Master's thesis

Performance indicators in sustainability reporting: Evidence from Finland

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ABSTRACT

Corporate social responsibility (CSR) is increasingly gaining attention both among academia and the business world, as environmental concerns continue to take more critical turns. Legislation is tightening around the topic and sustainability reporting is becoming more mandatory. Disclosure requirements are extending to reach smaller corporations as well. Hence, many companies are in a situation where they need to start reporting about their sustainability for the first time. One significant aspect of these CSR reports is Sustainability Performance Indicators (SPI), which are also part of several reporting frameworks. SPIs are useful tools to transform qualitative information into quantitative. They are considered effective in communicating non-financial information, providing reliable and accurate results for stakeholders.

This thesis investigates the sustainability performance indicators disclosed in the Finnish context, solely focusing on indicators defined by Global Reporting Initiative (GRI). It aims to examine what indicators are companies currently including in their reports, whether there can be differences detected regarding company characteristics, and whether it is possible to assess the level of disclosure quality and completeness. The sample consists of 29 large listed companies with origins in Finland. Text mining and content analysis are performed on the sample reports to examine the disclosed indicators and disclosure quality.

The results show that on average, companies include 40 out of the total 88 GRI indicators in their reports. Environmental and social indicators are highlighted over economic ones, and the most used indicators relate to emissions and energy usage. Larger companies, both in the sense of revenue and number of employees, use more indicators than smaller ones. Differences are detected between industries, suggesting that air transport uses the most indicators, while companies in finance, insurance, programming, and consultancy use the least indicators. Regarding the indicator preferences, results show that manufacturing companies focus on material and water, while wholesale and retail companies find procurement practices, waste, and suppliers important. Finance etc. companies then highlight customer privacy over other indicators. Findings suggest that there is room for improvement regarding both completeness of the disclosures and their quality, referring to both report content such as completeness, as well as external qualifications such as clarity. Based on the results it can be stated that companies are under external pressure to disclose sustainability information and use multiple performance indicators, but the pressure does not impact the report quality.

This thesis adds to the literature on sustainability reporting and sustainability performance indicators. It provides new insights into the rather scarce literature on the topic by providing results in the context of Finland. The thesis contributes to the stakeholder theory, legitimacy theory, and institutional theory. The results have practical value as well, as can be used by other companies who are starting their sustainability reporting journey, as they can adopt the reporting manners of the larger companies and on the other hand learn from their aberrations.

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

1 INTRODUCTION

1.1 Problem statement

The number of companies recognizing the critical nature of sustainability is increasing and reporting about sustainability issues has become a standard practice (KPMG, 2017). During 2020, as much as 80% of companies worldwide reported about their sustainability (KPMG, 2020). Multiple different frameworks have been developed to guide the reporting process and help companies in addressing the most material topics. These guidelines often include Sustainability Performance Indicators (SPI). SPIs are useful tools for transforming qualitative information into quantitative, which increases the comparability between companies (Raucci & Tarquinio, 2020). They are also seen as one of the most powerful means of communicating non-financial information to stakeholders and supporting the other sustainability information disclosed (Lin, 2014; Raucci & Tarquinio, 2020). With explicit performance metrics, firms can provide stakeholders with more reliable, accurate, and consistent data for comparing companies and making strategic decisions (Ilinitch et al., 1998).

The consideration of sustainability issues and especially reporting about them has been historically carried out by large market leaders (Roca & Searcy, 2012). These companies have been more extensively exposed to outside pressure from investors and stakeholders, and regulation around the topic has been concentrating on companies that exceed a certain limit concerning their size. Hence, the largest companies have years or even decades of experience in reporting about their sustainability and in measuring certain performance indicators.

However, the pressure for a wider range of companies to disclose sustainability information is increasingly building up. The EU has proposed the Corporate Sustainability Reporting Directive (CSRD), which extends the scope of companies required to disclose sustainability reports to all large companies and all companies listed in regulated markets. It also requires auditing of the reported information (European Commission, 2022). Another directive that is being discussed is the Corporate Sustainability Due Diligence Directive (CSDD). Through this directive, the scope of companies could extend to cover even micro companies and small to medium enterprises, as it extends the responsibility for sustainability along the value chains of companies.

As a result of the developing legislation, a considerable number of companies are facing a new challenge of having to start sustainability reporting for the first time. This includes defining the material topics for their business and measuring certain performance indicators. Hence, it seems interesting and relevant to investigate the most used indicators among the largest and best performing companies and

investigate whether these indicators differ depending on company characteristics. The researcher's current employer BDO Finland, an auditing company based in Helsinki, finds this topic interesting as well. They see an increasing demand for consulting services regarding sustainability reporting, specifically from companies who are starting the reporting process. The results of this research could then be utilised by BDO in helping their clients who are at the beginning of their sustainability reporting journey, as they can follow and learn from what the more experienced companies are doing.

1.2 Research question and objective

The primary objective of this research is to investigate the sustainability performance indicator usage in sustainability reports disclosed by businesses operating in Finland. The concentration of the research is on the Global Reporting Initiative (GRI) indicators specifically, as this sharpens the focus of the study and gives it more structure. GRI guidelines include economic, environmental, and social indicators. As these three dimensions are interlinked, the study investigates all of them, including the economic one. In addition to gaining knowledge about which indicators companies include in their reports, the study aims to detect differences in indicator usage by companies' industry, size, and age. The fact that companies can freely choose the GRI indicators which they find material themselves, makes it interesting to see whether there can be differences found between companies. Additionally, the study tries to investigate the level of quality and detail in disclosing these indicators. The final objective of the study is to summarise the observed results into recommendations that other companies could utilise in building up or improving their own sustainability reporting.

The research question builds up from three sub-questions:

1. *Which GRI performance indicators are the largest Finnish companies currently considering material and disclosing in their corporate sustainability reports?*
2. *How is the usage of these indicators correlated to sample companies' industry, size, and age?*
3. *To what extent is it possible to define the quality and completeness of these indicator disclosures?*

By answering these research questions, the study aims to create an overview of what indicators can be considered as most relevant in general, whether certain indicators are preferred based on company characteristics, and what can be considered a high-quality indicator disclosure. Ultimately, the goal of the study is to give recommendations about which indicators should different types of companies with be focusing on and what should be considered when preparing a high-quality disclosure.

1.3 Relevance

This research has practical relevance for small to middle-sized companies, who are starting to measure their sustainability performance for the first time. It provides the basis for understanding what the most used indicators for diverse types of companies are and what can be considered a good indicator disclosure. As sustainability reports become a more critical source of information for investors and other stakeholders to base their decisions, it is important that companies choose relevant performance indicators to publish in their disclosures. There is evidence that report users find indicators a useful way of providing information (I-Hsiang et al., 2013). Hence, companies must pay attention to high quality indicator disclosures, as the goal is to disclose reports from which stakeholders can benefit the most. On the other hand, the results of this research can be exploited by the report users too, to gain a better understanding of what can be considered as relevant indicators to evaluate the company. The research sheds light on the determinants and functions of the indicators as well.

This study contributes to the literature on sustainability reporting and extends the research on performance indicators in the context of sustainability reporting. It sheds light on the current quality of SPI disclosures in the Finnish context and points out gaps in SPI disclosures and their GRI requirements. As the amount of sustainability related company information is increasing, companies must concentrate on providing useful and relevant data. The fact that there has been only a small number of studies that have investigated the economic, environmental, and social indicators in sustainability reporting and that similar research has not been conducted in a Finnish context before argue that there exists a research gap on the topic.

1.4 Outline of the thesis

This thesis constructs of six chapters: 1) Introduction, 2) Theoretical background, 3) Research methodology, 4) Findings, 5) Discussion and 6) Conclusions. First chapter introduces the subject and presents the research question and objective. Chapter two addresses the theoretical background. It introduces corporate social sustainability and its background, sustainability reporting and motives behind it, different frameworks and SPIs, and prior research about the topic. Next, the methodological background chapter reviews the research design, sampling strategy, and data analysis. After that, the findings chapter introduces the results of the data collection and content analysis. Next, the discussion chapter analyses the results investigates what lays behind the findings. The research ends with the conclusions chapter, which summarises the whole study while also elaborating research limitations as well as possible topics for future research.

2 THEORETICAL BACKGROUND

Chapter two introduces the theoretical background for the research topic. It considers the origins of corporate social responsibility, how it has developed over the years, where we stand with it today and what kind of criticism has been raised towards the topic. The chapter continues with addressing sustainability reporting and the motives behind it. Next, legislation and standards regarding the reporting process are introduced. The chapter ends with presenting the topic of sustainability performance indicators and their role in non-financial reporting.

2.1 Defining corporate sustainability

2.1.1 History of corporate sustainability

The roots of corporate social responsibility (SCR) reach far - the idea of corporates having responsibilities toward society has been around since the beginning of the 19th century (I-Hsiang et al., 2013). However, the moment of H.R. Bowen publishing "Social responsibilities of businessmen" in 1953 can be considered as the beginning of the modern era of literature on this topic. In his publication, Bowen speaks about his belief of the largest companies having an impact on the lives of citizens in many ways. The large-scale realisation about the importance of the topic started to spread after the 1960s (Carroll & Shabana, 2010).

Today, CSR is widely spread and accepted, and it is almost difficult not to encounter some kind of discussion about sustainability on a day-to-day basis. Businesses are eagerly developing sustainable solutions, legislation is tightening around the topic, and financing is increasingly combined with sustainability measures. Increased interest in CSR is not restricted to European countries but is worldwide (Carroll & Shabana, 2010).

Along the way, sustainable development has been defined by several different authors in several diverse ways. Some have focused more on the environmental dimension, while others have emphasised the social side. According to Lozzano (2008), by the end of 1992, there were at least 70 different definitions. One of the most cited definitions is made by The World Commission on Environmental and Development in 1987. In their publication, they set out a target of sustainable development and described it as *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (Brutland, 1987).

2.1.2 The three dimensions of corporate sustainability

Corporate sustainability is most often observed through three different dimensions: economic, environmental, and social. This concept is also known as *the triple bottom line (TBL),* which was first introduced by Elkington in 1999. In his book, Elkington argues that instead of only focusing on financial achievements and profitability, corporate performance should be evaluated also through social justice and environmental quality. The social dimension concentrates on the well-being of people and communities, while the environmental dimension focuses on natural resources and biodiversity protection, to mention a few examples. Ideally, companies would operate in the intersection of the three scopes, fulfilling all three goals. TBL has also been introduced as the three Ps: profit, planet, and people (Nogueira et al., 2022). The concept has been widely applied in different contexts, for example, management, consulting, and investing (Norman & MacDonald, 2004). Figure 1 shows the three dimensions of the triple bottom line concept by Elkington.
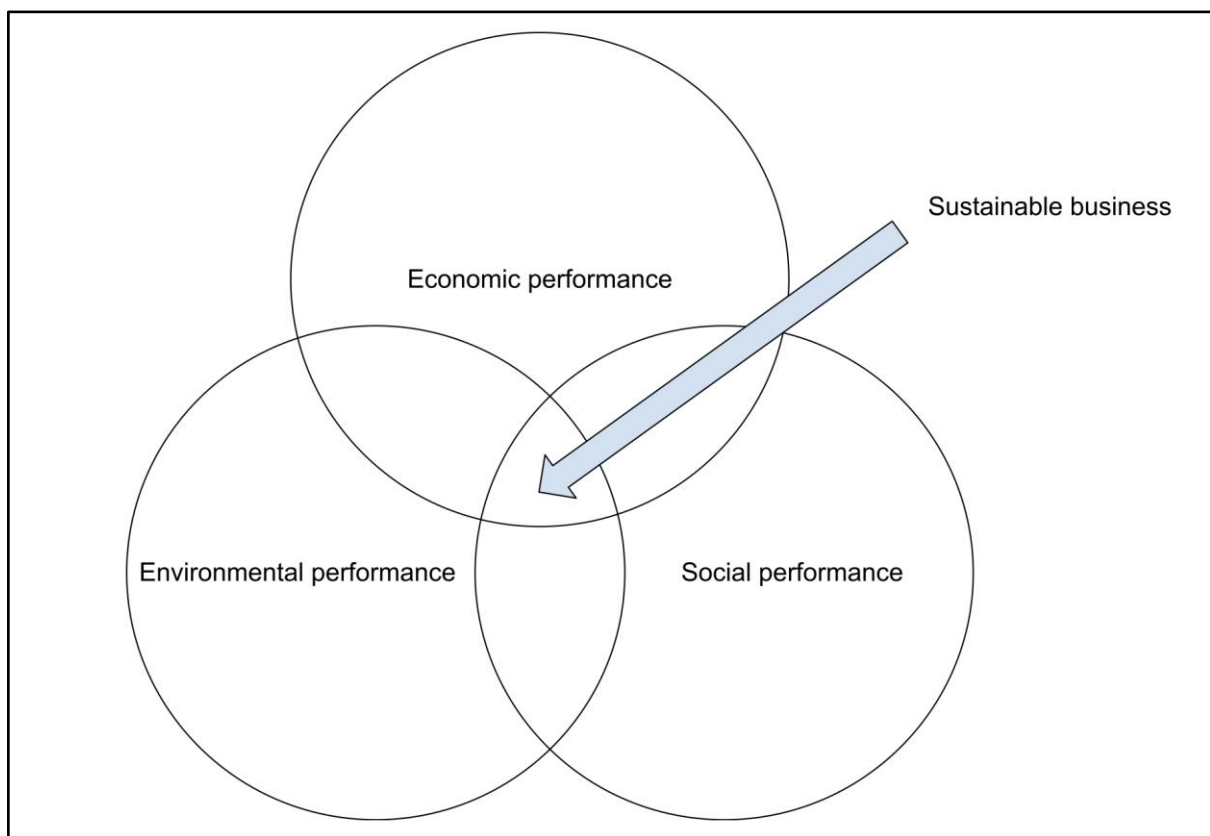
Figure 1. Triple bottom line (Elkington 1999).

2.1.3 Critique towards corporate sustainability

Even though corporate sustainability has been widely accepted, there has been critique of the subject as well. To give a complete description of the concept, the thesis introduces a few points of critique that are most often brought up. Perhaps the most widely known commentary was made by Friedman in 1970. He opined that the whole discussion around the social responsibilities of business can be considered analytically loose and lagging preciseness. Additionally, he stated that business itself cannot be said to have responsibilities, as only people have responsibilities. Henderson (2005) presents some more recent critique while reasoning that the adoption of CSR only leads to higher costs and that increased legislation complicates business, and that there are no real bases for companies having to take wider national and international responsibilities. Michael (2003) then concludes that the case of CSR as a theoretical concept is weak, arguing that it is not clear what CSR is, its causes and consequences are not well understood, and that it does not help in comprehending what is desirable or required.

2.2 Sustainability reporting

The first sustainability reports were published around the 1980s and since that, the number of companies disclosing CSR reports has increased steadily (Tsalis et al., 2020). According to Larrinaga and Bebbington (2021), a sharp increase was between 1999 and 2010, when the annual growth rate for the number of reports was well above 30%. The first reports around 1980 and 1990 were more focused on the environment, as they were triggered by accidents such as oil spills after which stakeholders began to require information about the environmental impacts of companies' actions (Gokten et al., 2020). After the introduction of the triple bottom line in the late 90s, focus then shifted from environmental accounting to more comprehensive sustainability accounting. As defined by the Global Reporting Initiative, *"sustainability reporting is an organisation's practice of reporting publicly on its economic, environmental, and/or social impacts, and hence its contributions toward the goal of sustainable development"* (GRI 101: Foundation 2016).

Nowadays sustainability reporting has become a mainstream process next to financial reporting, especially for large multinational enterprises (Roca & Searcy, 2012). The scope and target audience have become wider and integration with financial reports has also improved (Brown et al., 2009). Firms have several different incentives for disclosing sustainability reports, from which legitimising their actions, building relationships with stakeholders, and gaining positive reputation are the most recognized ones, more precisely introduced in the next paragraph (Zimon et al., 2022; Parmar et al., 2010; Wilmshurst & Frost, 2000).

2.2.1 Motives behind reporting

Several different motivations can be driving corporates in disclosing CSR reports. There is evidence that CSR is often connected to better financial performance, which is why companies put effort into it (Van Beurden & Gössling, 2008). On the other hand, the motive can be intrinsic, as managers can have concern over the well-being of others or perceive CSR as a moral duty (Graafland & Mazereeuw-Van der Duijn Schouten, 2012). Even though there exist multiple different theories to explain sustainability reporting, perhaps the most known ones are stakeholder theory, legitimacy theory, and institutional theory, which also overlap a bit.

