey by KPMG reveals that 75% of companies are not prepared for ESG assurance reporting. Therefore, high standards and better sustainability reporting were what was expected from these few companies that perform assurance reporting.

However, this is not the case for some of the companies that are engaged in assurance reporting. For instance, 3i Group is a multinational private equity and venture capital company based in London. In its 2020 sustainability report, the company reported that "emissions have been verified to a reasonable level of assurance by Carbon Intelligence according to the ISO 14064-3 standard". This is to say that the report has satisfied the globally recognized greenhouse gas (GHG) reporting standard established by the International Organization for Standardization (ISO) in Switzerland. This statement from 3i Group was found to be inconsistent with the information obtained from Carbon Intelligence which stated that "the independent third-party verification of direct and indirect carbon dioxide equivalent emission (CO2e) was to a limited level of assurance"

(Carmichael et al, winter 2023). This act by the said company amounts to manipulative greenwashing to get the credit it did not deserve and also mislead the public about its seriousness concerning sustainability matters.

The International Organization for Standardization (ISO) Environmental Management on Environmental Report Assurance (ISO 14016) seeks to help companies prepare sustainability assurance reporting. ISO 14016 guides companies on the type of information they are required to disclose in their environmental reports, it also provides guidance for companies to forsee (i) "The result of the assurance engagement" and (ii) "how the assurance engagement should address materiality in terms of, determining if the material issues have been included in the environmental report and identifying any material misstatement or omission". This will help companies navigate through the challenges of environmental reporting, especially with the complexity and challenges of double materiality.

1.5.2 Selective Greenwashing: The second type of greenwashing is selective disclosure to mislead investors. Scholars (Marquis et al., 2016) define greenwashing as firms selectively reporting positive environmental information while hiding negative information. A very good example of selective greenwashing is related to the issue of scope 3 emission, which is the most imperfect or less transparent disclosure by companies when reporting on their sustainability matters. Scope 3 emissions are the indirect emissions both upstream and downstream by companies through their value chain.

The emissions from Scope 3 have a significant impact on the environment. According to the UN Global Compact, Scope 3 emissions accounted for as much as 70% of the average corporate value chain's total emission. A report by Bloomberg on the ESG data of 15,000 companies shows that only about 20% of them disclosed their Scope 3 emissions for the 2020 fiscal year. The deficiency and inaccuracy in reporting scope 3 emissions by companies are due to the lack of capacity to efficiently trace and collect data from their value chain.

Companies that use selective greenwashing strategies do so with malice to avoid unwanted storylines to the public. A company might report positive information about its environmental performance and hide the negative information about its ESG performance and in most cases, the negative information outweighs its positive environmental information.

1.5.3 Product Labelling Greenwashing: The third type of greenwashing simply focuses on product-level greenwashing rather than firm-level greenwashing. The issue of product labeling greenwashing is related to the history of sustainability. Sustainability was used by companies as a marketing tool to show their clients and the community that they care about the environment. Unfortunately, the information disclosed by companies is not verified to determine the truthfulness of the information and the positive environmental impacts they claimed.

The most prominent form of product labeling greenwashing is the use of Eco-labels on products and the use of terminologies like organic, green, natural, recycled, and eco-friendly which are in most cases false. Most of the eco-labels that are covered in products do not provide any real evidence to substantiate their claims, they are meant to falsely persuade conscious consumers into a false sense of eco-awareness with green ads to make consumers brand them as sustainable while they are not (Shahrin et al, 2017). A study conducted by the European Commission in 2020 found that 53% of environmental claims on products are vague, misleading, or unfounded and 40% were unsubstantiated by evidence.

Several companies were found wanting for product labeling-greenwashing. For instance, the UK's Advertising Standard Authority (ASA) filed a complaint against three Airline companies: Lufthansa Airline, Air-France-KLM, and Etihad Airways. In their complaint against Lufthansa, the company advertised using the term “fly more sustainably”, against Air-France-KLM, the company advert says "committed to protecting the environment" and helped people to "travel better and sustainably" and against Etihad Airways, the company adverts say explore the world with "Total Peace Of Mind," while mentioning their "Environmental Advocacy". Upon investigation by the UK ASA, the environmental claims by these three airline companies were found misleading because there was no data or evidence to support their adverts to substantiate their claims. Meanwhile, in France, the Le Jury de Déontologie Publicitaire (JDP) found a multinational apparel company guilty of a false environmental advertisement on a model of shoes as being 50% recycled, whereas, in reality, only the upper part of the shoe matched the description.

Due to the increased rate of product labeling and greenwashing strategies by companies, the practice of product certification was developed to prevent or otherwise reduce labeling-related greenwashing. A certification program gives confidence to consumers about a company's product because it vets the company's process by making so that the product is made responsibly in relation to the environment based on sustainability standard criteria (Forbes Sustainability Certification 2023). Even though certification is intended to help combat greenwashing by showing the objective measure of a product's sustainability, the practice may not be entirely trustworthy because of information asymmetry and difficulty tracing a product's life cycle.

The problem of the traceability of product life cycle and information asymmetry gave rise to eco-opportunisms. Eco-opportunism refers to "hidden self-interest-seeking behavior that undermines the transition toward sustainability through intentional deceit" (Arne Nygaard et al, 2023). The eco-opportunism is discovered and common in many market situations. The "markets for lemons" for instance is a situation where the sellers know more information than the buyer about a product and might use such advantage to the detriment of the buyer.

The "market for lemons" as a form of "greenwashing" might be a typical eco-opportunism situation under information asymmetry. For instance, the "horsemeat scandal" in 2013 illustrated eco-opportunism under a "market for lemons" situation (Arne Nygaard et al, 2023). In short, product labeling greenwashing involves making false eco-labels and certifications on a product or service by tricking people into believing that the product or service is more sustainable than it is.

However, the EU Greenwashing Directive which is expected to come into force in 2026 is envisaged to help protect consumers from these misleading practices by helping them to identify unfair commercial practices where environmental claims cannot be sufficiently substantiated by the relevant trader.

The Directive seeks to make several amendments to the list of unfair practices included in the *Unfair Commercial Practices Directive (UCPD) of the EU.* The European Commission also adopted a proposal for a Directive on the substantiation and communication of explicit environmental claims. The draft Directive is known as the Directive on Green Claims which highlighted two types of claims that are the "Environmental Claim" and the "Explicit

Environmental Claim". The draft directive defines these two claims as any presentation in the form of a message that is not a mandatory requirement under the Union law or national law, such as text, pictures, graphic or symbolic presentations like labels, brand names, company names, or product name, for commercial communication, which expressly or impliedly states a product or trader has a positive or no impact on the environment or is less damaging to the environment than other products or traders or has improved its positive impact to the environment. The directive is devised so that any positive environmental claims must be truthful and not misleading. The Greenwashing Directive and the Directive on Green Claims target businesses that make false claims of being green to fraudulently persuade environmentally conscious consumers.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) has also released new guidance for companies to achieve effective internal controls over sustainability reporting (the ICSR) as a way of combating greenwashing in their environmental claims. The ICSR entails a series of processes which include (i) "Control Environment which ensures firms commit themselves to integrity and ethical environmental values", (ii) "risk assessment" (iii) "control activities" (iv) "information and communication", and (v) "monitoring activities". These processes will help companies to reduce greenwashing through robust internal control and scrutiny which according to research by (Marquis et al. 2016) can discourage firms from making damaging environmental selective greenwashing. The ICSR under the COSO guidance could potentially help to protect companies from legal actions arising from the violation of the Greenwashing Directive and the Proposed Green Claims Directive if properly followed.

These three types of greenwashing are the most widely identified types of greenwashing, however, greenwashing goes beyond these three. The strategies and typologies of greenwashing seem never-ending, the underlying fact is companies greenwash anytime they make a claim about sustainability which they cannot support with substantial proof or evidence.

1.6 GREENWASHING RELATED TO SUSTAINABILITY & ESG SKILLS

Over the past years, the issue of greenwashing has generally been associated with company-level greenwashing or general greenwashing as discussed in the above paragraphs and little or not much research has been done about the skills and knowledge level of people responsible for the measurement, reporting, and verification (MRV) of sustainability or ESG information in companies. There is a general lack of skilled or knowledgeable people with the requisite background or experience in sustainability or ESG matters in companies.

Reporting on sustainability requires a large amount of non-financial data and scientific metrics information such as GHG emissions, loss of biodiversity, marine biology, atmospheric science, hydrology, and zoology which all require a background in the natural science discipline (Dr. Kim Schumacher 2020). Unfortunately, this is not the case in hand thus the area of sustainability and ESG is dominant with persons with backgrounds in finance, commerce, marketing, communication, business, management, corporate affairs, and other social science disciplines (Dr. Kim Schumacher 2020). A research study by New York University Stern Business School found that only 29% of 1188 Fortune 100 board members had relevant ESG credentials.

