



Navigating ESG Reporting in Corporate Groups

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This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

Preface

This thesis is written as the concluding part of the master's program in Economics and Administration at the Norwegian School of Economics (NHH), specializing in the main profiles of Financial Economics and Strategy and Management. The work was initiated in August 2023 and concluded in December of the same year. We have chosen this area of research as we both find the subjects and industry covered highly interesting, and the themes addressed in the assignment are in addition relevant to current affairs.

The work on this study has been challenging but, above all, exciting and incredibly educational. We have gained new insights into a relevant field of study and industry. On this occasion, we would like to extend our heartfelt thanks to our collaborating company and all contributors who have taken the time to participate in an otherwise busy everyday life. This has been crucial in obtaining valuable information through their insights and engagement in the subject.

Furthermore, we would like to express our sincere gratitude to our supervisor, Associate Professor Björn Schmeisser, at the Norwegian School of Economics. Björn, through his academic expertise and constructive feedback, has been a crucial support throughout the entire process. We also want to thank each other for a good and rewarding collaboration, especially during the last ten days. We are incredibly proud to present this thesis as a culmination of our master's degree in economics and administration.

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Abstract

This master's thesis aims to shed light on the main complexities and barriers corporate groups are confronted with when consolidating Environmental, Social and Governance (ESG) information, including how these complexities can be constructively addressed. Using an in-depth case study of an internationally leading seafood company with extensive experience in reporting on ESG, we identify complexities on various levels of the corporate hierarchy and apply a grounded theory approach to develop a comprehensive model of the challenges of ESG consolidation in large and diverse corporate groups.

We propose a linear, step-by-step model for consolidation of ESG information. Initially, the process begins with materiality analysis to identify relevant data to collect, factoring in external pressures, internal priorities, and stakeholder communication to ensure adaptability and sensible prioritization. The materiality analysis sets the criteria for data collection, which is primarily challenged by its manual and time-consuming nature, along with variations in data output from diverse business unit operations. We found that automating the process and defining clear roles enhances efficiency in data collection. Following data collection, the subsequent phase involves data sharing, characterized by comprehensive sharing of data and unrevised scorecards. Standardization of parameters in reporting and regular in-person meetings play a crucial role in this phase to manage data efficiently and guarantee the visibility of all initiatives. Finally, in summarization of ESG data, our findings emphasize the criticality of openly using diverse communication channels. Open communication is essential for addressing delays and incorrect data for the continual improvement of the processes involved.

The emergent model presented aims to enhance insight into the critical steps of consolidating ESG information by explaining key relationships in this process. This is done with the intent of providing a richer perspective than what already exists in today's literature and serve practical utility for organizational application through increased understanding.

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1.0 Introduction

In an era marked by tightening regulatory frameworks, the practices of ESG reporting have never been more important. Organizations face pressure through external assessments, voluntary reporting frameworks, and industry norms, as well as governmental institutions (Misopoulos, Michaelides, R., Salehuddin, Manthou, & Michaelides, Z., 2018; NOU 2023: 15). These driving forces push organizations towards more sustainable practices, where the Environmental, Social, and Governance (ESG) concept facilitates for meeting these expectations (Bassen & Kovacs, 2020). Our research, intersecting the domains of strategy and finance, delves into how corporate groups are adapting to the expectations of ESG reporting. In the realm of finance, ESG criteria are increasingly recognized for directing investments to companies disclosing according to the ESG framework (UN PRI, n.d.). Simultaneously, from a strategic perspective, ESG integration is not only about compliance, but imperative for keeping or acquiring competitive advantage and ensure long-term value creation (Amran & Ooi, 2014; Mohammad & Wasiuzzaman, 2021).

Current research demonstrates how the alignment of sustainability and profitability has gained traction, as companies that perform well in terms of disclosing ESG information benefit from their sustainable practices by increased profitability and firm value (Heinzer & Mezzanzanica, 2022; Aydoğmuş, Gülay, & Ergun, 2022). To direct sustainable investments, ESG disclosure is used as non-financial information to assess and rank a company's ability to address sustainability issues (PwC, n.d.). Wilson (2003) further underscores the importance of sustainable development aligning with the company's best economic interests, as it enhances relationships with stakeholders. Currently, reporting standards have only been voluntary and consequently, the pressure on companies to report ESG information has mainly been normative. However, a shift is imminent with the impending directive of the EU's Corporate Sustainability Reporting Directive (CSRD). The directive will be implemented in Norway with the inaugural reporting year being 2025, targeting the largest enterprises and groups, mandated by regulatory compliance (NHO, 2023). The enactments' purpose is to channel more capital towards companies addressing sustainability challenges (NOU 2023: 15). Both the CSRD and voluntary reporting standards share the objectives of disclosing information, positively contributing to sustainable development in line with the ESG concept.

These changes speak to an expanded focus on ESG reporting, and it will be essential to enhance the understanding of how this ESG reporting is conducted by corporate groups. The regulatory changes emphasize the pressing need to extend knowledge and insight in this field of study, enhancing our motivation for our research. Existing research extensively covers the importance of organizations having a holistic view expanding beyond financial considerations, and the advantages of ESG reporting. However, the internal process of consolidating ESG information is a complex issue and remains relatively unexamined. Expectations of performing on ESG criteria impose extensive demands for disclosing information, which in turn leads to challenges related to what corporate groups choose to report on, and how this information is gathered and disseminated within the corporate group before it is communicated to stakeholders.

With our thesis, we aim to improve our understanding through investigating how sustainable measures in the context of ESG reporting are consolidated in corporate groups. We have formulated the following research question:

What complexities do corporate groups face when consolidating ESG information across business units, and how do they address these complexities?

