

## **ESG reporting practices of OBX companies**

- **Health & Safety**

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## Table of content

Abstract .....	2
Preface.....	3
<b>1. Introduction .....</b>	<b>4</b>
<i>1.2 The emergence of ESG .....</i>	<i>6</i>
<i>1.3 The future of ESG reporting.....</i>	<i>7</i>
<i>1.4 Research questions .....</i>	<i>8</i>
<b>2. Evidence from the literature.....</b>	<b>9</b>
<i>2.1 Investors' ESG strategies: discovering and utilizing ESG data in their decision-making process.....</i>	<i>9</i>
<i>2.2 ESG measurement: barriers and implications for investors .....</i>	<i>12</i>
<i>2.2.1 Data quality.....</i>	<i>12</i>
<i>2.2.2 Lack of standardization and disclosure .....</i>	<i>15</i>
<i>2.2.3 Materiality .....</i>	<i>18</i>
<i>2.2.4 Transparency.....</i>	<i>20</i>
<i>2.2.5 Measurement divergence .....</i>	<i>21</i>
<b>3. Methodology.....</b>	<b>25</b>
<i>3.1 Selection of research objectives .....</i>	<i>26</i>
<i>3.2 Document mapping.....</i>	<i>27</i>
<i>3.3 Mapping of indicators.....</i>	<i>27</i>
<i>3.4 Categorization of indicators .....</i>	<i>28</i>
<i>3.5 Analysis of indicators.....</i>	<i>29</i>
<b>4. Analysis and discussion.....</b>	<b>30</b>
<i>4.1 Metrics disclosed by OBX companies.....</i>	<i>31</i>
<i>4.2 Clustering of metrics.....</i>	<i>35</i>
<i>4.3 Evidence from the literature and data from OBX companies.....</i>	<i>42</i>
<b>5. Summary and conclusion.....</b>	<b>46</b>
<b>7. References.....</b>	<b>48</b>
<b>Appendix .....</b>	<b>65</b>

## **Abstract**

The increasing importance of ESG (Environmental, Social, and Governance) reporting has pressured institutions and companies to adopt transparent reporting practices. However, the ESG reporting landscape is complex and presents several challenges. This master's thesis investigates the barriers and implications investors encounter when utilizing ESG information. Through a meticulous analysis of annual and sustainability reports, this study focuses on the quantitative non-financial information related to the health and safety indicator of Norwegian companies listed on the OBX index. A total of 213 quantitative indicators are identified, categorized, and analyzed, with a detailed examination of the eight most frequently reported indicators. The findings reveal that most indicators are reported by only one company, while only one indicator is reported by all 25 companies. These results indicate a low level of comparability among indicators that convey information on similar phenomena.

This research contributes to the existing literature by shedding light on the barriers and implications investors face in utilizing ESG information. The study underscores the need for standardized reporting practices to enhance comparability and facilitate the effective use of quantitative data for investors in the ESG domain. Moreover, the need for more standardization in ESG reporting poses significant challenges for investors in utilizing quantitative information from annual and sustainability reports of OBX index companies and companies. Moreover, the need for more standardization in ESG reporting poses significant challenges for investors in utilizing quantitative information from annual and sustainability reports of OBX index companies and companies.

## **Preface**

With this master's thesis, we conclude our master's degree in international business at the School of Business and Law, University of Agder.

Our thesis focuses on how the companies listed on the OBX Index in Norway report on the ESG indicators within *health and safety*. Collecting, analyzing, and utilizing such a large amount of data has been challenging but highly enlightening. The master thesis has provided us with a more profound knowledge of ESG reporting and is undoubtedly something we will benefit from in the future.

We would like to express our sincere gratitude to our supervisor, André Tofteland, who guided us through this master's thesis. André has been an engaging mentor, providing excellent advice and valuable feedback. His expertise has significantly enhanced the quality of this master's thesis.

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# 1. Introduction

The term "Environmental, Social, and Governance" (ESG) has gained significant relevance among institutions, according to Berg et al. (2022). In recent years, companies have faced pressure to adopt sustainable practices due to the need to create a positive social impact beyond shareholders and the recognition that ESG issues are fundamental to the competitiveness and legitimacy of businesses, as demonstrated by Lins et al. (2017), Camilleri (2015), Cao et al. (2019), and Grewal and Serafeim (2020). Historically, investment decisions were driven primarily by a company's financial success and profitability, which dictated market performance. However, in recent times, ESG practices and their impact on a firm's sustainable operations have played an increasingly significant role in investment decision-making processes, as emphasized by Hart and Zingales (2017).

The growing focus on ESG has given rise to various ESG rating agencies, which rate businesses to assist investors. However, concerns have been raised regarding the reliability of these agencies, as it has been found that the ratings given can vary significantly. This lack of convergence in ESG ratings can lead to avoiding uncertainty and make it difficult for investors to make informed decisions, as Chatterji et al. (2016) noted. The absence of clear definitions, frameworks, and standards for sustainable investment can create measurement divergence, confusing investors. Measurement divergence refers to variations in the methods used by various sources to collect, report, and score ESG data, which can impact findings and recommendations, according to Berg et al. (2019). Divergence can also make comparisons challenging, reduce the reliability of ESG data, and diminish the information's value in conclusion. As a result, businesses may need help to meet stakeholder expectations, while investors may be unable to make informed judgments. Notably, investors are also affected, as they consider the likelihood of issues such as environmental harm, equality, and corruption when evaluating a company's financial health. In response to the risks associated with investments and the growing need for accountability and transparency, frameworks and standards have been developed for assessing and disclosing a company's ESG performance. For instance, the Global Reporting Initiative (GRI) Sustainability Reporting Standards provide guidelines for businesses to publish their ESG data uniformly and comparably (Global Reporting, 2022).

Furthermore, according to the Global Sustainable Investment Review (GSIR) 2020 report, the industry of sustainable investments has increased by 35.3 trillion dollars, which is a rise of 15% growth within two years. As reported by GSIR (2020), there is a growing demand for third-party providers of ESG ratings. ESG rating agencies are utilized by a range of stakeholders, including investors, businesses, researchers, and regulatory bodies, to evaluate the ESG performance of companies. Institutional investors see ESG ratings as a tool to handle climate concerns, shareholder proposals, business value models, and hedging (Krueger et al., 2020). Moreover, in April 2021, the European Commission published a draft of the Sustainability Reporting Directive, also known as the Corporate Sustainability Reporting Directive (CSRD). In addition, a political agreement on the directive was obtained in June 2022, and the regulation was enacted in the EU in November 2022. The regulation will be applicable from January 2024 and replace the Non-Financial Reporting Directive (NFRD). The CSRD significantly expands the scope of reporting obligations. This means that the reporting requirements will be more extensive than before, and the main challenges for businesses will be planning how to handle the new requirements in CSRD and ensuring that they are prepared (PwC, n.d.).

To provide effective guidance to investors on ESG performance, it is crucial to understand the potential divergence among ESG ratings provided by different rating agencies and the underlying drivers behind such divergence. However, existing research on ESG ratings has provided conflicting results and has primarily focused on aggregated measures. Following some studies, such as Semenova and Hassel (2015) and Hedesström et al. (2011), the convergent validity of the same environmental indicator exhibits both degrees of convergence and divergence.

In this study, we will explore several points related to ESG measurement. These include the issue of ESG measurement, measurement divergence, and the challenges it poses for investors. Through our analysis of these critical topics, we aim to provide a comprehensive overview of ESG measurement and its impact on the investment landscape.

## 1.2 The emergence of ESG

Sustainable investing, or ESG, consists of three ethical pillars: environmental, social, and governance. This term was first introduced in the FN report launched at the New York Stock Exchange in 2006, "United Nations Principles for Responsible Investment," where the UNEP's Freshfield Report and Knoepfel "Who Cares Wins" served as a foundation for the FN report (PRI, 2021). Consequently, ESG criteria were established for the first time and must be implemented in the financial evaluations of businesses (Atkins, 2020). Through thought leadership, the development of tools, advice, and involvement, PRI's mission is to improve the integration of ESG through close analysis and decision-making (Kell, 2018). The increasing growth of ESG focus on the corporate world is highlighted by the Governance & Accountability Institute (G&A, 2021), which reports that 92% of S&P 500 companies published sustainability reports in 2020. This is a significant increase, as the number on the S&P 500 was just under 20% in 2011 (G&A, 2019).

Historically, there have been divided opinions about what kind of social responsibility companies should have. The famous economist Milton Friedman entered the discussion with his article "*The Social Responsibility of Business is to Increase its Profit*" in 1970 (Friedman, 1970). He argued that the business should aim to make as much money as possible while at the same time being able to follow the basic rules, follow ethical customs, and keep within the law. The critical job of the executive in the business is to be able to return as much money as possible to the shareholders. Friedman explained that anyone can use their money and time to pursue the greater good. Many believed the article, published in the *New York Times* 53 years ago, was the start of a phase in the economy where profits are the only focus of companies and that "greed is good" (Tepper & Curry, 2020). Today, the article seems distant and polarizing to how the businesses have developed their view on social responsibility, although numerous people at the time considered this the right way for executives of the companies to perform in the free market economy.

However, the development of ESG can be said to be led by investors, as by 2021, more than \$500 billion was invested in ESG-integrated funds, which helped to drive the growth of 55% in the number of assets managed by ESG-integrated products (Hale, 2022; Wu, 2022). Additionally, a commitment to include ESG data in investing choices has been made by 4395

investors and service providers, representing above \$121.3 trillion in assets under management (PRI, 2022).

The chief executive of Norges Bank Investment Management, Nicolai Tangen, recently wrote an open letter in *The Financial Times* while present at the World Economic Forum in Davos, where he addressed the importance of climate goals and measures for companies. Tangen states that they will increasingly hold company boards accountable if they fail to set net-zero targets, report on climate matters, or oversee climate risk (Tangen, 2022). This is a critical stance, as the insurance giant Swiss Re Group estimates that failing to address climate change will cause a loss of 18% of GDP by 2050 (Swiss Re, 2021). That amount is comparable to a significant economic recession. However, the increasing focus on ESG has accelerated rapidly in recent years, as Bloomberg Intelligence and Global Sustainable Investment Association found that ESG assets exceeded 35 trillion dollars in 2020, rising from 30.6 trillion dollars in 2018 and making up one-third of all assets managed globally (Bloomberg Intelligence, 2022). According to the analysis, ESG assets can reach \$50 trillion by 2025, assuming 15% growth, which is one-third slower than the rate of the previous five years.

### **1.3 The future of ESG reporting**

As previously mentioned, the number of companies reporting on climate change is rapidly increasing. Despite this, several different frameworks and standards can be used and utilized by companies today (Bose, 2020). KPMG's survey "Big shifts, small steps" (2022) finds that the most used standards for sustainability reporting are GRI, TCFD, and SDGs among the G250 companies. The use of TCFD has nearly doubled in the previous two years, increasing from 37% to 61% among G250 (McCalla-Leacy et al., 2022). Therefore, companies decide which framework they use and how they apply it (Revisorforeningen, n.d.). The way companies conduct their sustainability reporting today is not currently regulated, although some companies use independent audits.

Despite all the different frameworks, they are currently working on standards that will make reporting sustainability information easier. Both the European Commission (EC), EFRAG (European Financial Reporting Advisory Group), and the IFRS Foundation are working on developing these types of standards (Deloitte, n.d.; EFRAG, n.d.). The plan was to replace the



NFRD (Non-Financial Reporting Directive) with a revised version, the CSRD (Corporate Sustainability Reporting Directive). This CSRD solution attempts to reduce the recognized information gap between the users' observed demands for consistent, pertinent, and trustworthy data and the sustainability information reported by companies within the NFRD (Deloitte, n.d.; EFRAG, n.d.).

The implementation of CSRD was decided to go ahead by the EU in November 2022 (EU, 2022). The main changes will be to expand the businesses that have to report, the requirement to audit the sustainability information, and the more detailed information to report, all in line with the mandatory sustainability standards. In addition, all the data should be published as a part of the company's annual report and made public (PwC, 2022). Initially, this will only apply to big companies and groups and all companies listed on the EU's stock markets and regulated markets (EU, 2022.). Primarily, the companies affected are the most prominent companies, which are of general interest; these are obligated to report for the financial year 2024, whereas the first reporting obligations occur in 2025. This reporting directive is naturally considered EEA-relevant (EØS). Therefore, the Ministry of Finance in Norway asked Verdipapirlovutvalget (Securities Act Committee) to start a procedure to develop a way for a Norwegian implementation of the CSRD (Regjeringen, 2022).

## **1.4 Research questions**

This study investigates a specific research problem related to the ESG reporting practices of companies on the OBX index concerning "health and safety." To address this research problem, three research questions have been formulated. Firstly, (1) what are the health and safety related ESG metrics reported by the companies on the OBX index? Secondly, (2) is there evidence of clustering, or grouping, of similar indicators within specific sectors? Third, (3) do the barriers and implications identified in the literature correspond to the data collected from the OBX index regarding ESG reporting? By addressing these research questions, the study aims to contribute insights into the ESG reporting practices of companies on the OBX Index, specifically concerning health and safety related indicators.

## **2. Evidence from the literature**

This chapter will delve into how investors incorporate and utilize ESG information. We will explore the strategies and methods they employ to assess ESG criteria. We will highlight the tangible outcomes and benefits of using ESG information through case studies and real-world examples. By understanding these dynamics, we can gain valuable insights into responsible investing's evolving landscape and its implications for investors and society.