Stakeholder theory is connected to CSR reporting, as the first reports arose from stakeholders' concerns. Discussion around stakeholder theory began when Freeman published a book in the 80s called "Strategic Management: A Stakeholders Approach"*,* after which several books and articles have been emphasising the concept. The idea behind the theory is that businesses should be seen as a combination of relationships among several groups other than just shareholders. These groups can be described as 'any group or individual who can affect or is affected by the achievement of an organisation's objectives' (Freeman, 1983). Examples can include external stakeholders, such as customers, financiers, and communities as well as internal stakeholders, such as managers and employees. When companies learn about the dynamics of the relationships between these groups, their business can be better understood to create value to manage the distribution of the value created. The main argument of stakeholder theory is that the long-term survival of the company depends on the support of the stakeholders and that the main function of management should be to handle the stakeholders' expectations (Herold, 2018). However, given the limited resources, the management cannot deal with all stakeholders with the same level of importance.

Legitimacy theory is closely related to stakeholder theory and some researchers consider it as the main underlying rationale for sustainability reporting (e.g. Windolph et al., 2014). It suggests that organisational legitimacy is crucial for the survival of any corporation, defining legitimacy as the generalised perception that the actions of an entity are desirable, proper, and appropriate within some socially constructed system of norm, values, beliefs, and definitions (Herold, 2018). According to the theory, CSR disclosures are motivated by the corporate need to legitimise activities and react to external expectations (Wilmhurst & Frost, 2000). When corporate activities then have harmful impacts on the environment, executives will seek to establish its credential by disclosing additional information, that is, CSR reports. Non-financial reporting can therefore be used to maintain the implicit social contract between the company and society.

Institutional theory is sometimes seen as another lens of legitimacy in the sustainability context (Herold, 2018). It builds upon investigating corporate structures and explaining why companies with similar features belong to the same organisational field. It suggests that organisations adapt to their organisational field in response to institutional demand for change, as they are rewarded with increased resources, survival capacities, and increased legitimacy (Martens & Bui, 2023). Companies are then not only driven by their aim to maximise profit, but are also influenced by different institutions, such as governments and institutional investors (Herold, 2018). Whereas legitimacy theory is considered to explain the output of corporate sustainability disclosures, institutional theory aims to explain the process of sustainability disclosures, as institutional expectations lead organisations to adjust their behaviours (DiMaggio & Powell, 1983).

These three theories are considered to overlap and therefore rather than explaining companies' behaviour and operations solely on one theory, researchers have started to combine all three (Martens & Bui, 2023). As Herold (2018) states, stakeholder theory can supplement institutional theory to identify and examine the respective roles of stakeholder and actors and their degree of influence in the field. Figure 2 expresses the intersection of the three theories.
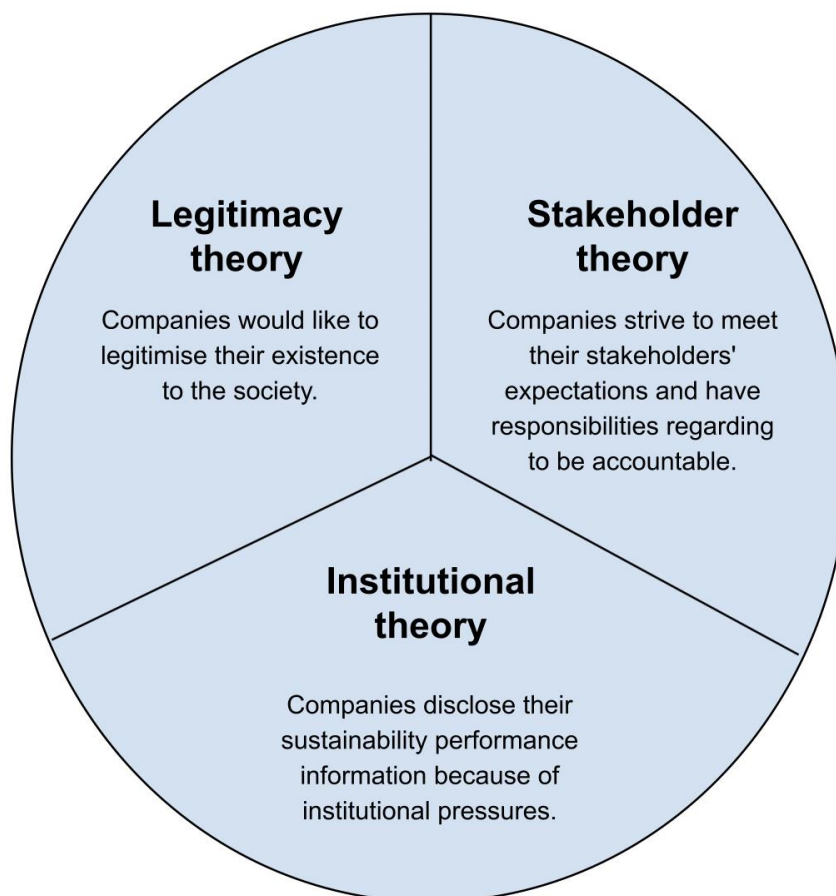
Figure 2. Corporate suitability disclosures framework (Martens & Bui, 2023).

2.2.3 Benefits and limitations of sustainability reporting

Multiple benefits have been connected to disclosing sustainability reports and increasing number of companies have realised this during the 21st century (Sweeney & Coughlan, 2008). Research shows that implementing CSR and disclosing CSR reports reduces organisational risk, increases productivity and profitability, and acts as a communication channel for reputation, consumer loyalty, and public support (Juščius et al., 2013; Olateju, 2021). It increases the company's capabilities to create value, manage relationships and attract human capital (Juščius et al., 2013). However, the maximum benefits of CSR are achieved only if reporting is integrated into the company's strategy. On the other hand, this can also be turned around, suggesting that not complying with environmental or other law requirements increases risks and costs and can affect company's profits negatively.

On the other hand, sustainability reporting is also said to have limitations. Some mention that non-financial data is subject to more inherent limitations than financial data and that qualitative interpretation of relevance, materiality, and the accuracy of data are subject to individual assumptions and judgements (Boiral et al., 2019). Additionally, the balance of information is considered one of the main challenges of sustainability reports. According to research, some managers also see sustainability reporting as unnecessary and irrelevant (Stubbs et al., 2013).

2.3 Reporting frameworks

Several frameworks have been developed for the reporting process, aiming to improve the transparency, credibility, and comparability of reporting (Tarquinio et al., 2018). The use of a standard framework is essential especially for investors, as it eliminates the risk of uncertainty in measuring different sorts of information (Ching et al., 2014). Recognised frameworks cover for example UN Global Compact, OECD, and Integrated Reporting. In addition to these independent frameworks, the European Union has published regulations regarding disclosure of non-financial information. In 2014 it published the non-financial reporting directive (NFRD), which aims to improve the consideration of environmental, social, and corporate governance, in addition to increasing transparency about ESG (environmental, social and governance) performance and identification of ESG risks (Bossut et al., 2021). Following the NFRD, a new framework called Corporate Sustainability Reporting Directive (CSRD) was published in 2021. According to CSRD, which replaces NFRD, the scope of companies that fall under the reporting regime becomes larger. Whereas NFRD contained three requirements ("[i] Large undertakings [ii] which are public/interest entities [iii] exceeding on their balance sheet dates), CSRD will extend the scope substantially. According to CSRD, all (i) Publicly traded companies, (ii) Large companies, even if they are not publicly traded, and (iii) Large insurance companies and banks are obligated to disclose CSR reports (Baumuller & Grbenic, 2021). In addition to extending the scope of

companies, CSRD also proposes a considerable number of new topics to report. The proposal of CSRD will apply to fiscal years starting on or after January 1, 2023. However, the most widely recognised framework is created by the Global Reporting Initiative (GRI), which is introduced in the next paragraph.

2.3.1 Global Reporting Initiative

Since its foundation in 1997, GRI has been helping companies to take responsibility for their impacts and providing guidance in communicating them. According to KPMG (2020), around 75% of the world's 250 largest companies follow GRI in their sustainability reporting process. The main objective of the standard is to harmonise CSR reports to make them more comparable. GRI has a wide range of standards, including both universal and topic-specific ones. According to the GRI 101: Foundation 2016, there are two types of reporting principles; for report content and report quality (table 1). (GRI, n.d.; GRI, 2021)

Report content principles help companies in defining which content to include in the report, considering its activities, impacts, and the expectations of stakeholders. It consists of requirements for stakeholder inclusiveness, sustainability context, materiality, and completeness. *Stakeholder inclusiveness* means that the reporting company should identify its stakeholders and justify how it has corresponded to their expectations and interests. *Sustainability context* then is about the reporting presenting the company's performance in the wider context of sustainability, involving the examination of the performance within the limits and demands placed on economic, environmental, or social resources. *Materiality* suggests that topics included in the reports should reflect the reporting company's significant economic, environmental, and social impacts, or fundamentally influence the decisions of stakeholders. *Completeness* refers to the coverage of material topics sufficiently enough so that they reflect significant economic, environmental, and social impacts to enable stakeholders to assess the reporting company's performance. (GRI, 2016)

Report quality principles guide companies in providing high-quality information and proper presentation. Included principles are accuracy, balance, clarity, comparability, reliability, and timeliness. *Accuracy* refers to the detailed and accurate reporting manner, reflecting that qualitative and quantitative information are expressed differently but aiming, in any case, to provide stakeholders with detailed enough information. *Balance* is then about equally reflecting both positive and negative aspects of the company's performance, enabling a reasoned assessment of overall performance. *Clarity* is connected to accuracy in some sense, as it states that the reporting company should make the information available in an understandable and accessible manner. *Comparability* suggests consistency in selecting, compiling, and reporting information, to enable stakeholders to analyse changes in the

company's performance over time. *Reliability* proposes that information should be gathered in a way that can be subjected to examination and that it establishes the quality and materiality of the information. And finally, *timeliness* is about reporting the information on a regular schedule, so that it is available for stakeholders in time to make informed decisions. To claim that their reports are prepared in accordance with the GRI standards, the company must apply all ten principles for content and quality. (GRI, n.d.; GRI, 2016; GRI, 2021)

Table 1. GRI reporting principles for defining content and quality (GRI, 2016).

Principles for report content	Principles for report quality
- Stakeholder inclusiveness - Sustainability context - Materiality - Completeness	- Accuracy - Balance - Clarity - Comparability - Reliability - Timeliness

2.3 Sustainability performance indicators

According to Hammond (1995), indicators have two defining characteristics. They 1) *quantify* information so its significance is more readily apparent, and 2) *simplify* information about complex phenomena to improve communication. SPIs can indeed help companies in providing comparable and relevant measures, which are useful for supporting the management of sustainability issues. Their feature of transforming qualitative information into quantitative also contributes to arguing against the criticism concerning CSR reports (Raucci & Tarquinio, 2020). This criticism has usually concerned reports concentrating more on qualitative information, and the fact that the reports are used for the purpose of greenwashing and impression management, to mention a few (Roca & Searcy, 2012; Laufer, 2003; Diouf, D., & Boiral, 2017; Bednárová et al., 2019).

There has been an increase in sustainability performance indicators during the last decade, rising from growing attention towards the sustainable value generation processes, and several researchers have been exploring the process of developing indicators (Raucci & Tarquinio, 2020; Roca & Searcy, 2012). Initially the literature of CSR reporting was focusing especially on environmental indicators (Bednárová et al., 2019). Environmental indicators are usually constructed using physical-quantitative measures, monetary measures, or combinations of these (Raucci & Tarquinio, 2020). However, nowadays the idea of environmental, social, and economic indicators interacting and completing each other is leading, suggesting that companies should adopt all three categories into their reporting.

2.3.1 Sustainability performance indicators defined by GRI

Different reporting frameworks have different sets of recommended indicators to disclose. However, all of them seem to agree on the fact that using and disclosing performance indicators improves the comparability, transparency, and credibility of CSR information (Raucci & Tarquinio, 2020). GRI can be considered the most recognized framework regarding CSR reporting, and it is most widely used at both the national and international level. Since the first version of guidelines, GRI has been characterised by the presence of indicators built to show the company's economic, social, and environmental performance (Tarquinio et al., 2018). These indicators are developed through a multi-stakeholder process to address aspects identified as material by the company and its stakeholders (Tarquinio et al., 2018). The fact that a growing number of companies are adopting the GRI guidelines and that the indicators are extremely popular as well as comprehensive, argue for choosing GRI indicators as a baseline of this research for analysing the sustainability reports (Tarquinio et al., 2018).

The latest effective full set of GRI standards at the time when this thesis was started was published in 2016 and it became effective on 1st of July 2018. It is divided into two categories (see Figure 3). The first three standards construct the Universal Standards. These standards define the report content and quality, present general disclosures, and provide guidance on how to report management of material topics. The second category is called Topic-specific Standards, consisting of 34 standards and 89 indicators. This thesis especially focuses on this category. The standards are used to report information about an organisation's impacts related to economic, environmental, and social topics, each including various kinds of indicators.
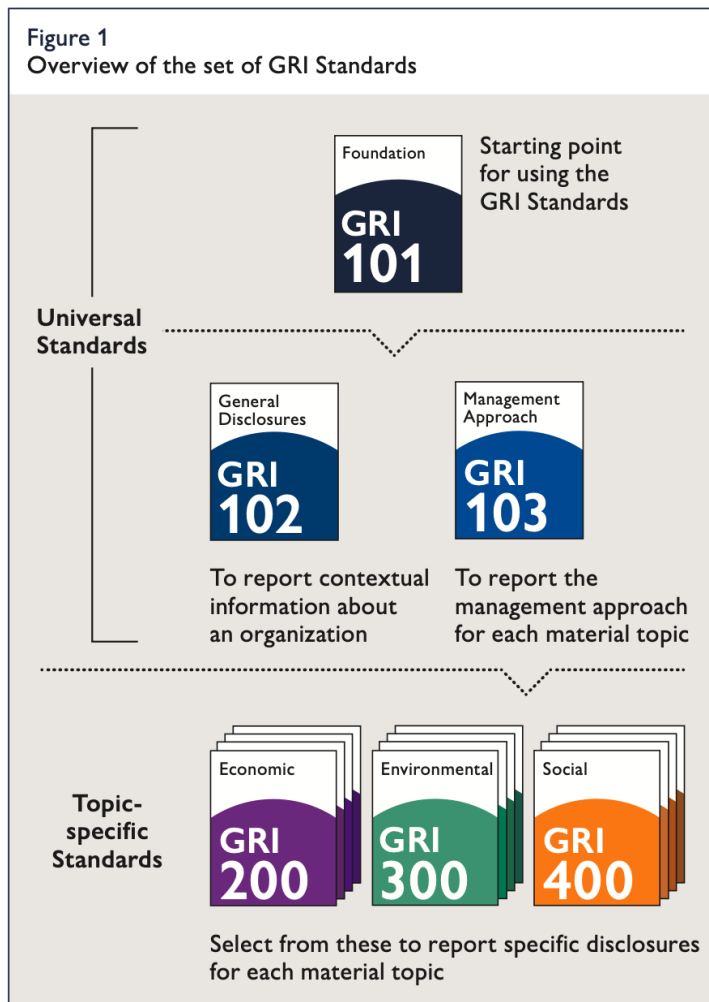
Figure 3. Full set of GRI standards (GRI, 2016).

The economic, environmental, and social dimensions are categorised under numbers 200, 300 and 400, respectively. Within a dimension, each indicator has a specific four-digit number. The first number indicate the dimension, the second and third indicate the standard and the fourth indicates the specific indicator. For example, economic standards include the indicator '201-1 Direct economic value generated and distributed'. The first number indicates the economic dimension, the second and third indicate the standard of economic performance, and the fourth number tells that this is the first indicator within the standard. Similarly, indicator '301-2 Recycled input materials used' tells that the indicator belongs to the environmental dimension, material standard and that it is the second indicator within that standard. And finally, social standards consist of indicators such as '403-9 Work-related injuries' and '404-1 Average hours of training per year per employee'. Table 2 demonstrates the three dimensions and some of the standards and indicators. As this second category of Topic-specific Standards covers a wide range of topics, they are meant to be used depending on the material topics defined in Universal Standards. A complete list of these indicators can be found in Appendix II. (GRI, 2016)

Table 2. Demonstration of GRI system's dimensions and examples of standards and indicators.