The high demand for people with sustainability and ESG backgrounds has grown exponentially, especially at the management level of companies. This as such results in a high transition rate to sustainability and ESG roles in companies with many just completing a few short-term courses and certificates related to ESG and sustainability (Dr. Kim Schumacher 2020). The simple fact of completing a certificate or knowing the very basics about sustainability and ESG does not qualify one as an expert in sustainability or ESG. This practice at the corporate level is what (Dr. Kim Schumacher) describes as "Competence Greenwashing", according to him "the practice of equating immaterial ESG knowledge, basic sustainability awareness, or passion for ESG-related issues with subject matter expertise" refers to competence greenwashing.

The lack of requisite knowledge and skills on sustainability matters and ESG has contributed to the overwhelming problem of conceptual greenwashing by companies. Because of this reasons, organizations such as Carbon Disclosure Project (CDP), Climate Bond Initiatives (CBI), and Science Based Targets Initiative (SBTi) that are responsible for tracking ESG data from companies often struggle to independently verify the data they obtain from these companies. As such, they rely on private ESG service providers such as rating agencies, auditors, second-opinion, or verification of their compliance with ESG standards and regulations (Dr. Kim Schumacher 2020).

CHAPTER: TWO

2.0 THEORETICAL REVIEW OF THE EXISTING LITERATURE

The European Parliament and the Council of the European Unions communication of March 2018 entitled “Action Plan for Financing Sustainable Growth,” has three objectives and these are:

i. To redirect capital flows into sustainable investment to achieve sustainable and inclusive growth,
ii. Minimise and control financial risks stemming from climate change, resource depletion, environmental degradation, and social issues, and
iii. Strengthen transparency and long-termism in financial and economic activity,

To achieve these objectives, there is a need for sustainable investment to enable the European Commission to achieve its agenda of sustainable development and the Paris Agreement. However, the disclosure to investors concerning the risks and the adverse impact of sustainability on the investment objectives and information related to environmental and social characteristics are not sufficient because of the lack of harmonized requirements or systems. The CSRD was developed to help address these underlying challenges faced by investors and other relevant stakeholders to achieve sustainable growth.

The rationale of CSRD is to protect investors while encouraging them to invest in sustainable growth. The structure of ESRS helps to complement CSRD by streamlining the reporting into the General Requirements, Sector Specific Standards, and Topical Standards which all require relevant disclosures for investors (CSRD Enssential, 2024).

Essentially, CSRD is hailed as a lead in the right direction in the fight against greenwashing in corporate sustainability reporting as well as a boost in confidence and trust in corporate information. According to the European Commission while adopting CSRD, “high quality and reliable public reporting by companies will help create a culture of greater public accountability". The objectives of CSRD are nothing short of this statement considering the aspects that have been covered by it, which include but are not limited to:

i. The Materiality Assessment- Materiality assessment as per the guidance of the Corporate Sustainability Reporting Directive (CSRD), has been seen as part of the many efforts to help address greenwashing. "The materiality assessment can thus be a conversation starter, activating the sensemaking function of sustainability reporting, that is, walk the talk" (Jilde Garst et al, 2022). This is therefore relevant in terms of specification and classification according to the sectors in which companies operate. The CSRD requires both impact materiality and financial materiality which makes it distinct from other reporting standards such as the International Sustainability Standard Board (ISSB). Impact materiality refers to companies' actual or potential negative or positive impacts on people or the environment over the short, medium, and long term. Financial materiality pertains to sustainability matters that are reasonably expected to influence companies' development, financial position and performance, cash flows, access to finance, or cost of capital over the short, medium, or long term (EFRAG Implementation Guidance on Materiality Assessment, May 2024).

   ESRS is designed to provide detailed information on the company's sustainability performance and efforts to investors. The granularity of ESRS will enable companies to be able to disclose all the relevant information in their sustainability reporting in detail. Which will help investors in the comparability of data from the report.

   The table below shows the level of granularity in ESRS which ranges from topic to sub-topic and in some instances to sub-subtopic level.

Figure 1: Granularity in ESRS

STANDARD	Topic	Sub-topic	Sub-sub-topic
ESRS E1	Climate change	✓ Climate change mitigation ✓ Climate change adaptation ✓ Energy	
ESRS S3	Own workforce	✓ Working conditions	• Secure employment • Working time • Health and safety • Work-life balance
ESRS G1	Business conduct	✓ Corruption and bribery	• Prevention and detection including training • Incidents

ii. The increase in the number of companies that are required to report under the CSRD compared to NFRD. It is estimated that the CSRD will directly affect 42500 companies that are headquartered in the European Union to report on sustainability information using the directive (CSRD Essential, 2024).

iii. The adoption of a single reporting standard i.e. European Sustainability Reporting Standard (ESRS) which will help to address the issue of disparities in the company's sustainability reports and harmonize reporting within the European Union.

iv. The requirement of companies to report on their scope 3 emissions along with direct and indirect emissions.

These aspects and many others that are required under CSRD could change the narrative concerning corporate disclosure that will be free from greenwashing. However, there remain some areas that need careful consideration. The issue of penalties as a deterrent to greenwashing under CSRD which impliedly refers to Article 51 of the Accounting Directive needs further scrutiny at the state level in the EU to ensure uniform enforcement of the directive. Regarding materiality assessment, giving companies the freedom to decide on their own the sustainability matter is relatively important to their business operation, and reporting on that might also risk a new phenomenon of greenwashing.

In addition to the materiality assessment, the CSRD also covers topics such as audit and assurance review of sustainability information. Similarly, the European Commission also understands the importance of scrutiny through enhanced supervision in addressing greenwashing in sustainability disclosure. A detailed discussion of these two other key aspects of CSRD and sustainability reporting follows below:

2.0.1 SUSTAINABILITY ASSURANCE REPORTING

Sustainability assurance reporting is the third-party process to hold companies accountable for their sustainability claim to ensure what they say is true and not misleading or false. The process is very helpful in minimizing greenwashing and also makes reporting more transparent thus the involvement of third-party independent verification. The table below shows the steps in the sustainability assurance process.

Figure 2: Sustainability assurance process

THE GOALS AND DETERMINANT OF ASSURANCE FOR COMPANIES	Companies' decision to seek assurance of sustainability information has both internal and external influences. • **Internal Influence-** companies demand assurance as a result of their commitment to CSR, the extensiveness of their sustainability reports, and the possible benefits of assurance. Companies that are serious and committed to

	CSR are likely to seek assurance (Clarkson, et al 2019). The benefits of assurance such as reduction in legal risks and protection from reputational risks are considered determinants for companies to demand assurance (O'Dwyer et al, 2011) • **External Influence-** Four external factors influence companies' decision to demand assurance. Stakeholders' perceptions about credibility, the characteristic features of the company (eg size or membership), media pressure, and the company's headquarters location are the external factors that influence companies to seek assurance (Fangxu Yan et al, 2022).
SELECTION OF ASSURANCE PROVIDER	Companies select assurance providers based on the company criteria and the characteristics of the assurance provider (Moroney et al, 2012). The criteria used by companies include the qualifications, expertise, experience, and legal environment of the assurance provider. The characteristic of the assurance provider relates to whether it is an accounting firm or a consulting firm (Fangxu Yan et al, 2022). These are factors reporting firms consider when selecting the assurance provider.

	Stakeholders also play a significant role in the selection of assurance providers. The independence of assurance provider and their ability to make objective measures are ranked as the primary concerns for stakeholders in the selection process (Boiral et al, 2018). This significantly affects the assurance provider's credibility and boosts the confidence of the stakeholders. The absence of this might result in the manipulation of assurance service thereby causing information distortion (Fangxu Yan et al, 2022).
IDENTIFICATION OF ASSURANCE PRINCIPLES	After the selection of the assurance provider, the reporting firms together with the assurance provider decide on the assurance principle such as the level of assurance whether limited or reasonable assurance, and the assurance standard that will be applied. Some of these standards are: • International Sustainability Assurance Engagement (ISAE) **3000** which deals with assurance engagement other than audit and historical financial information • International Ethics Standards for Sustainability Assurance (IESSA) which concerns the independence of the assurance practitioner. This particular assurance standard is very important in sustainability assurance because the practice of assurance reporting is widely

	criticized as being influenced or captured by the management of reporting companies (Channuntapipat, 2021) • AA1000AS Assurance Standard is also another methodology used by assurance providers in the sustainability assurance engagement. ISAE and AA100AS have similar objectives of stakeholder engagement and averting the risks of errors and misstatements by the assurance providers.
SCREENING PROCESS	The screening process determines two important issues which are, whether the content of the assured information is relevant to the stakeholders and the organization and the extent to which it will be reflected in the sustainability reports of the company Stakeholder engagement in the screening of the assurance content enhances the credibility of the report and helps to address crucial sustainability issues of companies and the society in which they operate (Channuntapipat, 2021). This enables assurance providers to respond to all the concerns of the stakeholders.
VALIDATION	This step involves the verification of the methods that are used in the assurance process such as data collection, interviews, risk assessments and the analysis approach.

