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Effects of Sustainability Reporting on Environmental Performance: Analysing the Corporate Sustainability Reporting Directive

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Abstract

This thesis is a literature review on the impacts of sustainability reporting on companies' environmental performance. With the introduction of the EU's new Corporate Sustainability Reporting Directive, the most comprehensive sustainability reporting framework so far, reporting is becoming mandatory for the majority of European businesses in the near future. This study seeks to understand the relation between reporting on environmental sustainability and whether it drives companies towards more sustainable business practices. The expected impacts of the new directive are found through a literature review on previous reporting frameworks, most importantly the EU's previous Non-Financial Reporting Directive. While the results on earlier reporting requirements are somewhat mixed, the new directive, being much more detailed than its predecessors, can be seen as a promising tool towards a more sustainable future. Some mechanisms creating the impacts are consumer pressure, the green bullwhip effect, and the development of internal processes in order to comply with the reporting requirements.

Keywords Sustainability Reporting, Environmental Impact, CSRD, NFRD, Sustainability Reporting Standards

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Tiivistelmä

Tämä opinnäytetyö on kirjallisuuskatsaus vastuullisuusraportoinnin vaikutuksista yritysten ympäristötoimiin. Euroopan Unionin uuden, tähän mennessä kattavimman raportointidirektiivin eli kestävyysraportointidirektiivin (CSRD), myötä raportoinnista tulee lähitulevaisuudessa pakollista lähes kaikille eurooppalaisille yrityksille. Tämä tutkimus pyrkii löytämään yhteyden vastuullisuusraportoinnin ja sen mahdollisen vaikuttavuuden välillä – auttaako raportointi yrityksiä ryhtymään ympäristötoimiin? Tutkimus käsittelee uuden direktiivin oletettavaa vaikuttavuutta sen edeltäjän, NFRD:n eli ”ei-taloudellisen tiedon raportointi” -direktiivin, kautta. Tulokset aiempien raportointivaatimusten vaikuttavuudesta ovat jokseenkin ristiriitaisia, mutta ollessaan huomattavasti edeltäjiään yksityiskohtaisempi ja kokonaisvaltaisempi, CSRD:tä voidaan pitää lupaavana työkaluna siirtymässä kohti kestävämpää tulevaisuutta. Mekanismeja edistämässä ympäristötoimia ovat muun muassa kuluttajapaine, vihreä piiskavaikutus sekä yritysten sisäisten prosessien kehittäminen raportointivelvoitteisiin vastaamiseksi.

Avainsanat Vastuullisuusraportointi, Ympäristövaikutukset, CSRD, NFRD, kestävyysraportoinnin standardit

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1 Introduction

The global incentives to address climate change and promote sustainable practices have intensified, leading to significant shifts in regulatory frameworks and corporate responsibilities. One of the recent developments in this regard is the European Union's (EU) new Corporate Sustainability Reporting Directive (CSRD) (European Parliament, 2022), requiring companies to disclose their environmental and social impacts more transparently. The new directive is meant to be an updated and more extensive replacement for the previous Non-Financial Reporting Directive (NFRD), which was introduced in 2014 (European Parliament, 2014). CSRD will reach a larger scope of businesses in and with connections to the EU as well as provide a more specific and broader framework for sustainability reporting. The aim of these types of regulatory frameworks is to incentivise the greening of businesses and provide consumers with better transparency into companies' processes (La Torre et al., 2020), especially as currently companies systematically disclose incomplete information on their environmental impacts (Braam et al., 2016).

This thesis explores the connection between reporting regulations and their impact on company processes, specifically focusing on environmental outcomes. While only reporting on environmental performance may not inherently drive change, the question arises: can it act as a catalyst for speeding up the transition to sustainability? This thesis looks into the consequences of the previous regulation, the NFRD, on companies' environmental practices and builds on those findings to analyse the effectiveness the CSRD. What challenges were encountered concerning the impact of the NFRD, and how have these issues been addressed in the new CSRD framework? As a result, this thesis seeks to clarify whether these regulatory frameworks extend their impact beyond mere reporting, influencing companies' actual environmental practices.

Prior to analysing the topic in-depth, the thesis briefly covers the background of corporate sustainability as well as sustainability reporting in section two, examining the road to the development of the CSRD. After further explaining the methodology of the study in section three, a literature review in section four covers the requirements of both directives on the companies included in their scopes as well as the previous impacts of NFRD on their environmental performance. In section five, the possible and expected future impacts caused by the implementation of CSRD will be further analysed. Finally, in section six, the conclusions of the study will be drawn and presented.