This question aims to uncover the nuanced dynamics within corporate groups as they strive to align their ESG reporting with evolving sustainability standards and stakeholder expectations. Our theoretical foundation will have its conceptual frames extending from a broad focus introducing Freeman's (1984) stakeholder theory, to specific guides for how an organization can report on ESG (Nasdaq, 2019; Euronext 2022). The foundation will contribute to enhancing our understanding of the topic and related subjects, as well as the execution of our data collection. To address our research question, we have employed a single case study and a grounded theory approach. We utilize grounded theory to collect and analyze data from three documents and ten semi-structured interviews with key personnel of Lerøy Seafood Group (LSG). LSG is a Norwegian and internationally leading seafood group with broad market exposure and several business units.

The interviews have granted insight into the different levels of the group and how LSG currently consolidate their ESG information in a natural context. Johnsen, Grønvik, Blomgren, Erraia, Fjose, Iversen, Nylund, Fjellidal, Robertsen and Nyrud (2020) highlights in the report "The Ripple Effects of the Seafood Industry" that the industry is among the most important in Norway, with an estimated value creation, in terms of contribution to GDP, at nearly 60 billion Norwegian Kroner in 2021 (Johansen, Richardsen, Myhre, & Young, 2022). Furthermore, LSG

has experience with sustainability reporting, with their first environmental report dating back to 2008 (Lerøy, n.d), attending their long-standing focus on sustainability. The extensive experience demonstrates transparency in terms of the company's performance and issues related to sustainability. These highlighted factors make LSG a well-suited case study for gaining insights into the consolidation of ESG information to their stakeholders.

Our thesis purpose is to explore a domain where there is scant existing literature and to create new understanding and insight. Accordingly, we present the emergent model of the complexities and how they can be addressed related to navigating ESG consolidating in a corporate group. This understanding may possess practical utility for enterprises grappling with the delineated challenges, whilst simultaneously offering contributions to the existing literature. In addition, we also believe that shedding light on a field of study where the end goal is contributing to sustainable development contributes to a societal impact.

The remainder of the thesis is structured as follows: in the next Chapter 2.0 we establish the theoretical foundation of ESG and sustainable investing, as well as outline commonly used frameworks for ESG reporting. Chapter 3.0 describes the study's methodology and research approach. Chapter 4.0 presents the findings and chapter 5.0 the conceptual model. Chapter 6.0 concludes the thesis by highlighting and discussing the key findings and their implications and limitations, before suggesting avenues for future research.

2.0 Theoretical foundation

To establish the theoretical foundation of the thesis, in a first step, we provide a comprehensive overview of stakeholder theory as the main concept and theory underpinning the sustainable investments and particularly the ESG practices that we observe today. The aim of the literature review is to demarcate areas previously researched and spot areas where our knowledge is still underdeveloped with a special focus on the disciplines of strategy and finance. After that, in a second step, we establish an in-depth understanding of the sustainable investments and ESG reporting as key topics and concepts that are particularly relevant to our research question.

2.1 Stakeholder theory

The concept of “stakeholder” emerged in management literature in 1963, initially representing stockholders as the primary group for management responsiveness (Freeman, Harrison, Wicks, Parmar, & De Colle, 2010). Earlier perspectives, notably Friedman’s (1953) shareholder perspective, emphasized the maximization of shareholder wealth as companies’ main purpose. However, the development of the term stakeholder has evolved to a broader meaning, forming a theory that engages with endeavors extending beyond mere financial consideration (Freeman, 1984; Philips, 1997, Clarkson; 1995; Harrison & St. John, 1996).

During the 1980s, the effect of local, national, and global influences, coupled with the impact of non-corporate entities, transformed the business landscape by exerting influence on organizational operations (Freeman, 1984). Considering these changes, Freeman (1984) critically assessed the traditional business paradigm for its lack of adaptability, subsequently introducing Stakeholder Theory, describing how businesses shift their attention to consider all their stakeholders. Phillips (1997) theorizes that stakeholder theory emerged as a counterargument to M. Friedman's (1970) perspective on shareholders, which asserted that a company's primary responsibilities are to its shareholders and that the only social responsibility of business is to increase profits.

The abovementioned description of stakeholder theory marked the first era of the development of the theory. The flourishing literature on stakeholder theory predominantly appeared in conference proceedings, dissertations, practitioner journals, and book chapters, as highlighted in Wood's (1991b) review. Further development of the theory underscores the growth and is recognized in the period of the 1990s, boosting the theory’s recognition. During this time, one

also distinguished between three branches of stakeholder theory: the descriptive, the normative, and the instrumental (Donaldson & Preston, 1995). At the turn of the millennium, the third period of stakeholder theory emerged. Stakeholder theory's growing influence in managerial discourse may have prompted criticism from proponents of shareholder primacy. Jensen characterized stakeholder theory as an affront to 200 years of economic theory and research (Jensen, 2002, as cited in Laplume et al., 2008). Conversely, an *Academy of Management Review* featured a special topic on corporations as social agents, including five articles driven by the foundational principles of stakeholder theory (Laplume et al., 2008).