EVALUATION	This final stage involves assessing the overall assurance process to determine the credibility of the process. The outcome of such evaluation helps in maintaining the firm's good image, reducing legal risks, and enhancing stakeholder's confidence. Depending on the purpose, an assurance statement can be a private report to company management or a public statement through an information of sustainability report (Boiral et al, 2019)

The CSRD has introduced a “limited” assurance requirement which will later metamorphose into a “reasonable” assurance by 2028. The assurance of sustainability information is reasonable when the assurer of the information gained a much understanding and culture of the company, conducting reviews and assessments, identifying risks, undertaking detailed testing as well as evaluating the evidence obtained, and forming an assurance conclusion based on those processes. On the other hand, limited assurance follows the same method but the level of assurance is lower compared to reasonable assurance, it confirms that a company meets the precondition for assurance, that the control, processes, and framework are in place, and also increases confidence on the data but not to the level of reasonable assurance (Mike Shannon KPMG sustainability assurance, 2024)

Limited assurance review of auditors on sustainability information only enables them to form an express opinion on whether the metrics used to develop the sustainability report are complete and accurate using specific criteria to arrive at such decisions. Based on such limited cursory review by auditors, studies on sustainability assurance concluded that such a limited level of assurance review cannot validate the credibility of sustainability informations (Carmichael et al, 2023). Limited review of auditors on sustainability information is not sufficient to deter greenwashing, reasonable assurance which requires a more thorough and rigorous scrutiny will help to deter greenwashing as opposed to limited assurance given the complexity of sustainability.

In an investigative research by (Carmichael et al, 2023) on an assurance review by United Utilities, one of the largest FTSE 100 Index-listed water companies in the United Kindom. The company stated that it had assured its Task Force on Climate-Related Financial Disclosures (TCFD) Report with the Finacial Stability Board. Upon examination of the data of the report, it was found that the report was not assured as they claimed. The company then defended its claim by arguing that its meaning of assurance was "of effective disclosure rather than assurance of data". This imperatively raises concern about the two typologies of assurance and the possibility of companies finding escape routes by relying on one context of assurance to escape the other. Assurance of sustainability information can either be related to data or disclosure which are different in their meaning and context. Assurance of data refers to the review of the accuracy, integrity, and security of the data collected by the organization while assurance of disclosure refers to the transparency, readability, and reliability of information shared with the relevant stakeholders.

The lack of standards on how to conduct an assurance review under CSRD and also given the limited review of auditors on the information, could cause a potential leakage of greenwashing in assurance reporting. Although assurance of data is crucial for sustainability disclosure, it requires additional scrutiny such as the level of compliance with regulations and the disclosure process. Both need to be managed effectively and efficiently to achieve the overall goal of assurance not only on data but also on disclosure.

The research by (Carmichael et al 2023) highlight four important minimum requirements that should be disclosed in assurance reporting and these are, the framework and methodology that was used to prepare and disclose information, the specific information and metrics that are independently assured, and by whom, whether the assurance is limited or reasonable and any other supplementary information that will put these requirements into context. These requirements are undoubtedly relevant for assurance reporting; however, the limitation is the absence of a universally acceptable sustainability assurance standard. Unlike sustainability reporting, financial reporting has a standard reporting format such as the General Accepted Accounting Principle (GAAP) which makes financial auditors give accurate objective measures of data as opposed to subjective opinions.

2.0.2 FIRM SCRUTINY

Research by (Pei-yi Yua et al, 2020) shows how greenwashing could be addressed through rigorous scrutiny at the firm level, country level, and international level. The issue of tightened scrutiny by the stakeholders is relevant for financial reporting and likewise for sustainability reporting. it is understandable and agreed that firms are highly likely to disclose adverse financial information if they are monitored and scrutinized by their investors and boards. This is also said to be the case in sustainability reporting as well. Firms that are subject to high monitoring and scrutiny from their investors and boards are discouraged from disclosing false information about their Environmental, Social, and Governance (ESG) claims because such practice could potentially cause financial losses through reputational damages and legal sanctions on a firm which investors and board members would like to avoid (Pei-yi Yua et al, 2020).

The European Securities and Market Authorities (ESMA) final report on Greenwashing shows the need for enhanced supervision and scrutiny to address greenwashing claims in sustainability reporting. According to the report, the National Competent Authorities (NCA) and ESMA are making the necessary steps to enhance monitoring which will help to detect greenwashing and also enable them to scrutinize sustainability-related claims in the various sectors. The ESMA together with the National Competent Authorities (NCA) are making efforts to address greenwashing through enhanced supervision. Systematic and consistent supervision of sustainability claims will help to boost investors' confidence in sustainability information thereby promoting investment in sustainable growth as envisaged by the European Commission.

According to studies by (Marquis et al, 2016), a firm's headquarters location influences the likelihood of firms being engaged in greenwashing behavior depending on the scrutiny by the host country concerning corporate behavior. Further studies by (Pei-yi Yua et al, 2020) also show that the ability of citizens to express their political rights also has an impact on firms' greenwashing behavior as citizens will be able to scrutinize firms and push them to disclose information concerning their environmental performance. Equally, the research also shows that the corruption level in a country affects firms' greenwashing behavior since countries with less corruption are likely to provide transparent sustainability reports from their companies as opposed to countries with prevalent corruption.

Cross-listed firms are less likely to engage in greenwashing behavior due to scrutiny from both national and international regulators. Cross-listing refers to companies that have their shares listed on at least one international stock exchange in addition to their home country (Pei-yi Yua et al, 2020). Based on their exposure to international scrutiny and the fact that they would not want to irritate foreign regulators, such firms are said to be dissuaded from greenwashing behaviors.

The issue of firm scrutiny as discussed above is very important in addressing greenwashing behavior, the limitation of this literature goes back to the issue of competency and exposure to material sustainability and ESG issues. Of course, a firm's board size and the ability of its investors to monitor its environmental performance have a link with the skills and experience of these people who monitor and scrutinize the firm's sustainability performance and the metrics that are used to develop the reports. The scrutiny highlighted herein is focused on reporting which is in itself a problem because reporting does not equate to performance. This is a problem concerning sustainability reporting because there is the general notion that reporting equates to performance, the two are completely different. The disclosure of nonfinancial or sustainability information does not necessarily translate into sustainability performance. This is a strategy used by some companies to engage in greenwashing by disclosing large quantities of data while performing less. Companies need a diverse team of experts on each of the components of sustainability i.e. the environment, social, and governance to properly scrutinize their sustainability reports.

2.1 THE RELATIONSHIP BETWEEN SUSTAINABILITY REPORTING AND FIRMS GREENWASHING.

The traditional practice that focused on financial reports of companies has now evolved and shifted more considerations on sustainability and ESG matters as part of corporate reports. In addition to knowing the company’s financial status, which is communicated through the financial reports, sustainability reports communicate vital non-financial pieces of information related to the operation of companies concerning the environmental and social impact as well as human rights. These two separate pieces of information give a complete outlook of the company's overall standing, with the sustainability reports giving clearer perspectives on the future of a company's business model toward transition to a sustainable economy.

The demand for such rigorous and transparent sustainability reports, especially on environmental and social issues by investors and other stakeholders as well as regulators has mounted pressure on companies. As a result, some companies are engaged in greenwashing by disclosing information that does not resonate with their actual performance on sustainability and ESG matters. This undermines their efforts towards sustainability and efficiency in their business operation in which their performance is not properly measured and communicated accordingly. The problem with such corporate behavior is that greenwashing is a contributing factor to the current climate crisis by undermining credible efforts to reduce emissions to address climate change and the company's ability to transition to a sustainable economy.

If companies continue on the path of greenwashing, they become chronic to such an attitude in the long run and become stranded. This as such has a long-term impact on a firm's strategies to transition to lower carbon-intensity production. The transition to lower carbon production is also coupled with regulatory pressures that are now becoming mandatory for companies to disclose their emission related to scopes 1 & 2 as well as scope 3. This will therefore make it challenging for companies to continue operating if they are not forthcoming with sustainability and incorporating it in their business strategy.

The issue of sustainability reporting and greenwashing works as a double-edged sword that has its advantages as well as disadvantages for a firm. On the one hand, transparent, accurate, and systematic sustainability reports enable firms to understand the risks and opportunities in their business operation and prepare them to be resilient in the face of unforeseen business disruption. Greenwashing, on the other hand, crippled companies and put them in danger of not knowing the risks to their operation and leaving them exposed to disruptive events.

The focus of sustainability reporting is mostly directed at serving the interest of investors and shareholders to enable them to know the risks and opportunities of investing in a company. One of the most important things to also consider is how greenwashing contributes to carbon lock-in and stranded assets which in the long run have the potential to make the supply chain of companies obsolete and bring disruption to the entire financial system, thus the impact of greenwashing goes beyond the firm level to the entire financial system.