2 Background

While the focus on sustainability among consumers has been a rising trend in the past years, corporate sustainability has been a topic in discussion for much longer. Many governments had adopted sustainable development as a national goal and companies were beginning to produce environmental reports before the turn of the millennium (Kolk, 2004), and researchers were developing ways for businesses to adopt sustainability reporting practices at the time (e.g., Atkinson, 2000). This section includes a brief introduction to corporate sustainability and an overview of corporate sustainability reporting, as well as introductions to both the Non-Financial Reporting Directive and Corporate Sustainability Reporting Directive by the EU.

2.1 Corporate sustainability

As mentioned, corporate sustainability is not necessarily a new trend. However, there is not a single definition agreed upon as to what it is, but multiple different theories emphasizing different factors. Montiel & Delgado-Ceballos (2014) investigate these differences and try to create some consensus on the issue. The main difference is the scope of corporate sustainability – does it include the complete triple bottom line, meaning financial, social, and environmental factors, just social and environmental or only an environmental perspective on sustainability. Montiel & Delgado-Ceballos propose using the term for covering all three aspects of sustainability, but do not find problematic the lack of a consensus in the exact definition. According to them, the term includes all these ten dimensions to be sustained: economic growth, shareholder value, prestige, corporate reputation, customer relationships, product quality, ethical business practices, sustainable jobs creation, value creation for all the stakeholders, and attention to the need of the underserved. This thesis however focuses only on the environmental aspect, called corporate environmental sustainability.

2.2 History of corporate sustainability reporting

Corporate sustainability reporting is currently a common practice for a large portion of companies, with 77% of European companies practicing it in 2020 (KPMG, 2020). However, the first separate environmental reports were published already in 1989 (Kolk, 2004). In the 1990s progress was made for example in the 1992 Rio Earth Summit which elevated environmental issues into the global agenda, and the Kyoto Protocol in 1997, which was an international treaty addressing the climate change and highlighting the role of governments in tackling it. Also in 1997, the Global Reporting Initiative (GRI) was founded as a collaboration of the Coalition of Environmentally Responsible Economies, the Tellus Institute, and the United Nations Environment Programme. The GRI launched its first guidelines (G1) for sustainability reporting in 2000, being the first global framework. There have been updates to this framework in 2002 (G2), 2006 (G3) and 2013 (G4).

Overall, in the 2000s reporting became more mainstream and more standardized. Integrated reporting gained popularity, meaning that both financial and non-financial information was disclosed in a single report providing a more comprehensive view of a company. One factor in the standardization of reporting was the introduction of the ISO 14001 standards, which companies began adopting as their reporting framework and a systematic approach to managing their environmental impacts. These standards became a widely recognized way for companies to demonstrate their commitment to environmentally conscious business practices.

As for the EU, until the introduction of the Non-Financial Reporting Directive, reporting was based on voluntary efforts. The first legally binding regulation was the Environmental Impact Assessment (EIA) Directive, adopted in 1985, which required member states to assess the environmental impacts of certain public and private projects before they could be approved. The EIA Directive laid the groundwork for incorporating environmental considerations into decision-making processes for projects that could potentially have significant environmental effects. It marked an early effort to integrate environmental concerns into various sectors, promoting sustainable development practices. However, the introduction of the NFRD in 2014 was a very significant step towards more effective and holistic environmental reporting. Another EU-level regulation was the EU Taxonomy introduced in 2020, aiming to classify which company activities are environmentally friendly and that way help investors and companies make more informed decisions and better determine the degree of sustainability (European Parliament, 2020). Reporting regarding the Taxonomy has not been mandatory for others, but companies in the scope of the NFRD were expected to also report to what extent their activities align with the criteria of the Taxonomy.

2.3 Creation of the Non-Financial Reporting Directive

With the growing need for disclosure and transparency on companies' ESG performance, the EU introduced the Non-Financial Reporting Directive for the first time in 2014, making reporting mandatory for companies fulfilling the set criteria. This was necessary, as reporting had previously been mainly based on voluntary disclosure (Aureli et al., 2019), and research has shown that companies are generally only willing to adopt non-financial reporting if the cost-benefit -analysis of doing so proves positive (Breijer & Orij, 2022a). The NFRD was seen as the ground-breaking first step into more transparent business and although there were some shortcomings that the new Corporate Sustainability Directive is supposed to overcome, the percentage of companies using NFR frameworks has been on the rise in the years following the release of the NFRD (KPMG, 2020).