Dimension	Example of a standard	Example of an indicator
200 Economic	201 Economic Performance	201-1 Direct economic value generated and distributed
		201-2 Financial implications and other risks and opportunities due to climate change
	202 Market Presence	202-1 Ratios of standard entry level wage by gender compared to local minimum wage
300 Environmental	301 Materials	301-1 Materials used by weight or volume
		301-2 Recycled input materials used
	302 Energy	302-1 Energy consumption within the organisation
		302-2 Energy consumption outside the organisation
400 Social	401 Employment	401-1 New employee hires and employee turnover
		401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees
	403 Occupational Health and Safety	403-1 Occupational health and safety management system
		403-2 Hazard identification, risk assessment, and incident investigation

2.5 Prior research

There have been a few studies exploring the specific indicators disclosed (Roca & Searcy, 2012). Skouloudis and Evangelinos (2009) did a review of sustainability reports in Greece and included an analysis of economic, environmental, and social performance disclosures, giving an overview of the most frequently disclosed indicators. The authors found that most addressed economic performance indicators were net sales; cost of all purchased goods and materials; and total payroll. For the environmental category, they summarised the most cited indicators to be energy and water consumption; carbon dioxide emissions; and internal initiatives to improve energy efficiency. Finally, for social indicators, the most included ones were workplace health and safety policies and measures; employee education and skill management; and the benefits that employees receive from the organisation beyond those that are legally mandated. The researchers also applied a scoring system for the indicators, aiming to evaluate the quality of each disclosed indicator. They found that Greek companies' sustainability reports have become more comprehensive, but there remains a lot of room

for improvement. Roca & Searcy (2012) conducted a similar analysis in the Canadian context. Their results showed that the most highlighted indicators were funding, donation, sponsorships, and community investments; greenhouse gas/CO_2 equivalent emissions; total employees; taxes and royalties; and lost time injury frequency. Their study also suggested that companies disclosed economic indicators most often, followed by environmental and social indicators. Cappuyns et al. (2015) analysed Belgian companies' economic and environmental performance indicators and evaluated the quality and completeness of the reports. They found significant differences between private and non-profit companies regarding the amount and quality of information for economic indicators, whereas for environmental indicators the reporting was more consistent but stayed on a basic level.

In addition to only looking at the indicators and their quality, research has connected the indicator usage to certain events, for example introduction of new legislation. For example, Raucci & Tarquinio (2020) studied how the EU directive of non-financial information affected the SPI disclosures in the context of Italian companies. They found that there was a reduction in the quantity of indicators disclosed, suggesting that after introduction of the new directive companies focused more only on the indicators that are considered relevant.

3 RESEARCH METHODOLOGY

3.1 Research design

This research adapts a qualitative approach, and it builds on a deductive theory. Deductive approach is used when there already exists research in a specific domain (Bryman, 2012). As the research builds up on already defined sustainability performance indicators based on the framework of Global Reporting Initiative, it can be considered as a deductive study. The research uses text mining and content analysis to observe the data and draw conclusions.

3.2 Sampling strategy and data collection

Interest of this study is in Finnish listed companies. Among Finnish companies who disclosed GRI based sustainability reports for fiscal year 2021, the reports which are assured by a third-party auditor are sampled. This is because audited reports can be considered higher in quality and reliability (Boiral et al., 2019). As there was no list to be found by a third party which would have stated the assured reports for 2021, the sustainability reports of all Finnish companies listed in the stock exchange were manually observed and the ones which included an assurance report were sampled. After the sampling process, 29 companies are selected. A full list of the sample companies can be found in Appendix A.

Finland is a relevant country for a case study, because in addition to the fact that similar study has not been conducted in a Finnish context, the number of companies having to conduct sustainability reporting will increase significantly due to new legislation set by the EU. Majority of the sample consists of mature, large, and profitable companies, who have been operating for a lengthy period of time. This also indicates that they have extensive experience in sustainability reporting. Summary of the sample companies' revenue, age, and number of employees can be seen in table 3. For the industry classifications, this study uses the NACE, which is an industry classification system used in the European Union. The system builds up from four levels, including 21 industry sections, 88 divisions, 272 groups and in total 615 classes. The industry distribution of the sample can be found in table 4. For the companies who declared the code '70 Activities of head offices' as their main industry, the industry was later manually determined based on the nature of their business.

Table 3. Descriptive statistics of the sample.

Characteristic	Average	Min	Max
Revenue (in millions of euros)	4.503	20	22.202
Age	87,3	9	373
Number of employees	14.234	325	86.370

Table 4. Industry distribution of the sample.

NACE code	Industry classification	# of companies
17	Manufacture of paper and paper products	2
19	Manufacture of coke and refined petroleum products	1
20	Manufacture of chemicals and chemical products	1
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	1
22	Manufacture of rubber and plastic products	1
28	Manufacture of machinery and equipment n.e.c.	4
38	Waste collection, treatment and disposal activities; materials recovery	1
46	Wholesale trade, except of motor vehicles and motorcycles	4
47	Retail trade, except of motor vehicles and motorcycles	1
51	Air transport	1
62	Computer programming, consultancy and related activities	1
64	Financial service activities, expect insurance and pension funding	4
65	Insurance, reinsurance and pension funding, except compulsory social security	1
68	Financial service activities, expect insurance and pension funding	1
70	Activities of head offices; management consultancy	4
82	Office administrative, office support and other business support activities	1
84	Public administration and defence; compulsory social security	1

Sustainability reports are used as a source to obtain the disclosed performance indicators. These reports are collected through the websites of the sampled companies. This type of data can be described as secondary or archival in nature, as no surveys or interaction with people will be conducted. That is, the research data will be collected through desk research.

3.3 Research quality indicators

Research quality can be captured with reliability and validity indicators, which can again be divided into internal and external indicators. External reliability refers to the degree to which a study can be replicated. By paying attention to detailed description of the methods and data used in this research, the level of replicability can be increased. Internal reliability then means whether the members of the research team agree with each other and hence, does not concern this study as there is only one researcher. External validity concerns whether the findings can be generalised across social settings. Quantitative studies usually have better generalisability as they have larger sample sizes. As this research follows a qualitative approach, the generalisability is one of its limitations. However, for qualitative research, the sample size of 30 can be considered quite decent, as usually 12 is considered a minimum size (Vasileiou et al., 2018). Finally, internal validity is about whether there is a good match between researcher's observations and the theoretical ideas they develop. The fact that similar types of studies have been done in different contexts supports the assumption that there would be a match between observations and theory. (Bryman, 2012)

3.4 Data analysis and operationalisation

The study adapts a text mining approach for the initial scanning of the reports. To perform the text mining analysis, all the sample reports were run into a program called CorTexT. CorTexT is a digital platform aiming to empower open research and studies in the dynamic of science, technology, innovation, and knowledge production. It aims to combine data science, applied research, training and entertainment to answer the challenge of massive data sets. It offers options to mine, analyse and visualise knowledge in textual databases of many sorts. The aim with the CorTexT analysis in this thesis is to have an initial idea of which themes and words are repeating in the reports, and additionally, which words are used together. (CorTexT, n.a.)

To identify the indicators and other necessary aspects from the disclosures, the sample reports were processed manually. In addition to indicators that were mentioned in the GRI index, also the report type as well as the report length in pages and in words were gathered into an Excel file, leading to the creation of a database with all the essential information. After the study has gained knowledge of what the most used indicators are, GRI guidance is used as a framework to give scores for the indicator disclosures through content analysis. Following the methodology of Skouloudis & Evangelonis (2009), sample companies are ranked with five different scores. If there is no mention of the indicator, no score is given. If there is a generic statement, the score is 1. More detailed information gives a score of 2, whereas extensive information leads to a score of 3. Finally, if the company provides full and systematic

coverage of the indicator, it will get a score of 4. Table 5 below demonstrates the scoring methodology with examples.

Table 5. Scoring methodology of the indicator disclosure and examples of the sample companies' disclosures. Adapted from Skouloudis & Evangelonis (2009).

Score	Scoring level	Example indicator: 303-5 Water consumption
No score	No mention	No relevant information provided - *KONE*
1	Generic statement	Municipal water supplies provided. - *Cargotec*
2	More detailed information	Surface water intake and groundwater intake provided. - *Metsä Group*
3	Extensive information	Water consumption provided separately for Finland and for neighbouring countries. - *S Group*
4	Full and systematic coverage	Water consumption provided separately for each country that the company operates in. - *Kesko*

In addition to the extent of the disclosures, the research assesses the external quality of the reports. That is, how clear and readable the disclosures are. This is important as well, as stakeholders value reports which can be interpreted quickly and easily. After the identification of the indicators and scoring them, the study aims to connect the recognized indicators to different company characteristics. These characteristics include industry and size of the company measured in revenue and age. The objective behind this is to conclude that, for example, are companies operating in more environmentally sensitive industries using more indicators, or do they concentrate on certain standards. For assessing the completeness and quality, it is of interest to define whether there are gaps between the observed reports and GRI requirements.

4 FINDINGS

4.1 Results of text mining

After running the reports into CorText, a visualisation was created to present the textual data of the reports. Figure 4 presents a map of the words which are repeated within the reports more than it would be expected. The connection lines between the words indicate that the two words are used together within a report more than it would be expected. There can be seven bigger clusters identified within the map. Starting from the top left, words 'young people' and 'own operations' are repeated often. Continuing to the right, 'GHG emissions', 'calculations', and 'purchased goods and services' are frequently mentioned. The top right corner includes words such as 'supplier sustainability' and 'risk assessment'. In the cluster below, words like 'number of employees' and 'personal data' are often used. Moving to the left, words of 'competition law' and 'economic performance' are repeating. The next cluster includes words like 'sustainable development goals' and 'key supplier'. And finally, the cluster at the left bottom corner repeats words of 'working group', 'UN Global Compact', and 'Paris Agreement'.

Based on the most frequently mentioned words, some connections can be made with the type of company or a specific theme. For example, the cluster at the very right seems to discuss the social dimension, as in addition to the number of employees and personal data, it includes words like equal opportunities and ethical standards. Similarly, the cluster at the bottom left can be connected to international agreements about sustainability and reporting, as the topics include Paris Agreement and UN Global Compact, as well as sustainability programme and climate targets. Some other interesting points to highlight from the map are for example the frequent mention of young people. This could mean for example that, companies recognise sustainability to be an important topic for younger generations which encourages them to report about it, but they do not see it that important themselves. Also, it is interesting that risk assessment repeats in many of the clusters.
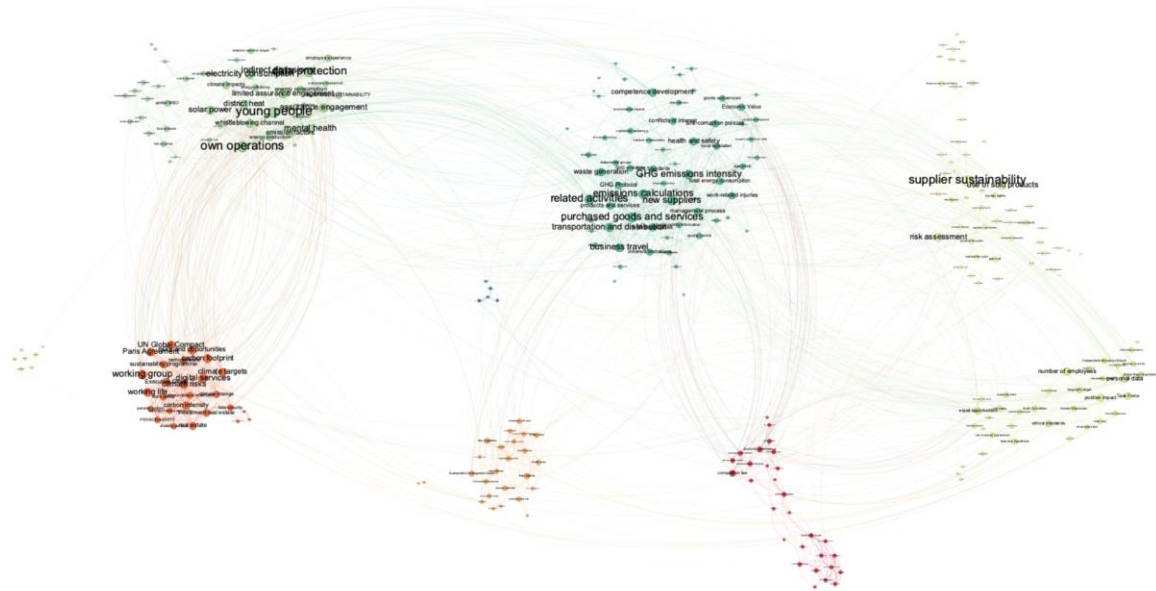
Figure 4. CorTexT results of the sample reports.

To summarise, the map shows us the topics which companies are including in their reports, but it does not reveal how companies use these words within the reports and how they report about these themes. What can be concluded based on this is that, as powerful and useful as the text mining software is, it does not allow for a deeper analysis to be conducted. This then argues on behalf of continuing the research with the content analysis which requires more manual work. Only by observing the reports and indicators manually and analysing their quality can more profound results be obtained.

4.2 External report characteristics

The first part of the content analysis findings consists of external report characteristics. That is, the external qualifications of the reports, such as length, type, and clearness. This is interesting to investigate as it can in part be contrasted to the quality principles of GRI, especially clarity and accuracy.

4.2.1 Type and length of report

This study focuses on sustainability reports or equivalent. As companies report their sustainability information differently, the sample consists of reports with several different titles. This is ponderable to examine, as prior research has differing results of the benefits of different report types (Sweeney & Coughlan, 2008). These prior results argue on behalf of annual reports for example by suggesting that, annual reports allow financial and non-financial information show their impact on each other which makes their assessment more comprehensive, but on the other hand also indicate that standalone sustainability reporting solely give focus on environmental and social aspects, while integrated reports overrides them with the economic dimension (Dumay et al., 2016). Figure 5 shows the different types

of reports among the sample. The most common report type is annual report or annual review, representing 41% of the sample. Reports with the title sustainability report represent 34% of the sample. The rest of the reports carry names that refer to sustainability, for example sustainability review or corporate sustainability report.
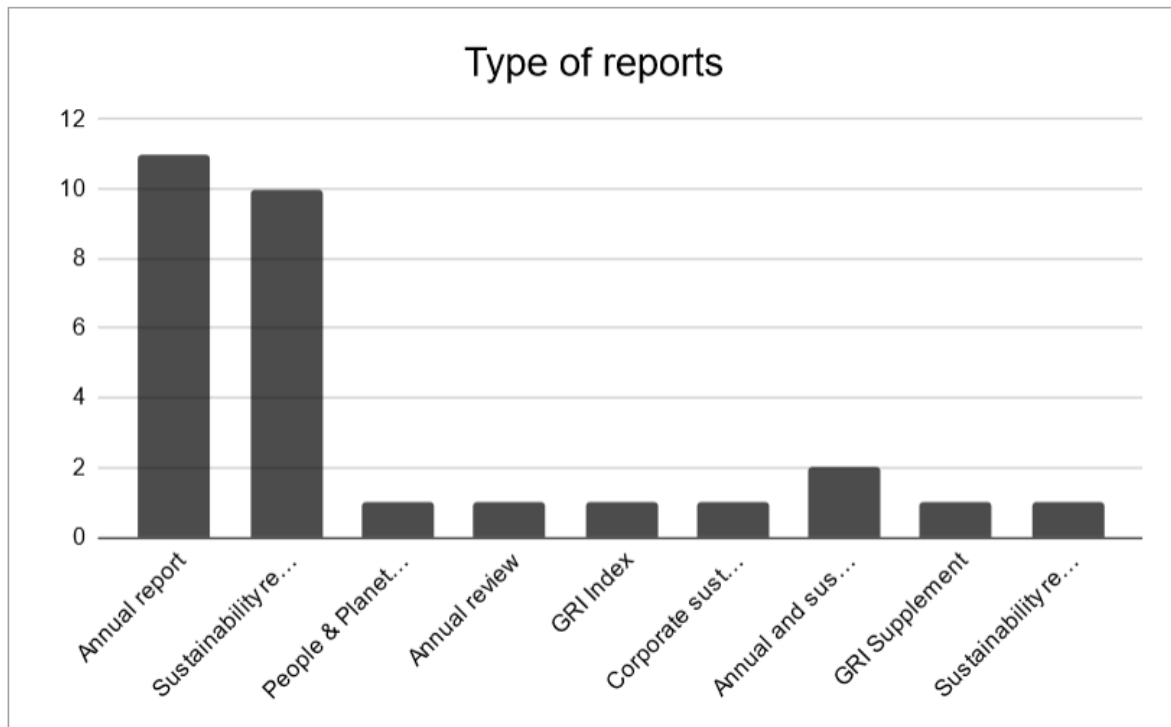
Figure 5. Type of the sample reports.