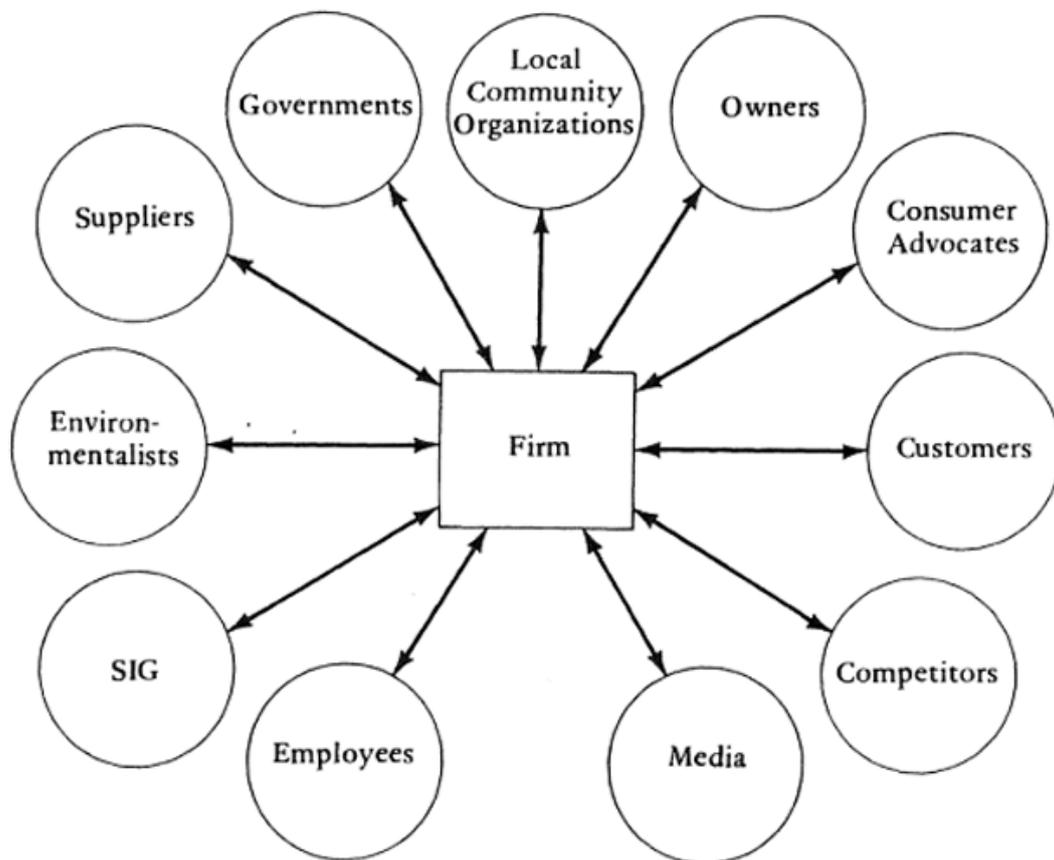


Figure 1 Firm's stakeholders and the reciprocal relationship (Freeman, 1984).

As illustrated in Figure 1, the arrows between stakeholders and the firm signify a reciprocal relationship, indicating mutual influence. Freeman (1984) underscores the presence of internal stakeholders within the organizational structure, as well as the external stakeholders who operate outside the firm. This distinction delineates the differentiation between internal and

external stakeholders, each possessing the potential to exert influence from either an internal or external point.

Stakeholder definition and salience

Freeman (1984) believed that the duty of companies is to respond to the needs of multiple stakeholders. A key challenge in stakeholder theory is the absence of a clear framework for stakeholder identification, specifically in discerning who qualifies as a stakeholder and who does not. In contrast to the outdated origin of the stakeholder definition from 1963, only considering stakeholders as the corporation's stockholders, Freeman's (1984, p. 46) definition states "any group or individual who can affect or is affected by the achievement of the organization's objectives". The original definition has faced criticism for the "can affect" criterion, which is argued to diminish the practical significance of the term "stakeholder" (Philips & Reichart, 2000). Freeman and Reed (1983) present the stakeholder term two ways: either in a widely sense, or in a narrow sense. Freeman's (1984) definition is argued to be in the wide sense of the definition, whereas a narrow definition is presented as "any identifiable group or individual on which the organization is dependent for its continued survival" (Freeman & Reed, 1983, p. 91). The broader definition of a stakeholder is more commonly adopted and is regarded as the classic interpretation (Harrison & St. John, 1996), despite efforts to refine the definition since its introduction. In addition to the distinction of external and internal stakeholders, they can be classified as either primary or secondary. Those identified by the narrow definition are categorized as primary stakeholders, whereas those encompassed by the broader definition are termed secondary stakeholders (Clarkson, 1995; Freeman, 1984; Harrison & St. John, 1996).

Relevant for the vast definitions of stakeholders is the theory of stakeholder salience. Based on the stakeholders' influence on the firm, deemed legitimacy, and urgency of the claim, the synthesized study of Mitchell, Agle, and Wood (1997) concluded that managers give priority to competing claims. The probability of a firm responding to these claims rises in proportion to their salience (Mitchell et al., 1997). However, Driscoll and Starik (1997) criticized the scope of these dimensions as insufficient for encompassing immediate and distant, short- and long-term, and actual and potential aspects. They reconceptualized the stakeholder attributes of power, legitimacy, and urgency, proposing a fourth stakeholder attribute: proximity. This provided a more solid foundation, arguing for the natural environment as the primary and primordial stakeholder of the firm (Driscoll & Starik, 2004).

Dimensions of stakeholder theory

Freeman himself acknowledged the diversity within stakeholder theory, stating, "There are many versions of "stakeholder theory" and we do not wish to try to synthesize all of them into something approximating "the correct version"" (Freeman et al., 2010, p. 30). Reflecting on the development of Stakeholder Theory and its second period, it is worth elaborating on the theory's three distinct dimensions, originally categorized by Donaldson and Preston (1995), to clarify the disparate streams of stakeholder research (Egels-Zandén & Sandberg, 2010). They presented a "managerial" perspective of stakeholder theory, where a combination of recommended attitudes, structures, and practices forms the basis of a stakeholder management philosophy. Firstly, the normative dimension, advocating for how corporations should behave, was also concluded as the most promising dimension for future theoretical development. This dimension interprets the moral and philosophical guidelines that underpin a corporation's operations and management (Donaldson & Preston, 1995). Secondly, the instrumental dimension focuses on the tangible outcomes of stakeholder management strategies, directly linked to firm performance (Donaldson & Preston, 1995). However, Jones, Harrison, & Felps (2018) challenge the dominance of instrumental stakeholder theory, despite its recognized value, proposing a relational ethics strategy to secure sustained competitive advantage. Lastly, the descriptive dimension of stakeholder theory typically serves to characterize and sometimes explain specific corporate behaviors and traits (Donaldson & Preston, 1995). They further elaborate that this dimension is primarily concerned with how corporations actually operate and the real-world practices of managers in relation to stakeholders. These dimensions collectively illustrate the multifaceted nature of stakeholder theory, indicating that its application and interpretation extend beyond these primary categories, encompassing a wide range of perspectives and approaches.