### **2.1 Investors' ESG strategies: discovering and utilizing ESG data in their decision-making process**

To gain further insight into how and why investors use ESG information, Amel-Zadeh and Serafeim (2017) carried out a global investigation. They discovered that 82.1% of respondents used ESG data as a tool in decision-making. Of these, 63.1% stated that ESG data is crucial to how their investment performs, and 31.7% predicted that ESG data would become essential soon. As reasons for incorporating ESG data, 25% of respondents mentioned formal client needs, 33.1% mentioned stakeholder pressure, 32.6% mentioned product strategy, 32.6% mentioned influence, and 32.6% mentioned ethical responsibilities. The 17.9% of respondents who do not use sustainability information in their decision-making represent the most meaningful conclusion. Of these respondents, 21.3% mentioned a lack of accessibility to reliable non-financial data.

Furthermore, the survey conducted by Amel-Zadeh and Serafeim (2017) outlines several factors that may seem to limit the use of sustainability information in investment decisions, including a lack of comparability across companies (44.8%), a lack of reporting standards (43.2%), the cost of data collection and analysis (40.5%), the reported information being too general to be useful (39.4%), a lack of quantifiable information (37.8%), and lastly, a lack of comparability over time.

ESG data can be found by investors from many sources, including firm sustainability reports, independent ESG research providers, the media, and ESG rating agencies. Some investors interact directly with businesses to learn more about their sustainability initiatives (Dimson et al., 2020). Investors frequently consider various aspects of ESG data, such as a company's

governance processes, social responsibility, and environmental effects. They could also consider industry specific ESG issues, such as a company's labor practices in the retail business or its carbon footprint in the energy industry.

Once investors can access ESG data, they use this knowledge to guide their investment decisions. Certain investors may use ESG data to filter out businesses that don't follow specific sustainability standards. In contrast, other investors may use it to pinpoint companies that set the standard high for sustainability. According to Amel-Zadeh & Serafeim (2017), ESG data may be used by investors to spot potential risks and investment possibilities in their portfolios. For instance, they could consider the possible effects of climate change regulations on a company's environmental policies or the potential impacts of social responsibility on a company's reputation and consumer loyalty. Investors that use ESG information in their investing decisions want to positively impact a more sustainable environment while generating long-term profit for their shareholders (Amel-Zadeh & Serafeim, 2017). The adoption of ESG strategies by investors is widespread, and there are various approaches to implementing these strategies.

Investors have responded by making new strategic choices, one of which is "impact investment." According to Busch et al. (2021), impact investment tries to provide specific beneficial social or environmental benefits and financial gains. Impact investments may be found in various asset classes and offer mixed results. The goal of impact investing is to use financial resources and capital to produce socially positive results (Busch et al. 2021). The general objectives of such an investment plan should be diversified, so some investors may have a social agenda while others may still be only interested in financial gains.

Another ESG strategy that is frequently used is an ESG screening strategy that involves both positive and negative screening. According to Amel-Zadeh & Serafeim (2017), "positive screening" includes discovering businesses with solid ESG practices and contributing to these goals. Investors seek companies that value green energy, support equality and diversity, or have open governance practices. "Negative screening," on the other hand, focuses on locating businesses with weak ESG practices or engaging in actions that are seen as damaging to society or the environment. Investors should avoid firms that, for instance, contribute to global warming, use poor labor practices, or conduct controversial commercial operations.

Following the study by Hong & Kacperczyk (2009) on the research of the impact of negative screening in an analysis of U.S. stocks. The authors investigate "sin stocks," which include companies in the tobacco, alcohol, and gambling industries. The researchers discovered that these companies are less commonly held by institutional investors and receive less attention from financial analysts than a control group of stocks. Yet according to Hong & Kacperczyk (2009), "sin" assets, which they classify as brown assets, often offer superior returns than non-sin stocks. In contrast to a positive screening strategy, Statman and Glushkov's (2009) research suggests that investing in socially responsible portfolios typically yields a positive abnormal return, even when considering any additional transaction costs involved. Kempf and Osthoff (2007) also found this generally beneficial for investors.

Another investment approach is the best-in-class ESG strategy. According to Scholtens (2014), the best-in-class investment strategy involves identifying and selecting the top-performing investments within a specific universe, category, industry, or class while considering their ESG credentials. This approach prioritizes investments demonstrating exemplary ESG performance, aligning with the investor's sustainable investment objectives. An illustration of the best-in-class investment methodology is a renowned investment company that oversees an ESG fund that selectively invests in firms that rank among the top 30% of their industry concerning their responsibility rating. This approach aligns with the company's ethical investment philosophy, prioritizing companies that demonstrate exceptional ESG performance while offering compelling returns on investment (Scholtens, 2014).

Furthermore, investors use "divestment" as a strategic tool, which involves selling off a company's subsidiary assets, investments, or divisions to increase the parent company's value. In an ESG context, divestment can involve selling "brown" stocks with negative effects, increasing their capital costs, and limiting their growth. According to Edmans et al. (2022), the most effective divestment strategy is broadly excluding industries that produce negative externalities. By doing this, investors can directly impact the market's negative externalities. Bond et al. (2012) found that investment decisions can also affect the real world through secondary markets. Stock trading reflects a manager's actions, which can reward or penalize them. Managers may take remedial measures to minimize externalities, even in irreversibly brown industries where negative externalities always exist.

ESG investing has become widespread, and various approaches to implementing these strategies exist. Some investors use impact investing to provide specific beneficial social or environmental benefits and financial gains. In contrast, others utilize ESG screening to discover businesses with solid ESG practices or avoid those with weak ones. The best-in-class ESG strategy prioritizes investments demonstrating exemplary ESG performance, while divestment involves selling off negative externality-producing assets. Furthermore, as the importance of ESG factors in investment decisions continues to grow, investors are increasingly seeking to incorporate ESG data into their analysis of companies. However, finding and utilizing reliable ESG data can be challenging. Considering these challenges, the next part examines the existing literature on this topic and identifies the most significant barriers investors face in using ESG data.

## **2.2 ESG measurement: barriers and implications for investors**

By exploring how investors incorporate and utilize ESG information, this chapter will examine the barriers and implications they face. Previous studies on ESG concerning investors will be presented, providing insights into the challenges and consequences of using this information. By analyzing these findings, we aim to enhance our understanding of the complexities surrounding ESG integration in investment decision-making processes.

### **2.2.1 Data quality**

The availability of reliable and accurate data is one of the main issues investors faces regarding ESG. It can be challenging to assure consistency and comparability of data while gathering and evaluating data from many sources. As previously mentioned by Dimson et al. (2020), various data sources are used by ESG rating agencies. The lack of standardized and accessible information on firms' ESG performance is one significant challenge. Most information comes from five primary sources: the businesses' ESG reports, regulatory filings, the media, surveys that rating agencies send to organizations, and predicted data. Therefore, the accuracy and trustworthiness of ESG reporting depend heavily on the data quality. Poor data quality can lead to inaccurate or inconsistent information, which can harm a company's reputation and cast doubt on the reliability of its ESG reporting. Furthermore, there needs to be a standardized

methodology for calculating ESG metrics, resulting in a lack of comparability between companies (Dimson et al., 2020).

Investors are currently worried about ESG data that needs more quality features such as data materiality, correctness, dependability, and comparability (Amel-Zadeh & Serafeim, 2017). According to research, it's challenging to determine which quality criteria, as described by GRI, are now relevant and limiting ESG data utilization. Rating agencies' scopes differ in structures and dimensions, making comparison challenging. KLD, for example, has seven dimensions, whereas Refinitiv has four, and MSCI and Sustainalytics have three (Berg et al., 2022). Thus, rating agencies have different approaches to the ESG data and use the same indicators and categories; however, because rating agencies interpret and use other frameworks in various matters, the outcome of the ESG reporting may differ, and measurement divergence occurs. Berg et al. (2019) comparison of the sustainability ratings from five of the top ESG rating agencies revealed an average coefficient of correlation of 0.61, which is considerably lower than the “perfect” correlation of 0.99 shown, for instance, among the credit ratings. The discrepancies in assessment models and procedures persist even though the academic literature offers some explanations for these variations, such as the quality of the data and the methods used for data collection (Berg et al., 2019).

Further on, Billio et al. (2022) argue that it is not surprising if the sustainability ratings eventually achieved varied given the complexity of the research, the variety of techniques, and the various information systems used by rating agencies. ESG ratings must be similar on a global scale to reduce user confusion and enable meaningful comparisons (Chatterji et al., 2009; Scalet & Kelly, 2010). In addition, ESG is often based on dynamic indicators and usually qualitative data (Dervi et al., 2022). As a result, for multiple ESG ratings to be interchangeable, a certain degree of consensus or agreement is required. Prior studies have found low convergence in assessing the correlation of overall ESG ratings (Chatterji et al., 2016; Dorfleitner et al., 2015; Widyawati, 2021).

Furthermore, Chatterji et al. (2009) investigated the reliability and validity of ESG data provided by Kinder, Lydenberg, Domini Research, and Analytics (KLD, now MSCI). The researchers used regression analysis to assess the relationship between the ESG data and environmental performance metrics. These metrics included historical toxic chemical emissions, environmental penalties and fines, oil spills, and permit denials. However, the

study's findings highlight the importance of selecting the most appropriate and comprehensive measure of environmental performance to test the validity of ESG data accurately. Therefore, choosing the best-quality environmental performance measure is crucial to ensuring the reliability and validity of ESG data.

To further describe the complexity of the data, In et al. (2019) argue that ESG data is inherently complex and depends on context. ESG data is usually unstructured, qualitative, dispersed, and insufficient, unlike conventional financial data, which is organized and quantitative. Therefore, they argue that most investors' adoption of ESG strategies has been impeded by the unique attributes of ESG data and the absence of a conceptual framework. Stakeholders and investors, including rated companies, academics, and NGOs, could then assess and cross-check the agencies' measurements if the methodology were more transparent (In et al. 2019).

A line of empirical research explores the validity and reliability of environmental performance measures. Scholars suggest that a robust theoretical foundation and comprehensive inclusion of relevant constructs are necessary for a valid environmental performance measure (Bartolomeo, 1995; Carroll, 2000). Objective data is also essential for ensuring reliability, consistent measurement terms using standardized units or reference values, and adequate data availability (Schultze & Trommer, 2012; Tyteca, 2002; Wagner, 2005). These factors are critical for accurate and consistent environmental performance measurement, establishing a solid foundation for ESG data analysis.

The academic literature has acknowledged that inconsistent data makes it challenging to evaluate it properly. In their study, Kotsantonis & Serafeim (2019) examined a sample of 50 sizable publicly listed businesses and systematically gathered their disclosures on worker health and safety information. The authors discovered more than 20 distinct ways the rating firms reported this parameter, indicating that these discrepancies result in noticeably varied ESG score outcomes. The main objective of ESG measurements is to accurately reflect a company's performance on a specific ESG issue. Investors won't be able to utilize the data to hold businesses accountable for their ESG work because of their engagement activities or to include it in their business research and valuation tools until this objective has been accomplished (Kotsantonis & Serafeim, 2019). Besides that, Eccles et al. (2017) describe how it's challenging to create generally accepted standards for ESG evaluation. They argue that a perceived lack of accessibility to high-quality ESG data contributes to the issue.

### **2.2.2 Lack of standardization and disclosure**

The absence of a universal measurement or reporting standard for ESG data is a challenge. Investors may find it challenging to evaluate ESG data across different firms and industries as separate organizations, rating agencies, and corporations utilize various approaches that result in inconsistencies. Amel-Zadeh & Sarafeim (2017) discovered that the absence of cross-company comparability and the absence of standards controlling the disclosure of ESG information are the two biggest obstacles investors encounter when adopting ESG information within their investing processes.

Whenever businesses implement the GRI standards, their ESG reports' information, structure, and other reporting obligations are standardized. This standardization enables external stakeholders to compare company performance on a sustainability problem of significant public concern (Sullivan & Gouldson, 2012; Waddock, 2008). With no restrictions, businesses can publish anything they want, and, in any style, they prefer, concentrating exclusively on good news and beneficial actions. However, companies might not be able to address the difficulties of each component within their ESG reports because of the extensive scope of ESG. These findings are consistent with Kaplan & Ramanna's (2021) argument that firms can disguise implicit moral considerations when their actions increase on one ESG indicator but harm another because of the broad spectrum of ESG reporting.

According to Barker et al. (2020), there are currently no universal standards, even though various models, and standards (GRI, SASB, etc.) are popular, detailed, and frequently used. Hence, a lack of uniformity led to a lack of comparability. In addition, as specified by 93 analysts, 50 investors, and 30 journalists questioned by Dawkins & Lewis (2003), 45%, 54%, and 63% of respondents believe that publicly available information on business sustainability performance is of poor quality. According to Bose (2020), the price of framework diversity is typically higher for corporate issuers, which must provide information, than for investors who utilize it. Corporate issuers speak of "reporting fatigue," brought on by the need to satisfy various informational demands.