The objective of the NFRD was to unify and make more transparent the social and environmental information offered by companies in all EU member states, and in 2021 around 6000 large companies in the EU fell under the reporting requirements (European Union, 2021). Reporting became mandatory for large, listed companies, banks, and insurance companies with over 500 employees. This left out all small and medium-sized enterprises, thus a large factor of companies in the EU was not required to provide any corporate sustainability reports. For example, in the UK over 99% of companies were SMEs (Jeffery, 2017), leaving them out of the scope of the reporting requirements.

2.4 Introduction of the Corporate Sustainability Reporting Directive

In a communication of the European Union in the end of 2019 called "The European Green Deal" they made a commitment to review the issues and shortcomings of the Non-financial Reporting Directive, which lead to the development of the new Corporate Sustainability Reporting Directive (European Parliament, 2022). The aim of the new Directive is to "transform the Union into a modern, resource-efficient and competitive economy with no net emissions of greenhouse gases by 2050." The new directive was described as "nothing short of a revolution" (Value Reporting Foundation, 2021) and "major step forward in sustainability reporting (Deloitte, 2021).

3 Methodology

The objective of this thesis is to analyse the link between mandatory environmental reporting and its consequent environmental impacts especially in the light of the EU's new Corporate Sustainability Reporting Directive. The methodology includes a combination of literature review and comparative analysis to achieve the research aims.

Literature review as the main methodology is appropriate for the thesis, as there are many current analysis and studies on the topic of evolving regulatory frameworks and their effectiveness on environmental performance. The review consists of 24 research papers and additional resources, such as the website of the European Union and some surveys conducted by independent operators. The papers were selected based on relevancy to the research questions as well as their publication year. As the topic is constantly evolving, choosing papers published as recently as possible guarantees the results are as correct as possible, and the majority of papers included are written within the past decade.

Some key words for finding relevant papers for the thesis were Non-Financial Reporting Directive, Corporate Sustainability Reporting Directive, environmental reporting, and environmental performance. The main database for reading was Scopus. Additionally, I used an online resource called Elicit for finding potential papers for each section of the thesis. I intended to use established papers with multiple citations, but due to the recent nature of my research question and the focus on the CSRD, the recency of relevant papers lead to the use papers with lower citation counts.

The thesis builds on the development of the Non-Financial Reporting Directive to the Corporate Sustainability Reporting Directive and analyses their differences. The already seen effects of the NFRD are examined through the literature review in section four, and section five covers the expected results of the CSRD. As they are still only theoretical at this point, they are subject to change in the coming years of implementation.

4 Moving from the NFRD to the CSRD

This section discusses the requirements of both directives and how they differ. Additionally, the results of the NFRD are examined in this section to provide a baseline for the discussion on the expected results of the CSRD in the next section.

4.1 Requirements of the NFRD

EU member states had different approaches when implementing the directive. Despite the meaning of the directive being to unify CSR reporting, there were slight differences in the requirements between members. While most set the requirements on limited ESG factors, some countries required additional information or more extensive reporting (Jeffery, 2017). Additionally, any unclear parts of the directive have mainly been adopted as they are by member states, providing no further information for companies on how to comply. Similarly, parts of the directive where choice has been left for the member states to make, they have not taken the opportunity to further develop the regulations. This was the case for the sanctions of non-compliance, for example, which lead to some members not having any particular sanctions for companies not following the reporting regulations.

The content requirements of NFRD included firstly a description of the company's business model and an explanation of policies and projects in relation to ESG matters. This means also implementing due diligence processes, in other words a comprehensive and systematic investigation or audit of a business, conducted before entering into a contract, making an investment, or forming a business partnership. In the case of environmental due diligence, it means examining a company's impact on the environment and how well it complies with environmental regulations. This may involve assessing the company's use of natural resources, waste management practices, energy consumption, and adherence to environmental standards for example. The NFRD also encourages companies to include non-financial key performance indicators in the report as well as analysing the main risks associated with each KPI.

Although there were no clear restrictions, the reports were encouraged to be based on national, Union-based, or international reporting frameworks, such as the United Nations (UN) Global Compact, the International Organisation for Standardisation's ISO 26000, or the Global Reporting Initiative.