2.2 THE IMPACT OF COMPETENCE GREENWASHING ON THE QUALITY OF SUSTAINABILITY REPORTS.

The lack of subject matter competence in sustainability and ESG skills has a detrimental effect on the quality of sustainability reports. Competence and skills are essential in terms of understanding metrics and the ability to deal with the technicalities of the materiality assessment. The quality of sustainability reports is a determinant for sustainable growth, visibility, and readiness for companies to counter future business disruption and climate crises.

As investors and other stakeholders are demanding more transparent, accurate, and well-structured sustainability disclosure, the need for relevant skills is important to meet this demand. Competence and skills requirement has to do with the firm broad organizational setup in terms of composition concerning diversity in their sustainability department/unit, or diversity in their ESG teams. Reporting on sustainability requires a diverse composition of Environmental, Social, and Governance aspects of a firm. Each aspect of the E, S, and G is in itself sub-divided, for example, the environmental aspect is divided into sub-fields such as climate change, biodiversity, natural capital, ecosystems, and pollution to name a few. Scientists are often specialized in one particular area as it will be difficult to cover all the fields (Dr Kim Schumacher 2022). This as such indicates the broad complexity revolving around sustainability which is seldom understood by practitioners of sustainability and ESG.

Companies that are particularly serious about disclosing sound corporate sustainability reports require a diverse pool of personnel with relevant backgrounds related to each aspect of ESG. The combination of these people linked to ESG, Sustainability, or climate change within the same team will result in ‘cross-pollination’ effects wherein each subset of the team will learn from the other and vice-versa which as a whole will have a positive effect on the report generated from such pool of expert and in general will have a spillover effect on organization sustainability efforts and growth. The lack of competent skills and expertise in sustainability and ESG and sustainability reports is a fundamental risk in terms of climate change adaption, mitigation, and resilience for business operations due to the risk of improper MRV because such will lead to a positive impact overstatement and negative impact understatement (Dr. Kim Schumacher 2020).

Given the complexity and the challenges of sustainability, which is also subjected to legislative binding, allowing people to deal with such issues that have limited knowledge on the matter could wade into greenwashing (Leyla Acaroglu, 2023). Most of these people such as marketers and accountants who deal with sustainability matters in companies lack the technical skills such as the Life Cycle Assessment (LCA) to back up their sustainability environmental claims. Life Cycle Assessment or LCA is a systematic or analytical method of evaluating a commercial product or service life cycle to determine its environmental footprint throughout its entire life cycle. This is a very technical methodology used in the data collection of sustainability reports which requires technical skills beyond marketing and accounting. Competence and skills requirements are very relevant in producing a high-quality standard of sustainability reports to avoid positive overstatements and negative understatement. The issue of climate change is very real and needs to be treated with appropriate step-by-step assessment and reports of risks and how to manage those risks because “what gets measured, gets managed. Every major company should disclose how climate change affects its current business” (Mark Carney, 2020 Reith Lecture). This will enable companies to develop a pathway towards building a resilient supply chain and be sustainable in their business operation.

CHAPTER: THREE

3.0 THE CURRENT LANDSCAPE OF CORPORATE SUSTAINABILITY REPORTING

Since the development of the Global Reporting Initiative (GRI) in 1997 and the publication of the first version in 2000, there have been numerous reporting guidelines and standards that continue to develop towards the reporting of environmental, social, and governance (ESG) impacts against the narrow economic interest of businesses. These standard-setting bodies include the CSRD, ISSB, ESRS, TCFD, and the EU Taxonomy to name a few, all these standards have one aim and objective, which is to provide high-quality and transparent disclosure from companies. Thereby ensuring greater accountability concerning their impact on the environment, society, and people.

The EU has always been at the forefront of achieving these goals hence the establishment of the EU Green Deal which involves policy initiatives that are aimed at setting a pathway for green transition in the block. Over the past few years, the focus in the EU concerning reporting on sustainability and ESG performance of companies is the CSRD and ESRS. These two frameworks or standards are envisaged to provide a unified system of reporting concerning companies' sustainability matters.

The application of CSRD does not cover the UK except for companies that fall under the third-country disclosure requirement under the CSRD. In contrast, the UK follows the International Sustainability Standard Board (ISSB) guideline on sustainability disclosure. The ISSB is similar to ESRS in terms of some disclosure requirements. However, the ISSB is developed with financial materiality in mind, while CSRD was developed beyond financial impacts which also requires social and environmental considerations.

The Financial Conduct Authority (FCA) of the UK has released the “anti-greenwashing rule” which is similar to the Greenwashing Directive and the Green Claim Directive in the EU. The FCA anti-greenwashing rule has a similar objective to the EU Green Directive which is devised in a way that any claim about the sustainability of a product or service must be proved. In short, the rule is aimed at ensuring companies to perform the act of sustainability and not just talk without any performance to gain unfair market competition while misleading their stakeholders. The anti-greenwashing rule is part of the package under the UK Sustainability Disclosure Requirement (SDR) which among other things also includes naming and marketing rules related to four labels for sustainable investment products. The four labeling rules are applied in the context that:

i. "Sustainability focus- must meet a 70% sustainable investment threshold"
ii. "Sustainability Impact- must have an explicit sustainability objective the outcome of which is measurable"
iii. "Sustainability improvers- investment in assets with the potential to improve their sustainability"
iv. "Sustainability mixed goals- products that have a mixture of the three aspects highlighted above"

In the anti-greenwashing rule, FCA has listed 12 names in ESG 4.3.2(2) which are commonly used in relation to sustainability such as "green", "transition", "climate", "ESG", and "environment" just to name a few. The rule restricted the use of these terms on products without sustainability labels unless the conditions set in ESG 4.3.5 are fulfilled in which case requires a more detailed description and explanation concerning the sustainability of the products.

In the US, similar to the UK FCA greenwashing rule, the Federal Trade Commission (FTC) of the US published a guideline for companies to follow when making Environmental Marketing Claims called the "Green Guide" which provides general principles and specific guidance for environmental marketing. The guide is envisaged to help companies from making errors and missteps in making environmental claims by (1) “explaining how consumers could likely interpret such marketing claims”; (2) “describing the basic elements necessary to substantiate a valid claim”; and (3) “presenting options to avoid deceptive practices” (J. Czarnezki et al, 2024).

Compliance with the “Green Guide” is voluntary, however, for companies that do not follow the guidance and make environmental claims that are inconsistent with the guide, the FTC can bring an enforcement under Section 5 of the FTC Act which provides for “Unfair or Deceptive Acts or Practices”. The FTC Act serves as a catch clause for businesses or companies that fail to comply with the “Green Guide”. The Act distinguishes the legal standard for Unfair Acts or Practices and Deceptive Acts or Practices. An act or practice is unfair when it (1) “causes or is likely to cause substantial injury to the consumer”; (2) “cannot be reasonably avoided by consumers” and (3) “is not outweighed by countervailing benefits to the consumer or competition”. Whereas an act or practice is deceptive when (1) “a representation, omission, or practice misleads or is likely to mislead the consumer”; (2) “A consumer’s interpretation of the representation, omission, or practice is considered reasonable under the circumstances”; and (3) “The misleading representation, omission, or practice is material”. These are measures that are put in place in the US to deter companies or businesses from making greenwashing claims through fake or deceptive environmental marketing that will mislead consumers.

3.1 THE CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD)

The adoption of CSRD in December 2022 and its entry into force on 5th January 2023 marks a crucial and decisive moment for corporate sustainability reporting in the European Union (EU) and its spillover effects on third-country companies. The move will allow for greater transparency and accountability for companies while enabling investors and other stakeholders to assess the relevant information about the impact of businesses on people and the environment. It will also avail the investors of the financial risk and opportunities arising from climate change and other sustainability issues for companies. The CSRD "is not about undermining the business world, but about ending the overly arbitrary and disparate nature of sustainability information so far, creating real and lasting value, away from short-term logic that focuses solely on profit maximization" (Pascal Durand Reppatour of CSRD).

The directive should be considered as a business opportunity for companies not as a legal burden as widely perceived by companies that are required to comply with the rules embedded in it. The development of CSRD did not appear out of the blue but rather came on the backdrop of the Non-Financial Reporting Directive (NFRD) which came into force in 2014 intending to encourage businesses to consider the environmental, social, and governance factors in their business strategies and operations and also allowing companies to disclose certain non-financial information (CSRD Essentials, 2024).