Additionally, rating agencies often select a particular index as a benchmark and a specific technique and approach to ESG selection inside the ESG investment framework to rate businesses. Hundreds of quantitative and qualitative criteria across a wide range of subjects



must be found, measured, and categorized as part of the extensive research that goes into creating a sustainability index (Billio et al., 2022). Some evaluations are based solely on extra-financial information to determine long-term value and sustainability, while others mix financial and extra-financial data (Scalet & Kelly, 2010). The rating agencies have focused on cooperating with the businesses that provide indices, either independently or in collaboration. Accordingly, most frameworks, techniques, and procedures used to determine corporate sustainability are unsatisfactory (Ben-Eli, 2018). Rating agencies may use different frameworks and criteria when reporting on a business's sustainability performance, so standardization is another crucial component of ESG reporting.

Moreover, global academics have been urged to create a standardized evaluation process for these ESG rating agencies (Escrig-Olmedo et al. 2010). Therefore, various instances of global sustainability indicators have been created using factors related to the environment, for example, the environmental sustainability index. Escrig-Olmedo et al. (2014) explain how multiple topics must be addressed because of the complexity of CSR if there is a goal to develop a synthetic sustainability index. They split these into five main points: choosing the categories and variables; selecting a mix of indicators based upon multi-year data; building a scoring system; using statistical approaches for aggregating and weighting; and lastly, the potential offsetting influence of the scores (Delmas & Doctori Blass, 2010; Escrig-Olmedo et al., 2014; Windolph, 2011). Due to the actions of sustainability rating agencies and sustainability stock indexes, several issues have been resolved inside the financial markets (Boffo & Patalano, 2020).

Another study from Harvard Business School argues that more open ESG disclosure by corporations leads to increased differences among rating agencies (Christensen et al. 2022). While there is significant variance in the evaluation of the firms, there is widespread agreement on categorizing the companies as medium, high, or low. Various actions must be taken to improve ESG data and allow ratings to realize their full potential (Douglas et al. 2017). First, they emphasize the need for consistency in the examined and presented data. Furthermore, they emphasize the importance of adopting a standard with criteria for a credible approach.

Dimson et al. (2020) also investigated this topic, where the authors begin by noting that there currently needs to be more transparency and standardization in ESG reporting, which results in inconsistent ratings among rating agencies. The authors suggest that variations in reporting

cause investor uncertainty and make it difficult to assess a company's ESG performance fully. Further on, Dimson et al. (2020) investigate the financial market implications of this measurement difference. The authors believe that variations in ESG ratings might contribute to market inefficiencies by making it harder for investors to estimate the risk and return of various firms appropriately. They further suggest that this inconsistency in measurement might lead to a lack of comparability between organizations, making it difficult to establish best practices in ESG performance and navigate for investors.

According to Kotsantonis & Serafeim (2019), it might be challenging to determine what constitutes an ESG performance that is excellent or terrible even when disclosure is there. So, what occurs if a particular metric is not reported? Due to the lack of standards and regulations around ESG disclosure, not all businesses will likely report on all these topics, and those who won't be doing it consistently will create a mess for investors. Bose (2020) speculates if the number of different sustainable accounting frameworks presents a challenge for investors and limits the value of information or if it boosts the worth of experimentation, resiliency, and the range of analytical techniques. Moreover, Bose (2020) argues that an "alphabet soup of judges" is preferable to a single autocratic framework or standard and that the procedure for developing standards and frameworks is continuous and constantly changing.

Most of the top publicly listed corporations publish available sustainability reports, most utilizing the same reporting structure, the GRI Standards (Lukomnik et al. 2018). However, ESG reporting, even with comparable frameworks, does not unify or standardize disclosure. This is because voluntary reporting frameworks such as the GRI allow corporations to use stakeholder-oriented definitions of materiality set by each company and do not coincide with the investor-oriented concept of materiality. Consequently, different results may occur despite tackling the same ESG challenges.

### **2.2.3 Materiality**

Materiality is a crucial concept in ESG reporting. It involves assessing the most significant ESG issues related to a company's operations and stakeholders and giving them sufficient attention in the reporting process.

According to Christensen et al. (2021), investors might encounter materiality issues in which financial data omits vital information that might influence a company's economic, financial, legal, and reputational implications. For example, this can concern ESG factors like carbon emissions or other non-financial data. The term "materiality" refers to standards for financial reporting and information. According to the highest court, it is information with a good chance of being revealed and will materially change the "whole mix" of information made accessible (Christensen et al. 2021). Frameworks like the SASB materiality map disclose ESG themes and sustainability data inside industries that are most significant to investors, particularly the financial materiality or operational performance of the firms, for instance, waste management, GHG emissions, energy management, and business model resilience (Christensen et al. 2021; Grewal et al. 2021). Previous studies about ESG and materiality disclosures indicate that businesses that voluntarily publish materiality data have lower new capital costs and regularly attract institutional investors (Cheng et al., 2014; Christensen et al., 2021; Dhaliwal et al., 2011).

Reporting ESG performance is a challenge that businesses face when implementing ESG materiality. They need help identifying which ESG issues are material and how to quantify them. Additionally, there is no comprehensive framework for reporting ESG performance, which makes it challenging for businesses to communicate effectively with their stakeholders. According to In et al. (2019), companies need help integrating ESG issues into their financial reporting. Furthermore, the information that should be included in the sustainability report should be presented clearly to the presenter through a successful materiality assessment. Safari & Areeb (2020) revealed that combined stakeholder mapping, management, and engagement techniques, together with materiality assessment, might help businesses identify what content fits in sustainability reports and how to provide it so that stakeholders, those who will utilize it, can interpret it.

Research by Khan et al. (2016) finds no solid proof of the significance of ESG materiality in investment decision-making. Their analyses show how top-performing businesses beat businesses in the bottom quantile regarding ESG material concerns. Further, the authors demonstrate that greater financial performance is not correlated with a strong performance on irrelevant ESG factors. By focusing on the 100 biggest worldwide banks, Kotsantonis & Bufalari (2019) arrive at the same conclusions. Furthermore, materiality is shown to increase the predictability of financial performance in contrast to overall ESG or immateriality scores in the research of Van Heijningen (2019), which is built on a sizable sample of worldwide corporations between 2005 and 2017. Similarly, Unruh et al. (2016) discovered that many investors are proving that paying close attention to nonfinancial material concerns may favor financial results.

According to Grewal et al. findings in 2021, there is a negative correlation between the materiality score and fluctuations in share price synchrony, which may indicate that investors incorporate stated materiality into their investment strategy. The outcomes are better for people who adhere to SASB standards and businesses or investors focusing more on ESG (Grewal et al., 2021). As a result, Grewal et al. (2021) observe an overall rise in the number of ESG-related equities in market portfolios. Such changes may result from a change in stakeholders' expectations, which has increased interest in ESG issues. As a result, regulating bodies want more materiality disclosure from the market; therefore, investors might experience difficulties regarding investment possibilities and dangers and the emergence of new ESG-related strategies.

Christensen et al. (2020) investigate the impact of disclosures concerning audit materiality on investors' investment decisions. According to their study, investors consider materiality disclosures unimportant to their investing decisions. Moreover, they discover data suggesting that investors must properly comprehend the connection between audit effort, auditor materiality, and audit precision. These findings mean that investors do not use materiality disclosures like regulators anticipated and fail to understand how to utilize financial statements fully. Adding to this, Gray et al. (2011) argue that materiality disclosures are only necessary if consumers or investors consider them while making investment decisions.

## 2.2.4 Transparency

Research indicates that rating agencies analyze data and evaluate businesses' ESG factors in fundamentally different ways, making it challenging to determine how reliable these ratings are (Berg et al., 2022). This significantly affects all parties, including investors, businesses, regulators, and rating firms. This highlights the significance of more disclosure and transparency in the methods used by rating agencies to evaluate a firm, including the metrics and the methods by which the data are employed. Moreover, Berg et al. (2022) argue that creating rules and norms for the quality of measures and open data is one way to address this issue since it will make it easier for stakeholders to compare data from different sources and rating agencies. However, following Billio et al. (2021), several organizations offer ratings, each with a distinct scope and purpose and based on diverse assessment techniques. The methods used to assess a given company's performance vary significantly, even though all agencies base their analysis on a two-dimensional materiality framework that evaluates a company's exposure to a specific ESG risk and management's response to that risk.

Although confidence and trust with stakeholders increase when a company is transparent, according to Chatterji et al. (2009), companies must be upfront and truthful about the data they use and the methodology they apply in their ESG reporting to accomplish this. This may involve providing comprehensive explanations of the data's sources, methods of data collection, and methods of usage in generating ESG measures. This contributes to improving the information's transparency and reliability, encouraging confidence and trust in the outcomes for stakeholders. The effectiveness of social ratings in assisting stakeholders in identifying organizations that practice environmental responsibility has yet to be discovered (Chatterji et al., 2009). However, without enough assurance and transparency, ESG reporting might result in severe issues like "greenwashing," in which businesses exaggerate their performance (Barton, 2022; Brooks & Oikonomou, 2018; Ruiz-Blanco et al., 2021). This issue can eventually become a barrier limiting ESG data incorporation into financial choices (Yu et al. 2020). However, trustable assurance reports may significantly boost the trust of investors, regulators, and other stakeholders, holding businesses accountable to the larger stakeholder community and resolving the issue of "greenwashing" (Cheng et al., 2015; Kaplan et al. 2021; Viegas, 2019).

Studies have also emphasized the significance of evaluating the degree to which CSR indicators offer transparency regarding CSR actions and results. For instance, researchers Margolis & Walsh (2003) have suggested that before comprehending the connection between a firm's social and financial success, they must first acknowledge the circumstances in which a corporation's actions help society. The study by Berg et al. (2022) highlights the need for increased transparency among rating agencies based on their findings, underscoring the importance of addressing measurement divergence in ESG reporting and ratings. They explain how the ESG rating agencies first must define their concept of ESG performance in terms of the range of criteria and the gathering procedures that they use.

Kotsantonis & Serafeim (2019) argue that investors are encouraged to focus the demand for ESG data on more manageable indicators while still advocating for greater meaningful ESG disclosure. Stock exchanges should consider releasing, and possibly even requiring, guidelines for ESG disclosures developed with businesses, investors, and regulators. Additionally, data suppliers should agree on best practices and practice complete transparency in their processes and the validity of their data.

### **2.2.5 Measurement divergence**

These barriers and implications cause a noisy environment for investors in their decision-making process. Furthermore, historically, investors have been primarily driven by the desire to maximize profit while reducing inherent risk. Even if these fundamental elements remain, recent developments have encouraged investors to give ESG-related issues even more priority in their strategies (Edmans, 2020; Liang & Renneboog, 2021). This is accomplished by integrating values and standards into investment choices and responsibly managing business operations. This sustainable change may be seen as responsible or impact investing, meaning incorporating environmental, social, and governance issues are considered when choosing investments and portfolios (Edmans et al., 2022; Pástor et al., 2021). Both in terms of research and practice, sustainable investment is expanding rapidly.

Academic research and investor trends suggest that there are better courses of action than boosting market value and profits for businesses. Stakeholders, including shareholders, customers, and employees, may be motivated to do good rather than harm to advance social

objectives at the price of corporate profits (Broccardo et al., 2020). Stakeholders are putting pressure on companies to address social and environmental challenges while achieving financial success. Similarly, the need for data on CSR and ESG initiatives has increased (Chatterji et al. 2016; Cohen et al. 2015).

Both research and sustainable accounting and reporting have confirmed that they give a company more credibility; therefore, investors can increasingly trust business information (Suchman, 1995; Mori Junior et al., 2014). However, the industry is still divided on the applicability of CSR and sustainability, with some arguing that these practices are just a front for hidden agendas (Cho et al. 2015) and others retaining that corporate sustainability accounting will not be beneficial (Gray, 2010). Critical theorists have drawn attention to the issues with sustainability reporting, such as confusion and consistency, and claim that these problems are only made worse by the variety of voluntary reporting frameworks and criteria that continue to disrupt practices, making it difficult for investors to trust and use the information (Bartels et al. 2016). Subsequently, there are several issues with existing ESG reporting and disclosure processes that might serve to reduce, rather than increase, credibility (Dumay et al. 2019). Therefore, businesses can more clearly and effectively inform stakeholders about their ESG performance, which will raise stakeholder consciousness and strengthen the relationship between ESG performance and financial accomplishment (Alsaifi et al. 2020; Choi et al. 2021; Clarkson et al. 2015; Dhanda et al. 2022; Jiang et al. 2021; Tang & Demeritt, 2018).

Chatterji et al. (2016) have conducted substantial research on the issue of ESG rating divergence, highlighting two key factors: theorization and commensurability. They found that disparities in both factors contribute to the divergence, although it remains unclear which component is the main challenge. The authors also noted that ESG ratings with higher transparency levels correlate more closely, indicating the importance of information availability. Additionally, they found that ratings of more complex firms diverge more often, suggesting that a firm's complexity may also play a role in the extent of measurement divergence among ESG ratings. According to Chatterji et al. (2016), stakeholders need to recognize the challenges associated with ESG reporting and disclosure, including inconsistent and confusing information.

Furthermore, research by Berg et al. (2022) addresses the concerns of investors interested in making well-informed investment decisions regarding the measurement divergence in ESG ratings. Scope, measurement, and weight are the three elements that the authors identified as contributing to the divergence. The study found that scope and measurement are the primary drivers of divergence, whereas weight divergence is less relevant. The authors also discovered that a rater's overall opinion of the firm affects how they rate several categories. This indicates that even if a firm does well generally in other areas, its performance in specific categories may impact its overall ESG rating.