The length of the reports is a point of interest as well, as according to the literature, the extent of disclosure can be taken as an indicator of the importance of an issue to the reporting entity (Sweeney & Coughlan, 2008). Within the sample, the report length varies significantly. The longest report is 251 pages long and the shortest only 15 pages. However, it must be taken into consideration that annual reports are longer by nature compared to sustainability reports, as they contain financial and other kinds of business-related information as well. Hence, after adjusting the lengths of annual reports by only considering the sustainability part, the longest report is 128 pages. The average number of pages dedicated for sustainability within the annual report is 54, whereas when the sustainability information was disclosed on its own report, the average length is 73 pages. This is a significant difference, suggesting that there tends to be around 35% more information when a company publishes an independent sustainability report compared to when it is integrated into the annual report. The average length of a report for the whole sample was 64 pages. However, sustainability reports, like other corporate reports, often include figures, tables, and other kinds of visual material which make the report longer, while not necessarily providing additional information. Hence, the number of words is also considered. Surprisingly, the average number of words for annual reports is 26.755, while for the independent sustainability reports it is 24.910. Even though the difference is not that large, it is

contradictory compared to the observation of annual reports having a lower number of pages dedicated to sustainability. Table 6 shows the average, maximum and minimum length of pages, and table 7 shows the average, maximum and minimum number of words for each type of report.

Table 6. Length of the sample reports in pages.

Type of report	Number of reports	%	Average number of pages	Maximum pages	Minimum pages
Annual report	11	38%	54	95	32
Sustainability report	10	34%	80	123	54
Annual and sustainability report	2	7%	67	105	29
GRI Index	1	3%	30	30	30
Sustainability review	1	3%	48	48	48
GRI supplement	1	3%	15	15	15
Annual review	1	3%	32	32	32
Corporate sustainability report	1	3%	73	73	73
People & Planet report	1	3%	128	128	128
Summary	**29**	**100%**	**64**	**128**	**15**

Table 7. Length of the sample reports in words.

Type of report	Average number of words	Maximum words	Minimum words
Annual report	25.680	41.128	11.178
Sustainability report	31.560	60.490	21.899
Annual and sustainability report	29.972	46.069	13.874
GRI Index	15.148	15.148	15.148
Sustainability review	16.310	16.310	16.310
GRI supplement	5.545	5.545	5.545
Annual review	24.614	24.614	24.614
Corporate sustainability report	28.753	28.753	28.753
People & Planet report	52.146	52.146	52.146
Summary	**27.604**	**60.490**	**11.178**

Findings also show the differences in the length of the report for different industries. Here the results suggest that wholesale and retail companies are providing the longest reports, on average 34.489 words,

whereas air transport discloses the shortest report, only 15.561 words. For manufacturing, waste collection, and finance, insurance, programming and consultancy, there is not a significant difference regarding the report length. Figure 5 represents the different word amounts per report for different industries. The division between the industries looks the same when measured by the number of pages.
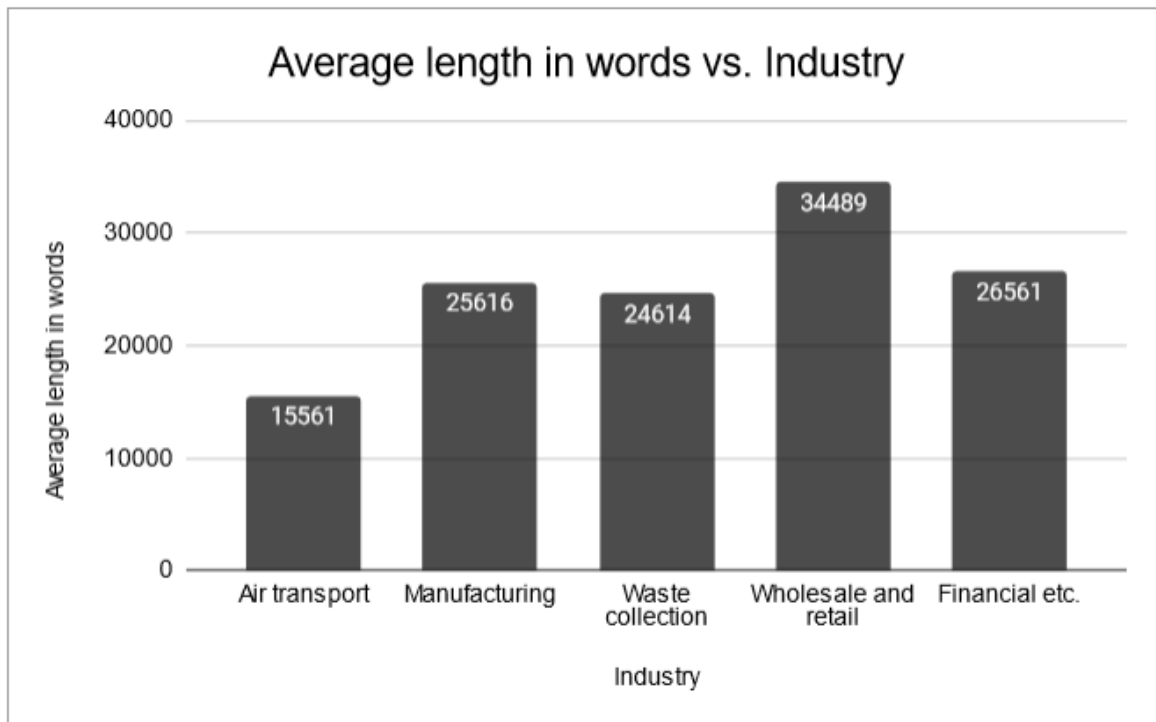
Figure 6. Average length of the sample reports per industry.

4.2.2 Report readability and clearness

When it comes to the evaluation of the disclosure quality, the thesis focuses on the environmental indicators only. The scope of the study does not allow the evaluation of all the GRI indicators for all the 29 sample companies, as this would require too much effort considering the scope of the research. The evaluation technique used in this thesis for the environmental indicators could be later replicated for the economic and social indicators in another research, which is also one of the suggestions for future research topics within this field.

Long reports with many indicators cannot undoubtedly be considered as high in quality. As GRI is a voluntary framework from which companies can choose for themselves what to report and to quite a substantial extent how to report it, the quality of the reports can fluctuate. The sample reports indicate that there are significant differences between the report readability and clarity. All the sample reports include a GRI index table, but the way they refer to the information provided varies. Some companies provide the main information in the GRI index table or refer to a specific page, while others only provide

a broad range of pages where the information should be found. This might be an important aspect when for example investors are trying to seek for specific information but face challenges in finding it, or it requires more effort to read through the report to locate the relevant section.

To illustrate what is considered a clear and readable report, an example of Suominen Oy is introduced. Suominen Oyj published an annual report with 196 pages, from which 37 are devoted to sustainability matters and covered 35 indicators. Both the number of pages as well as number of indicators are below the sample average, which speaks for the fact that quantity is not necessarily related to quality. The report has a GRI Index, which indicates the pages where the information can be found. In addition, they have a GRI Appendix, under which they have listed all the most relevant indicators.

If we for example look at the indicator 'Reduction of energy consumption' from the standard 302 Energy, figure 7 shows a screenshot of Suominen's way of reporting this. They first list the indicators they used and provide the information right below. The table is easy to read, and understanding the content is therefore facilitated.

Energy
GRI 302-1: Energy consumption within the organization
GRI 302-4: Reduction of energy consumption

Energy consumption, GJ		2021	2020	2019
Non-renewable fuel consumed				
Natural gas	302-1 a	791,052.6	835,926.4	737,187.4
Other non-renewables	302-1 a	4,134.2	4,431.3	3,678.1
Renewable fuel consumed	302-1 b	0	0	0
Purchased electricity	302-1 c	688,685.8	731,302.1	657,695.1
Purchased steam	302-1 c	369,120.1	418,297.6	365,950.1
Total energy consumption	302-1 e	1,852,992.6	1,989,957.3	1,764,510.6
Change in total energy consumption	302-4	-136,964.7	225,446.7	-138,551.5

Energy sold outside organization is not reported as Suominen does not generate any energy to be sold outside the organization. Other non-renewable fuel consumed (GRI 302-1 a) figure has been restated for the years 2020 and 2019 due to one energy source that was not counted. However, the values of total energy consumption and change in total energy consumption were correct.

Figure 7. Screenshot of the annual report 2021 of Suominen Oyj: Example of a clear reporting manner. (Suominen Oyj, 2021)

If we then look at the same indicator reported by Finnair, we see a different style of reporting. Finnair also includes a GRI Index into their report, but their reference to the information is very undefined. For the indicator 302-4, they give a range of seven pages, from which the reader must find the correct information. This range of pages covers all their non-financial performance related topics, and it takes time to find the correct information, as the paragraphs are also not very clearly titled. Figure 8 shows a screenshot from the annual report of Finnair Oyj.

Figure 8. Screenshot of the annual report 2021 of Finnair Oyj: Example of an unclear reporting manner. (Finnair Oyj, 2021)

In addition to clear text and references, the research finds that inclusion of tables and figures creates a major difference to the report readability. This especially has an impact on how quickly the information can be understood if it is stated in a paragraph within a text, or whether it is mentioned in a table. Most of the GRI indicators are in a quantitative form, so it is interesting to see that companies are still disclosing it more in a manner of qualitative information. To illustrate what can be considered as effective use of tables, examples of Huhtamäki and Stora Enso are introduced. Huhtamäki discloses the indicator '305-5 Reduction of GHG emissions' within the text, as figure 9 shows. When we compare this to the report of Fiskars (figure 10), there is a clear difference and Fiskars' report is significantly easier to understand and quicker to interpret.

In 2021, the absolute GHG emissions from our own operations (Scope 1 and 2) decreased by 0.4% (3,100 t) while our production volume increased by 6% compared to 2020. Hence, our GHG intensity per sellable ton produced decreased by 6% compared to 2020. As a result, we achieved a reduction of 43,700 metric tons CO_2e in our GHG emissions when adjusted for the change in the production volume in 2021. This positive development is in line with our GHG emissions reduction targets and was achieved due to the increased share of renewable electricity in our operations, resulting in a 58,700 t (8%) reduction from the base year 2019 level. The calculation of emissions intensity and reduction covers Scope 1 and Scope 2 emissions.

Figure 9. Screenshot of the annual report 2021 of Huhtamäki Oyj: Example of an unclear reporting manner. (Huhtamäki, 2021)

GRI 305-5 Reduction of GHG emissions

Reduction of GHG emissions, t CO$_2$e	2021	2020	2019
	68	627	760

Reduction of CO$_2$ emissions is calculated from energy saving activities utilizing the location-based emission factors or emission factors from fuel statistics provided by Statistics Finland. Reporting only covers CO$_2$ emissions.

Figure 10. Screenshot of the sustainability report 2021 of Fiskars Group: Example of a clear reporting manner. (Fiskars Group, 2021)

Similarly, this can be observed from Stora Enso's indicator '305-7 Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions'. They provide the information within the text, as figure 11 shows. Comparing this to the report of Cargotec (figure 12), which provides a nice table, the difference is obvious.

Other atmospheric emissions

Stora Enso's atmospheric emissions primarily result from the combustion of fuels for energy generation. Emissions include CO$_2$, sulphur dioxide (SO$_2$), nitrogen oxides (NOx) and fine particles. CO$_2$ contributes to climate change while SO$_2$ and NOx emissions affect air quality and can cause acid rain and soil acidification. The Group works to reduce SO$_2$, NOx and fine particles using advanced technologies such as scrubbers and boiler process control systems.

In 2021, Stora Enso's Group-wide SO$_2$ emissions amounted to 2,200 tonnes (2,410 tonnes in 2020), NOx emissions totalled 9,160 tonnes (8,840 tonnes), and emissions of fine particles amounted to 1,095 tonnes (1,440 tonnes). Emissions of VOC were estimated to amount to 2,160 tonnes.

Figure 11. Screenshot of the annual report 2021 of Stora Enso: Example of an unclear reporting manner. (Stora Enso, 2021)

305-7 NITROGEN OXIDES (NO$_x$), SULFUR OXIDES (SO$_x$), AND OTHER SIGNIFICANT AIR EMISSIONS			UNGC Principle 7, 8
Weight of emissions, t	**2021**	**2020**	**2019**
Nitrogen oxides (NO$_x$)	2.3	2.3	3.3
Particulate Matter (PM)	1.7	2.3	2.6
Sulphur oxides (SO$_x$)	0.3	0.3	0.3
Volatile organic compounds (VOC)	11	34.4	81.2
This indicator covers Cargotec assembly sites and competence centers. Air emissions have decreased due to the outsourcing of some activities outside of our production sites.			

Figure 12. Screenshot of the GRI Index 2021 of Cargotec Oyj: Example of a clear reporting manner. (Cargotec Oyj, 2021)

4.3 Indicator disclosures

The second part of the content analysis findings consist of the actual indicator disclosures. That is, what indicators are included into the reports, how they vary between companies and how well do companies follow the GRI requirements. This can in part be contrasted with the content principles of GRI, especially the materiality and balance requirements as well as the actual reporting guidelines.

4.3.1 Most and least used indicators

The sample reports were manually analysed to identify which indicators the companies are using. On average, sample companies measured and reported on 40 different indicators, which is 45% out of the total 88 GRI indicators. The highest number of indicators observed was 77, disclosed in UPM's report, operating in the manufacturing industry. The lowest number of indicators recorded was 14, disclosed in Ilmarinen's report which does business in social security and pension. Companies reported most indicators on the social dimensions and least indicators on the economic dimension, both on an absolute and on a proportional level. The most often used indicator was '305-2 Energy indirect (Scope 2) GHG emissions' from the environmental dimension. It was mentioned in 28 reports, which is over 96% of the sample. Only Ilmarinen did not include this indicator in their report. The least mentioned indicator was '410-1 Security personnel trained in human rights policies or procedures' from the social dimension. This indicator was not mentioned in any of the sample reports. The indicator with the second least mention was '401-3 Parental leave', likewise from the social dimension. It was disclosed in two reports, which represents only 6,9% of the sample. Tables 8, 9 and 10 show the average, median, maximum, and minimum number of disclosed indicators for each dimension, as well as the most and least used indicators, respectively.

Table 8. Average, median, maximum, and minimum amount of economic, environmental, and social indicators reported within the sample. The first number indicates the observed number of indicators in the sample reports, and the second number in brackets indicates the total number of GRI indicators.

	# indicators (all GRI indicators)	# economic indicators (all economic indicators)	# environmental indicators (all environmental indicators)	# social indicators (all social indicators)
Average	40 (88)	6 (17)	15 (32)	19 (40)
%	45%	35%	46%	48%
Median	37	4	15	18
Max	77	16	28	35
Min	14	0	2	6

Table 9. Most frequently mentioned indicators within the sample.

Indicator	Dimension	# mentions
Energy indirect (Scope 2) GHG emissions	Environmental	28
Direct (Scope 1) GHG emissions	Environmental	27
Other indirect (Scope 3) GHG emissions	Environmental	27
New employee hires and employee turnover	Social	27
Diversity of governance bodies and employees	Social	27
Energy consumption within the organisation	Environmental	26
Worker participation, consultation, and communication on occupational health and safety	Social	26
Worker training on occupational health and safety	Social	26
Direct economic value generated and distributed	Economic	24
GHG emissions intensity	Environmental	24
Waste generated	Environmental	24
Hazard identification, risk assessment, and incident investigation	Social	24

Table 10. Least frequently mentioned indicators within the sample.

Indicator	Dimension	# mentions
Security personnel trained in human rights policies or procedures	Social	0
Energy consumption outside of the organisation	Environmental	1
Ratios of standard entry level wage by gender compared to local minimum wage	Economic	2
Parental leave	Social	2
Incidents of violation involving rights of indigenous people	Social	3
Proportion of senior management hired from the local community	Economic	3
IUCN Red List species and national conservation list species with habitats in areas affected by operations	Environmental	3
Emissions of ozone-depleting substances (ODS)	Environmental	3

GRI has 34 standards in total among the economic, environmental, and social dimensions, with 2,54 indicators on average per standard. The most indicators belong to the standards 403 Occupation health and safety, which also has the most mentions. In total 14 standards only have one indicator. Table 11 shows the standards with most and least indicators mentioned, calculated proportionally per standard.