The coming into force of CSRD brought new amendments to some of the existing legislation as well as properly establishing legal interconnections with other existing legislation both in the EU and outside. The legislations that are amended by the CSRD include:

- **The Accounting Directive (Directive 2013/34/EU**)- The CSRD extended the disclosure requirement under this Directive to cover the reporting of financial information related to environmental, social, governance, and human rights.
- **The Transparency Directive (Directive 2004/109/EC)-** The CSRD set out the criteria for the European Commission to assess the equivalence standard used by third-world countries to submit their sustainability report under this Directive.
- **The Audit Directive (Directive 2006/43/EC)-** CSRD amended this Directive by introducing the mandatory assurance of sustainability information by third-party independent auditors.
- **The Audit Regulation (Regulation (EU) No 537/2014**)- The CSRD amended this particular Directive by extending the limit of some audit fees to include sustainability assurance services as well as extending the prohibition of non-audit services to also include sustainability assurance.

The drafters of the CSRD developed the framework with foresight and in tandem with the already-established EU laws with the same motive of environmental, social, and governance protections to foster consistency in the disclosure of information related to these aspects. These already-established laws that the CSRD fits in well with include:

- ✓ **The EU Taxonomy Regulation on Sustainable Investment (Regulation (EU) 2020/852)-** The CSRD was developed to enable the disclosure of sustainability information to be aligned with activities that are associated with environmental economic activities as defined by the EU Taxonomy regulation. This legislation focuses on activities that are considered to substantially contribute to one or more of the six classifications of the EU environmental objectives without significantly harming the others.

- ✓ **The Sustainable Finance Disclosure Regulation (SFDR) (Regulation 2019/2088/EU)-** The enactment of CSRD has created the necessary connection with this legislation to enhance transparency and sustainability disclosure in the financial sector.
- ✓ **The European Climate Law (Regulation 2021/1119/EU)-** Companies that fall within the scope of CSRD are required to disclose their climate transition plan if they have any. As such, it is compatible with this Regulation which is geared towards addressing climate change in the EU and established the pathway to achieve the goal of climate neutrality by 2050.
- ✓ **Corporate Sustainability Due Diligence Directive (CSDDD)-** Using the ESRS standard, CSRD mandates companies that fall within its scope to disclose their due diligence processes thereby obligating them to act by identifying, preventing, and mitigating potential adverse impacts on their value chain. CSRD therefore complements the effort of active management of sustainability risks of companies' operations under CSDDD by making companies disclose this information to the public.

The CSRD has added significant value to all these legal references by unifying them under one framework to serve as the guiding principle for transparent and systemic corporate disclosure regarding sustainability. The fundamentals of CSRD in making transparent corporate disclosure that will address greenwashing are described in the following:

3.1.1 The Scope of CSRD: The scope of CSRD is much wider in terms of companies that will be affected by it compared to the NFRD it replaces. It is estimated that 42,500 companies with their headquarters in the EU will be directly affected by CSRD compared to 11,000 companies that are believed to be affected by NFRD (CSRD Essentials, 2024). The CSRD establishes criteria that require companies to disclosure their sustainability information if they meet at least two of these three criteria:

- An average net turnover of EUR 50 million
- An average balance sheet of EUR 25 million
- At least 250 employees or more

The types of companies that are covered by CSRD include both public and private companies limited by shares or guarantees (Annex I of the Accounting Directive (2013/34/EU). Additionally, all listed SMEs that meet at least two of these three conditions are also required to report under CSRD:

- A net turnover of EUR 900,000
- A balance sheet of EUR 450,000
- At least ten employees

The intriguing fact about CSRD is how much its scope extends to cover companies that are not headquartered in the EU, which are expressly referred to by the directive as “third-country companies”. Although there is no official figure on the number of third-country companies that are under the scope of CSRD, it is estimated that more than 10,000 companies of which more than 3,000 in the US are believed to be affected by CSRD (CSRD Essential 2024). With its scope seemingly boundless, CSRD also covers subsidiary companies by requiring them to disclose their sustainability information through their parent/holding companies as the case may be. Unless such subsidiary companies are considered large public interest entities (PIEs) and listed subsidiaries in the EU-regulated market in which case the subsidiary company will be required to report its sustainability information independent of the parent/holding company.

3.1.2 Materiality Assessment- The CSRD introduced the mandatory requirement of materiality assessment on companies through a double materiality assessment exercise. This will require companies to select the sustainability matters that are material to them and their stakeholders. This will be done by assessing and evaluating the impact of the organization's business operations on the environment and society (inside-out perspective). At the same time consider how these factors also influence the organization's business operations (outside-in perspective). This will enable companies to establish an overview of activities and business relationships that are material to them and their stakeholders. This activity aims to identify the issues that are most relevant to the company and its stakeholders that could affect its financial performance while also affecting the environment and society significantly.

3.1.3 Audit and assurance requirement- The CSRD has also brought a mandatory independent third-party audit and assurance of sustainability information by companies. As earlier mentioned, the Audit Directive (Directive 2006/43/EC) and the Audit Regulation (Regulation EU No 537/2014) which are the established laws and regulations for statutory audit of annual and consolidated financial statements in the EU have been amended to include sustainability information by the CSRD.

CSRD required the third-party independent auditing of sustainability information by either the statutory auditors that have audited the financial statement of the company or another auditor different from the one that audited the financial statement or an Independent Assurance Service Provider (IASP) as the case may be.

3.1.4 Penalties for non-compliance- The CSRD allowed flexibility for member states for the implementation of the provision contained in the directive in their legal system. Concerning the issue of penalties, CSRD does not expressly prescribe any penalties by itself but rather impliedly imposes penalties through the Accounting Directive (article 51). Like the modifications made to other directives as discussed above, CSRD does not specifically introduce any new penalties on this directive. The directive gives a margin of discretion for member states to establish penalties that will be effective, dissuasive, and proportionate for the infringement of the directive (CSRD Essential 2024).

Member States can decide what type of sanctions they can impose on companies that infringe the directive. So far, France is the first country that has decided on the type of penalties to be imposed on companies, France has introduced criminal sanctions on company directors for failure to appoint an auditor for sustainability information or interference during the audit process (Melodie Michel Jan 2024). Hungary has imposed financial penalties on companies for the infringement of the directive. The rest of the EU member states are still undecided between Criminal, Civil, and administrative penalties that should be imposed for non-compliance with the CSRD. The question however is, will this divergence in penalties complement the goal of unity concerning corporate sustainability disclosure in the EU? The obvious answer is No, with countries adopting different penalties for one single directive, this will result in inconsistency of application and lack of uniformity while also undermining the effectiveness of the directive in one member state compared to another member state.

Under CSRD, Member States are required to have National Competent Authorities (NCAs) that will be responsible for the oversight implementation of the CSRD. Under the NFRD, the authorities are financial regulators whose powers are limited to listed companies, with CSRD which requires both financial and sustainability information in one management report the supervisory power on listed companies will extend to sustainability information (CSRD Essentials, 2024).

3.1.5 Voluntary vs Mandatory- Unlike NFRD which requires companies to choose the guidelines provided therein and allow them to follow other international standards depending on their business environment. However, the EU Commission adopted CSRD to make a change to this narrative thereby mandatory requiring companies that fall under its scope to disclose their sustainability information following a specific standard (ESRS) set by the Commission.

The enforcement mechanism was part of the loopholes in NFRD that resulted in the adoption of CSRD which is mandatory for companies to avert the impending problem of greenwashing which was persisting despite the existence of NFRD. The question, however, is whether the mandatory nature of CSRD can avert greenwashing. It was perceived that although NFRD contains good guidelines and policies which if followed by companies, will help to minimize greenwashing drastically. Its voluntary nature which allows companies to decide whether to comply with it or not makes the effort of averting greenwashing futile to some extent. The “risk of greenwashing remains high in the absence of global mandatory reporting requirements” (Emambakhsh et al, 2022). Mandatory requirements will therefore keep companies on their toes, especially with the imposing of sanctions will give more weight to the directive and keep companies on alert to disclose trustworthy sustainability information hence the aim of the directive.

3.2 EUROPEAN SUSTAINABILITY REPORTING STANDARD (ESRS)

The European Sustainability Reporting Standard (ESRS) is considered the yardstick that will be used to measure compliance with CSRD by companies. Companies that fall within the scope of CSRD are mandated to follow ESRS standards when reporting their sustainability information thus the two frameworks are aligned to achieve the goal of transparency and accountability concerning corporate disclosure. Accordingly, article 1 of CSRD introduced new articles (19a & 29a) in the *Accounting Directive* which stipulate the areas in which companies are required to disclose information about their sustainability performance. These reporting areas that are required by articles (19a & 29a) cover the following:

- A description of the company's business model and strategies which shall also include:
    i. "The resilience of the business model and strategy concerning the risk related to sustainability matters"
    ii. "The opportunities of the company related to sustainability matters"
    iii. "The company's transition plan to a sustainable economy related to the financial and investment plan as well as the implementation action"
    iv. "The company's consideration of the interest of its stakeholders and the impact of its business model and strategy on sustainability matters"
    v. "How does the company implement these strategies or envisage to implement them"
- "The company's greenhouse gas reduction target for 2030 and 2050 targets aligned with the EU carbon neutrality target of at least 2050".
- "The company's administrative and management role regarding sustainability matters and their expertise and skills in relation to fulfilling the role"
- "Policies and the due diligence process implemented by the company".
- "The outcome of the policies adopted by the company"

- “Risk and risk management information about the company”
- “The key performance indicators to assess the impact of the business model and the risk management strategies adopted by the company”.