For this study, Berg et al. (2022) gained access to the ratings and underlying indicators, information on the aggregation algorithms, and measurement methodologies of the indicators. As a result, they determined that measurement divergence was the primary cause of the variation in ESG ratings, with product safety and human rights being the two areas with the most measurement variance. The authors argue that this gap excludes firms from being driven to improve their ESG performance since rating agencies provide conflicting signals about which measures are anticipated and would be appreciated by the market. If one rating agency is utilized instead of another, this complicates empirical research by changing the findings and recommendations of a study.

The study emphasizes the problems investors have when assessing a company's ESG performance and the obstacles businesses encounter to improve their ESG performance because of the conflicting signals supplied by rating agencies. These obstacles stand in the way of decision-makers who want to support a sustainable and socially equitable economy.

Eccles et al. (2011) have emphasized the significance of transparency and the surging interest in ESG disclosure scores, which investors commonly employ as indicators of "management quality." Nevertheless, investors and financial analysts are searching for further ESG information to appraise the ESG performance of businesses, despite the challenges posed by both voluntary and regulated ESG reporting (Barker & Eccles, 2019). Notably, Krasodomska and Cho's (2017) investigation revealed that market analysts prefer incorporating more ESG information into their evaluation procedures. As a result, companies face pressure from investors to disclose additional data, enabling analysts to assess ESG performance. Furthermore, Luo et al. (2012) state that ESG reporting may strengthen stakeholder knowledge of corporations' greenhouse gas emissions. Therefore, information on climate risks is more



readily available to investors and other stakeholders, facilitating their interpretation, analysis, and integration of climate risks and responsibilities (Bolton & Kacperczyk, 2021; Jiang et al., 2021). Investors may utilize the provided data to compare the business to its peers, learn more about the firm's carbon risks and opportunities, and assess the firm's dedication to lowering emissions as well as subsequent carbon performance (Clarkson et al. 2013; Li et al. 2017; Plumlee et al. 2015; Schiemann & Sakhel, 2019).

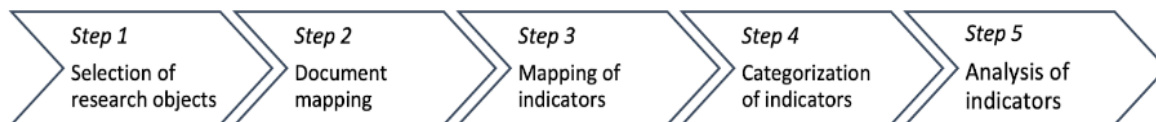
Investors are increasingly prioritizing ESG-related issues in their investment strategies, with the practice of responsible or impact investing on the rise. However, investors still face challenges finding comprehensive ESG data to evaluate businesses' ESG performance.

### 3. Methodology

This chapter investigates the quantitative data on ESG conditions and reporting practices of the 25 companies from the OBX index in Norway. This analysis's primary concern is the indicator within the category of "health and safety." This study's methodological approach can be described as a qualitative comparative design.

The study is carried out as a descriptive document analysis. We are studying annual and sustainability reports for 2021. Descriptive document analysis can be described as a systematic review of documents. Moreover, document analysis allows the acquisition of empirical data through a discrete and non-reactive process (Bowen, 2009). Our approach to methodology is characterized by a rigorous and systematic step-by-step process that we follow consistently to ensure high-quality results. The credibility and validity of our study could be increased by following a methodological approach that is clear, transparent, and reproducible. Because of this, we carefully analyze every part of our method at each stage of the process, from establishing the research topic and identifying the best data sources to evaluating and interpreting the outcomes. Therefore, the following step-by-step approach will be utilized:

**Figure 1:** Five-step model for collecting data



*Figure 1* presents a step-by-step process. The first part of the process is the "selection of research objects," where we identify the objects of our study. The second part is "document mapping," where we map out the relevant documents and sources for our analysis. Step 3 involves the "mapping of indicators," where we categorize and organize the identified indicators. Step 4 is the "categorization of indicators," where we group the indicators based on common themes or criteria. Finally, step 5 is the "analysis of indicators," where we analyze and interpret the collected indicators. This figure provides an overview of the sequential steps undertaken in our research methodology, guiding the reader through our approach.

To investigate Norwegian companies' reporting on health and safety indicators, we examined the OBX index. We conducted our analysis using annual and sustainability reports available on the companies' websites for 2021, as some companies still needed to release data for 2022. We meticulously reviewed these reports to identify relevant health and safety indicators, focusing primarily on the data the companies had reported in tables and text. This process proved challenging, as some data was less straightforward to extract.

We conducted independent reviews of each company's annual and sustainability reports for each company and then cross-checked our findings to increase the validity and reliability of our investigation. We compiled tables of the indicators for each company, including links to the source material, and noted the sources of all collected data to facilitate further inspection if necessary.

Once we had completed reviews of all 25 companies, we created a summary table of all indicators reported by each company, sorted alphabetically. This allowed us to quickly identify indicators reported by multiple companies and create a subsequent table summarizing how many times each indicator had been reported. Given the many indicators reported by companies, we first totaled over 470, but all were combined, and we ended up with 213 unique indicators. We selected the 10-15 most frequently reported indicators to feature in a separate table. We then listed these indicators along with the 25 companies, horizontally and vertically, marking with a “1” if the company reported on the indicator and a “0” if they did not.

Through this process, we generated a comprehensive overview of the companies that reported on various health and safety indicators, with the total number of companies reporting on each indicator shown in the bottom row of the table, ranging from 1 to 25 depending on how many companies in the OBX index reported on each indicator.

### **3.1 Selection of research objectives**

This research section will examine the companies included in the OBX index. The decision to utilize the Norwegian OBX index was made for several reasons. First and foremost, the OBX index consists of the most liquid companies listed on the Oslo Stock Exchange, meaning that these companies are well-established, have a proven track record of financial success, and are popular stocks among investors. We select a diverse range of companies across various sectors by focusing on these companies. Additionally, we can gain insights into the ESG practices of these companies and identify similarities or differences between them.

As a part of our ESG analysis, we will examine the reporting and measurement of the ESG category "health and safety" for the companies on the OBX index. In Norway, long traditions exist for reporting on health and safety, and there is a strong focus on promoting safe and

healthy workplaces. The Norwegian government has implemented strict health and safety regulations, and companies are expected to comply with these regulations and promote a strong safety culture. Furthermore, health and safety are crucial aspects of sustainability and social responsibility, and companies need to ensure that their employees and stakeholders are safe and healthy.

### **3.2 Document mapping**

To complete the document analysis, we had to create an overview of the documents in which the businesses had included quantitative data about health and safety factors. The firm's annual reports, sustainability reports, and climate reports are included in the document analysis. These reports are reliable, provide valuable insights into a company's sustainability practices and performance, and allow us to compare companies based on the same criteria. Using these reports, we can ensure that our analysis is based on reliable and standardized data, as these documents are public and can be easily found on each business website. We only used reports and data for the financial year 2021, as this is a year that all the businesses have data on.

### **3.3 Mapping of indicators**

The third step involves an in-depth review of the documents. Quantitative measures for health and safety indicators are identified. All numbered indicators are considered quantitative indicators. This also contains indicators that are not quantified or directly taken from a table in the report but are highlighted in text format below or around a table or a model, for example, *no reported injuries as a result of the gas leaks*. We added these indicators to the other listed quantified indicators, strengthening the study's objectiveness. Furthermore, we exclude indicators presented within the middle of a paragraph in our calculations. We do not “create” indicators that do not exist nor search for additional indicators not listed in a table or highlighted in the reports. Documents and reports will be reviewed several times, and the page number and source will be noted for each indicator we record.

During the mapping of indicators, several decisions had to be made regarding whether the indicators from various reports were reporting the same topic. How businesses report injuries

can often be similar but different, with some using rates or frequencies and others simply reporting the actual number of injuries. To address this, we evaluated the reporting of indicators such as the "*lost time incident rate*" or "*lost time injury rate*" (both referred to as LTIR in the reports), which proved to be confusing indicators. Before combining multiple indicators, we must ensure we have enough information to confidently list them as the same or different indicators. Several businesses reported a "*lost time incident rate*," while others reported a "*lost time injury rate*." We closely reviewed the reports to establish the correct categorization of these indicators, carefully examining how different businesses defined incidents and injuries. We concluded that the two ways of mentioning the indicator matched, leading us to list them as one indicator, "*lost time incident/injury rate (LTIR)*," in our collection table. While this is just an example of one indicator, it exemplifies the many decisions we had to make to ensure that all indicators were listed correctly to the best of our abilities.

During the process, we had to make sure we were consistent with the indicators we decided to "combine," despite every case of similar indicators being individual assessments we had to make. We discussed and evaluated every indicator to ensure we got every decision as right as possible, but we are still aware that simple misjudgments may occur. Nevertheless, there is no clear conclusion as to what is right and wrong regarding how the companies report this. It is primarily based on how we interpret the data provided based on the information we can read in the reports and how the businesses present the data. Therefore, we also believe it's necessary to exercise some degree of strictness when evaluating whether companies report on precisely the same indicator. This is because we need to avoid conducting additional research to determine whether the reported indicators refer to the same aspect: measurement divergence.

### **3.4 Categorization of indicators**

To further analyze the ESG reporting practices of the OBX companies, we have categorized the indicators into four distinct categories. These categories are 1. diversity, 2. injuries, accidents, and incidents, 3. business ethics, and 4. others. Our categorization was inspired by the work of Li et al. (2021), who conducted a comprehensive study of ESG metrics and their use of it by companies listed in the S&P 500 Index. While we followed many of the same principles as Li et al. (2021), we also developed some unique categories relevant to our research question.

By categorizing the indicators, we hope to understand better the specific areas on which the companies are focusing ESG reporting efforts. For example, by analyzing the diversity category, we can determine how companies promote diversity and inclusion in their workplaces. Similarly, by examining the injuries, accidents, and incidents category, we can assess the safety records of these companies and identify potential areas for improvement.

We encountered several challenging decisions when categorizing indicators from various companies, as many could be classified into multiple categories. Consequently, we had to make informed decisions and assign them to the most relevant category. For instance, since the training aims to prevent such occurrences, Subsea 7's "*total days of health, safety and wellbeing training*" indicator could arguably be categorized as an "*injuries, accidents, and incidents*" metric. However, after careful consideration, we placed this indicator in the "*business ethics*" category as it represents a proactive measure taken by the company to ensure the health and safety of its employees.

### **3.5 Analysis of indicators**

We answer research questions 1 and 2 by analyzing the indicators. Research question 1 is related to the most common health and safety related ESG metrics reported by the 25 Norwegian companies on the OBX Index. We answer research question 1 by summarizing the content from the collection table into various tables. Research question 2 will be addressed by analyzing the collected indicators, which have been categorized based on their respective sectors. By examining the indicators within each sector, we aim to provide insights and find out whether there is evidence of clustering of the same indicators by sector. Research question 3 will be addressed by drawing upon existing literature and integrating the findings from our study.

## 4. Analysis and discussion

In this chapter, we present our comprehensive analysis and discussion. Our primary objective is to offer valuable insights into how the collected data can effectively address the research questions initially formulated at the beginning of this thesis.

The study will feature an empirical component, where the 25 most liquid companies on the main index of the Oslo Stock Exchange (OSBEX) in Norway, listed on the OBX index, will be analyzed in the category of "health and safety." By combining the theoretical framework with empirical data, the study aims to assess the extent to which the findings in the literature apply to the Norwegian financial market. The analysis will provide insights into the literature of ESG measurement and provide data on how the 25 companies listed on the OBX index report on health and safety.

The OBX index includes a wide variety of businesses from numerous industries. These companies are in energy, industrials, consumer staples, basic materials, technology, and telecommunication. The OBX index showcases the depth of Norway's economy, with companies operating in sectors crucial to the country's growth and development. These companies contribute to employment opportunities, technological advancements, and economic prosperity. The OBX index is an essential benchmark for investors and provides insights into the performance and stability of various sectors within the Norwegian market (Euronext, 2023). As a reflection of Norway's dynamic business landscape, the OBX index demonstrates its commitment to diverse industries and its ability to adapt to changing market conditions.

When all the individual indicators are combined and reported, we are left with 213. Of these, 71 indicators, or 34%, are from the diversity category. From the category injuries, accidents, and incidents, we find 52 indicators, accounting for 25% of the total. In the business ethics category, there are 36 indicators or 17%, and lastly, from the others category, there are 49 indicators or 24% of the total number.

**Table 1: Percentage & number distribution of categories**

<b>Category</b>	<b>Number</b>	<b>Percentage</b>
Diversity	72	34 %
Injuries, accidents, and incidents	53	25 %
Business ethics	37	17 %
Others	51	24 %
<b>Sum</b>	<b>213</b>	<b>100 %</b>

*Table 1 shows how the different indicators within the categories are distributed in percentage and number. In the left column, we have the various categories and a Sum-row to add up the numbers along the bottom. In the middle section of the table, we have the number of indicators for each category, while in the last column to the right, you have the percentage (%) of what the number makes up of the total number of indicators.*

The table has an even distribution concerning how many indicators belong to each category, apart from the diversity category, which has a higher share of the total. The diversity category is likely to have a higher share, as all the 25 businesses on the OBX Index are likely to report on diversity, regardless of sector or industry. Injuries, accidents, and incidents, however, are more sector and industry related, as not all the companies from the index are equally prone to experiencing a lot of injuries and accidents, as some of the companies are directed towards the finance, bank, and tech sector.