Table 11. The most and least mentioned standards.

Standard	Dimension	# of mentions on average
403 Occupational health and safety	Social	20,6
305 Energy	Environmental	20,14
404 Training and education	Social	19
405 Diversity and equal opportunity	Social	19
410 Security practices	Social	0
202 Market presence	Economic	2,5

According to the results, it seems like there is not much of a difference on the average number of indicators reported per company between environmental (46%) and social (48%) dimensions. On the other hand, the number of economic indicators (35%) reported is much lower.

When looking into the number of indicators per report type, it is interesting to notice that on average, independent sustainability reports include 36 indicators, while annual reports include as much as 45

indicators, which is over 23% more. This is contradictory to the length of the diverse types of reports, as annual reports have on average less pages dedicated for the sustainability part. On the other hand, the word amount for annual reports' sustainability part was a bit higher compared to independent sustainability reports, which might explain the higher number of indicators. Table 12 shows the average number of indicators per different report type.

Table 12. Number of indicators per report type.

Type of report	Average number of indicators
Annual report	45
Independent sustainability report	36

4.3.2 Topic management disclosures and topic disclosures

The GRI framework consists of two types of indicators: topic management disclosures and topic-specific disclosures. As the name suggests, *topic management disclosures* are explanations of how an organisation manages a material topic, the associated impacts, and stakeholder's expectations, while *topic-specific disclosures* focus more on the actual topic (GRI, n.a.). Topic management disclosures can be considered more verbal and explanatory in nature, whereas topic-specific are more about number and data, rather than description. For example, the waste related standard has a topic management disclosures '306-1 Waste generation and significant waste-related impacts' and '306-2 Management of significant waste-related impacts'. These indicators guide the organisation to describe the inputs, activities, and outputs of its waste-related impacts as well as the actions taken to prevent waste generation. The standard also has topic-specific disclosures '306-3 Waste generated', '306-4 Waste diverted from disposal' and '306-5 Waste directed to disposal', which require the company to provide the amount of waste it has generated, as well as whether waste has been diverted from disposal or directed to disposal. According to GRI, any organisation claiming that its report has been prepared according to GRI Standards has to report on its management approach for every material topic. So, if a company identifies waste as a material topic, it should use the topic management disclosures 306-1 and 306-2, as well as the topic-specific disclosures 306-3, 306-4 and 306-5.

Looking into the sample, some of the companies are not following this requirement of GRI. To specify, some companies are reporting the topic-specific indicators for a material topic without providing the topic management indicators. Table 13 introduces seven sample companies with this kind of reporting manner. The observation was made within the waste and water standards.

Table 13. Material topics with topic-specific indicators which are missing topic management indicators.

Company	Topic	Topic management NOT disclosed	Topic-specific disclosed
Cargotec	Waste	306-1 Waste generation and significant waste-related impacts 306-2 Management of significant waste-related impacts	306-3 Waste generated 306-4 Waste diverted from disposal 306-5 Waste directed to disposal
Konecranes	Waste	306-1 Waste generation and significant waste-related impacts 306-2 Management of significant waste-related impacts	306-3 Waste generated
Lassila & Tikanoja	Waste	306-1 Waste generation and significant waste-related impacts 306-2 Management of significant waste-related impacts	306-3 Waste generated 306-4 Waste diverted from disposal
Local Tapiola	Waste	306-1 Waste generation and significant waste-related impacts 306-2 Management of significant waste-related impacts	306-3 Waste generated
Nokian Renkaat	Water	303-1 Interactions with water as a shared resource 303-2 Management of water discharge-related impacts	303-3 Water withdrawal 303-4 Water discharge 306-3 Waste generated
	Waste	306-1 Waste generation and significant waste-related impacts 306-2 Management of significant waste-related impacts	306-4 Waste diverted from disposal
Uponor	Water	303-1 Interactions with water as a shared resource 303-2 Management of water discharge-related impacts	303-5 Water consumption
Wärtsilä	Water	303-1 Interactions with water as a shared resource 303-2 Management of water discharge-related impacts	303-3 Water withdrawal 303-4 Water discharge

4.3.3 Company characteristics and use of indicators

When looking into the sample companies' characteristics, some observations can be drawn on their connection to the number of indicators. From the figure 13 there appears to be a connection between the revenue and the number of indicators disclosed. The correlation coefficient between these two characteristics is 0,48. More specifically, the higher the revenue, the higher the number of indicators. Average revenue among the sample was 4.503 million euros. Secondly, it can be concluded that there is a connection between the number of employees and the number of indicators. For this connection, the correlation is weaker and the correlation coefficient is only 0,28. That is, the higher the number of employees, the higher the number of indicators. The average number of employees among the sample

was 14.234. Both revenue and number of employees can be contrasted with the size of the company, suggesting that bigger companies use GRI indicators more extensively. The third company characteristic that was measured and contrasted with the number of indicators was the age of a company. This characteristic showed no connection to the number of indicators, with a correlation coefficient of 0,04. Figures 13 and 14 show the connection between the revenue as well as number of employees with the number of disclosed indicators, respectively.
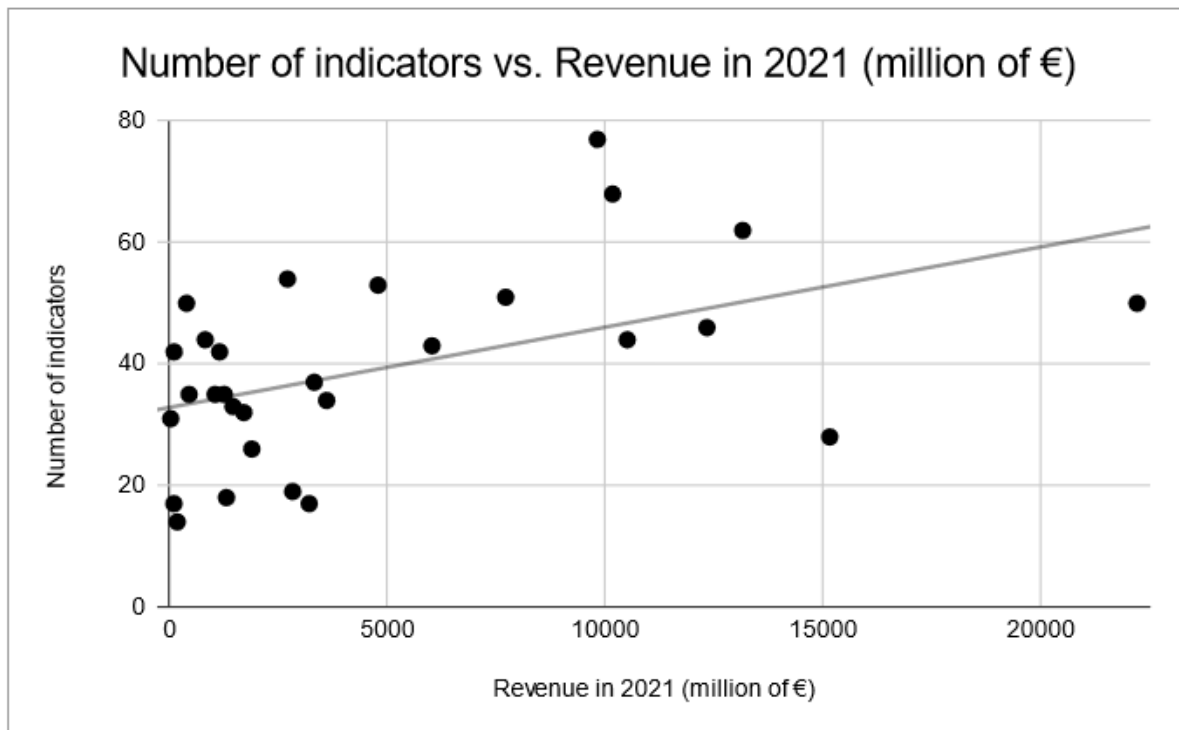
Figure 13. Connection between revenue and the number of disclosed indicators.
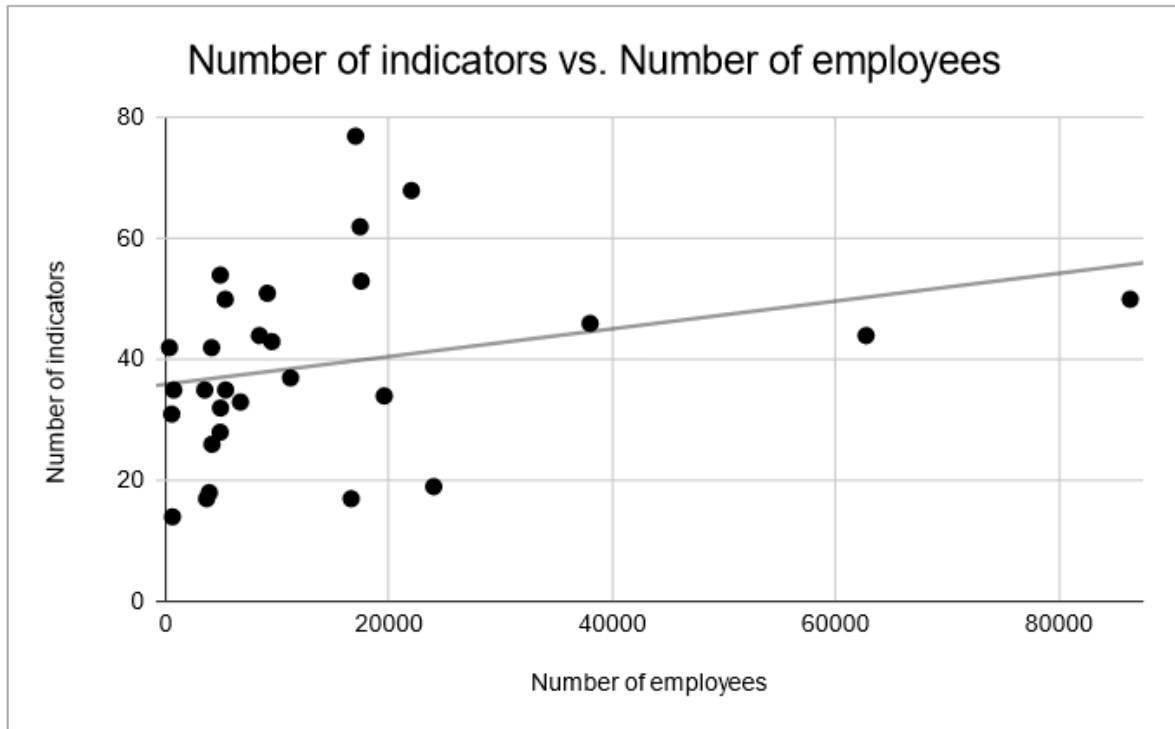
Figure 14. Connection between number of employees and the number of disclosed indicators.

The sample companies were quite diverse when it comes to their field of operation. The companies were divided into five distinct categories: air transport, manufacturing, waste collection, wholesale and retail trade, and finance, insurance, programming, and consultancy. The observation that industry should be considered when looking into CSR was highlighted already thirty years ago, as some companies may be more responsible by the nature of their activities, arguing on behalf of the interest in looking into the industry difference within this research sample (Sweeney & Coughlan, 2008). The results show that on average, companies that operate in finance, real estate, insurance, programming, and consultancy are disclosing the least number of indicators, while air transport is disclosing the highest number of indicators. In between fall companies operating in manufacturing, waste collection, as well as wholesale and retail. Figure 15 shows the distribution of the average number of indicators per industry.
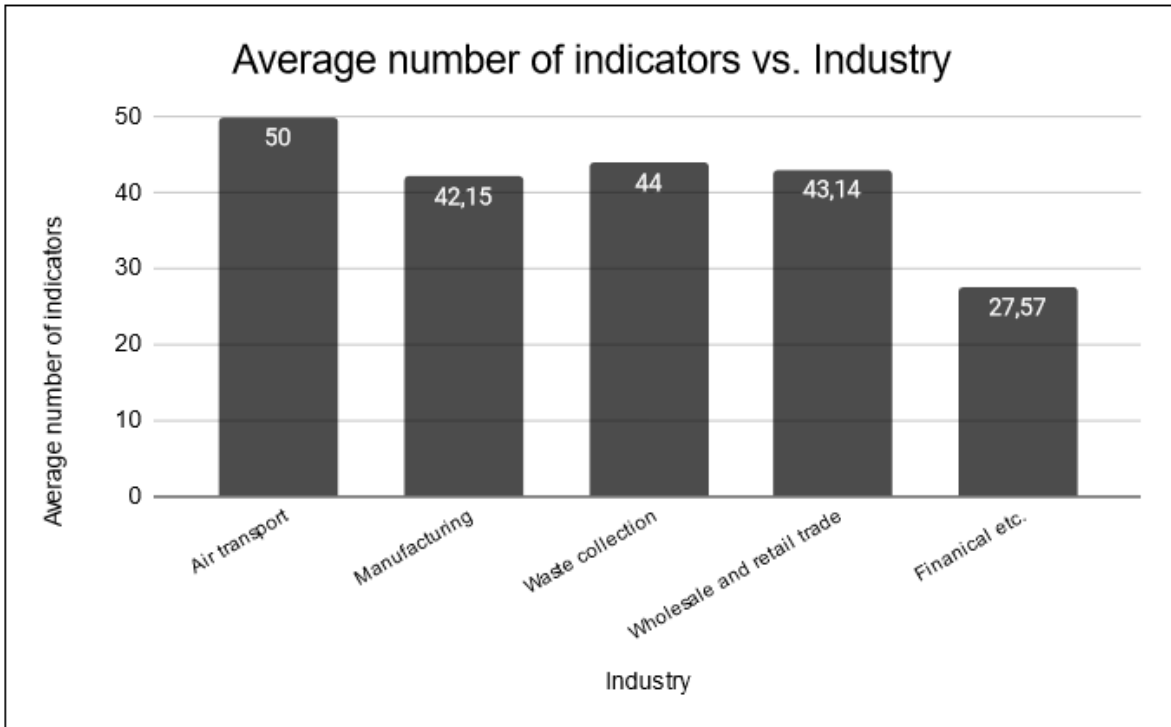
Figure 15. Average number of indicators per industry.