The ESRS is categorized into three categories which are the cross-cutting standard, the topical standard, and the sector-specific standard.

- The Cross-cutting standard: This category consists of ESRS 1 and ESRS 2 which outline the disclosure requirement from companies, they require essential information to be disclosed irrespective of the sustainability topic and they can apply across sectors. In other words, they apply to sustainability matters described in the topical standard and sector-specific standard. All companies are mandated to disclose the information requested by ESRS 2 and the remaining standards are subjected to materiality assessment (CSRD essential, 2024). To be more precise, ESRS 1 requires companies to “report information on governance, strategy, management of impacts, risks, and opportunities, metrics, and targets related to climate change”. The information required in ESRS 1 reflects ESRS E1 which requires a detailed account of the company's business plan toward climate transition plan and action plan for net zero emission by 2050.

  ESRS E1 aims to evaluate the credibility of a company's climate transition plans. Consistent with this, the “red-flag indicator” will be very helpful in this regard. The “red-flag indicator” is an AI-backed technology that will help “investors assess whether companies’ transition plans are robust with science-based targets and a credible pathway to achieve net zero by 2050. Importantly, it will be able to identify whether companies are ‘greenwashing’ on investors” (Steve Morgan's new AI tool for financial supervisors 2023). It will serve as a methodology to assess companies regarding their climate transition plan while helping to address greenwashing. ESRS 2 requires companies to report specific compliance information such as approximations concerning their value chain and boundaries.

- The Topical Standard: This category specializes in the three dimensions of environmental, Social, and Governance (ESG) topic. Each dimension is represented by a letter and a number like ESRS S3 which indicates the social dimension specifically on (affected communities).
- Sectoral Standard: As the name implies, the sector-specific standard envisaged to be adopted by the EU in 2026 will require companies to disclose sustainability information related to their sector and will apply to all companies within a specific sector. This will entail a detailed disclosure of sustainability matters that are not covered or not sufficiently covered in the topical standard (CSRD Essential, 2024).

Figure 3: ESRS STANDARD

Cross-cutting standard **(applied to reporting on all sustainability issues)**	**Sector-agnostic or Topical Standard** **(disclosure on specific sustainability issues)**			**Sector-Specific Standard** **(EFRAG 2nd set of standard expected in 2026)**
• **ESRS 1 general requirement** • **ESRS 2 general requirements**	Environment E1 Climate change E2 Pollution E3 Water & marine resource E4 Biodiversity & Ecosystem E5 Resource use & circular economy	Social S1 own workforce S2 workforce in the value-chain S3 Affected communities S4 Cosumer and end users	Governance G1 Business Conduct	• **Oil & gas** • **coal, quarries, and mining** • **road transport** • **Agriculture, farming and fisheries** • **Motor vehicles** • **Food and beverages** • **Power production and energy utilities** • **Capital market, insurance, lending and banking** • **Textiles, accessories, footwear, and jewellery**

3.3 THE INTEROPERABILITY AND COMPARISON BETWEEN GRI AND ESRS

The GRI framework is the first standard that requires the reporting of sustainability matters on a global scale. Therefore, to avoid the trouble of double reporting by companies that are mandated to report their sustainability information through ESRS in the European Union, GRI has rendered technical support to the European Financial Reporting Advisory Group (EFRAG) the body responsible for the development of the ESRS. The two standards have a significant level of interoperability with similar structures such as the cross-cutting, topical, and sectoral standards as well as coverage of sustainability topics and sectors.

However, even though the ESRS and GRI share many things in common to avoid double reporting of companies that are required to comply with the standards, there are some differences between the two standards. This difference exists with the concept of "materiality assessment", under the GRI standard, materiality assessment refers to those material topics that represent the company's most significant impact on the environment and people, including also their human rights. With guidance from the GRI standard, ESRS also requires companies to carry out an impact materiality assessment to evaluate both their actual and potential impact on the environment and people by emphasizing the severity determined by scope, scale, and irremediable character. In addition, ESRS further requires companies to disclose how this materiality assessment affects the company's financial performance to identify the risks and opportunities. This impact of materiality and financial materiality is referred to as "double materiality" in the CSRD context. While ESRS requires double materiality, GRI requires materiality assessment which is the outward effect of companies to the environment and people. The due diligence process further strengthens and adds another layer of robustness to the materiality assessment under ESRS standards.

CHAPTER: FOUR

ANALYSIS AND DISCUSSION

4.1 THEORETICAL ANALYSIS

- The analysis will be centered on the issue of materiality assessment which is crucial in sustainability disclosure. materiality assessment has a significant effect on the data that the organization uses to report its sustainability performance.

4.1.1 The materiality assessment process

- To analyze the materiality assessment and form a conclusion based on such analysis, it is vital to take a closer look at the steps that are taken by companies in the materiality assessment process. The two main methods for materiality assessment are the *business case perspective and the societal impact perspective* which are all required under the CSRD which is referred to as the “double materiality”. The International Sustainability Standard Board (ISSB) requires a single materiality assessment which is primarily focused on the financial perspective of sustainability or the business case perspective.

The analysis will be based on investigative research conducted by (Jilde Garst et al, 2022) on 427 corporate sustainability reports published by members of the World Business Council for Sustainable Development and 20 interviews related to the steps in materiality assessment in conjunction with the challenges of sustainability such as complexity, uncertainty, and evaluation. Of the sustainability reports that were investigated, 89.7% contained information about materiality assessments conducted by the various firms. Also, the study performed interviews with 20 managers of multinational enterprises who are responsible for their firm's materiality assessments. The research was structured and aligned with the steps in the materiality assessment which are:

- ✓ *Choosing the materiality perspective for the firm*- Based on the data obtained from the 427 corporate reports, three materiality perspectives were identified, the *business case perspective, the societal impact perspective,* and *the external stakeholders’ view.* Among the three different perspectives, 57.6% indicated using the business case perspective as one of their dimensions in the materiality assessment, 11.5% mentioned the *societal impact perspective*, and 54.8% referred to materiality assessment based on stakeholder's views which according to the majority of the reports were overlap with the first two perspectives. In selecting the materiality perspective, the research shows a conflicting interest between the organizational interest represented by the business case perspective and the collective interest represented by the two other perspectives. Additionally, the research indicated that 16.4% of the reports investigated gave a vague description of materiality making it difficult to determine which perspective was used by the firms.

- ✓ *Specifying the materiality topic*- after choosing which perspective to use, a firm needs to specify which topic to include in its materiality assessment. Here lies a big problem for firms to specify which ESG topic they should include in their assessment especially if the company is big and diversified. This is evidenced by one interview in which the interviewee was reported saying that "in such a large, diversified organization identifying a set of issues that are relevant across the enterprise was the most challenging part" (Interview case 15). Comparability among ESG issues for example climate change, supply chain, and equal payment or gender equality just to name a few and selecting from these issues can be problematic for companies.
- ✓ *Assigning Materiality Score*- Ranking materiality scores based on their impact is another challenging task in the materiality assessment according to the research. This is difficult because of the problem of the evaluative nature of sustainability to establish a common denominator to compare with the ESG topics. In using the business case perspective, the denominator used by firms is in monetary terms to assess the impact of an ESG issue on the firm's financial performance. This method is limited when assessing the impact of ESG

issues on the environment, for instance, it is impossible to monetize the cost of the extinction of an animal species. Similarly, “if the impact of a firm on topic A affects 100,000 individuals and on topic, B affects 1,000 hectares of tropical forest, which impact is more important?” (Jilde Garst et al, 2022). How can you assign a score for these material topics to be able to rank them based on the score? These are clear evidence of the challenges in assigning a score in materiality assessment

- ✓ *Selecting the materiality topic*- In this process too, the research reveals the case of “cherry picking” and selection bias. Although firms have matrices that they use to select material topics based on quantitative scores, this alone does not determine the topic that would be selected hence the management of firms has the final say on the topic that will be selected as one interviewee was reported saying “Our executive committee, they were allowed to review it, and also see from their perspective things that they would like to have shifted. There are normally one or two reasonably major changes” (Interview case 02). In making the selection, the management of firms also prioritizes “topics which the firm has direct control over topics that require systemic change” (Jilde Garst et al, 2022) and also selects topics that have short-term impacts as opposed to topics that have uncertain long-term impacts.