#### **4.1 Metrics disclosed by OBX companies**

In total, OBX companies report on 213 unique indicators from health and safety, however, to various degrees. Based on the data we collected, the most reported indicators were identified: *LTIR, TRI(R), percentage of female managers, sickness leave/absence, board of directors/governance bodies % female, total fatalities, total of female employees, and number of employees.*



**Table 2:** Table of the most reported health and safety indicators

<i>Indicators</i>	<i>Category</i>	<i>Total</i>
Number of employees	Others	25
Total of female employees	Diversity	24
Total fatalities	Injuries, accidents, and incidents	16
Board of directors / governance bodies % female	Diversity	16
Sickness leave /absence	Others	13
Percentage of female managers	Diversity	12
TRI(R) - Total recordable incidents / injuries (rate)	Injuries, accidents, and incidents	10
LTIR - Lost time incident rate	Injuries, accidents, and incidents	9

*Table 2* presents the top eight health and safety indicators most frequently reported by the OBX companies. The first column lists the name of the indicators, while the second column presents their respective category. The final column denotes the number of companies that reported on each of the specific indicators.

Nine companies reported the LTIR, and ten companies reported the TRI(R). These metrics are commonly used to measure the number of work-related injuries and incidents that result in lost work time or require medical attention. The high reporting incidence on these indicators confirms that Norwegian companies significantly emphasize employee safety and health. However, the relatively low number of companies reporting these indicators also indicates a lack of standardization in reporting, as noted in previous research (Amel-Zadeh & Serafeim, 2017). The remaining companies have many ways of reporting injury indicators.

Sickness leave/absence was reported by 13 companies, indicating that Norwegian companies recognize the importance of measuring and monitoring employee health. However, this is also reported in various ways, such as "absence rate in % total hours," "lost workday rate," or "number of lost time days per million hours worked (ISR)." These are examples of how companies report sickness, which can be challenging to interpret due to the many indicators reported by different companies.

Furthermore, the "board of directors/governance bodies % female" was reported by 16 companies, reflecting the increased attention on gender diversity in leadership roles. However, most of the reports contained pictures and names of the board of directors, but the remaining

companies did not specify this in their reports regarding the number of women and men. Instead, they relied only on visual representation, requiring one to manually count and determine the number of women and men on the board. The percentage of female managers and the total number of female employees were also reported by several companies, indicating that gender diversity is a key focus area for many Norwegian companies.

Interestingly, only 16 out of the 25 companies reported the total fatalities, which suggests that some companies may not prioritize the reporting of this indicator or may not have experienced any fatalities in the reporting period. Most of the firms disclose the number of fatalities in their reports. However, some companies seem to disguise this information by incorporating it into other categories, such as injuries or incidents. For instance, Telenor, Frontline, and Golden Ocean Group report fatalities under the "*LTIR (lost time incident/injury rate)*" category. This approach may be viewed as an attempt to mask a grim indicator by blending it with an indicator that pertains to general injuries. The companies briefly mention the inclusion of fatalities in a small size text next to the "*LTIR*" indicator in their reports. This highlights the potential for businesses to control and customize their reporting of indicators when there are inadequate guidelines or standards for reporting. It underscores the importance of clear and consistent reporting frameworks and requirements to ensure transparency and accuracy in reporting.

Out of the eight ESG metrics analyzed in this table, the number of employees was the only indicator all 25 companies reported. This highlights the importance of this indicator as a standard measure of company performance, as it provides valuable insight into a company's size and scale. The consistent reporting of this metric also suggests that it is widely recognized and understood by investors and other stakeholders. However, it is essential to note that while the number of employees may be a valuable metric for assessing a company's performance in terms of scale, it does not provide information on other vital factors such as diversity, health and safety, and environmental impact. Therefore, it should be used with other ESG metrics to understand a company's overall performance better.

It is worth noting that the variation in the number of reported indicators by the companies suggests a need for more standardization in ESG reporting practices in Norway, making it challenging for investors to compare companies' ESG performance. This finding is consistent with previous research (Amel-Zadeh & Serafeim, 2017) and highlights the need for greater standardization and transparency in ESG reporting practices.

Additionally, it is interesting to explore the categories to which the commonly reported indicators pertain. According to the gathered data, three indicators fall under the “diversity” category. *Percentage of female managers, board of directors/governance bodies %female, and total of female employees* - reflect gender diversity in the companies' management and workforce. Companies commonly report these metrics on the OBX index, indicating that gender diversity is essential to ESG reporting in Norway. This aligns with the country's commitment to gender equality and diversity in the workplace. Interestingly, the percentage of female managers is the most reported metric in this category, which suggests that companies may be more focused on improving gender diversity in leadership positions.

Moreover, it is noteworthy that two indicators in Table 2 are classified under "Injuries, Accidents, and Incidents." These metrics, namely “*LTIR - lost time incident rate*” and “*TRI(R) - total recordable incidents/injuries (rate)*,” furnish valuable insights regarding the companies' safety performance, particularly concerning lost time incidents and total recordable incidents/injuries. These metrics are critical for assessing a company's health and safety risk level and managing it effectively. The fact that nine and ten companies, respectively, reported these metrics suggests that health and safety is an important area of ESG reporting for Norwegian companies. It is worth mentioning that a smaller number of companies report the "LTIR" metric compared to the "TRI(R)" metric. This observation could suggest that companies prefer to report on the "lost time incident rate" as the indicator is more used by the OBX companies.

The last two indicators of the "others" category- *sickness leave/absence and number of employees* - do not fit neatly into the other categories but still provide useful information for assessing ESG performance. The sickness leave/absence metric reflects the health and well-being of employees, while the number of employees provides insight into the size and scale of the company. These metrics are important for understanding the broader context in which the other ESG metrics operate. For example, a company with high sickness leave/absence rates may have a lower LTIR or TRI(R) due to fewer employees.

The findings indicate that Norwegian companies prioritize reporting health and safety related ESG metrics. However, the lack of standardization in reporting practices points to the need for increased clarity and transparency. This would enable investors to use the reported information

effectively when making investment decisions. Also, the categorization of ESG metrics provides a helpful structure for analyzing and discussing the reporting practices of the Norwegian companies listed on the OBX index. The framework highlights the significance of gender diversity, health and safety, and contextual factors like employee health and company size. It can be utilized to guide future research and ESG reporting practices not only in Norway but also in other regions.

## **4.2 Clustering of metrics**

Analyzing the reporting practices of companies operating in the same industry is vital for understanding the similarities and disparities in their approach to health and safety indicators. The sector classification of the OBX-listed companies offers a valuable framework for comparing health and safety reporting across various industries and sectors. This is particularly valuable as the OBX index consists of businesses from diverse sectors, such as energy, seafood, financial, and shipping services. Categorizing these companies allows us to identify variations in approaches, discover best practices, address sector-specific gaps, and determine if there is evidence of indicator clustering within sectors.

Sector classification facilitates the identification of industry-specific challenges related to health and safety. Each sector operates under distinct conditions, processes, and risks, which impact the implementation of health and safety measures differently. We encounter this when studying the OBX index, as there is a wide variety of sectors, which naturally leads to a big difference in how it is reported, and which indicators are included. For example, it is evident that a tech company like Kahoot! will report less on injuries or near-death incidents, unlike several of the industry-heavy companies. By comparing businesses within the same sector, it becomes possible to pinpoint sector-specific challenges and tailor interventions accordingly.

Firstly, we start by categorizing the businesses from the index, where we decided to use the sector classification Euronext uses, The Industry Classification Benchmark (ICB) classification system. This system is used to categorize companies that are listed on the Euronext-regulated markets. For classifying firms and securities across four levels of classification, FTSE Russell operates and manages ICB (FTSE Russell, n.d.). We decided to use this system as Oslo Stock

Exchange is a part of Euronext, the pan-European stock exchange, and therefore it is natural to use the same system.

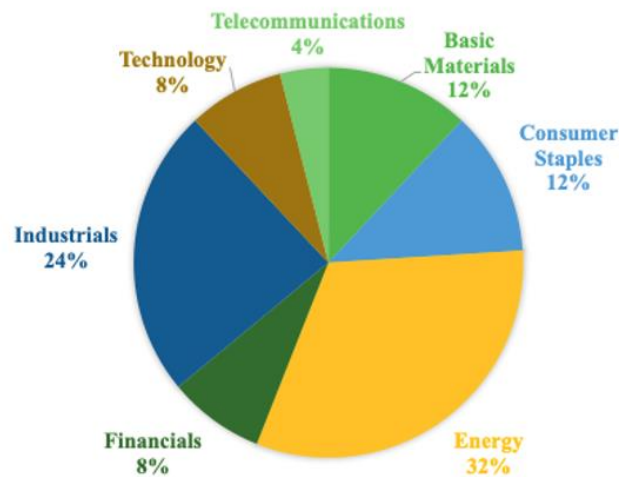
**Table 3: Sector classification of the OBX companies**

<b>Company</b>	<b>Industry</b>	<b>Subsector</b>
AKRBP	Energy	Oil: Crude Producers
BORR	Energy	Oil Equipment and Services
EQNR	Energy	Integrated Oil and Gas
NEL	Energy	Renewable Energy Equipment
PGS	Energy	Oil Equipment and Services
SUBC	Energy	Oil Equipment and Services
TGS	Energy	Oil Equipment and Services
VAR	Energy	Offshore Drilling and Other Services
FRO	Industrials	Marine Transportation
GOGL	Industrials	Marine Transportation
HAFNI	Industrials	Marine Transportation
KOG	Industrials	Diversified Industrials
MPCC	Industrials	Marine Transportation
TOM	Industrials	Machinery: Industrial
STB	Financials	Life Insurance
DNB	Financials	Banks
MOWI	Consumer Staples	Farming, Fishing, Ranching and Plantations
SALM	Consumer Staples	Farming, Fishing, Ranching and Plantations
ORK	Consumer Staples	Food Products
NHY	Basic Materials	Aluminum
RECSI	Basic Materials	Specialty Chemicals
YAR	Basic Materials	Fertilizers
KAHOT	Technology	Software
NOD	Technology	Semiconductors
TEL	Telecommunications	Telecommunications Services

*Table 3 illustrates the companies' ticker from the OBX index in the left column. Down the middle column, we have which general industry the company is a part of, and the right column has the exact subsector the company operates in. The table follows the mentioned Industry Classification Benchmark (ICB) classification system.*

**Figure 2: OBX Industry distribution**

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**Figure 2** highlights the distribution of industries among the 25 companies on the OBX index. The index has a preponderance of stocks within energy (32%) and industrials (24%), followed by consumer staples and basic materials with a percentage of 12%, respectively.

When examining the sector classification of the companies in the index, we see that many companies are within the same or partly the same industry or sector. Among the businesses, there is a great deal of different reporting, and many indicators are being focused on. Some sectors report similarly and include the same indicators, and some do not, to which we will come back in more detail. We will first focus on specific sectors to gain more understanding from our findings, allowing us to explore them in greater detail.

We can start by examining the “heavyweights” within the energy industry, specifically oil and gas - Aker BP, Equinor, and Vår Energi. These are the companies on the index and within their industry most involved in oil and gas exploration, development, and production. All three companies have comprehensive and good sustainability reports, which are informative but have surprisingly little in common. Of all these businesses, we could only find nine indicators that two or more companies reported on - of 62 reported health and safety indicators between the three. In addition, you could argue that five of the nine indicators they had in common are not even unique to the oil and gas sector. These five are the indicators “number of employees”, “sickness leave/absence,” “total fatalities”, “total of female employees,” and “board of directors/governance bodies % female,” all of which are indicators that approximately more or less half of the companies on the OBX index also reported on. We were surprised by the

limited number of shared indicators among these three companies, particularly Equinor and Aker BP, which we consider two similar companies. However, despite the many differences, there are some indicators the three companies have in common. They seem to have reached a consensus in their reporting approach for injuries/incidents, as all three companies report on both "*SIF* - *serious incident/injury frequency*" and "*TRIF* - *total recordable incidents/injuries frequency*." Furthermore, both Vår Energi and Aker BP report on the indicators "*number of Tier 1 process safety events*" and "*number of Tier 2 process safety events*."

MPC Container Ships, Golden Ocean Group, Frontline, and Hafnia Limited, however, which are within the marine transportation/shipping sector, report similarly and have multiple of the same indicators. What was also interesting about some of these reports was that they were relatively unclear and challenging to interpret. MPC Container Ships reported a total of 18 different health and safety indicators. Golden Ocean Group reported 17, Frontline reported 12, while Hafnia Limited reported the fewest with nine indicators, which makes it only 56 indicators between the four companies. In contrast to the oil and gas companies we studied above, the marine transportation companies report on far fewer indicators. Still, on the other hand, they report on many of the same. This stands out as they report on several unique indicators that were only found among them and no other companies, which is probably connected to the fact that they are in a unique sector.

Among the four companies, there are a total of 13 indicators that are reported by at least two or more of them. In contrast, oil and gas companies have only four indicators that are not unique to their industry. These four indicators are more general and are reported by approximately half of the companies in the index. However, the remaining eight indicators are particularly specific to the marine transportation sector. In comparison, the other two indicators pertain to the number of male employees and the representation of males in the organization's governance bodies. "*Very serious marine casualties*," "*marine casualties incidents*," and "*LTIR - lost time incident rate*" are all indicators that all four companies are reporting - demonstrating a clear consensus in reporting incidents within the industry. Lastly, three out of the four companies report on four indicators specific to ship or cargo, which include "*Conditions of Class or Recommendations*," "*incidents*," "*deficiencies*" and "*detentions*."