Firm Performance

Laplume et al. (2008) also elaborate an aspect of stakeholder theory, examining its impact on financial performance. This major theme pays attention to relationships between stakeholder management and financial performance. Freeman (1984) suggests stakeholder analysis techniques to enhance a firm's survival prospects by foreseeing and preventing unexpected problems and improving access to essential resources. Clarkson (1995) elucidated this by demonstrating that prioritizing issues concerning primary stakeholders generates more value for firms than a broader focus on general social issues. Overall, Laplume et al. (2008) found

12 empirical studies examining instrumental stakeholder theory, with 9 supporting its principles.

While stakeholder theory deals with how to consider the needs of various stakeholders, it also distinguishes itself from the shareholder perspective by addressing morals and values explicitly as a central feature of managing organizations, instead of solely focusing on the maximization of profit (Philips, Freeman, & Wicks, 2003). The stakeholder theory gains salience when one endeavors to comprehend how organizational initiatives transcend mere cost-saving measures or regulatory adherence. Such endeavors should be perceived as ethically driven strategic decisions, bearing implications that resonate across a wide range of stakeholders. This spans from local communities grappling with environmental ramifications to investors who manifest a growing inclination towards sustainable business practices. Additionally, Freeman's stakeholder approach was decidedly strategic, as it viewed the consideration of stakeholder interests as instrumental in improving firm performance (Laplume et al., 2008).

2.2 From stakeholder theory to sustainable finance

Both stakeholder theory and sustainable finance explain the importance of stakeholders' ability to impact firm's financial performance. Schoenmaker and Schramade define sustainable finance as: "how finance interacts with economic, social, and environmental issues" (2018, p. 33). The relationship is underscored by Madsen and Rodgers (2015), as the primary theoretical framework used in recent studies examining the connection between sustainability and financial performance is stakeholder theory. Additionally, Wilson (2003) explains how stakeholder theory posits that pursuing sustainable development aligns with a company's best economic interests, as it enhances relationships with stakeholders, thereby aiding the company to achieve its business goals. Similarly, as stakeholder theory influence governance and corporate management more broadly, the sustainable finance field alters the focus to sustainable practices – both proven to enhance firm's financial performance.

In the realm of corporate finance and strategy, the alignment of sustainability with profitability has garnered significant attention (Lodh, 2020; Aydoğmuş et al., 2022; Spiliakos, 2018: UN PRI, n.d.). The idea of sustainable finance is to channel more capital toward companies addressing the environmental, social, and governance challenges, fostering a more sustainable economy in line with the EU's green deal and the UN's Sustainable Development Goals (SDGs) (NOU, 2023: 15). Contrary to the perception that sustainability-related investments are

merely a net financial cost tied to risk management and compliance, recent research underscores their potential as avenues for value creation (Mohammad & Wasiuzzaman, 2021; UN PRI, n.d.). The UN Principles for Responsible Investment reports increased assets under management for firms adhering to sustainable practices (UN PRI, n.d.). Additionally, Spiliakos (2018) emphasizes that high ESG performance can lead to reduced costs of capital, cost of equity, and cost of debt in addition to enhanced long-term competitiveness, benefiting from lower capital costs and sales growth. Due to better access to financing, engagement in sustainable activities is also claimed by Mohammad and Wasiuzzaman (2021) to improve both firm performance and competitive advantage. This evidence provides compelling justification for firms to strategically shift towards sustainable practices, as such changes are crucial for investment and financing decisions.

2.2.1 Directing sustainable investment: The ESG framework

To direct the sustainable investments to companies engaging in sustainable practices, ESG plays a crucial role in today's corporations and is central for this thesis. The UN Global Compact's White Paper "Who Cares Wins" (2004) is widely considered to be the first mainstream mention of ESG in modern context (European Corporate Governance Institute 2023). The concept of ESG is an acronym for "Environmental, Social, Governance" (Eccles & Strohle, 2018). ESG is used as non-financial information to assess and rank a company's ability to address environmental, social, and governance concerns responsibly and ethically (PwC, n.d.). Bassen and Kovacs (2020) emphasize that ESG evaluations aim to capture multiple dimensions of companies' performances that are not reflected in traditional financial data, thereby aiding in a better assessment of the opportunities and risks associated with the companies. Hence, the ESG framework serves practical as a manifestation to direct investments to well-performing firms.

The environmental component pertains to how a business relates to the environment and how its operations impact it (Brendan, 2021), focusing on emissions, waste, resource use, pollution, energy consumption, and deforestation. Furthermore, the social component considers how the business impacts the humanitarian and social aspects both within and outside the company such as human rights, working conditions, community engagement, and relationships with local communities (Armstrong, 2020). Governance addresses the company's internal structures and procedures designed to ensure transparency and accountability, avoid conflicts of interest, and act in the best interest of the company's shareholders (Brendan, 2021).

Since 2004, the ESG concept has become increasingly relevant, now covering most sectors and industries. ESG initiatives in production and reporting practices are driven by normative pressure from stakeholders, with expectations for companies to comply based on their situation or industry (Misopoulos et al., 2018). Furthermore, it is highlighted that external ESG assessments are subject to both normative and coercive pressure, particularly strong in countries with clear governmental and regulatory frameworks (Martínez-Ferrero & García-Sánchez, 2017; Kauppi & Hannibal, 2017). The notion of coercive pressure in voluntary reporting may seem contradictory, but such pressure can also stem from organizations a company relies on, like customers and suppliers (Sukoco, Supriharyanti, Susanto, Nasution & Daryanto, 2022). This suggests how the ESG framework functions under both informal and formal expectations for companies to adapt their practices to a sustainability-conscious environment.