4.2 Results of the NFRD

The unclarity of the NFRD is undoubtedly one of its greatest weaknesses. Breijer & Orij (2022) examine the effect of the directive on the comparability of non-financial information across the EU's member states. They find the disclosures of voluntary reporting adopters to be more comprehensive and multi-stakeholder oriented, whereas the companies beginning to report solely because of the directive were leaning more towards financials and were likely to only direct the disclosure towards investors. Additionally, Lombardi et al. (2022) investigate the change in quality and quantity of environmental performance disclosure after the introduction of the directive. Their results show many companies lacking the required environmental information or having a rather superficial coverage of the required areas. Consequently, while the quantity of the information provided by corporate sustainability reporting has grown due to the NFRD, the quality of information has not significantly increased (Baumüller & Grbenic, 2021), leading to a shortcoming in the intentions of the directive.

As the Non-financial Reporting Directive was finally enforced only in 2016, there has not yet been very extensive research into how it has truly effected companies' environmental performance outside of producing reports. Aluchna et al. (2022) examine the relationship between the mandatory reporting caused by the NFRD and those companies' ESG performance in Poland. They assume that mandatory non-financial reporting is positively associated with environmental performance and that the effect grows stronger in subsequent years when compared to the first year. Both hypotheses prove correct. When measuring overall ESG performance and specifically the environmental performance of target companies, it is revealed that there has been improvement in those areas, and for the environmental performance specifically, the effects do not significantly show until the third year from the implementation of reporting. They propose that this delay in improvement might be result of businesses needing time to incorporate the new transparency principles and practices into their procedures and structures.

On the other hand, Antonini et al. (2021) argue that one of the underlying effects of mandatory reporting enforced by the NFRD acts as a restricting factor for environmental innovation, thus weakening environmental performance. When a company has the freedom to execute environmental management control systems (EMCS), they have the ability to construct the system in a way that best suits their needs and develops the company's functions.

When these management demands are forced upon a company, it may not be fitted to suit its specific needs and therefore limit the flexibility for innovation. The results of the study show, that the NFRD does increase the adoption of EMCS, but non-regulatory EMCS are found to increase environmental innovation, whereas when the EMCS is regulatory driven, the positive impacts of adopting it decrease.

4.3 Requirements of the CSRD

One of the most significant changes from the old directive to the new CSRD is the scope of companies required to report. As discussed earlier, the majority of companies in the EU member states did not fall under the criteria for reporting to be mandatory, thus the impact of the old directive fell relatively short. Due to the CSRD, the reporting scope will eventually include almost all companies. In year 2025 the first report is to be provided from data collected in the fiscal year 2024. This first report is required from large companies meeting two out of these three requirements: 1) €50 million in net turnover 2) €25 million in assets and 3) 250 or more employees. In the year 2026 the report is also required from all listed SMEs, which were not considered in the NFRD. Lastly, in 2028, even non-EU companies with a turnover of above €150 million in the EU will be required to comply with the reporting requirement.

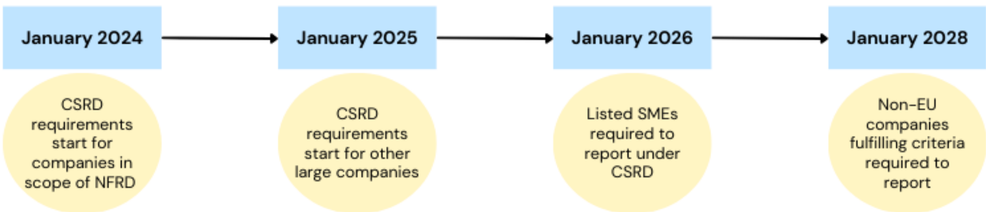

Figure 1. The timeline for companies required to report

In addition to the scope of the companies required to comply with the CSRD, the requirements for data to be collected for the report expand as well. The requirements are divided into four sections and further subsections, called European Sustainability Reporting Standards (ESRS). The main sections are environmental, which is the scope of this thesis, as well as cross-cutting, social and governance. The environmental requirements are further split into climate change, pollution, water and marine resources, biodiversity and ecosystems and resource use and circular economy. This thesis will not go further into detail in each specific category, but rather look into the environmental section as the entire environmental performance.