Furthermore, within the energy sector, we find the four "*Oil Equipment and Services*" companies; PGS, TGS, Subsea 7, and Borr Drilling. First, Subsea 7 is an offshore company

that provides technology and installation services in deep waters, while Borr Drilling specializes in offshore drilling. Next, both PGS and TGS are companies that offer marine geological services, or more specifically, seismic services. The latter two operate within the same niche and are similar, so we anticipated that their reporting would also be quite similar. Divided between the four companies, there are a total of 13 indicators that are reported by two or more of the businesses. Of the 13 indicators, five of these can be seen as not unique to the industry, as most of the index's companies report on them. Again, we see that within a specific sector, there is an explicit agreement on how they report on injuries or incidents, with “*LTI - lost time incident/injuries*,” “*LTIF - lost time incident/injuries frequency*,” “*TRIF - total recordable incidents/injuries frequency*” and “*TRI(R) - total recordable incidents/injuries (rate)*” all each being reported by three or more of the four companies.

As we expected, there was a striking similarity between the reporting of TGS and PGS. However, what separated the two was that TGS had a comprehensive report with many indicators, whereas PGS, on the other hand, reported only a few indicators. PGS only reported on 12 indicators, whereas TGS reported on 31 indicators. Despite this, they reported 10 of the same indicators, which means PGS only reported on two indicators that TGS did not include. The remaining four indicators can be considered specific to the seismic sector, as they are the only two out of the four to have reported on these: “*restricted work case (RWC)*,” “*recordable case frequency*,” “*man-hours*,” and “*medical treatment case (MTC)*.”

Additionally, within the consumer staples industry, particularly in the subsector of Farming, Fishing, Ranching, and Plantations, we come across Mowi and Salmar—two Norwegian fish farming companies whose focus is salmon. In addition, we can add Orkla, as it is a part of the consumer staples industry, despite being a food group. Between these companies, there are reported a total of 55 indicators. To our surprise, the difference in the reporting was distinctive, and we found few similar indicators at Mowi and Salmar. In addition, Orkla had few similarities, as it is a different company. The only similar indicator we found was that they reported injuries/incidents through the “*LTI - lost time incident/injuries*.” In addition, “*total fatalities*,” “*sickness leave /absence*,” “*number of employees*,” “*percentage of female managers*,” and “*total of female employees*” were reported by all three. However, approximately half of the companies in the index report these indicators, so we do not consider them unique to this sector. The only indicator, besides the ones previously mentioned, that two



or more companies reported is "female absence (%)," with Orkla and Mowi both including this indicator.

We can also touch on a few companies from the index within the finance and technology industry: Storebrand, DNB, Nordic Semiconductor, and Kahoot! As mentioned, it is evident that these companies will report differently from most of the others on the index, as there is little to no "risk" when working in these industries. Despite no reporting of incidents/injuries, we see that they report thoroughly on indicators concerning diversity. The four firms have ten indicators that two or more report on, whereas five are not unique to the finance and technology industry. However, two or more companies report on diversity by analyzing it at different levels, examining the distribution of diversity across various business segments hierarchically. The three indicators are "*Level 1 diversity (CEO and personnel reporting to the CEO) (% female)*", "*Level 3 diversity*", and "*Level 4 diversity*". Kahoot! and DNB reported on all these levels, while Storebrand only reported on level 3 diversity. Apart from these three businesses, only Kongsberg Gruppen has reported on diversity in this way. The two remaining indicators were "*part time employees (total)*" and "*employee turnover*", both reported on by only DNB and Nordic Semiconductor.

We can see a clustering of indicators and patterns in how businesses from the same industries or sectors report. How they report injuries/incidents seems almost always the same within the specific sector. This is clear as we saw that despite Aker BP, Equinor & Vår Energi from the oil and gas sector reporting quite differently, they agreed on how they reported the injuries. Mowi and Salmar, operating in the Farming, Fishing, Ranching, and Plantations subsector, had quite different reports despite their similarities as companies. However, they did agree on how injuries/incidents were reported. These two sectors/industries were the two that stood out as the most different.

Next, we saw that MPC Container Ships, Golden Ocean Group, Frontline, and Hafnia Limited, from the marine transportation or shipping sector, had similar reports. Not only agreeing on how to report injuries/incidents but also having other indicators the companies specifically reported on. Subsea 7, Borr Drilling, and the seismic companies PGS and TGS also showed the same, a niche where there is a clear consensus on which indicators to use when reporting injuries/incidents. In addition, the seismic companies also included various sector-specific indicators. The tech and finance firms, Kahoot!, Nordic Semiconductor, Storebrand, and DNB

were difficult to compare to most other companies on the index, as they naturally do not report injuries and incidents like most other firms. However, there were minor similarities in how they reported on diversity, breaking it into levels.

There can be several reasons why businesses from the same industry or sector report likewise on indicators. There may be collaborations or partnerships between these companies, leading to the sharing of health and safety data, strategies, and initiatives. By pooling their resources and expertise, they can collectively address health and safety challenges more effectively. In addition, to enhance their performance in terms of health and safety, these businesses might exchange best practices and learn from one another. This is a likely option, as the firms could benchmark against industry leaders and adopt similar approaches to create safer working environments and keep up with competitors. For example, suppose Frontline sees that MPC Container Ships is transparent and adds the “*port state control detentions*” indicator in their report. In that case, they might feel compelled to include it in next year's report. Lastly, we also think an important factor is that it's likely that some of these companies share common suppliers or audits who provide services in ESG reporting. This could lead to a standardized approach to reporting indicators, as the suppliers or contractors might use consistent methodologies across their client base. This is likely the case with the shipping and seismic companies, as the way the reporting is done, and the use of indicators are almost identical.

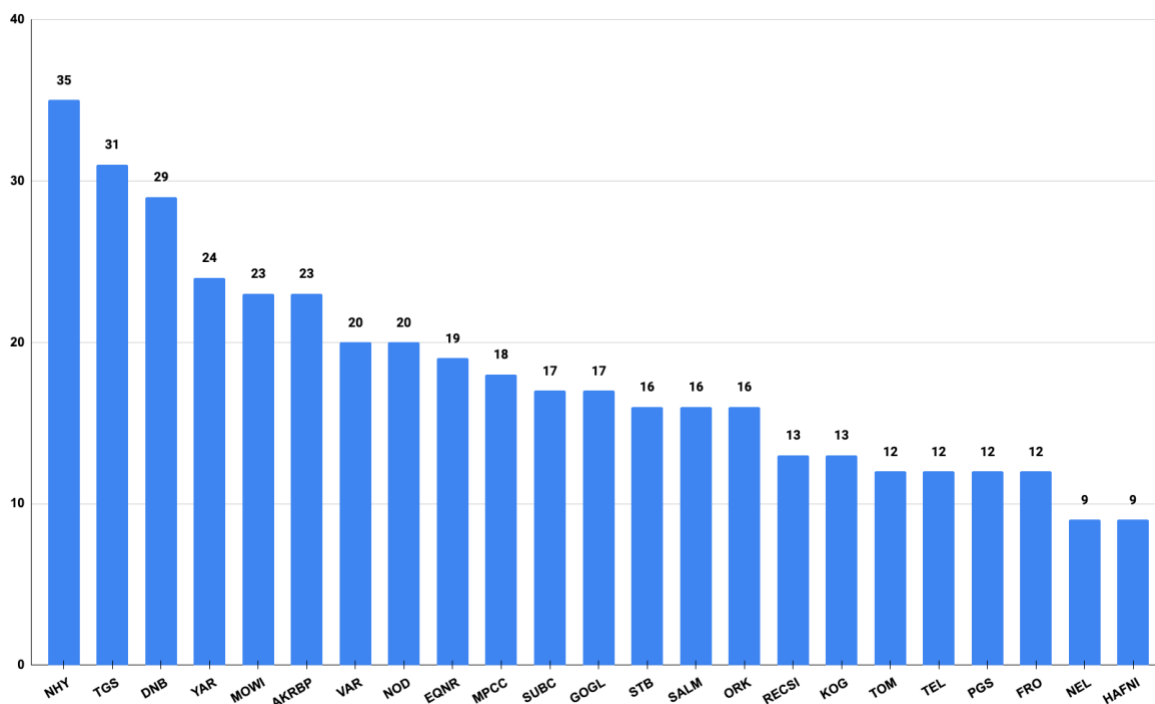
To summarize, there is evidence for clustering of the same indicators by sector. Especially the way the companies in each sector decide to report on injuries or incidents, although the rest of their report is different. Within various sectors, there were differences in the reporting methods for other indicators, indicating no consistent clustering of the same indicators across all sectors and businesses. Further on, focusing on sectors and industries is an excellent way to develop future standards and frameworks. As this must be customized to what kind of business the firm is conducting, as we saw with the finance and tech firms, these will report differently than the “riskier” industries. This is backed by both GRI and SASB, which are currently working on developing sector standards. GRI's aim with these sector standards is to establish the primary and probable consequences that hold significant importance for companies operating within a specific sector. These standards also specify the information that should be disclosed regarding these consequences, thereby enhancing comparability among companies. Additionally, SASB provides comprehensive guidelines for 77 industries covering various sectors. These guidelines

outline the sustainability concerns expected to reasonably impact a typical company's financial performance and long-term value within its respective sector (Global Reporting, 2021).

### 4.3 Evidence from the literature and data from OBX companies

The literature on ESG reporting highlights several barriers and implications associated with this practice. In our study focusing on the category of health and safety among OBX Index companies, we observed significant variations and discrepancies in their reporting practices. This includes differences in the form, measurement, and definition of the indicators being reported.

**Figure 3:** Health and safety indicators reported by the OBX companies in 2021



*Figure 2* presents an overview of the total number of indicators reported by OBX companies throughout 2021. The horizontal axis represents the respective companies, while the vertical axis represents the number of indicators reported by each company. For example: Norsk Hydro reports 35 health and safety indicators.

For instance, we found that OBX companies reported a wide range of indicators related to health and safety, with varying numbers reported by each company. This indicates a lack of standardization in reporting practices. Figure 3 shows that Norsk Hydro reported the highest number of indicators, with 35 indicators, while Kahoot! reported only seven indicators. On

average, the OBX companies reported 17.3 unique indicators on health and safety. Amel-Zadeh and Serafeim (2017) highlighted the need for comparability of sustainability information across companies as a hindrance to effective utilization in investment decisions. This aligns with our findings, as we observed inconsistencies in data reporting and challenges in evaluating companies accurately.

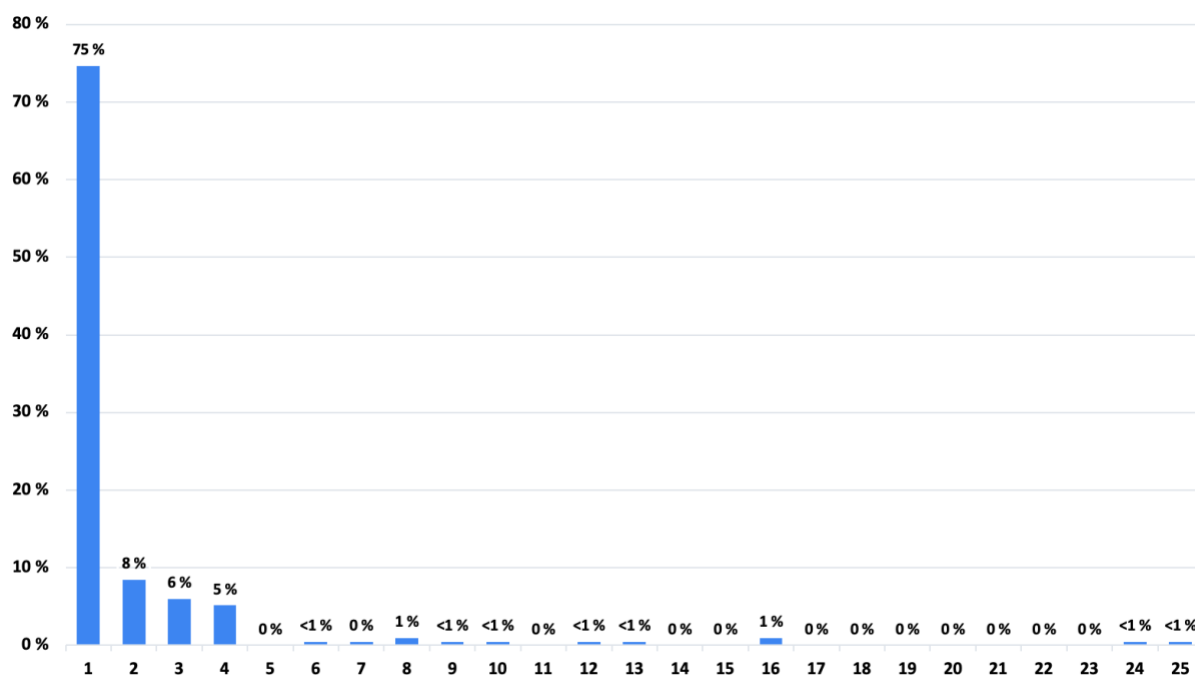
A notable example from our study pertains to the differences observed in the reporting of the indicator, *total of female employees*. This indicator is reported by 24 of 25 companies on the OBX Index. Nevertheless, it might be assumed that this indicator is straightforward, but that assumption is not entirely accurate. Surprisingly, even simple phenomena, such as the *total of female employees*, are reported differently, with OBX companies measuring the indicator in percentage, some in numbers, and others in the form of rate or frequency. This illustrates the issue Kotsantonis and Serafeim (2019) highlighted regarding using diverse measurement units and terminology. Notably, there is a consistent focus on women in the reports, as men primarily go unnoticed in the reporting. When searching for figures on the number of men, one often needs to calculate it since exact numbers on this indicator are not provided. This is because the reports frequently only state the number of women out of the total employees without explicitly mentioning the remaining portion as men, which needs to be deduced through calculations in most cases. When OBX companies do not report information on how they calculate an indicator, it can lead to challenges in comparability among companies on that indicator. The reason for this is the lack of necessary background information from different companies to understand what is included in the calculation basis for the indicator.