The implementation of the Corporate Sustainability Reporting Directive (CSRD) underscores the pivotal role of ESG in sustainable development. Adopted by the EU in 2022, the CSRD is aligned with the European Sustainability Reporting Standards (ESRS) (EFRAG, 2023) and it aims to enhance the quality, comprehensiveness, and accessibility of information regarding corporate sustainability practices (NOU 2023: 15). The CSRD is set to alter the EU's Accounting Directive, effective from the fiscal year 2024 with the first reporting year in 2025, targeting large enterprises and groups, mandating unified reporting to stakeholders (NHO, 2023). While sharing the objectives of voluntary ESG reporting, the CSRD distinguishes itself by its regulatory compliance requirements, unlike voluntary reporting where normative pressure is seen as the main driver (Misopoulos et al., 2018).

The ESG framework can be deemed effective for attracting capital, as studies find significant and positive relationships between ESG initiatives and firm value and performance (Tahmid, Hoque, Said, Saona, & Azad 2022; Aydoğmuş et al., 2022; Eccles, Ioannou & Serafeim, 2014). As a result, firms and corporate groups have incorporated ESG as a central part of their strategies, where they consider all three areas to integrate into their business and decision-making. Additionally, Krueger, Sautner, Tang, and Zhong (2023) contend that mandatory reporting can exert positive impact on firm-level stock liquidity, especially when the disclosure mandates are instituted by governmental institutions. Furthermore, Aureli, Del Baldo, Lombardi, and Nappo (2020) suggest that mandatory reporting in line with CSRD can positively influence a company's sustainability-related practices. Yet, the enactment of the EU

Directive is not without skepticism. Zamora (2020) posits that the CSRD implementation may lead to information overload in reporting, characterized by an excess of data that complicates decision-making and potentially confuses financial statement users (Bircan, 2022). This perspective introduces ambiguity about the CSRD's impact, leaving its actual effects yet to be determined.

2.2.2 Sustainable investment trend

For sustainable initiatives to contribute to a company's valuation, ESG information must be quantifiable for investor analysis. The efficient market hypothesis (EMH) suggests that market prices reflect all available information (Fama, 1970). The hypothesis of efficient capital markets assumes rational investors, with non-rational behavior insignificant or neutralized by arbitrageurs. Under these assumptions, new information would immediately be reflected in the prices (Fama, 1970), and no investors would therefore achieve returns greater than “holding a randomly selected portfolio” (Malkiel, 2003, p. 1). This was the accepted view at the time. (Malkiel, 2003). However, EMH has been criticized for having empirical patterns inconsistent with the weak- or semi-strong forms of efficiency and theoretical issues like risky and pricy arbitrage and herd behavior (Shleifer, 1986; Malkiel, 2003). However, the fundamental idea that market prices reflect available information remains relevant when we delve further into investments driven by ESG information.

For an information market on ESG metrics to thrive, it's essential to provide stakeholders with a transparent and reliable system that differentiates companies based on their commitment levels. An ESG score is an evaluation, either quantitative or qualitative, that reflects a company's performance and practices in terms of environment, social responsibility, and governance. These rankings are often conducted by rating agencies, where they act as information intermediaries, with one objective being to reduce information asymmetry. To categorize diverse ESG ratings data and providers, Li and Polychronopoulos (2020) differentiate among three types of evaluations within their framework. Herein, ratings are distinguished as fundamental, comprehensive, and specialist (Li & Polychronopoulos, 2020). These categories reflect the varying degrees of complexity in the assessments and the extent to which different types of ESG information are utilized. This illustrates the significant variation in evaluations that companies encounter and indicates that there is no standardized approach to such assessments.

A publication by Heinzer and Mezzanica (2022) further accentuates the financial implications of ESG performance. At any given point in time, a firm with a 10-point higher ESG score than a similar firm is associated with a 1.2x higher EV/EBITDA multiple (Heinzer & Mezzanica, 2022). Furthermore, when a company improves its ESG score by 10 points, the result is found to be an increase of approximately 1.8x in its EV/EBITDA, highlighting the tangible value of actively enhancing ESG practices (Heinzer & Mezzanica, 2022). Other evidence by Aydoğmuş et al. (2022) found a positive and significant relationship between ESG combined scores and both firm profitability and value. This is further accentuated by Eccles et al. (2014), which established that companies scoring high on ESG metrics, outperform their counterpart both in terms of stock market and accounting performance. However, sustainability initiatives might conflict with short-term financial considerations, even if they promise long-term financial gains. The pressure for short-term earnings might lead to prioritizing financial goals over sustainability initiatives (Jørgensen & Pedersen, 2018). Additionally, the data underpinning ESG metrics has been criticized for its inconsistency and lack of clarity (Kotsantonis & Serafeim, 2019).

Considering the insights on sustainable investing, it is advisable for firms to integrate ESG into their core investment strategies and operational activities underscored by empirical evidence. This alignment is not merely a response to external pressures but a strategic imperative to meet the evolving corporate benchmarks and expectations, which in turn can lead to increased interest from investors.

2.2.3 An overview of ESG reporting standards

Concerning reporting on sustainable issues, the definitions are vast (Best et al., 2014; GSSB, 2016a;), and sustainability reporting has often been used synonymously with “nonfinancial reporting” (Amran & Ooi, 2014). This form of reporting traditionally focuses on an organization’s environmental, social, and economic impacts. The Global Reporting Initiative (2011, p. 3, referred to in Best et al., 2014) offered a comprehensive definition, stating that “Sustainability reporting is the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development”. This approach underscores a broad perspective on an organization's impact and performance.