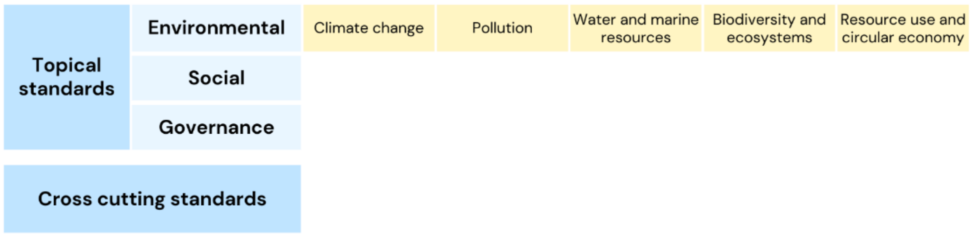

Figure 2. The reporting requirements of CSRD on the environmental factor

As companies falling in the scope of the NFRD were and now those under the CSRD are also expected to report under the EU Taxonomy, there might be some overlap and the regulations will form a coherent environmental reporting framework. The Taxonomy has very similar goals as the CSRD and provides further regulations and directives to act as the guideline for interpretating the different objectives (European Parliament, 2020). These guidelines could potentially be also used for reports under the CSRD. As was the case for the NFRD, the reporting is expected to follow internationally established standards and frameworks for sustainability reporting, such as the Global Reporting Initiative, the Sustainability Accounting Standards Board, or the International Integrated Reporting Council, in order to lighten the administrational burden of reporting. As this was allowed and encouraged already for NFRD reporting, companies with established reporting frameworks can benefit from it by having a smoother transition. Additionally, EFRAG released the draft for ESRS in July 2023 (EFRAG, 2023). The publication includes lengthy instructions for each section under each topic, setting the objectives and disclosure requirements as well as impact, risk, and opportunity management for them.

It is not until July of 2024 that the EU member states will be expected to have adopted the CSRD into their national laws, and at the time of writing this thesis in December of 2023, France is the only one so far to have transposed the directive. In comparison to the NFRD, there is less freedom and space for independent interpretation of the directive, but the CSRD does state that member states are free to assess the impact on SMEs to ensure the burden does not grow unnecessarily high. Additionally, as was the case for the old directive, the punishment for non-compliance is not specified and is left for member states to decide on their own. According to the French Ministère de la Justice (2023), the sanctions specified in the transposition of France are as follows: 1) failing to publish the report or publishing false information results in a fine of up to €3,750 and the publication of the report 2) failing to appoint an auditor or independent third-party organisation results in a fine of up to €30,000 and imprisonment of up to two years 3) obstructing an auditing results in a fine of up to €75,000 and imprisonment of up to five years. Additionally, companies not complying may be excluded from public procurement projects. As France is the only one to release a transposition, it remains to be seen whether there are significant differences between the implementations of member states.

5 Expected results of the CSRD

This section discusses the effects that could be expected to follow the introduction of the CSRD. It covers a few of the mechanisms behind possible impacts as well as some of the issues expected with the implementation of the CSRD.

With the improvements introduced in the previous chapter, the CSRD could be expected to bring the additional depth and accuracy to reporting and for it to be more linked to the company's strategy, all factors which have been lacking when complying with the NFRD (Baumüller & Grbenic, 2021). One way to achieve this is by further standardization of reporting requirements, whereas previously companies falling under the NFRD had more freedom to choose in which way they prefer to report. The standardization is conducted by mandating the European Financial Reporting Advisory Group (EFRAG) to become the setter and developer for standards applicable to all companies falling under CSRD (Baumüller & Grbenic, 2021). The standards will be then endorsed by the EU Commission and be set as the reporting requirements for the new directive, and these are the previously introduced European Sustainability Reporting Standards. Unifying the reporting framework for the CSRD will help force those companies resisting non-financial reporting, as they tended to leave the report rather superficial and as financial related as possible under the NFRD requirements (Breijer & Orij, 2022b). As reporting becomes more standardized, it will be more difficult for companies to hide behind superficial reporting, thus giving an incentive to make changes.

5.1 Consumer behaviour as a driver

Consumer awareness and consciousness about environmental issues have led to an increased demand for higher environmental performance and more transparency (Lin & Niu, 2018), and the new directive has the possibility of being a great tool for demonstrating that. With the larger scale of disclosure requirements, it is easier for customers to make decisions based on actual data. Both McKinsey & Company (2023) and Deloitte (2023) find that consumers are considering sustainability as a factor when making a purchase, and qualities such as durability, availability of a carbon footprint calculation and sustainable packaging are some of the most appreciated. A thorough and in-depth report could help communicate these desired factors to the consumer, as the data would be already available. As an example, the Finnish company Kotipizza is providing customers with the information of the carbon footprint of the product in addition to the price (Kotipizza, 2023), which is one of the most relevant decision factors to consumers.