The research above shows three typologies of materialities, problems arise when firms choose one from the three which in most cases is the business case perspective as the research indicates. From the research on these major steps in materiality assessment, it became obvious that the process is complex, difficult and challenging for companies. The research shows key enablers of greenwashing in the process, the first such enabler is selective bias and leveraging economic interest over environmental and social benefits. The research shows that more than 50% of firms use the business case perspective which is more focused on the firm financial performance related to sustainability as opposed to the societal impact perspective which is related to the environmental aspect of sustainability. The materiality exercise also involves a high level of management discretion which focuses on short-term economic interests as opposed to long-term goals.

To put it into context, when companies select one single materiality out of the three mentioned in the research, three things that are prone to greenwashing are likely to happen. Firstly, sustainability-related financial topics supersedes environmental issues which results in the lack of addressing environmental challenges. Secondly, companies tend to assess topics that have short-term benefits as opposed to long-term goals because according to the research, management of companies often select topics that they have control over which have short-term benefits. When companies do that, they focus on short-term achievable goals for example plastic reduction and control while avoiding systematic changes that will require long-term commitments. Thirdly, there is a likelihood that companies will assess topics that are non-material while hiding material topics which is so-called “greenlighting” used by companies to avoid unwanted storylines to escape their harmful environmental practices. Therefore, stakeholders will be fed with incomplete information on the sustainability report.

This above argument is also supported by scientific research by (Max Gottsche et al, 2023) On single materiality assessment, their findings reveal some serious weaknesses of a single materiality assessment that are similar to the findings revealed in the materiality assessment process in this research. First, the findings show the potential harm of single materiality on the various stakeholder groups since stakeholders are not considered very relevant in single materiality assessment. This as such diminished the purpose of sustainability reporting because individuals and communities are the stakeholder groups that often suffer the consequences of sustainability-related issues.

Secondly, with more investors becoming attuned and critical of the firm's impact on society and the environment beyond the narrow economic benefit of sustainability, single materiality assessment risks missing out on this essential group of investors who play an important role in shaping a more sustainable global economy (Max Gottsche et al, 2023).

Thirdly, due to the fast-evolving nature of sustainability issues, investors might lack vital information on sustainability reports about potential financial risks if firms' sustainability disclosures are limited to what is only considered financially material information. This will risk leaving material topics that could have a financial impact on investors because almost all material topics that are identified in the materiality assessment eventually become financial material. Double materiality should therefore be incorporated into all sustainability reporting standards and frameworks for transparent corporate disclosure. Single materiality risks providing insufficient information that is vital for the end users such as investors.

Aligning the score to the material topic and the level of stakeholder involvement is another problem in the materiality assessment based on the research. The issue of aligning scores to material topics becomes a problem when firms assess environmental topics because such topics cannot be monetized and could involve guessing. Regarding the stakeholder involvelement, the investigation reveals that depending on the perspective used by firms determined the stakeholders they engaged with, firms that use the business case perspective consult their management team and some of their business partners to estimate the risks and opportunities per topic. From the societal impact perspective, firms consult external stakeholders but even with that, there is no clear pattern used by firms. Some firms reported consulting their employees whereas some used external stakeholders such as first and second-tier stakeholders.

The application of only one of the materiality perspectives like the business case perspective would risk selective stakeholder engagement. Companies might therefore engage stakeholders that are less critical of their environmental claims to avoid scrutiny which might potentially allow them to greenwash. From a business case perspective which focuses firm's financial material impacts, companies might neglect financial-immaterial issues, thereby overlooking critical social and environmental concerns, which could undermine the purpose of sustainability reporting. The difficulties and the complexity of materiality assessment are self-evident from this research, therefore allowing companies to do the identification of material topics on their own, will not increase the availability of data, comparability, and standardization (Bossut et al, 2021).

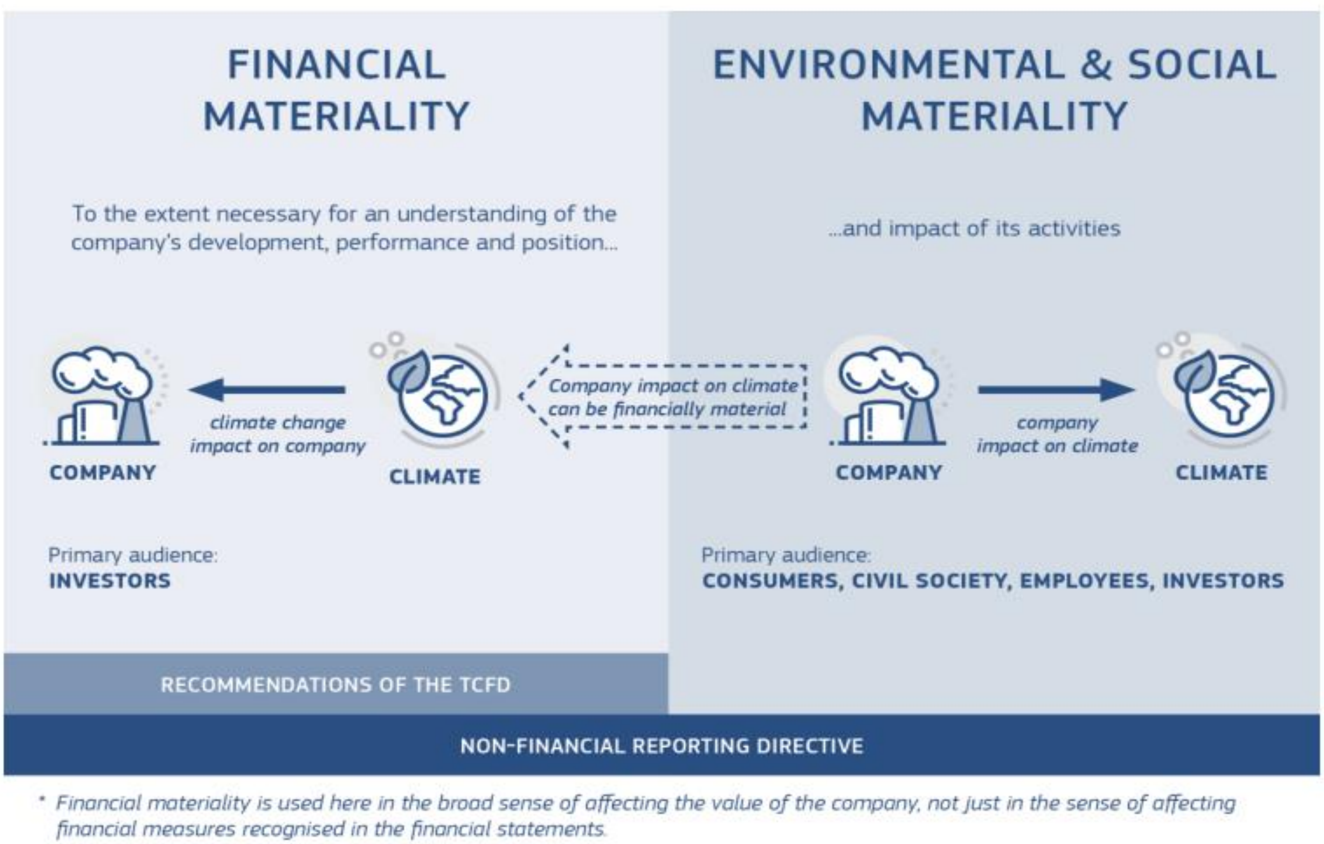
In addition to the above-highlighted challenges and weaknesses of the materiality assessment process, the concept of "Dynamic Materiality" was proposed by the World Economic Forum (WEF) in 2020. The concept connotes that materiality topics that are impact material for companies can later become financial material in the future. A good example would be labor rights and working conditions which were seen as social issues, have now become financial material. Companies with poor labor practices can face legal penalties and reputational damage which can affect their financial status. In simple terms, a matter can be immaterial on the reporting date of a firm and later become material in the future. Similarly, a matter can be impact material on the reporting date of a firm and later become financial material.

Considering these weaknesses and gaps in the materiality assessment, one might want to ask whether there is any potential risk of greenwashing in the materiality assessment. The answer is simply yes, there is a risk of greenwashing in the materiality assessment especially if it is entirely left to companies to determine the material topics that are relevant to them in their business or when companies choose one of the materialities. In doing so, companies would likely downplay negative topics and focus mostly on the positive ones. They do that by selecting topics that are aligned with the stakeholder's expectations while omitting more important topics that are not visible to the public.

4.2 COMPARATIVE ANALYSIS BETWEEN CSRD AND ISSB

Both CSRD and ISSB require materiality assessment as an important component to comply with the two sustainability disclosure standards. However, the difference is how the materiality assessments are carried out, CSRD requires both financial and impact materiality while ISSB requires only material topics of sustainability that are likely to impact the company's financial status or standing.

1) Double materiality under CSRD- The concept of double materiality is illustrated in the image below (also referred to as Figure 4).