However, the focus has shifted more towards sustainability encapsulated in the concept of ESG. While sustainability reporting provides a wide lens, ESG reporting directs this information in

a structured manner. It is succinctly defined as “The disclosure of environmental, social and corporate governance data” (Tocchini & Cafagna, 2022, par. 2). While both sustainability reporting and ESG reporting serve a similar purpose, this shift reflects a more targeted approach.

Some frameworks are more prominent than others. Key frameworks within ESG reporting include the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and Integrated Reporting (IR) framework from the International Integrated Reporting Council (IIRC), for reporting on sustainability-related issues of a firm’s operations (Singhania & Saini, 2023; Calace, 2016; Goldsheim & Marks, 2019). Besides these, there are several reporting standards, tools, certification standards, and ESG reporting guides. We present the reporting frameworks most familiar: GRI, SASB, and IR. As these frameworks highlight the importance of materiality, it is imperative to define the concept of materiality regarding reporting. In the context of this study, a fitting description of materiality refers to how companies can assess the importance of sustainability issues, and for whom the issues are important to address (Jørgensen & Pedersen, 2018). As shown in the figure 2, such an assessment can be visualized in a materiality analysis and makes it possible to rank and prioritize the issues after importance, as a shift to the right increases the importance of the issue, and to define who the issues are material to.

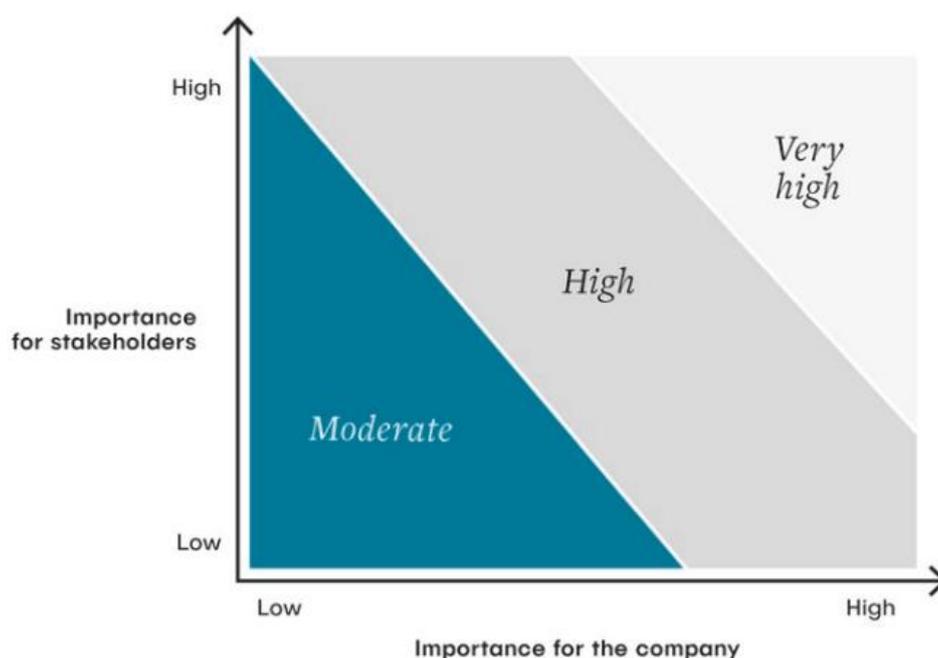


Figure 2: Material issues –company and its stakeholders (Jørgensen & Pedersen, 2018).

The Global Reporting Initiative (GRI) is an independent, international organization and has established the GRI Standards as a framework for reporting (GRI, n.d.). The GRI Standards offer guidance to understand and communicate on environmental, social, and governance aspects for a broad range of stakeholders. As confirmed with the research conducted by KPMG (2022), the GRI Standards remain the most widely used sustainability reporting standards globally, used by more than 10 000 organizations. Whereas the other major frameworks are primarily investor-focused GRI is more likely to satisfy stakeholders such as customers, employees, and NGOs (Goldschein & Marks, 2019). The GRI Standards are formulated to enable consistent comparison of sustainability performance across organizations and ensure clarity for stakeholders. Within the GRI framework, stakeholder inclusiveness and materiality are pivotal components, emphasizing the recognition and response to stakeholder interests (GSSB, 2016a).

The Sustainability Accounting Standards Board (SASB) on the other hand, is a framework primarily concerned with finding the sustainability issues that are financially material for the performance of the company. SASB is a non-profit and independent organization that assists companies disclose relevant sustainability information to their investors, available for over 70 industries (SASB, n.d.). The standards of SASB are more inward-looking regarding communication with relevant stakeholders and therefor might be a particularly helpful tool for newer reporters in determining what is more material (Goldschein & Marks, 2019). The rationale behind SASB's Standards is to pinpoint sustainability-related risks and opportunities that influence an entity's cash flows, financing accessibility, and capital costs in the short, medium, or long term. These standards prioritize disclosure topics and metrics deemed most valuable to investors. Both GRI and SASB are standard-based frameworks, rather than focusing on principles (Schoenmaker & Schramade, 2018).

The Integrated Reporting (IR) framework laid out by IIRC's report in 2013 "The international IR framework" is defined as "a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term" (IIRC, 2013, p. 7). In other words, IR serves as an efficient approach to corporate reporting, aiming to explain the providers of capital and how the organization creates value over time. IR also focuses on benefiting all stakeholders and establishes guiding principles and elements for the reports' content (IIRC, 2013). According to Goldschein and Marks (2019), the IR framework urges organizations to issue

concise reports combining traditional annual financial data with ESG information. Opposingly, Maniora (2017) claims companies switching from the category “stand-alone ESG reporting” to “IR” are negatively affected in terms of ESG integration level and economic and ESG performance.