As environmental disclosure is a factor for a growing part of consumers in decision making, the reputation as an environmentally conscious brand can increase brand loyalty and provide a competitive advantage (Radhouane et al., 2018). Firms engaging in environmental reporting not only communicate their commitment to sustainability but also position themselves as leaders in sustainable business practices. As the CSRD is making reporting mandatory for almost all EU-based companies, voluntary disclosure on environmental performance itself no longer acts as a convincing tool for a company to appear as a front runner, but they will need to do something more to gain the advantage once again. With the increased transparency in reporting due to the CSRD, the companies willing to achieve the role as an environmentally friendly business will have to do more than the bare minimum.

Additionally, the rise of social media activism allows consumers to voice their concerns and opinions about a company's environmental practices more efficiently, which can cause the reputation of a company to be shaped or shattered very quickly. European-based companies such as Volkswagen and H&M, for example, have faced backlash for greenwashing their products (Pellegrino, 2023), and bouncing back from this type of public relations scandals can be very costly. While the CSRD is not necessarily an effective tool in tackling the greenwashing of a specific product, it will help consumers to obtain a more accurate and comprehensive picture of a company's true environmental impact.

5.2 The green bullwhip effect on supply chains

The bullwhip effect is a concept commonly associated with supply chain management, and it describes the amplification of demand fluctuations as they move upstream in the supply chain. In the context of environmental reporting, it means the variation and amplification of environmental requirements passed upstream (Lee et al., 2014). Consequently, as for environmental requirements of purchasing companies, they tend to get more stringent when traveling further up the supply chain. In order to have more security and certainty that the requirements for reporting to a customer or set by a legislative such as the CSRD, a company will ask its first-tier supplier for slightly more than they truly need. As this gets repeated throughout the supply chain, the environmental demands will have grown significantly since the company closest to the end market first set demands for its own supplier (Lee et al., 2014).

One way for the new directive to affect the environmental impacts of businesses is through taking advantage of the green bullwhip effect. When pressure from the end consumers grow as explained in the previous chapter and companies close to the end market are pushed towards disclosing environmental information according to the CSRD, the pressure will start travelling upstream and the requirements also reach the suppliers. This effect is crucial in the effort to impact the entire supply chain instead of a single part of it. Moreover, as the bullwhip effect takes place and requirements get amplified for higher tier suppliers, Lee et al. (2014) find the effect capable of forcing a positive environmental change. However, it is important to remember that there is a risk of demands getting too high for upstream suppliers to comply with properly, especially as different customers may have varying requirements, causing a situation where it is impossible to cater to each demand.

Generally, companies selling to other companies, thus being further away from the end market, tend to have less motivation for environmental reporting (Haddock-Fraser & Fraser, 2008). Therefore, it is important for the purchasing company to push the suppliers to also produce high quality and transparent information, and the CSRD helps to further incentive this when reporting is mandatory for the purchaser. This is particularly the case for many EU-based businesses sourcing from outside of the EU, spreading the greening effect to suppliers through the bullwhip effect. The EU is one of the world's largest markets with over 440 million consumers and it is the main trading partner for 80 other countries (European Commission, 2023), meaning that any regulatory changes made within the EU will have a significant effect on the outside as well. Due to the CSRD requirements, EU-based companies will start asking for environmental information from their suppliers. This creates pressure for suppliers to act accordingly, as they realise that failure to comply with environmental reporting expectations may result in lost customers and future business opportunities.

5.3 The impact on internal processes

Internal reasons for enhancing environmental performance include for example innovations and creating new opportunities, risk mitigation and gaining a competitive advantage, as most incentives for environmental acts are still economical rather than the change be driven only by the willingness to do good (Momchilov, 2022). Mandatory reporting equips companies with better understanding of their impacts and allows for more informed decision-making. This is needed, as while many companies do practice some form of risk management, deeper understanding is still required to successfully tackle especially climate-related risks (Andersson & Arvidsson, 2023), and the CSRD helps with gaining that understanding. Many companies new to the reporting requirements will have to establish systems for collecting, analysing, and managing the information needed to produce the report.