Numerous frameworks and standards, such as SASB and GRI, are available and extensively utilized for reporting purposes among the top publicly listed companies (Lukomnik et al., 2018). Nonetheless, our examination, in alignment with the study by Barker et al. (2020), revealed significant disparities in the reporting practices of OBX companies, despite their adherence to established standards. For example, as previously mentioned, MPC Container Ships, Golden Ocean Group, Hafnia, and Frontline, all operating in the shipping industry, exhibit similar reporting patterns using the SASB framework. However, the Golden Ocean Group and Frontline reports are outdated, written in a typewriter format, difficult to interpret, and lacking clarity. The lack of transparency and outdated nature of the reports could potentially be associated with these companies being based in Bermuda, but this is purely speculative.

The remaining companies employ different definitions and reporting frameworks. This variance in definitions complicates the comparability of indicators across companies. Despite comparable frameworks for ESG reporting, the disclosure remains fragmented and lacks standardization. This can be caused by optional reporting frameworks like the SASB or GRI, which enable companies to define materiality based on stakeholder perspectives rather than aligning with the investor-oriented concept (Barker et al., 2020). This is in line with what we observed through the data collected from the OBX companies. There are similarities in reporting, but many cases where companies report on similar indicators, yet in different ways. TGS and REC Silicon both report on sickness but use entirely different approaches. TGS uses the *"sickness absence frequency"* indicator, while REC Silicon uses *"working days lost due to sickness."* Several other companies use *"sick leave"* instead. This contributes to uncertainty in reporting, as it becomes challenging to interpret the numbers when the reporting and indicators vary. As a result, varying outcomes may arise even when addressing similar ESG issues.

Furthermore, Figure 4 highlights the significant variation in indicator reporting among the OBX companies. Very few indicators are repeated across multiple companies, with most reported by only one company. For example, out of the 213 indicators, 159 are reported by a single company, accounting for 75% of the total collected indicators. Furthermore, we can see that only 8% of the total collected indicators are reported twice, 6% are reported three times and 5% are reported four times. Additionally, the reported indicators have a flat trend from 5 to 25. However, among these indicators, we find those that most companies report. For example, we can see that there is only one indicator that all 25 companies report on. Therefore, we observe that there are indicators that multiple companies report on, but this applies to only a tiny percentage of the total 213 indicators.

**Figure 4: Frequency of reported metrics**



*Figure 4 shows that 75% of the indicators we have collected are reported by only one company. Furthermore, we can see that only one indicator is reported by all 25 companies in the OBX index.*

We have observed significant variations in reporting practices among different companies. However, there have been similarities within various sectors. Nevertheless, the overall picture highlights the lack of a standardized framework for companies. This is evident from the fact that 159 out of the total 213 indicators are reported by only one company. This underscores the problem of the absence of a standardized ESG reporting framework, which is supported by the research of Amel-Zadeh & Serafeim (2017).

To summarize, we observed significant variations and discrepancies in the reporting practices of OBX companies. These variations occur in the form, measurement, or definition of the indicators being reported. This divergence arises because companies utilize different frameworks to report on the same concepts or variables. Our findings are consistent with previous research, such as the study by Amel-Zadeh and Serafeim (2017) and Kotsantonis and Serafeim (2019), but also Berg et al. (2022), who argue that the leading causes of measurement divergence occur in scope and measurement. This is attributed to the lack of standardization or harmonization in measurement practices, which can impact the data's reliability, accuracy, and comparability.

## 5. Summary and conclusion

This master thesis analyzes the health and safety reporting practices of the 25 OBX index companies. The study focuses on quantitative information and aims to identify the indicators used, analyze their categorization, and assess the level of comparability among them. 213 unique indicators were identified, reflecting the diverse ways companies convey quantitative information on health and safety matters. However, only one indicator was reported by all 25 companies, indicating a lack of standardization and comparability in reporting practices.

Analyzing the most frequently reported indicators reveals both common trends and variations. *LTIR*, *TRI(R)*, *percentage of female managers*, *sickness leave/absence*, *board of directors/governance bodies % female*, *total fatalities*, *total of female employees*, and *number of employees* emerged as the most frequently reported indicators. While some indicators showed consistent reporting practices, others exhibited diverse approaches, highlighting the need for clear and consistent reporting frameworks to ensure transparency and accuracy. The study also revealed disparities and inconsistencies in reporting practices, indicating the adoption of different frameworks and definitions for identical concepts or variables.

Furthermore, analyzing reporting practices within specific sectors provided insights into sector-specific gaps and similarities. For example, energy and consumer staples showed variations in reporting, but specific indicators were commonly reported within the sectors, for example, how businesses reported incidents/injuries. The clustering of indicators within sectors suggested the potential influence of collaboration, benchmarking, and shared suppliers in shaping reporting practices. Sector-specific standards and frameworks developed by organizations like GRI and SASB are contributing to addressing these challenges in the future. The findings of this study align with previous research conducted by Amel-Zadeh and Serafeim (2017), Kotsantonis and Serafeim (2019), and Berg et al. (2019), emphasizing the need for greater standardization, transparency, and comparability in ESG reporting practices.

However, it is vital to acknowledge the limitations that may have influenced the scope and findings of this research. The study focused exclusively on the OBX index in Norway, including only 25 companies, which may reduce the relevance of the findings. The time constraint of this thesis influenced the limited sample size, as only one semester was available

for the study. Additionally, the analysis primarily relied on information from the selected companies' annual and sustainability reports, potentially overlooking additional data and insights from other sources, such as rating agencies or specialized ESG databases. Subjective decisions were made during data collection regarding the placement and categorization of indicators, introducing potential bias.

In conclusion, this research sheds light on the health and safety reporting landscape of OBX companies, highlighting the importance of standardized frameworks, sector-specific approaches, and consistent reporting practices to facilitate meaningful comparisons and decision-making by investors. Further research could explore the underlying factors contributing to variations in reporting practices, investigate the impact of reporting variations on stakeholders, and examine the mechanisms through which investors access ESG information.

Finally, it could be valuable to delve deeper into sector-based reporting. Developing sector-specific standards and frameworks could enhance comparability and promote effective health and safety reporting. A more detailed examination of different sectors could be achieved by applying the same approach to, let's say, the top 100 most liquid companies. Presently, from the OBX, several companies stand alone in their respective industry or subsectors, posing challenges when comparing them to similar businesses.



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## Appendix

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## **Discussion papers:**

**Name: Even Nordbø**

### **Master´s Programme in International Business**

#### **Discussion paper – International**

##### **Introduction**

International is a well-known term after almost two years as a student in my master's program in international business. According to UiA, International can be explained as how schools facilitate studying and have an international feel. This means that the students are taught and acquire international competence through the teaching and curriculum literature (University of Agder, n.d.a). Furthermore, the business school at UiA was accredited in 2019 by the American organization Association to Advance Collegiate Schools of Business, AACSB. AACSB is an internationally recognized organization for education and teaching, constantly focuses on quality work at all stages, where you can exchange to other accredited institutions around the world, and lastly, a diploma with greater weight. UiA is one of only two business schools in Norway with this accreditation.

According to UiA, after completing the international business program, the student will have gained an understanding of the international aspects of management, marketing, and strategy, an awareness of the cultural aspects of international business, and an ability to use theories in analyzing global issues. This comes in addition to advanced knowledge in business administration and a thorough understanding of scientific methods. Additionally, in the study program, students could integrate insights from different fields of study and use relevant theories on a concrete problem. Lastly, participants of this study will learn how to evaluate the consequences of a given solution to a particular situation and ethical and cultural issues in various settings (University of Agder, n.d.b).

Furthermore, receiving AACSB accreditation has greatly enhanced UiA's appeal to international students, making the study program compelling and relevant. As a master's

student in international business at UiA, my academic journey has been rich and profoundly influenced by the international environment. The program is conducted in English, a positive aspect that has allowed me to refine my writing and verbal skills in a global language. Moreover, numerous group assignments have involved collaboration with fellow international students from diverse continents. This combination of cultural backgrounds has fostered remarkable diversity, exposing me to many unique perspectives, experiences, and knowledge from around the globe. Engaging with these individuals has proven enlightening, as their varied viewpoints consistently challenge and broaden my thinking. Consequently, this dynamic exchange has significantly contributed to my personal growth, improved my learning, and provided me with valuable experiences I intend to apply.

This discussion paper will provide a concise overview of my master's thesis. In the discussion section, I will explore how trends and forces connect to my master thesis, incorporating relevant theories and research. Additionally, I will give a brief explanation of the knowledge I have gained throughout the entirety of my master's program and how it is related to the concept of "international." Finally, I will end this paper with a summary and conclusion.

### **Brief presentation of the master thesis**

Firstly, I want to introduce the most important term for the master thesis, ESG. According to Berg et al. (2022), the phrase "Environmental, Social, and Governance" (ESG) has become much more relevant among institutions. According to research, ESG concerns are critical to the competitiveness and legitimacy of businesses. As a result, firms have recently been under pressure to embrace sustainable practices (Lins et al., 2017; Camilleri, 2018; Cao et al., 2019; Grewal and Serafeim. 2020).

The objective of this master's thesis is to explore the primary barriers and implications that investors experience when they incorporate ESG into their decision-making processes. To make the assignment more engaging, we have investigated how companies listed on the OBX index in Norway report on health and safety. Therefore, this assignment will include data from these companies and an analysis of their reporting practices. To answer this, we came up with three different research questions. Firstly, what are the health and safety related ESG metrics reported by the companies on the OBX index? Secondly, is there evidence of clustering, or grouping, of similar indicators within specific sectors? Lastly, do the barriers and implications

identified in the literature correspond to the data collected from the OBX index regarding ESG reporting?

By thoroughly analyzing annual and sustainability reports, this study concentrates on the quantitative non-financial data about Norwegian companies' health and safety indicators listed on the OBX Index. We found 213 quantitative indicators, identified, classified, and examined, with specific attention given to the eight most frequently reported indicators. The findings indicate that many indicators are reported by only one company, while all 25 companies report a single indicator. These results highlight a limited level of comparability among indicators that convey information on similar aspects. Furthermore, the absence of standardized ESG reporting presents significant challenges for investors in effectively utilizing quantitative information from both the annual and sustainability reports of companies listed on the OBX Index and other companies in general, which in turn align with the research conducted by Amel-Zadeh and Serafeim (2017). This research contributes to the existing literature by shedding light on the barriers and consequences investors face when employing ESG information. The study emphasizes the necessity for standardized reporting practices to improve comparability and facilitate the effective use of quantitative information for investors in the ESG field.

## **International trends and forces**

Given that my thesis focuses on ESG, and the challenges associated with investors' utilization of this information, it is logical to explore global trends.

Investors have mainly been motivated to maximize profit while lowering entire risk. Even if these structural components continue, recent events have inspired investors to prioritize ESG-related problems even more in their strategy (Edmans, 2020; Liang & Renneboog, 2021). Simultaneously, businesses have been under pressure to embrace sustainable practices. This is driven by the recognition that ESG issues are essential for the legitimacy and competitiveness of businesses, as well as the need to create a positive social impact that goes beyond serving shareholders (Lins et al., 2017; Camilleri, 2018; Cao et al., 2019; Grewal and Serafeim. 2020).

In recent years, there has been a notable shift in the mindset of international investors, who are now placing increasing importance on ESG factors when assessing companies' long-term sustainability and risk profile. This shift can be attributed to the growing recognition that a company's ESG performance directly impacts its financial performance and value-creation potential. As a result, investors are now actively seeking transparent and standardized ESG information from companies to make informed investment decisions (Dimson et al., 2020). Amel-Zadeh and Serafeim (2017) conducted a comprehensive global investigation to explore the utilization of ESG data in decision-making. Their study revealed that a significant majority, precisely 82.1% of the respondents, utilized ESG data to make decisions. Among these respondents, 63.1% emphasized the crucial role of ESG data in determining the performance of their investments, while 31.7% predicted that ESG data would soon become crucial.

When delving into the landscape of ESG, research observes an international trend among investors, commonly referred to as the green transition or the green shift (Amel-Zadeh & Serafeim, 2017; Dimson et al., 2020). The green shift on a global scale refers to the significant shift towards sustainable and environmentally friendly practices across various sectors, including finance, energy, transportation, and agriculture, among others. This shift has been driven by the growing awareness of the impact of human activities on the environment and the urgent need to mitigate the effects of climate change (Ytterstad & Bødker, 2022).