In addition to the prior mentioned standards, there are several other frameworks of note. For instance, Task Force on Climate-related Financial Disclosures (TCFD) was created to provide recommendations on what information companies should disclose to support financial institutions to appropriately assess and price risks related to climate change (TCFD, n.d.). Together with the SDG's and GRI, TCFD form the most commonly used anchors for sustainability reporting (KPMG, 2022). Furthermore, Carbon Disclosure Project (CDP) serves as a global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. (CDP, n.d.). Lastly, the EU Taxonomy is a classification system, aiding for instance listed companies and investors in identifying economic activities that are "environmentally sustainable," thereby facilitating informed decisions in sustainable investments (European Commission, n.d.).

There are also ESG reporting guides aimed at assisting companies in the implementation of ESG reporting into their operations. These guides emphasize identifying frameworks suitable for a company's specific business characteristics and prioritizing investor and stakeholder communication. However, they offer limited guidance on data consolidation for ESG reporting (Euronext, 2022; Nasdaq, 2019). Euronext's guide, aligned with GRI standards, outlines a three-part reporting process: identification through materiality analysis, operational management, and communication. In the implementation and operational management process, Euronext (2022) identifies three stages to address these material areas: Include material risks and opportunities in operational management, define targets and indicators for material topics, and set up robust internal ESG data collection and management processes (Euronext, 2022). Nasdaq's guide, not tied to a specific framework, emphasizes materiality, focusing on a company's impact on external stakeholders and ecosystems. Nasdaq (2019) also highlight management, particularly on how a company gathers data, disseminates it internally, structures a team for better understanding, and motivates performance improvement. Furthermore, the guide notes the evolution of ESG metrics, emphasizing the development of data systems to support ESG reporting (Nasdaq, 2019).

As illustrated above, the opportunities of disclosing ESG information are vast, and there is also some opposition in response to the challenges posed by the vast landscape of voluntary reporting practices. The critique of nonstandard metrics, insufficient auditing, and unreliable ESG ratings underscores the challenges of overselling sustainability reporting (Pucker, 2021). The extensive variety of reporting standards, frameworks, and tools available for sustainability disclosure has resulted in a lack of clarity and has raised concerns regarding the integrity, reliability, and comparability of reports (Delai & Takahashi, 2011; Nikolaou et al., 2019). However, there are several sensible reasons to report on sustainability. Some of which relate to the compliance with the disclosure regulations, the reputation of the firm (Amran & Ooi, 2014) or the pressure and expectations from stakeholders (GSSB, 2016a; Silva et al., 2019).

2.2.4 ESG and firm performance

It is apparent that superior performance on ESG criteria is associated with positive financial repercussions at the organizational level. The literature introduced indicates that high ESG performance is significantly related to enhanced stock market value and profitability (Heinzer & Mezzananza, 2022; Aydoğmuş et al., 2022; Eccles et al., 2014; Tahmid et al., 2022). Furthermore, Brooks and Oikonomou (2018), found a positive relationship between ESG disclosures, ESG performance, and overall firm performance, suggesting a growing consensus on ESG's impact on the financial bottom line. Huang (2017) confirms this link as positive and statistically significant, but economically modest.

Performance on ESG also yields outcomes beyond financial performance, prompting firms to integrate it into their core strategies and decision-making. As previously mentioned, engaging in ESG activities can lower capital costs and enhance competitive advantage through improved reputation and shareholder acceptance (Mohammad & Wasiuzzaman, 2021). Jørgensen & Pedersen (2018) highlight the necessity of sustainable business models for aligning profitability with sustainability. High ESG scores, therefore, are crucial not only for compliance but also for positioning organizations for future success in a market increasingly focused on sustainability. Lastly, Khan (2022) elaborates that a firm's capabilities are crucial in realizing performance benefits, with more profitable and liquid firms better positioned to invest for long-term value, aligning with stakeholder theory.

Despite the benefits of ESG performance, significant challenges persist in its corporate application. As highlighted, a major challenge is the lack of standardization in reporting

standards, leading to inconsistent evaluations across different agencies (Pucker, 2021; Delai & Takashi, 2011; Nikolaou et al., 2019). This inconsistency extends to the data used in ESG metrics, and no uniform approach to assessment (Li & Polychronopoulos, 2020; Kotsantonis & Serafeim, 2019). Therefore, the wide range of reporting standards and assessments can lead to a lack of clarity and inconsistency, complicating the choice and reliability of reporting standards for corporations. Additionally, the long-term and indirect nature of sustainable initiatives complicates the realization and communication of their benefits (Jørgensen & Pedersen, 2018; Khan 2022). Focusing on internal ESG reporting, the Financial Executives International (FIE) indicates that data is the biggest single challenge to ESG reporting, and questions related to collection, compilation, analysis, and control are among the biggest ESG-related data questions (FIE, 2021). To address these challenges, Raghavan (2018) notes the development of web systems designed to integrate diverse data, aiding in ESG progress reporting and strategic decision making.

In exploring what drives high ESG performance, Daugaard (2022) identifies several influencing factors, including firm size, auditing practices, strategic choices, board composition, stock exchange innovation, investor behavior, and industry sensitivity to ESG issues. However, he also notes the disorganized nature of current research, which fails to offer clear guidance on improving ESG outcomes. Additionally, firm characteristics like financial health, size, and leverage are found to positively correlate with ESG performance, and that these traits are the characteristics of larger companies (Coleman, 2002; Gaio & Henriques, 2018, as referred in Khan, 2022).

In summary, despite the hurdles posed by current reporting standards and assessments, the impact of ESG on firm performance is undeniably positive, underscoring its pivotal role in steering businesses towards a more sustainable future. However, the existing research provides limited insight into the practice of ESG reporting within complex group structures, and the complexities regarding the internal flow of ESG-related information remain largely unexplored. The same applies to the intentionally more specific ESG guides, which only touch on the critical aspects of ESG data consolidation in a cursory manner. This sets the stage for a notably under-researched domain.