Andersson & Arvidsson (2023) also find the connection between corporate environmental reporting, increasing investments into green technologies and the promotion of low-carbon and climate-resilient economies. This is supported by the previously introduced findings of Aluchna et al. (2022) on the positive correlation between CSR and ESG performance. **Jotain uutta?**

Other possible targets for investments could be for example better supply chain mapping tools, that allow for more specific life cycle assessment of the environmental impact of the good and additionally provides opportunities for more accurate supply chain management. However, as mentioned previously, SMEs are only now entering the scope of mandatory environmental reporting. Thus, they have both limited experience and resources for reporting itself but also making large investments into technology and tools to aid in the reporting. Regardless, due to the CSRD sustainability will be a mandatory topic in almost all companies in the near future.

5.4 Possible problems with the CSRD

Due to the drastic changes in reporting requirements and the scope of companies impacted, some of them are struggling to find the means to comply with the new directive, since producing the report does require additional resources (Baumüller & Grbenic, 2021). There is some worry regarding the reporting becoming more of a "tick-box-exercise" in order to superficially fulfil the requirements rather than a company truly doing its best to produce a deep and transparent view into its business practices (Adams & Abhayawansa, 2022). The same applies to higher tier suppliers being affected by the green bullwhip effect. As multiple customer businesses are demanding separate information, especially SME suppliers can struggle to pass all audits and demands thrown at them, instead of actually enhancing and greening their processes in collaboration with customers (Lee et al., 2014).

The collection, analysis, and reporting of detailed environmental data demand significant time and effort, which could divert managerial attention from other critical business operations as well as acting according to the results of the report. Collecting data from suppliers beyond the second tier can be a challenging task, as 73,5 % of companies do not even have the information who those suppliers are, and particularly the data on those suppliers' environmental practices is rather restricted (Villena & Gioia, 2018). Consequently, there has been resistance from companies within the reporting scope and hopes for the requirements to follow International Financial Reporting Standards (IFRS) as a baseline instead, as they are arguably less stringent, but there have been practically no signs from the EU to lower the set reporting standards (Baumüller & Grbenic, 2021).

In general, the longer and more complex the supply chain of a company, the more difficult it likely is to produce a comprehensive sustainability report. Some especially challenging industries include garment and food industries, for example. Many of the world's largest textile exporters are Asian low-cost countries (WTO, 2023), and European companies reporting under the CSRD may have difficulties navigating the complex supply chains consisting of a web of suppliers and subcontractors, trying to receive relevant and accurate environmental data. Similarly challenging supply chains can be found in coffee trade, as another example of mostly low-cost country sourcing industry with a wide supplier base of small local producers (Sundana & Raharja, 2022), making it difficult to find the true origin, and thus the impact, of the goods.

Another possible problematic factor of environmental reporting is greenwashing, meaning the deceptive practice of promoting a company's products or services as environmentally friendly when they are not (Aggarwal & Kadyan, 2011). Greenwashing could be present even with new reports being more transparent than ones required by the NFRD, and mandatory reporting can potentially drive resisting companies looking for "grey areas" to evade full compliance (Gatti et al., 2019). Although strict regulations help mitigate the issue, Aggarwal & Kadyan (2011) find that even companies with a high overall CSR score often perform some form of greenwashing in their reporting. With the introduction of CSRD, it becomes mandatory for the first time for companies to get an external audition and assurance of their sustainability disclosure (European Parliament, 2022). However, even with the more detailed requirements for the report, there is still some vagueness in the expected factors of the reporting, leaving the problem of deciding whether it is accurate enough to the assurers (Verney, 2023).

Overall, the effect of mandatory CSR on green investments and innovation remains somewhat unclear. Despite the claim introduced in the end of the last section of the thesis claiming that mandatory reporting may redirect and encourage businesses to invest in low carbon technologies (Andersson & Arvidsson, 2023) as well as the previously introduced findings of Aluchna et al. (2022) linking mandatory reporting to improved ESG performance, the study conducted by Antonini et al. (2021) suggests that mandatory reporting acts as a restrictive factor instead. Additionally, Doan & Sassen (2020) confirm the heterogeneity of results on the relationship between environmental reporting and environmental performance, as different studies have reached multiple differing results on the topic.

5.5 Early results and future research

As there are not yet any reports produced as per the requirements of the CSRD, it is too early to analyse the differences between reports from the times before and after the implementation of the directive. Additionally, as found by (Aluchna et al. (2022), the major environmental impacts will not be seen until a few years later. Additionally, considering how the year of implementation for the last companies within the scope of the CSRD is not until 2028, conclusive results will be available in closer to a decade.