Furthermore, several nations and international organizations have acted to encourage sustainable behaviors and lower carbon emissions. The 2015 Paris Agreement established goals for decreasing greenhouse gas emissions and keeping the global temperature increase below 2 degrees Celsius. To promote sustainable habits and investment in green technology, several nations have also enacted regulations like carbon pricing, renewable energy objectives, and energy efficiency requirements (Hofstad et al., 2021).

The number of companies actively disclosing their efforts on climate change is experiencing a significant rise. However, many frameworks and standards are available for companies to choose from and implement (Bose, 2020). According to KPMG's survey "Big shifts, small steps" conducted in 2022, the most utilized frameworks for sustainability reporting among G250 companies are GRI, TCFD, and SDGs. The adoption of TCFD has nearly doubled over the past two years, increasing from 37% to 61% among G250 companies (McCalla-Leacy et al., 2022). These frameworks are developed to help companies report on their ESG

performance. It also helps companies promote consistency and comparability across industries and sectors. However, currently, companies have the autonomy to decide which framework to employ and how to apply it (Revisorforeningen, n.d.).

Although some companies opt for independent audits, there is currently no regulatory mandate governing companies' approach to conducting their sustainability reporting. Despite that, the EU implemented the Corporate Sustainability Reporting Directive (CSRD) in November 2022 (EU, n.d.). The CSRD will bring significant changes, including expanding the reporting requirements to more businesses, mandating the auditing of sustainability information, and demanding more detailed reporting in line with mandatory sustainability standards. Furthermore, all the disclosed information should be included in the company's annual report and publicly available (PwC, 2022). Initially, the CSRD will apply to large companies, listed companies, and regulated markets in the EU (EU, n.d.). The reporting obligations will first impact major public interest enterprises, starting with the financial year of 2024 and the first reporting requirements in 2025. As this reporting directive is relevant to the EEA (EØS), the Norwegian Ministry of Finance has instructed the Securities Act Committee (Verdipapirlovutvalget) to develop a framework for implementing the CSRD in Norway (Regjeringen, 2022).

Interestingly, our findings show several similarities among ESG reporting within the same sector. Which, both GRI and SASB, two of the most internationally used frameworks, are currently developing (Global Reporting, 2021). Based on the findings of clustering of indicators in the thesis, GRI and SASB are on the right track by establishing sector standards for ESG reporting. Having international standardized frameworks for companies would benefit both companies and investors. In today's ESG environment, there are challenges and implications in terms of ESG reporting. Hence, making it difficult for investors to compare companies and use the information in their decision-making process.

## **Summary and conclusion**

To summarize this discussion paper, the master's thesis focuses on ESG and its increasing relevance among investors. The thesis explores the obstacles and consequences investors face when integrating ESG into their decision-making processes. ESG concerns are crucial for businesses' competitiveness and legitimacy, forcing firms to adopt sustainable practices. The thesis explores the obstacles and consequences investors face when integrating ESG into their decision-making processes. Additionally, our findings from the OBX companies have many similarities to previous research and, without a doubt, a need for standardized reporting frameworks in the future.

Furthermore, it has been a significant shift in investor mindset, with a growing emphasis on ESG factors when evaluating companies. This shift is driven by recognizing that a company's ESG performance directly affects its financial and value-creation potential. Investors seek transparent and standardized ESG information to make informed investment decisions. This trend is part of a broader international movement known as the green transition or the green shift, which involves a widespread adoption of sustainable practices across various sectors.

The green shift is motivated by the increasing awareness of the environmental impact of human activities and the need to address climate change. To encourage sustainability and reduce carbon emissions, nations and international organizations have implemented regulations such as carbon pricing, renewable energy goals, and energy efficiency requirements. Companies are also disclosing their efforts on climate change and adopting frameworks like the Global Reporting Initiative (GRI), Task Force on Climate-related Financial Disclosures (TCFD), and Sustainable Development Goals (SDGs) for sustainability reporting.

Although no regulatory mandate governs sustainability reporting approaches, the European Union has introduced the Corporate Sustainability Reporting Directive (CSRD) to standardize reporting requirements. The CSRD expands reporting obligations to more businesses, mandates auditing sustainability information, and requires detailed reporting in line with mandatory sustainability standards. The directive will initially apply to large and listed companies in the EU, with reporting obligations starting from the financial year of 2024. As part of the European Economic Area (EEA), Norway is also taking steps to implement the CSRD through the Securities Act Committee.



Overall, the shift towards ESG-focused investing and the green transition reflects a growing recognition of the importance of sustainability in business practices and the broader global agenda to address climate change and promote a more environmentally friendly future.

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**Name: Njård Kylstad Kobberdal**

**Master thesis – International Business / BE-509-1 23V**

### **Discussion paper - International**

In this discussion paper, I will evaluate the School of Business and Law's performance in incorporating their key values of responsible, innovative, and international ideas into the programs and accomplishing these learning objectives, with mainly focus on the value international.

To best be able to do this, I will review the entirety of the master program and reflect on how this have been. Throughout this paper, I will have to think more broadly and to consider issues outside the purview of my master's thesis to evaluate whether the key concepts of UiA is fulfilled or not.

The paper will include firstly a brief overview of my thesis, how this is built, what kind of topics we cover, why these are important, different findings, and a summary. I will connect these topics from the master thesis and see how these links to relevant international trends we see in the world today. I will also use relevant literature and sources to highlight this, both sources from the thesis itself and other suitable sources. Lastly, a brief conclusion and summary will be presented.

### **The thesis**

Companies have been under pressure to implement sustainable practices in recent years because of the desire to have an influence on society beyond just the interests of shareholders and the understanding that ESG concerns are essential to a company's ability to compete and maintain its legitimacy. Many ESG rating firms, which assess businesses to guide investors, have risen because of the expanding attention being paid to ESG. Yet, considering that the ratings provided often differ significantly, there are concerns about the validity of these agencies. Due to the lack of consistency in ESG ratings, it might be challenging for investors to come to sensible conclusions (Chatterji et al., 2016). Uncertainty among investors can emerge from measurement divergence due to the lack of precise definitions, guidelines, and standards on sustainable investing. This is the main topic of our thesis, measurement divergence, which is the different ways that different sources gather, present, and assess ESG data, that could affect conclusions and suggestions (Berg et al., 2022). We want to find out how the measurement divergence pose challenges for investors, businesses and investigate how the 25 companies on OSBEX (Oslo Stock Exchange) report on health and safety indicators in their annual/sustainability report and see if these findings match the relevant literature.

## **Green shift**

Firstly, I think it is important to view how “international” can link to the master thesis we have written. Therefore, it is relevant to see how the increasing focus on environment and a green development connects to this. According to Berg et al. (2022), the expression "Environmental, Social, and Governance" (ESG) has been increasingly relevant in recent years. This can be described as a green shift we have seen all over the world in recent years. Businesses of all sizes and sectors are realizing how critical it is to combat climate change and implement more environmentally friendly practices. This change includes a variety of initiatives, such as lowering carbon emissions, utilizing renewable energy sources, fostering circular economies, and emphasizing social responsibility. Forward-thinking businesses are incorporating sustainability into their fundamental business models in addition to integrating their operations with environmentally friendly practices.

In the past, market performance was mostly determined by a company's financial performance and profitability, which in turn influenced investment decisions. However, as Hart and Zingales (2017) highlight, ESG practices and their effect on a company's sustainable operations have become more and more important in recent years. Green alternatives are becoming more and more in demand from customers, investors, and employees, which forces businesses to innovate and embrace sustainable practices to stay competitive. Increasing market value and revenue is not the optimal course of action for firms, according to academic studies and investor trends. Shareholders, customers, and employees may be compelled to act favorably rather than negatively to further societal goals at the expense of a company's profits (Broccardo et al., 2020).

As the development of ESG can be said to be influenced by investors through their investments, preferences and demands, it's relevant to see which international trends we see among investors when it comes to ESG investing. This is also a key part of our thesis, as the measurement divergence which occur from how the businesses report, contributes to confusing investors as they try make use of businesses data and make informed investment decisions. Investors can find ESG data in a variety of places, such as company sustainability reports, independent ESG research suppliers, media outlets, and ESG rating agencies. To understand more about companies' sustainability initiatives, some investors also engage the companies directly (Dimson et al., 2020). When evaluating ESG data, investors usually consider a wide range of factors, including a company's governance practices, social responsibilities, and environmental effects.

It is interesting to look at how investors approach investing in green companies. Internationally, we see that investors have adopted new methods of investment, which I will investigate further.

Among them "impact investing." Impact investing aim to deliver specific positive social or environmental advantages in addition to financial rewards, according to Busch et al. (2021). An ESG screening technique that includes both positive and negative screening is another frequently applied ESG approach. Amel-Zadeh & Serafeim (2017) claim that part of "positive screening" is finding companies worldwide who work toward these objectives and have excellent ESG practices. Next, "negative screening" focuses on identifying companies that have poor ESG practices or perform acts that are thought to be harmful to humanity or the environment. Accordingly, investors will avoid these companies. These are some of the investment approaches I touch on in the thesis. Due to their potential to have an environmental impact, encourage social responsibility, generate financial returns, align with favorable government policies, and satisfy the expanding market demand for sustainable solutions, investor methods for investing in green companies are increasingly important on an international level. By adopting these strategies, investors can benefit from the opportunities provided by the developing global economy while simultaneously helping to create a greener, more sustainable future.

The corporate world is currently seeing a paradigm shift toward a more sustainable future where environmental responsibility and profitability go hand in hand if this trend persists. The green shift is a wave that we see constantly changing with each passing day, surrounding, and influencing the entire world. With this shift, new requirements and challenges arise for companies. It is almost taken for granted that the largest companies report on how they are performing in terms of ESG. This requires institutions and authorities to facilitate the creation of worldwide frameworks for how companies across the world should report on this.

GRI (Global Reporting Initiative) and SASB (Sustainability Accounting Standards Board) have been crucial in creating international standards for corporate reporting. Companies can report their economic, environmental, and social performance using GRI's detailed criteria, which promote transparency and comparability. The SASB works on establishing reporting requirements, recognizing substantial ESG concerns, and developing sustainable accounting standards that are industry specific. Collectively, GRI and SASB have transformed the field of sustainability reporting by fostering global accountability and openness while advancing ethical business practices. To give stakeholders from various countries and regions access to consistent and trustworthy information, these standards create a common framework for businesses to declare their economic, environmental, and social performance. This worldwide unification encourages informed decision-making by regulators, investors, and other stakeholders, encouraging ethical business conduct and advancing sustainable development on a global scale.

Since our task involves examining how some of the largest companies in Norway report on indicators related to health and safety, it is relevant to consider why it is important for these Norwegian

companies to do so in an international context. Norwegian OBX index businesses have a strong incentive to report alike and keep up with global competitors. The need for accountability and transparency has expanded enormously as the global economic landscape becomes more integrated. Norwegian firms can improve their competitiveness and draw foreign investors by aligning their reporting procedures with the biggest corporations in the world. They can demonstrate their commitment to best practices, moral behavior, and sustainable operations by publishing reports that are comparable to those of multinational corporations. Additionally, it offers an arena for innovation, continual improvement, and benchmarking to international standards. Furthermore, upholding uniform reporting standards boosts investor confidence and raises the stature of Norwegian businesses abroad. These organizations' long-term growth and success are facilitated by this convergence, which also makes it easier for cross-border partnerships, collaborations, and access to a variety of markets for Norwegian firms. Therefore, adopting international reporting standards is essential for both keeping a competitive edge and enhancing Norway's standing as a major player in the global economy.

## **The course of study**

I also believe it is important to delve into how my study period at UiA can be linked to 'international'. I feel that studying at UiA has given me insights into various cultures from around the world, an understanding of how business can be completely different outside of Norway, and taught me new ways to collaborate, to name a few. This is because, for example, we receive lectures from professionals located in completely different parts of the world, across cultures, with first-hand experiences from different parts of the globe.

In particular, the International Business master's program has provided me with the opportunity to work closely with exchange students, which has been especially interesting and rewarding. Having a class composed of people from different countries and nationalities creates a more 'open' environment, where we manage to create a slightly 'non-Norwegian' atmosphere, which I believe is healthy. Especially in courses like Emerging Markets, we could see how rewarding it was to have students from different parts of the world. When we went through countries in the course, there were sometimes students who came from those countries who could share their own perspectives on the country's future prospects and what it's like there.

The fact that all teaching has been conducted in English has been an enjoyable process. At first, I thought it might be challenging, but I quickly adapted to communicating and writing in English as it became completely natural, as we exclusively communicated in English. This also made it natural for me to choose English as the language to write my master's thesis in. Overall, I am very satisfied with my time



at UiA and believe that the university provides a conducive environment for success. One is immersed in an international community that constantly embraces and attracts the latest trends happening worldwide.

## **Summary**

It is evident that ESG has become increasingly important in recent years, both for companies and investors. A company's sustainable operations have become as critical as the financial performance. Customers, investors, and employees are all becoming more and more supportive of green solutions. Investors have adopted new methods to invest in the “right” companies going forward, by techniques like impact investing, positive and negative screening. Next, we see SASB and GRI lead way by implementing frameworks for businesses to create more standardized ways of providing their information. Further on, by harmonizing their reporting practices with those of the largest corporations in the world, Norwegian businesses can increase their competitiveness and attract foreign investors. Lastly, I've learned new ways to collaborate while studying at UiA, as well as insights into a variety of cultures from around the world and how business can be very different outside of Norway.

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