When examining the economic, environmental, and social dimension individually, the pattern between industries looks a bit different. Figures 16, 17 and 18 show the number of economic, environmental, and social indicators per industry, respectively. For economic indicators, the pattern looks quite like the total number of indicators; air transport reports the most indicators and financial etc. companies the least, whereas the rest of the companies are somewhere in between. The range of indicator numbers is quite large, from 3,9 to 12. This range covers 47,64% of the total number of economic indicators. For the environmental indicators, the figure does not follow the same pattern. The highest indicator number here is among the manufacturing companies, and the lowest among finance etc. companies. The range goes from 9,55 to 19,08, which covers 29,78% of the total number of economic indicators. Lastly, for the social indicators, it seems like the air transport, manufacturing, waste collection, and wholesale and retail all report around the same number of sensors, even though air transport is a leader here again, while financial etc. companies disclose significantly less indicators. The range covers indicator numbers from 13,2 to 24. This is 23% from the total number of social indicators. Hence, there is the least variation in the indicator numbers between industries among the social dimension and most among the economic dimension, environmental being in the middle.
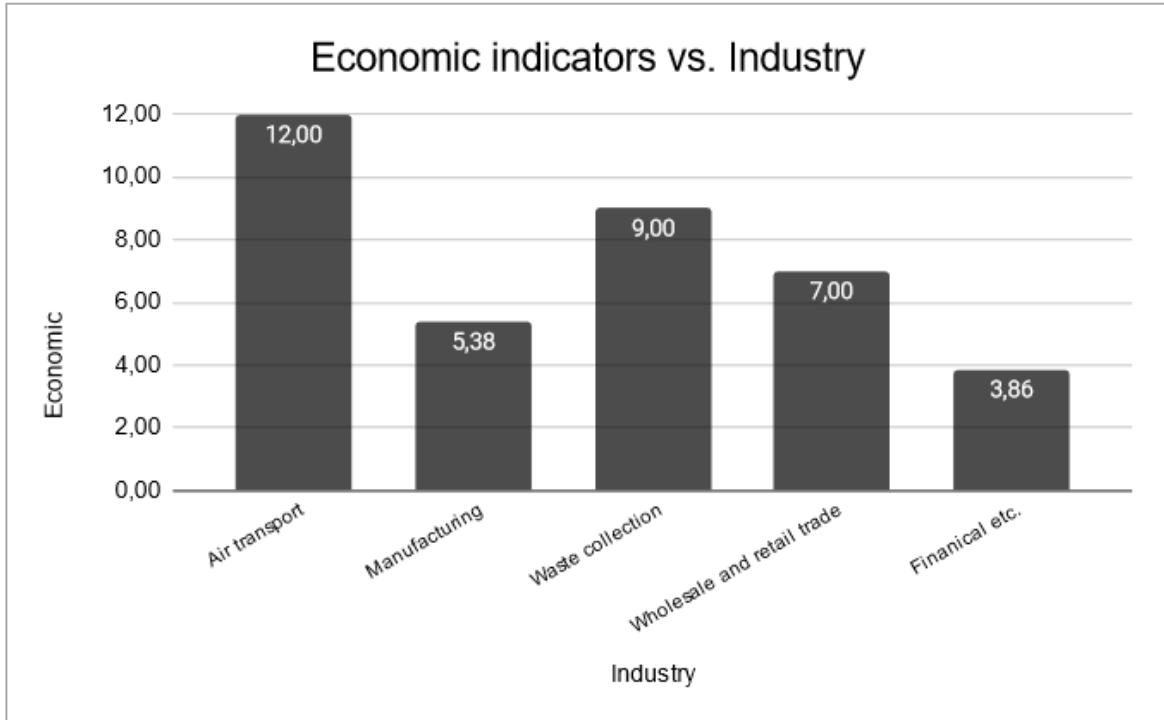
Figure 16. Average number of economic indicators per industry.
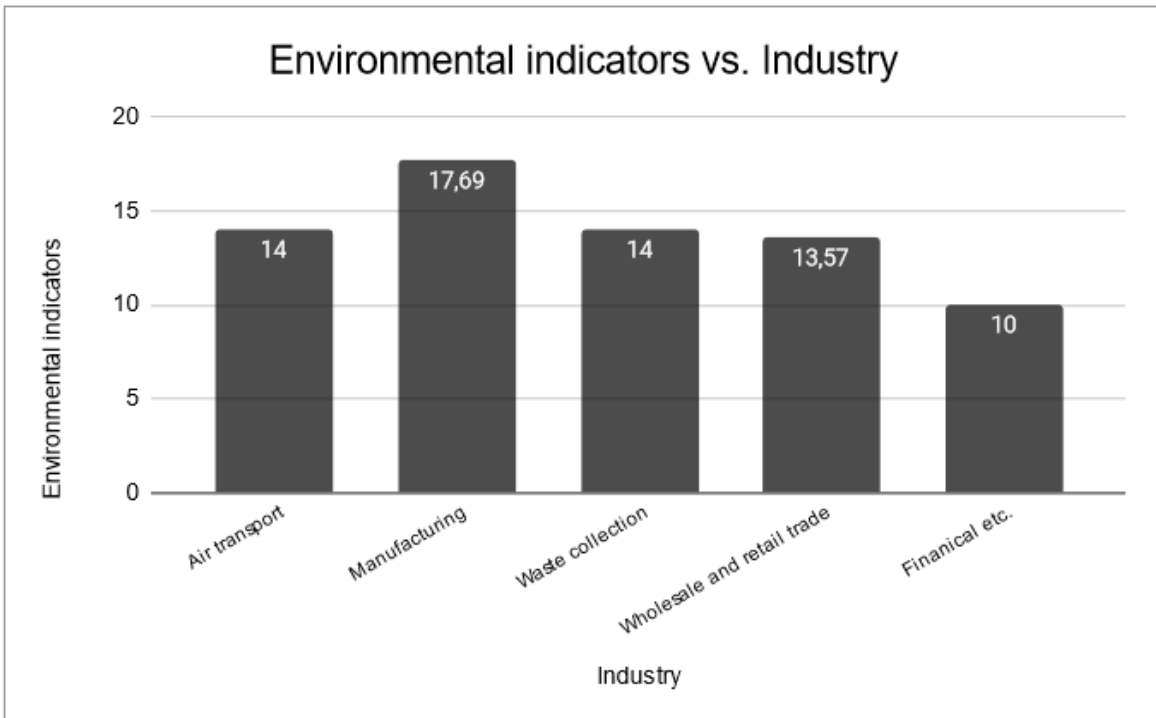
Figure 17. Average number of environmental indicators per industry.
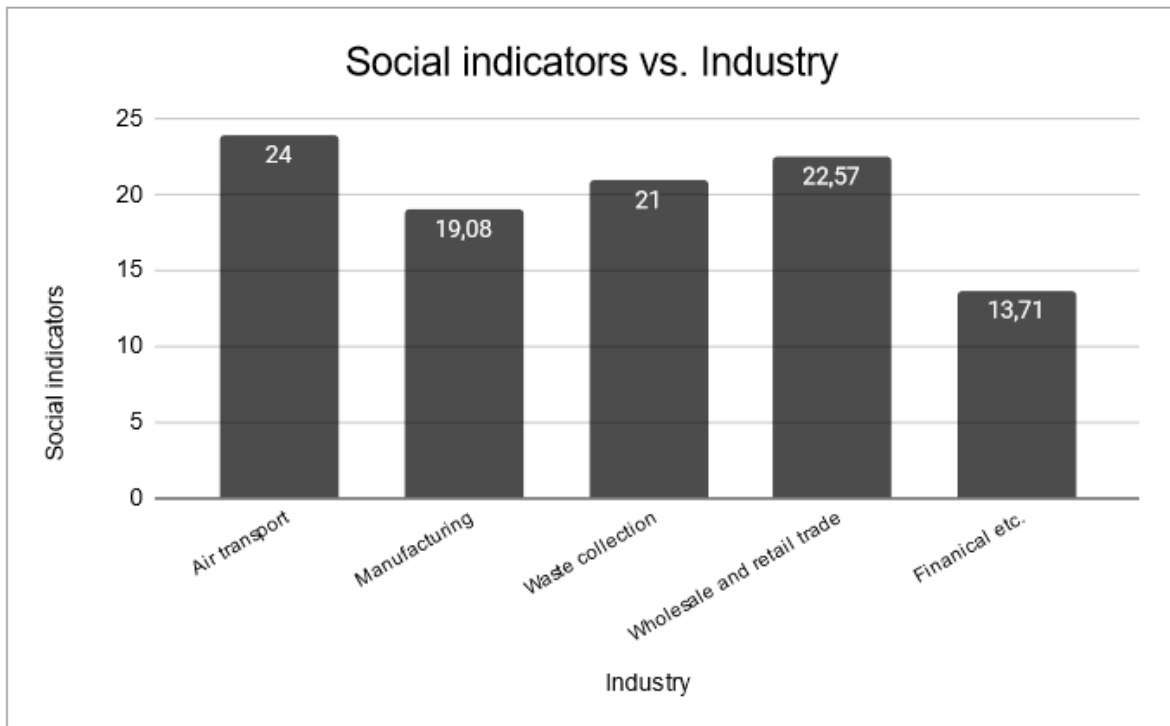
Figure 18. Average number of social indicators per industry.

The most and least reported indicators look slightly different per industry as well. Tables 14, 15, and 16 show the most and least reported indicators for manufacturing, wholesale and retail, and financial etc. companies, respectively. As there is only one company for both air transport and waste collection, these industries are not considered here. For the manufacturing companies, there were three indicators that all 13 companies reported and five indicators that 12 out of 13 companies reported, whereas only three indicators were not reported by any company. All the most and least indicators belong to the overall most and least reported indicators among the whole sample.

Table 14. Most and least reported indicators for the manufacturing industry.

Indicator	Dimension	# mentions
Direct (Scope 1) GHG emissions	Environmental	13
Energy indirect (Scope 2) GHG emissions	Environmental	13
Energy consumption within the organisation	Environmental	13
Other indirect (Scope 3) GHG emissions	Environmental	12
Hazard identification, risk assessment, and incident investigation	Social	12
Worker participation, consultation, and communication on occupational health and safety	Social	12
Worker training on occupational health and safety	Social	12
New employee hires and employee turnover	Social	12
Energy consumption outside of the organisation	Environmental	0
Parental leave	Social	0
Security personnel trained in human rights policies or procedures	Social	0

For the wholesale and retail companies, there were as many as nine indicators that all companies reported, and four indicators that no one reported. Among this industry there were some differences compared to the whole sample's most and least reported indicators. These indicators are underlined in the table. That is, all the wholesale and retail companies reported 'Direct economic value generated and distributed', 'Management of significant waste-related impacts' and 'Work-related injuries'. The waste management indicator is specifically popular among the wholesale and retail companies, as only 64% of the other sample companies reported it.

Table 15. Most and least reported indicators for the wholesale and retail industry.

Indicator	Dimension	# mentions
Direct economic value generated and distributed	Economic	7
Energy consumption within the organisation	Environmental	7
Direct (Scope 1) GHG emissions	Environmental	7
Energy indirect (Scope 2) GHG emissions	Environmental	7
Management of significant waste-related impacts	Environmental	7
Worker participation, consultation, and communication on occupational health and safety	Social	7
Worker training on occupational health and safety	Social	7
Work-related injuries	Social	7
Diversity of governance bodies and employees	Social	7
Ratios of standard entry level wage by gender compared to local minimum wage	Economic	0
Energy consumption outside of the organisation	Environmental	0
Reduction in energy requirements of products and services	Environmental	0
Security personnel trained in human rights policies or procedures	Social	0
Incidents of violation involving rights of indigenous people	Social	0

Finally for the financial etc. companies, the table looks different. Firstly, only three indicators were reported by all seven companies. Here it is interesting to see that indicator 'Substantiated complaints concerning breaches of customer privacy and losses of customer data' is reported by all financial etc. companies, while only 48% of the other sample companies included it in their report. It is also notable that among this industry, there are in total 19 indicators that no company is disclosing.

Table 16. Most and least reported indicators for the financial, insurance, programming, and consultancy industry.

Indicator	Dimension	# mentions
Substantiated complaints concerning breaches of customer privacy and losses of customer data	Social	7
Diversity of governance bodies and employees	Social	7
New employee hires and employee turnover	Social	7
Financial assistance received from government; Ratios of standard entry level wage by gender compared to local minimum wage; Proportion of senior management hired from the local community; Infrastructure investments and services supported	Economic	0
Recycled input materials used; Reclaimed products and their packaging materials; Energy consumption outside of the organisation; Reduction in energy requirements of products and services; Significant impacts of activities, products, and services on biodiversity; Habitats protected or restored; IUCN Red List species and national conservation list species with habitats in areas affected by operations; Emissions of ozone-depleting substances (ODS); Negative environmental impacts in the supply chain and actions taken	Environmental	0
Benefits provided to full-time employees that are not provided to temporary or part-time employees; Parental leave; Minimum notice periods regarding operational changes; Security personnel trained in human rights policies or procedures; Requirements for product and service information and labelling; Incidents of non-compliance information and labelling	Social	0

4.3.4 Indicators by standard and industry

After looking into the individual indicators, the research continues with scoping out to the standards and differences there between the industries. Table 17 shows the 34 standards and a percentual number of indicators per standard for each industry. For example, standard 201 Economic performance has four indicators. Within the manufacturing industry, there were in total 22 indicators disclosed by the 13 companies. 22 divided by 4 x 13 equals 0,46 so 46%. This means that manufacturing companies reported 46% of all the potential indicators they could have reported. In the table, the percentages within a standard are highlighted with green if the standard is reported significantly more within one industry compared to others, while the percentage is highlighted with red if the standard is reported significantly less. If on the other hand, the indicator usage is rather stable and does not change a lot per industry, these are highlighted with yellow.

Some interesting differences can be found for example from the standard 204 Procurement practices. Only 8% of potential indicators are disclosed by the manufacturing companies, while the percentage is 57% for the wholesale and retail. Similarly for the standard 402 Labor/Management relations, 57% of the potential indicators are reported by wholesale and retail companies at the same time as financial etc. companies report 0%. Then again, similarities between the percentages can be found for example from standard 205 Anti-corruption, 404 Training and education, and 415 Public policy.

Table 17. Average disclosing percentage per standard for different industries. Since waste management and air transport only include one company per industry, they are presented as separate in the table. This also explains the difference of their percentages, quite often it is either 100% or 0%.

	Manufacturing	Wholesale and retail	Financials etc.	Waste management	Air transport
Economic					
201 Economic performance	46%	57%	34%	75%	75%
202 Market presence	21%	0%	0%	0%	0%
203 Indirect economic impacts	21%	50%	25%	50%	50%
204 Procurement practices	8%	57%	13%	100%	0%
205 Anti-corruption	53%	57%	46%	100%	100%
206 Anti-competitive behavior	42%	57%	25%	100%	100%
207 Tax	15%	21%	13%	0%	100%
Environmental					
301 Materials	42%	29%	8%	0%	0%
302 Energy	47%	57%	35%	60%	80%
303 Water and Effluents	62%	37%	28%	0%	0%
304 Biodiversity	25%	29%	3%	25%	50%
305 Emissions	80%	69%	54%	71%	71%
306 Waste	62%	86%	55%	40%	20%
306 Environmental compliance	67%	43%	38%	100%	100%
308 Supplier environmental assessment	33%	50%	31%	100%	0%
Social					
401 Employment	36%	52%	33%	67%	33%
402 Labor/Management relations	42%	57%	0%	100%	100%
403 Occupational health and safety	73%	80%	59%	90%	70%
404 Training and education	64%	71%	63%	33%	100%
405 Diversity and equal opportunity	54%	71%	81%	50%	50%
406 Non-discrimination	42%	86%	63%	100%	100%
407 Freedom of assiociation and collective bargaining	42%	29%	25%	0%	100%
408 Child labor	42%	43%	13%	0%	100%
409 Forced and compulsory labor	33%	43%	13%	0%	0%
410 Security practices	0%	0%	0%	0%	0%
411 Rights of indigenous people	17%	0%	13%	0%	0%
412 Human rights assessment	33%	43%	13%	0%	0%
413 Local communities	17%	21%	13%	0%	0%
414 Supplier social assessment	38%	79%	31%	100%	100%
415 Public policy	42%	43%	38%	100%	100%
416 Customer health and safety	54%	57%	19%	50%	100%
417 Marketing and labeling	19%	43%	4%	0%	33%
418 Customer privacy	25%	71%	100%	100%	100%
419 Socioeconomic compliance	58%	43%	50%	100%	100%

4.3.5 Balance of the disclosures

Some observations were made about how balanced the disclosures are. More specifically, how well are the companies bringing up both positive as well as negative aspects about their sustainability. We can

look at the indicator '304-2 Significant impacts of activities, products, and services on biodiversity' as an example. It consists of two requirements with 10 specifications in total:

1. *Nature of significant direct and indirect impacts on biodiversity with reference to one or more of the following:*
   a. Construction or use of manufacturing plants, mines, and transport infrastructure;
   b. Pollution (introduction of substances that do not naturally occur in the habitat from point and non-point sources);
   c. Introduction of invasive species, pests, and pathogens;
   d. Reduction of species;
   e. Habitat conversion;
   f. Changes in ecological processes outside the natural range of variation (such as salinity or changes in groundwater level).
2. *Significant direct and indirect positive and negative impacts with reference to the following:*
   a. Species affected;
   b. Extent of areas impacted;
   c. Duration of impacts;
   d. Reversibility or irreversibility of the impacts

In summary, it asks companies to disclose the impacts they have on biodiversity, both positive and negative, and categorise them according to the nature of the impact. When we look at the sample disclosure, we can see that some companies are only mentioning the positive impacts. For example, UPM reports quite thoroughly about their biodiversity work, which is divided into forest management, conservation, and projects and collaboration. However, they do not mention any negative impacts that their operations might even potentially cause but only focus on elaborating on the efforts they do to enhance biodiversity and present the results and measures they have reached. The same goes for Metsä Group. They have a nice overview of their biodiversity work, which focuses on forest management, but there cannot be any negative impacts found within the report. S Group also has a similar kind of approach; however, it states that the harmful impact that the value chain has on nature is currently challenging for them to identify, which apparently should justify why they do not include the negative impacts.