However, while there is very little time until the reporting obligations begin for the first group, even companies with history on voluntary environmental reporting seem to be somewhat overwhelmed by the new directive. A recent survey (VinciWorks, 2023) found that in January 2023, with only a year to the beginning of the first reporting period, 77% of respondents were yet to start preparing for CSRD reporting. It seems that this is a great challenge for many businesses, and not everyone might be able to produce a satisfactory report at least in the first years.

Areas for future research include for example quantitative and qualitative research into the realised effects of the CSRD. Does it work in the way intended, or will companies try to find ways evade the reporting responsibilities by moving operations outside of the EU? This is especially interesting in the case of non-EU-based companies with enough ties to the EU to be in the scope of the last tier of compliers in 2028, as they could possibly find it more cost-efficient to simply leave the European market and move elsewhere. This phenomenon could possible be researched quite soon with a few years remaining until the beginning of the reporting, as those companies are surely already discussing the topic.

Additionally, it would be interesting to examine which specific KPIs are the most effective in driving a change, as I was not able to find such a study for this thesis. With the new European Sustainability Reporting Standards including mandatory areas such as water and marine resources, biodiversity, and circular economy, which are all relatively new areas of research and focus for companies, we will see how quickly they are incorporated into business strategies.

Another area to keep an eye on could be the spread of this kind of regulations outside of the EU. Will others, such as the North American Union or the African Union follow suit and develop similar reporting requirement frameworks for local companies, or will this stay only in the EU? Of course, the EU has relatively more legislative influence on its members compared to its counterparts in other market areas, which could limit the phenomenon. Similarly, it will be interesting to see whether companies outside of the EU voluntarily follow the CSRD framework in order to keep up with the European competitors when it comes to environmental reporting and transparency to the consumers.

6 Conclusions

In conclusion, this thesis delves into the evolving landscape of corporate sustainability reporting, with a particular focus on the true impacts of environmental reporting on companies' environmental performance. Additionally, the transition from the Non-Financial Reporting Directive (NFRD) to the new Corporate Sustainability Reporting Directive (CSRD) in the European Union is analysed.

The NFRD, introduced in 2014, marked a significant step in making non-financial reporting mandatory for certain large companies. However, its impact on environmental performance was mixed, with some varying results on its true effectiveness. The examination of the NFRD reveals challenges such as variability in implementation among EU member states and concerns about the depth and quality of environmental disclosure. However, some studies do find a positive association between mandatory reporting and improved ESG performance, suggesting that environmental reporting is indeed at least somewhat an efficient tool in the greening of company processes.

The CSRD was introduced as a comprehensive replacement, extending reporting requirements to a wider range of businesses, and setting more specific and detailed standards for sustainability reporting. The transition to the CSRD comes with fundamental changes in the scope and framework of mandatory reporting. The scope of reporting broadens to include nearly all EU-based companies, and environmental reporting requirements become more detailed, covering completely new reporting areas. The CSRD is expected to enhance reporting accuracy, link reporting to corporate strategy, and promote standardization.

Expected impacts of the CSRD do extend beyond only reporting. With consumers increasingly valuing sustainability, the CSRD's strict reporting requirements can serve as a tool for companies to communicate their environmental commitments more transparently. This can provide a competitive advantage to those doing thorough work in actually gathering comprehensive data and consequently developing their processes, giving financial motivation to do so. When it comes to environmental reporting impacting the entire supply chain of a company, the green bullwhip effect in supply chains amplifies environmental demands upstream. This encourages positive environmental changes throughout the supply chain and forces the effect of the

CSRD even on suppliers outside of the EU. Internally, the CSRD is expected to drive green innovation, environmental risk mitigation, and investments in green technologies.

However, the implementation of the new directive has its own challenges. Due to the drastic changes in mandatory reporting requirements, some companies are struggling to comply with them. The new ESRS are very extensive, yet there is still some vagueness in the overall requirements. Especially companies that did not need to report under the NFRD will need additional resources in order to plan and gather all the relevant information for the report, possibly causing quite heavy administrative burden. Additionally, many companies in the EU have complex and multi-tier global supply chains, making it more challenging to obtain wanted information. Both these factors could lead to companies only trying to somehow produce a good enough report without truly putting in the effort to make a change.

Conclusive results are yet to be seen, as the first CSRD reports are only expected to be published based on the data gathered in 2024. It remains to be seen how well companies have prepared for the transition between the directives, as well as what companies beginning to report in only in the following years will do. If resistance to the requirements is minimal and companies do not try to evade them by looking for shortcuts, the new directive does have potential to truly cause environmental improvements.

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