Source: European Commission, "Guidelines on reporting climate-related information", 2019

The image shows the impact of the company on climate change which is translated as impact materiality which mostly affects the Environment and Society with a stakeholder group consisting of Consumers, Civil Society, Employees, and Investors. It also shows the impact of climate change on companies which could potentially unveil a financial material impact translated as financial materiality with a stakeholder group focused primarily on Investors.

2) Materiality assessment under ISSB- The materiality assessment under ISSB is based on financial materiality. The figure below represents the materiality assessment under ISSB (also referred to as figure 5)

	IFRS S1	**IFRS S2**
Objective	1) Sets out general requirements: - **Where** to disclose - Definitions of **key concepts**: Materiality, connectivity, reporting entity, fair representation - How to report **judgements, uncertainties, and errors** 2) Disclosures for **all sustainability-related risks and opportunities apart from climate**	2) Disclosures for **climate-related risks and opportunities**
Risks and Opportunities Identification	Use of SASB to identify per sector: - Risks and opportunities - Associated metrics	**Climate physical** risks **Climate transition** risks **Climate**-related opportunities
Materiality Assessment	IFRS S1 and S2 disclosures dependent on materiality's assessment	
Strategy		1) Strategy and decision-making: Disclosure of climate transition plan(s) 2) Resilience: Disclosure of climate-scenario analysis
Metrics & Targets	SASB-related metrics per sector	- **7 cross-industry TCFD metrics** (minus intensity metrics) - **Additional sector-specific metrics** based on SASB standard
Disclosure Structure	**TCFD four pillars**: Governance Strategy Risk management Metrics and targets	

Source: ISS Insight, sustainability disclosure standard

The structure of the ISSB as shown in the figure above is mostly focused on sustainability-related financial matters. IFRS S1 requires companies to disclose general-purpose Sustainability-related financial information. IFRS S2 requires companies to disclose climate-related risks and opportunities and how the company plans to manage the potential negative climate-related risks ranging from both physical risks and transition risks. The design of the framework is protective of companies' material financial risks and how such risks should be predicted. This is evident by the use of the Sustainability Accounting Standard Board (SASB) metrics and targets as the standard for data metrics under the ISSB. The SASB standard is thus related to topics that are likely to affect companies' cash flows, access to finance, or cost of capital. Equally, from the figure, it did not show any stakeholder group, the relevant stakeholders is impliedly the companies themselves and investors.

The table below also represents the anti-greenwashing features between the two standards to determine the levelers of greenwashing.

Figure 6: Anti-Greewashing features in CSRD and ISSB.

ANTI-GREENWASHING FEATURES	**CSRD/ EU**	**ISSB/US/UK**
Materiality approach	CSRD uses double materiality assessment (both financial materiality and impact materiality)	ISSB uses only financial materiality
Assurance/Audit	The applicability of assurance/audit is mandatory but limited assurance/audit and later reasonable assurance	Assurance/audit requirement is determined by the jurisdiction and regulatory agencies
Materiality assessment	ESRS has a mandatory list of data points to be applied always irrespective of the materiality assessment. The rest are subject to materiality assessment	IFRS S1 and S2 disclosure depends entirely on the outcome of materiality assessments
Sector-specific standard	Not yet available	Already available under ISSB

4.3 THE IMPACT OF MATERIALITY ASSESSMENT ON DATA

Materiality assessment contributes significantly to the quality of data in sustainability reporting, it ensures that the reported data is accurate, reliable, and relevant thereby strengthening stakeholder trust and supporting informed decision-making. Materiality assessment influences data collection and quality by helping companies focus on key issues that matter most to their stakeholders and the business. It also helps in the stakeholder engagement process which has an impact on the quality of data in sustainability reporting.

In a seminar organized by "Corporatedisclosure.org" on the topic (Practicalities of a double materiality assessment under CSRD). The issue of data was paramount in the discussion with speakers including experts from EFRAG, investors, and other experts in the field of corporate disclosure. The issue of data arising from scope 3 emissions including data from the supply chain was regarded as the most relevant and often missing piece of data. According to Gemma Sanchez Danes (Leadership team EFRAG), the assessment of data should be supported by evidence like scientific reports, expert opinion, and UN reports. Accordingly, the challenges of tracking data on the supply chain were acknowledged as tricky, especially with impact materiality, for financial materiality the expert confirms companies' ability to track data on their supply chain.

From an investor perspective of the CSRD and the data collection process based on the double materiality assessment, Jean-Francois Coppenolle (Director ESG and Climate Integration, Abeille Assurance) notes that CSRD compared to other reporting standards resolved the problem of investors' dilemma concerning data source and quality. The granularity of ESRS makes the accessibility and comparability of data possible which is very important for investors. The experts also confirmed that in a data collection process especially for holding companies with many subsidiaries where there is no data, the reporting companies can use data from expert judgment aligning with the sector and the location of the subsidiary company.

CHAPTER: FIVE

CONCLUSION

This master's thesis started with the objective of investigating corporate sustainability reporting, by examining the current reporting standards and frameworks to see if they can help address greenwashing. To achieve this objective, the thesis started by defining greenwashing and how companies are engaged in the practice and also shed light on the various forms of greenwashing.

The thesis highlighted gaps concerning the lack of adequate skills and knowledge with respect to sustainability matters in companies. Thus greenwashing is mostly ascribed to companies disclosing false or exaggerated information about their true sustainability performance. Limited research has been done to investigate the skills and knowledge of individuals that are responsible for these reports to assess their competence and qualifications in line with sustainability requirements. The research shows a lack of sufficient skills and expertise on sustainability matters in many companies which could contribute to firms greenwashing.

The literature on assurance reporting shows how some companies tried to use assurance reporting to confuse their stakeholders. The research also shows that limited assurance review mandated by the CSRD on companies has less impact in addressing greenwashing because of the limited review of auditors and third parties, reasonable assurance is however expected to be more effective in this matter. The COSO guidance which although is very relevant for companies to strengthen their internal control to minimize greenwashing is also prone to potential human bias and error because of the use of human judgment.

The analysis of the thesis was focused on the materiality assessment by comparing the double materiality assessment under CSRD and the single materiality under ISSB through research on the materiality assessment process, scientific research, and the use of anti-greenwashing features. The findings from the analysis show that double materiality is less prone to the enablers of greenwashing that were revealed in the research on the materiality assessment process. Double materiality assessment takes into consideration both impact and financial materiality, there is less likelihood of selective bias where firms supersede their business interests over environmental interests.

The issue of selective stakeholder engagement is also less likely under the double materiality assessment. The stakeholders consist of those from the financial materiality and impact materiality, the scope of stakeholder engagement will therefore be wider which will include individuals, communities, and investors. There will be limited room for selective stakeholder engagement as the research shows.

Importantly, double materiality prepares companies concerning the issue of "dynamic materiality" which is another problem in sustainability material issues. If companies already start to report on financial-immaterial issues, it will prepare them to forecast the possibility of such immaterial issues becoming financial material in the near or long future. Thereby minimizing the effect of such changes on companies' sustainability efforts.

In contrast, the findings from the analysis show that the enablers of greenwashing that have been revealed by the research on the materiality assessment process are mostly associated with single materiality assessment. These includes selective stakeholder engagement, superseding sustainability-related financial topics over environmental interest and leveraging short-term benefits over long-term goals.

In addition to the research, the table on the anti-greenwashing features specifically on materiality assessment shows that the ESRS requires mandatory data that cover a broad range of environmental, social, and governance aspects irrespective of the outcome of the materiality assessment. Among the mandatory data points in the ESRS is the requirement for companies to report on their GHG emission including scopes 1,2, and 3. Reporting on the mandatory data points will reduce the possibility of selective disclosure that could mislead investors and other stakeholders about the company's true sustainability performance.

In conclusion, based on the findings from the research on the materiality assessment process, scientific research on single materiality assessment, and the table on the anti-greenwashing feature. Single materiality assessment is more prone to greenwashing compared to double materiality. Therefore, given the granularity of data and the detailed requirements in ESRS which is vital for investors and other stakeholders, and the requirement of double materiality as opposed to financial materiality or single materiality assessment, the ESRS is less prone to greenwashing and better compared to ISSB. Furthermore, considering the legal connection of the CSRD with other existing laws within the EU as discussed in chapter three, it will harmonize sustainability reporting in the EU which is also instrumental for investors in particular and sustainable growth in general.

THESIS LIMITATION

This thesis has some limitations, especially in the materiality assessment related to the alignment of the materiality score on sustainability issues or topics and the ranking of sustainability issues based on the score or based on their importance to the organization. The thesis could not go further into this issue because of limited study on the issue and the complexity of the issue as highlighted in the research on the materiality assessment process. Another limitation is the fact that the thesis started with the intention to conduct interviews as the primary source of data collection, but because of the limited time frame and the fact that much information might not be obtained from interviews due to the sensitive and complex nature of the topic.

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