4.3.6 Differences between GRI requirements and observed reports

The evaluation of the actual indicator information was carried out by comparing the GRI reporting requirements and the indicator disclosures from sample companies' reports. The evaluation showed quite significant differences between the requirements and the observed reports and the quality within

the sample varied. Within the scoring range from 1 (generic statement) to 4 (full and systematic coverage), the average score was 2,29, which suggests more detailed information. The most obvious observation is that, in most of the cases not all the GRI requirements for an indicator are fulfilled. GRI indicators consist usually of more than one requirement, and it is only for a few companies and indicators for which all the requirements are fulfilled. For the rest, companies usually focus on the 'main' requirement and disregard the 'additional' requirements.

As an example, we can look at the indicator '303-3 Water withdrawal'. This indicator consists of four requirements, which are introduced below. The first requirement can be considered the 'main' one, and the following three as 'additional' ones.

1. *Total water withdrawal from all areas in megaliters, and a breakdown of this total by the following sources, if applicable:*
   a. *Surface water;*
   b. *Groundwater;*
   c. *Seawater;*
   d. *Produced water;*
   e. *Third-party water.*
2. *Total water withdrawal from all areas with water stress in megaliters, and a breakdown of this total by the following sources, if applicable:*
   a. *Surface water;*
   b. *Groundwater;*
   c. *Seawater;*
   d. *Produced water;*
   e. *Third-party water, and a breakdown of this total by the withdrawal sources listed in a-d.*
3. *Breakdown of total water withdrawal from each of the sources listed in Disclosures 303-3-a and 303-3-b in megaliters by the following categories:*
   a. *Fresh water;*
   b. *Other water*
4. *Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.*

In a summary, the indicator asks the company to provide their water withdrawal for all areas as well as water stress areas by the various sources, and to divide the total withdrawal by freshwater and other water. This specific indicator was reported by 14 sample companies. Based on the assessment, it can be stated that the first requirement was fulfilled quite well; all the companies provided the total water

withdrawal and 12 also disclosed the breakdown to various sources. The additional requirements however were not as well fulfilled. For the second requirement about the stress area water withdrawal, only seven companies provided this information, of which three stated that they do not operate in stress areas. For the third requirement about the breakdown of water withdrawal to fresh water and other water, the quality is even lower; only three companies mention this in their report.

The same kind of pattern can be seen in other indicators as well, for example in '301-1 Materials used by weight or volume'. This is a rather simple indicator with only one requirement with a specification:

1. *Total weight or volume of materials that are used to produce and package the organisation's primary products and services during the reporting period, by*
    a. *non-renewable materials used;*
    b. *renewable materials used.*

This indicator was disclosed by 12 sample companies. 11 companies provided the total amount of material used, while only five companies separate the non-renewables and renewables. It is also interesting that the company which does not give the total amount of material states that this is due to the total volume and weight of materials being considered proprietary information (Nokia Oyj, 2021). Here we can also see that some companies go beyond the requirements. For example, Huhtamäki and Stora Enso provide the diverse types of materials used (paper, plastic, wood, etc.) and the percentage of how much they contribute to the total material amount, which is not required.

Additionally, an interesting point is that some companies include certain indicators in their GRI index, but then state that the indicator is not relevant to them or that they do not have enough data to measure the indicator. This can be observed for example in the annual report of Kesko. They state in their report that the GRI index table at the end of the report summarises the contents of the report and they have included indicator '308-1 Supplier environmental assessment' there. However, for this indicator, they state that "Not reported by percentage. Information not available". As the only requirement by GRI for this specific indicator is to provide the percentage of new suppliers that were screened using environmental criteria, it is rather contradictory that Kesko still includes the indicator in the GRI index. Similarly, for indicator '305-6 Emissions of ozone-depleting substances (ODS)', both Wärtsilä and Kemira included it in the GRI index, but state that they do not consider it as material and do not provide any information about it.

4.3.6 Observations from the assessment process

Some observations were made during the quality assessment about the fluency of the rating process. It turned out that some of the indicators were significantly more difficult to assess than others. The indicators with a lot of verbal requirements and with a high number of requirements were more difficult to assess and score, than indicators with more simple and fewer requirements. An example of a difficult indicator would be '303-1 Interactions with water as a shared resource', which has the following requirements:

- *A description of how the organisation interacts with water, including how and where water is withdrawn, consumed, and discharged, and the water-related impacts the organisation has caused or contributed to, or that are directly linked to its operations, products, or services by its business relationships (e.g., impacts caused by runoff).*
- *A description of the approach used to identify water-related impacts, including the scope of assessments, their timeframe, and any tools or methodologies used.*
- *A description of how water-related impacts are addressed, including how the organisation works with stakeholders to steward water as a shared resource, and how it engages with suppliers or customers with significant water-related impacts.*
- *An explanation of the process for setting any water-related goals and targets that are part of the organisation's approach to managing water and effluents, and how they relate to public policy and the local context of each area with water stress.*

As can be concluded from the requirements, a lot of description and information is needed to be able to fulfil all the points listed by GRI. For a lot of cases the information is also spread across several pages of the report. According to the assessment of the sample companies, most of them provide the first requirement which is about the interaction with water, by mentioning what they use the water for in their day-to-day activities. However, the rest of the requirements are a bit more complex to find and interpret. It is also observed that only some of the sample companies continue with the other requirements and provide information about the risk identification, impact addressing and goal setting, while most of them only focus on listing the activities that water is related to in their business operations.

An example of a more simple and easier indicator to report would be '301-2 Recycled input materials used', which consists of only one requirement:

- *Percentage of recycled input materials used to manufacture the organisation's primary products and services.*

This indicator only asks to report one single percentage number to fulfil the GRI requirements. It is also a numeric indicator, so no process description or other kinds of explanations are necessary. The quality of this kind of indicator is easy to assess, as the information either is there or is not, so to say. Some differences occurred between the disclosures regarding the clearness of the reporting or whether the percentage was included in addition to the absolute amount of material, but, companies disclosed this indicator with high quality.

5 DISCUSSION

Chapter five interprets the results introduced in chapter four considering prior research. It dives deeper into the findings, aiming to give analysis and explanation of what lies behind them and what can be concluded based on them. The target of the chapter is to connect the results to the three essential theories introduced in chapter two - stakeholder theory, legitimacy theory and institutional theory

5.1 Type and length of report

The results show that 48% of the sample reports are annual reports. Annual reports have a bit less pages devoted to sustainability matters compared to the length of separate sustainability reports, as annual reports included on average 51 pages related to sustainability, whereas the average length of separate sustainability publications was 62 pages. However, annual reports include on average 26.755 words, whereas independent sustainability reports include on average 24.910 words. The difference is not significant, but still, it is surprising that reports that are on average shorter include more words. Reasons for this can be that, for example, sustainability reports include more demonstrative pictures, figures, or tables, which make the reports longer but do not add up to the word amount. What is also especially interesting is that annual reports include more indicators. On average 23% more indicators, related to all economic, environmental, and social dimensions, are included into annual reports compared to individually published sustainability reports. This is a surprising observation, as one could think of separately prepared sustainability reports to be more extensive, regarding the length, number of words as well as the number of indicators. Of course, it must be considered that this sample consists of only 29 companies that all operate in Finland, so the result is not necessarily that representative. Regarding the quality of the indicator disclosures, it seems like there is no difference between annual reports and in separate sustainability reports, as the average quality score for both types is exactly 2,47.

An interesting point is that, when looking into the report lengths per industry, air transport reports the lowest number of words compared to other industries. This is contradictory to prior research, as studies have suggested the extent of disclosures being an indicator of the importance of the issue to the reporting company (Sweeney & Coughlan, 2008). As air transport is under high pressure of having to manage their emissions and environmental impact, it surely must be an important topic for them. But again, this sample only included one air transport company, so the results are not necessarily representative.

The findings raise a question whether it is better to disclose sustainability information in an annual report or in a separate report, and why some companies choose to prepare an individual disclosure, while others prefer to include it in the annual report. The literature about the difference between the type of reports regarding CSR information is very scarce, so it is difficult to rationalise this based on

prior research. The benefits of integrating the sustainability information into the annual report might be for example that all information is in the same place, which makes it easier for the stakeholders to find all the necessary data. Also, when reported in the same place it might be easier to consider the sustainability and financial aspects together and see how they relate to each other, while this might be more difficult if published separately. Sweeney & Coughlan (2008) state that the annual report has some advantages over other forms of CSR communication, including for example that often the annual report is the only document that is automatically sent to the shareholders by all companies. The benefits of integrated reporting, which aims to integrated representation of a company's performance in terms of both financial and other value-relevant information, are that data is reported in such a way that the financial and non-financial information show their impact on each other (Dumay et al., 2016). In addition, research shows that integrated reporting has led to a higher reporting quality with greater readability (Vitolla & Raimo, 2018). On the contrary, some authors have mentioned the negative sides of integrated reporting, stating that environmental and social dimensions are overridden by the economic dimension (Dumay et al., 2016). Also, McGuire et al. (1998) mention that the use of annual reports confuses social orientation with corporate action. As there is evidence about the benefits of both reports, annual report and independent sustainability report, and the research results did not show a difference regarding the quality between these two types of reports, it can be concluded that the report type does not significantly affect the quality and extent of CSR indicator disclosures.

5.2 Report readability and clearness

When it comes to the clearness and readability of the reports, the results show some variation within the sample. Some companies are reporting in a consistent manner, using clear tables and figures, and referring to specific information, while others are vaguer, resulting in the feeling that trying to hide the indicator results in the text, not providing any tables where the information could be easily and quickly interpreted. GRI specifically advises companies to pay attention to providing clear, understandable, and accessible information, so that stakeholders can find the relevant information without unreasonable effort (GRI, 2016). The research results suggest that these principles are not satisfyingly fulfilled and that there is room for improvement regarding clarity of reporting. There are prior studies where the readability of reports is connected to the company's performance. For example, Hummel & Schlick (2016) found that poor sustainability performers prefer low-quality sustainability disclosure to disguise their true performance and to protect their legitimacy, which also builds upon the legitimacy theory. One future research topic could then be to compare the actual CSR performance and the indicator disclosures of a company.

5.3 Most and least used indicators

For the most and least reported dimensions, the results show that economic indicators had the least mentions compared to environmental and social dimensions. The reporting percentage for economic indicators was 33,87%, and for environmental and social the percentage was 48,28% and 47,41%, respectively. This is a significant difference between the dimensions. Reasons for this might be due to companies not considering economic indicators as relevant from the sustainability point of view. Instead, they see economic dimension more as a part of traditional financial reporting, and at the same time find it more important to prioritise environmental and social measurements in their sustainability report. According to research, consumers attach most value to the environmental dimension of CSR, which could lead management to emphasising that over economic and social dimensions (Graafland & Mazereeuw-Van der Duijn Schouten, 2012). However, there seems to also be a contradiction between some other studies focusing solely on indicators. For example, Roca & Searcy (2012) found that the indicators were quite evenly distributed between the triple bottom line in their sample of Canadian companies. Then again, Raucci & Traquino (2020) discovered that economic indicators were most frequently mentioned in their Italian sample. Traquino, Raucci & Benedetti (2020) found that social indicators were the most frequently disclosed indicators, while the rest are quite evenly distributed. The different results of these studies also show that it might be due to the specific sample or a country how the indicators are divided over the dimensions, and there seems not to be a clear consensus among this topic but it is more to do with that particular situation. According to the stakeholder theory, companies strive to meet their stakeholders' expectations, which might suggest that the sample companies' stakeholders do not value the economic dimensions as much as environmental and social ones. This would then explain why companies do not see economic dimension as relevant.

The results show that most reported indicators include energy consumption, emissions as well as diversity of governance and new employee hires. When contrasting these results with prior research, some similarities as well as differences can be detected. There are connections to the work of Skouloudis & Evangelinos (2009) who state that, among others, the most often cited environmental indicators among their Greek sample companies included energy consumption as well as carbon dioxide emissions. Likewise, Roca & Searcy (2012) report that the most highlighted indicators within their sample include greenhouse gas/CO2 equivalent emissions and energy consumption. From this research's sample, 26 out of 29 companies reported their energy consumption, and 28 and 27 companies reported their indirect and direct emissions, respectively. This suggests that an obvious connection between these studies can be detected regarding the environmental dimension. However, when looking into economic and social categories, there seems to not appear a connection with prior studies. This study found that the most used economic indicators were related to economic value generated and distributed, communication and training about anti-corruption policies and procedures, as well as

financial implications due to climate change. For social dimension, the most popular indicators were about diversity of governance and employees, as well as new employee hires and turnover.

The most reported indicators can be examined and understood through institutional theory, which argues that companies disclose their sustainability performance information because of institutional pressure. In the field of sustainability, a lot of focus has been concentrated especially on climate change. Greenhouse gas emissions have been a topic of this discussion for a long time, as they are the main driver for temperature increase. Businesses contribute significantly to creating emissions and this specifically concerns the largest companies, which are also in the scope of this research. Hence, there is a major institutional pressure for companies to manage and report their greenhouse gases, as this is increasingly expected by the wider community. On the other hand, also stakeholder theory can be applied here. Prior research has provided evidence that external stakeholders are the determinant of the existence of emissions disclosures (Liesen et al., 2015). Stakeholders are increasingly requiring hard and objective data on absolute levels of GHG emissions to be able to evaluate the company's performance on climate change.

5.4 Company characteristics and use of indicators

Results show some connection between company characteristics and the extent of indicator usage. Firstly, they show a connection between the revenue as well as the number of employees and the number of indicators, suggesting that bigger companies use more indicators. This observation is strongly supported by prior literature. Among others, Khaveh et al. (2012) pointed out an association between intense corporate social responsibility disclosure and revenue. Likewise, Gomes et al. (2015) emphasise larger companies having higher levels of adoption of management practices for sustainability.

The results indicate some differences between industries and the number of indicators. More specifically, air transport uses the most indicators while companies in the field of financial, insurance, programming, and consultancy use the least indicators. This seems quite logical, as air transport is an example of an industry with built-in environmental impacts and emissions. On the other hand, companies that operate in financial, insurance, programming, and consultancy usually have lower pressure on the environment and society. This would then suggest that companies with a higher impact on their surroundings tend to report about their sustainability more intensively. This observation is strongly supported by the legitimacy theory. The theory suggests that companies that cause significant effects on the environment tend to have higher accountability (Vitolla & Rubino, 2017). Several studies have found that companies under strong external pressure to manage their sustainability are associated with enhanced sustainability reporting, while companies that do not experience stakeholder pressure to issue sustainability reports do not disclose it (Nazari et al. 2015; Stubbs et al., 2013). The air transport

sector has quite some harmful impacts on the environment, so the executives are seeking to legitimise their actions through additional information disclosed in the form of sustainability reports. Same theory could also be used to explain the differences in the indicator usage between companies of assorted sizes. More pressure is usually put on larger companies on reporting, as they have more impact on society than smaller ones. This would then suggest that, due to this external pressure, larger companies tend to disclose more about their sustainability.

What is more, it seems like companies from different industries focus on diverse types of indicators. Wholesale and retail sector focuses on procurement practices, supplier assessment and labour related indicators, manufacturing companies on the other hand on materials and waste. Financial etc. companies report most about customer privacy. Similarities between the sectors are that everyone reports quite frequently about emissions, while leaving out security practices and rights of indigenous people. The differences can quite well be explained by the nature of the industries, and they are also supported by prior research. Ahmad et al. (2019) investigated the indicators specifically for the manufacturing sector, and found that indeed material usage, energy and emissions were most frequently used. For wholesale and retail industry, it is logical that indicators related to supply chain are important, as supply chain management is a large aspect of their business. Then for financial etc. companies it seems reasonable to focus on customer privacy, as they are operating with delicate data of their clients. The fact that different companies also have different stakeholders might affect their reporting manners (Roca & Searcy 2012). This is also supported by the stakeholder theory, which suggests that companies strive to meet the expectations of their stakeholders.

5.5 Following GRI requirements

Results show that companies are not following the GRI requirements, at least not obediently. It was discovered that some companies neglect the GRI instruction of providing both topic management as well as topic-specific indicators when recognising a topic as material; in total seven companies failed in fulfilling this requirement, which is 24% of the whole sample. As GRI very clearly states that these two types of indicators should be disclosed together, results show that there is room for improvement regarding this. One explanation for the observation might be that companies find the topic management indicators more difficult to interpret, as they are more complex and require a lot of verbal explanation. This does not however justify the decision of only providing the topic-specific indicator without describing how the topic is managed inside the company. Additionally, some of the disclosures seem to lack balance. Companies only provide positive impacts of certain indicators, while neglecting to discuss the negative ones. GRI requirements for report quality specifically include a requirement for balance, suggesting that the information should be reported reflecting both positive and negative aspects of the reporting company's performance. Hence, there is room for improvement regarding the balance

of disclosures as well. What is more, it was observed that sometimes companies included an indicator in their GRI Index, but later they state that this indicator is not relevant for them to report, or that they do not have enough data to disclose it. This would suggest that companies feel pressure to include many indicators or certain indicators in their report, even though they do not really have the capabilities of measuring them. Finally, companies follow the 'main' requirements of indicators but neglect the 'additional' requirements. In a sense, basic information is therefore provided, but rarely do companies go beyond that to fulfil the requirements completely and provide complete disclosures.

These results of completing GRI requirements can be observed from many different viewpoints. One explanation would be for example that, there is still a lack of agreement on the information corporations should be disclosing and sustainability reporting is still not standardised enough, resulting in incomplete disclosures (Roca & Searcy 2012). Additionally, prior research has indicated the incompleteness of reports as well. Liesen et al. (2015) investigated GHG emission disclosures and found that while 70% of their sample disclosed GHG emissions, only 23% provided complete information regarding the scope, type, and reporting boundary. They stated that while stakeholder pressure might increase the number of disclosures, it has only a minor impact on the completeness of these disclosures. This could then be connected to legitimacy theory, suggesting that companies appear to be responding to stakeholders' pressures without providing information that will allow for meaningful accountability (Liesen et al., 2015). This can in some sense be connected to the observation that was made from the report clarity, and the prior findings of corporations seemingly disclosing sustainability reports but deliberately making them difficult to read (Cho et al., 2010).

5.6 Recommendations

Chapter five ends with summarising some recommendations based on the observed results. These recommendations can be utilised by other companies as they can learn from the example of larger entities. These recommendations could especially be valuable for companies who are starting to build up their sustainability reporting or who need guidance, particularly with indicator disclosure. The recommendations consist of three points; 1) choosing the indicators, 2) following the GRI requirements, and 3) disclosing a clear and readable report.

5.6.1 Choosing the indicators

The recommendation of choosing the right indicators can again be divided into a few different options. As the sample consists of the largest Finnish companies, recommendations can vary on whether it is relevant for the reporting company to follow these large companies, or whether their business model differs significantly so it is better to adopt another point of view for determining the indicators.

- For large and mid-sized companies who have been operating in a certain industry for a while already, it is recommended to follow the disclosures of the largest companies. That is, to choose the indicators based on what other companies in this industry find relevant. The results show that companies operating in manufacturing find indicators related to materials and water especially relevant. Companies in wholesale and retail on the other hand concentrate on procurement practices, waste, supplier social assessment, and marketing and labelling. Finally, companies in financial, insurance, programming and consultancy find indicators in customer privacy especially relevant. The argument behind this recommendation is that similar types of companies tend to have similar expectations from society, suggesting that managing and reporting about these expectations legitimises the company's actions and protects its legitimacy.

- For smaller and younger companies, also start-ups, it might not be the best option to follow the larger and older companies, as the business models and relevant indicators between these types of companies might look quite different. It is then recommended to start by recognising what aspects are relevant for a specific business model and what are the expectations and interests of that specific company's stakeholders. Starting point can be to assess the key activities, key resources, and key partners, as they can be seen particularly relevant (Halberstadt & Johnson, 2014). The aim is to provide stakeholders with information that is relevant for them to assess the company's performance, which then creates an atmosphere of trust and for example advocates on behalf of receiving funding easier, supporting the arguments of stakeholder theory.

5.6.2 Following the GRI requirements

For following the GRI guidelines, recommendations include paying attention to the additional requirements and the main one. This allows for fulfilling the standards and requirements as a whole, as additional requirements are important too and can be essential in creating a comprehensive impression of an indicator. If the data cannot be gathered to fulfil all the requirements, this should be clearly mentioned. Leaving information out is not a preferable option, as it leaves room for the reader to make one's own interpretations about the missing data. Additionally, it is advised that if an indicator is not considered as material, it should not be included into the GRI index. This can create an inaccurate perception of the number of indicators used. What is more, attention should be put to balanced disclosures. Reporting only the positive impacts does not create a realistic picture of the actual indicator measurements but is more of a point of suspicion and can cause distrust among the report readers and stakeholders.

5.6.3 Disclosing clear and readable report

Finally, for recommendations about the report clearness, attention should be put to the fact that information should be easily accessible. The GRI index should clearly point out the pages where the information can be found, as this reduces the time that the reader must spend to find specific information. Tables and other kinds of visual presentation of the information should be favoured, as it makes it possible to interpret the information quickly. On the other hand, hiding the numbers within the text would be avoided.

6 CONCLUSIONS

6.1 Summary of the findings

This thesis investigates the usage of sustainability performance indicators in corporate sustainability reporting. It focuses on GRI indicators with the scope in large Finnish companies. The aim is to find out what indicators are the sample companies currently including in their reports, investigate the possible differences between the disclosed indicators of different companies, and assess the quality of the disclosures.

Sustainability reporting is an interesting and momentous topic among academia as well as businesses, as new legislation is entering the field and it is becoming increasingly compulsory for corporations to provide sustainability disclosures. Prior research has been conducted about the topic, but studies regarding sustainability performance indicators remain scarce. The few studies that have been done have concentrated on what indicators are being disclosed the most and at what level is the quality of the disclosures.

The results of this research show that on average, companies report 40 indicators out of the total 88 GRI indicators. Environmental and social indicators are used more than economic indicators. Connection is found between companies' revenue and the number of indicators, as well as the number of employees and the number of indicators. Revenue and number of employees can be contrasted to the size of the company, suggesting that bigger companies use more indicators on average. Results show some differences in indicator usage between companies in certain industries. Companies in finance, insurance, programming, and consultancy disclose on average fewer indicators compared to companies in other sectors. Manufacturing companies focus most on indicators related to materials and water, while companies in wholesale and retail find indicators of waste, labour and management relations, and supplier social assessment the most relevant. Financial etc. companies then concentrate on customer privacy the most. For all the sample companies, the most reported indicators among the sample are connected to GHG emissions, as well as the diversity of governance and new employee hires. Regarding the disclosure quality, inconsistencies were found between the GRI requirements and the actual report quality, suggesting that companies tend to only follow the basic requirements while neglecting the additional qualifications. Also, the balance of the disclosure, as well as the correct use of distinct types of GRI indicators was neglected.

The results show that companies are experiencing external pressure to disclose sustainability information and use multiple performance indicators, yet the pressure does not impact the quality and there is room for improvement regarding following the GRI requirements. Stakeholder theory as well

as legitimacy theory can be used to explain the results. This suggests that companies are trying to fulfil stakeholders' demands by disclosing sustainability information, and at the same time legitimise their actions and protect their legitimacy.

This research contributes to the wider literature on sustainability performance indicators. On the other hand, results about the differences between industries and the quality assessment provide new insights and complete previous research, as they are conducted in the Finnish context. The results of this research can be utilised by other companies, as they can learn from examples of the more experienced companies, both by mimicking the desirable observations and avoiding the unsatisfactory ones.

6.2 Limitations of the research

As per all research, also this one entails some limitations. The design of this research is qualitative, so by nature, it has more of a subjective position compared to quantitative research. That is, the researcher's own views and interpretations have more impact on the analysis and results, which might be biased. Especially the assessment of the indicator quality can be considered a subjective task, which might look a bit different if done by another researcher.

Another limitation that could be mentioned is the sample size. For a qualitative study, the sample size of 29 companies can be considered as large, but for example, for the industry analysis, it could be beneficial to include more companies in the sample. Including more sample companies per industry would allow for more reliable results for calculating average numbers. For example, now there was only one company for waste management and one company for air transport, which does not represent the industries with a large scope.

6.3 Suggestions for future research

The field of sustainability performance indicators among the larger scope of sustainability reporting is extremely topical and there is a need for more research. This research only focused on the quality assessment of environmental indicators, so a direct follow-up topic for future studies could be to continue and extend the indicator assessment for economic and social GRI indicators.

This research looked at the connection between indicator usage and several different company characteristics, but many other dimensions could be interesting to contrast with the indicators. For example, if some of the sustainability indicators are combined with companies financing terms, it could be interesting to see how that affects reporting manner. What could also be interesting to look at is whether a firm financial performance is connected to sustainability reporting, for example, if worse

performance would lead to worse reporting. As was also mentioned in the discussion chapter, one topic could be to seek a connection between CSR performance and the level of indicator disclosures.

Finally, as this research revealed the most frequently used indicators for the largest companies in Finland, another interesting topic could be to go beyond the content analysis and dive into the motivations behind the selection that companies make. By interviewing the managers responsible for corporate sustainability and reporting, information could be gained from the reasons and thoughts of why certain indicators are chosen and why some are left out.

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APPENDIXES

Appendix I. List of sample companies and their characteristics.

#	Name	NACE code	Industry classification	Size in revenue (millions of €)	Age
1	Cargotec Oyj	28	Manufacture of machinery and equipment n.e.c.	3.315	17
2	Finnair Oyj	51	Air transport	383	99
3	Fiskars Group	70	Activities of head offices; management consultancy activities	1.450	373
4	Huhtamäki Oyj	70	Activities of head offices; management consultancy activities	3.600	102
5	Ilmarinen	84	Public administration and defence; compulsory social security	171	61
6	Kemira Oyj	20	Manufacture of chemicals and chemical products	2.700	102
7	Kesko Oyj	46	Wholesale trade, except of motor vehicles and motorcycles	13.150	82
8	Kojamo Oyj	68	Real estate activities	99	69
9	Kone Oyj	28	Manufacture of machinery and equipment n.e.c.	10.500	117
1+	Konecranes Oyj	28	Manufacture of machinery and equipment n.e.c.	3.200	112
11	Lassila & Tikanoja Oyj	38	Waste collection, treatment and disposal activities; materials recovery	812	117
12	Lähitapiola	64	Financial service activities, expect insurance and pension funding	95	9
13	Metsä Group	46	Wholesale trade, except of motor vehicles and motorcycles	6.017	75
14	Neste Oyj	19	Manufacture of coke and refined petroleum products	15.148	74
15	Nokia Oyj	70	Activities of head offices; management consultancy activities	22.202	157
16	Nokian Renkaat Oyj	22	Manufacture of rubber and plastic products	1.700	34
17	Oriola Finland Oy	46	Wholesale trade, except of motor vehicles and motorcycles	1.882	16
18	Orion Oyj	21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	1.041	105
29	Outokumpu Oyj	64	Financial service activities, expect insurance and pension funding	7.709	108
20	S Group	46	Wholesale trade, except of motor vehicles and motorcycles	12.329	118
21	Sanoma Oyj	82	Office administrative, office support and other business support activities	1.250	23
22	Stora Enso Oyj	17	Manufacture of paper and paper products	10.164	24

23	Suominen Oyj	64	Financial service activities, expect insurance and pension funding	443	124
24	Tietoevry Oyj	62	Computer programming, consultancy and related activities	2.820	54
25	Tokmanni Group Oyj	47	Retail trade, except of motor vehicles and motorcycles	1.142	33
26	UPM-Kymmene Oyj	17	Manufacture of paper and paper products	9.814	26
27	Uponor Oyj	70	Activities of head offices; management consultancy activities	1.300	104
28	Varma	65	Insurance, reinsurance and pension funding, except compulsory social security	20	24
29	Wärtsilä Oyj Abp	28	Manufacture of machinery and equipment n.e.c.	4.778	188

Appendix II. List of GRI performance indicators.

GRI 200: Economic impacts
201 Economic performance 2016
201-1 Direct economic value generated and distributed
201-2 Financial implications and other risks and opportunities due to climate change
201-3 Defined benefit plan obligations and other retirement plans
201-4 Financial assistance received from government
202 Market Presence 2016
202-1 Ratios of standard entry level wage by gender compared to local minimum wage
202-2 Proportion of senior management hired from the local community
203 Indirect economic impacts 2016
203-1 Infrastructure investments and services supported
203-2 Significant indirect economic impacts
204 Procurement practices 2016
204-1 Proportion of spending on local suppliers
205 Anti-corruption 2016
205-1 Operations assessed for risks related to corruption
205-2 Communication and training about anti-corruption policies and procedures
205-3 Confirmed incidents of corruption and actions taken
206 Anti-competitive behaviour 2016
206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices
207 Tax 2019
207-1 Approach to tax
207-2 Tax governance, control, and risk management
207-3 Stakeholder engagement and management of concerns related to tax
207-4 Country-by-country reporting

GRI 300: Environmental impacts
301 Materials 2016
301-1 Materials used by weight or volume
301-2 Recycled input materials used
301-3 Reclaimed products and their packaging materials
302 Energy 2016
302-1 Energy consumption within the organization
302-2 Energy consumption outside of the organization
302-3 Energy intensity
302-4 Reduction of energy consumption
302-5 Reduction in energy requirements of products and services

303 Water and Effluents 2018

303-1 Interactions with water as a shared resource

303-2 Management of water discharge-related impacts

303-3 Water withdrawal

303-4 Water discharge

303-5 Water consumption

304 Biodiversity 2016

304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas of high biodiversity value outside protected areas

304-2 Significant impacts of activities, products, and services on biodiversity

304-3 Habitats protected or restored

304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations

305 Emissions 2016

305-1 Direct (Scope 1) GHG emissions

305-2 Energy indirect (Scope 2) GHG emissions

305-3 Other indirect (Scope 3) GHG emissions

305-4 GHG emissions intensity

305-5 Reduction of GHG emissions

305-6 Emissions of ozone-depleting substances (ODS)

305-7 Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions

306 Effluents and Waste 2016

306-1 Waste generation and significant waste-related impacts

306-2 Management of significant waste-related impacts

306-3 Waste generated

306-4 Waste diverted from disposal

306-5 Waste directed to disposal

307 Environmental compliance

307-1 Non-compliance with environmental laws and regulations

308 Supplier environmental assessment

308-1 New suppliers that were screened using environmental criteria

308-2 Negative environmental impacts in the supply chain and actions taken

GRI 400: Social impacts

401 Employment

401-1 New employee hires and employee turnover

401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees

401-3 Parental leave

402 Labour/Management relations

402-1 Minimum notice periods regarding operational changes

403 Occupational health and safety

403-1 Occupational health and safety management system

403-2 Hazard identification, risk assessment, and incident investigation

403-3 Occupational health services

403-4 Worker participation, consultation, and communication on occupational health and safety

403-5 Worker training on occupational health and safety

403-6 Promotion of worker health

403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

403-8 Workers covered by an occupational health and safety management system

403-9 Work-related injuries

403-10 Work-related ill health

404 Training and education

404-1 Average hours of training per year per employee

404-2 Programmes for upgrading employee skills and transition assistance programmes

404-3 Percentage of employees receiving regular performance and career development reviews

405 Diversity and equal opportunity

405-1 Diversity of governance bodies and employees

405-2 Ration of basic salary and remuneration of women to men

406 Non-discrimination

406-1 Incidents of discrimination and corrective actions taken

407 Freedom of association and collective bargaining

407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

408 Child labor

408-1 Operations and suppliers at significant risk for incidents of child labour

409 Forced or compulsory labor

409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor

410 Security practices

410-1 Security personnel trained in human rights policies or procedures

411 Rights of indigenous people

411-1 Incidents of violation involving rights of indigenous people

412 Human rights assessment

412-1 Operations that have been subject to human rights reviews or impacts

412-2 Employee training on human rights

412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening

413 Local communities

413-1 Operations with local community engagement, impact assessments, and development programs

413-2 Operations with significant actual and potential negative impacts on local communities

414 Supplier social assessment

414-1 New suppliers that were screened using social criteria

414-2 Negative social impacts in the supply chain and actions taken

415 Public policy

415-1 Political contribution

416 Customer health and safety

416-1 Assessment of the health and safety impacts of product and service categories

416-2 Incidents of non-compliance concerning the health and safety impacts of products and services

417 Marketing and labelling

417-1 Requirements for product and service information and labelling

417-2 Incidents of non-compliance information and labelling

417-3 Incidents of non-compliance concerning marketing communications

418 Customer privacy

418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data

419 Socioeconomic compliance

419-1 Non-compliance with laws and regulation in the social and economic area