3.0 Methodology

3.1 Research Purpose

Our research has an exploratory purpose, based on our desire to create deeper insight into the phenomenon of ESG information consolidation, with our focus directed at the complexities and how they are addressed. Saunders, Lewis, and Thornhill (2019) explain that an exploratory study is particularly useful if you wish to clarify your understanding of an issue, problem, or phenomenon. We have identified that there is limited information and literature on how consolidation of ESG information is carried out, therefore our research has the purpose of establishing a greater understanding. Exploratory research has the benefit of starting with a broad focus, before becoming narrower as the research progresses (Saunders et al., 2019). This has been highly beneficial for our study, as we have been able to form a broad understanding of how data consolidation functions within our case before we could narrow our focus towards complexities and how these are addressed.

3.2 Research approach

We have adopted an inductive approach, as it involves exploring the study's phenomenon and then developing theory, by gaining insight into how informants interpret their world and their situation (Saunders et al., 2019). This will allow us to investigate the complexities corporate groups face across business units, and how these can be solved. Further an inductive approach does not rely on identifying an existing theoretical position, but rather familiarize yourself with theory in the chosen subject (Saunders et al., 2019). This is supported by our theoretical foundation, which aims to form an understanding of relevant literature and topics related and antecedent to ESG reporting, rather than establishing a clear theoretical position.

3.2.1 Research strategy

With the theory-building inductive approach, we utilize a grounded theory approach, with the use of qualitative single case study to develop an empirically based theory. Erikson and Kovalainen (2008) also points out that case studies can be used for generating theories and not only testing them, and in this theory generation the grounded theory methodology can be useful.

The case study has the capacity to generate insights from intensive and in-depth research into the study of a phenomenon in its real-life context, leading to rich, empirical descriptions and the development of theory (Eisenhardt, 1989). Consolidation of ESG information is a complex process that takes place within a company's own boundaries and in accordance with its core operations. By using a case study, we can understand how these processes are conducted in the phenomenon's natural setting, and the nuances from real-world practices are evident.

Eisenhardt (1989) points out that case studies facilitate deep insights through interviews and documents, as it is necessary for our study to gain a deep understanding of complexities and how they are addressed. Followingly, Eisenhardt (1989) points out that case studies assist in the development of theory. With ESG reporting still evolving, we have found that existing literature still does not fully explain current challenges or solutions. Therefore, case studies can contribute to elucidating how our case approach consolidation of ESG data, leading to grounded theory and increased insight.

3.2.2 Grounded theory

We utilize Grounded Theory presented by (Strauss & Corbin 1990) and (Charmaz, 2006) as a structured approach for collecting and analyzing qualitative data. Grounded Theory is an approach for empirically based theory development, where the purpose is to develop new theories based on empirical data (Strauss & Corbin, 1990; Johannessen et al., 2005). It describes a systematic approach to collecting and analyzing data, which increases the transparency of the research process. We aim to provide insight into the Grounded Theory process and how we have implemented and utilized the various steps. This includes sampling of informants and other documents, as well as our data analysis, which we will delve deeper into later in the chapter. The process of grounded theory is illustrated in Figure 3.

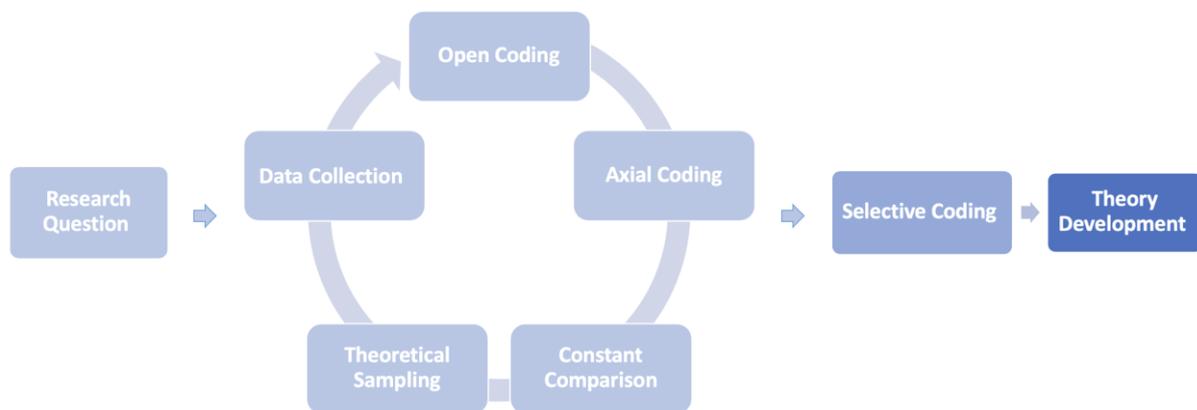


Figure 3: Steps of grounded theory, based on (Strauss & Corbin, 1990; Charmaz 2006)

The process begins with identifying a research problem that leads to a concrete research question, guiding the initial phase of inquiry. The next part of the process is cyclical and iterative, consisting of what Strauss and Corbin (1990) describe as theoretical sampling. This involves sampling the informants who prove to be relevant as the research progresses. As data is collected, it is coded line by line through open coding, where phenomena in the data are identified through concepts, before being initially categorized. This coding is not done in isolation but involves constant comparison with both new and existing data (Charmaz, 2006).

Axial coding follows as the process where the relationships between the identified categories are examined, which informs the developing theory. In the final phase, selective coding is employed, where the overarching categories are refined and interconnected to form a cohesive narrative. This coding leads to the development of a grounded theory, grounded in the collected data. When theoretical saturation is reached, where new data does not bring forth new information (Strauss & Corbin, 1990), the result of the steps is an emergent theory. This theory has its grounding in empirical data, providing a substantive explanation for the phenomenon of the study.

3.3 The case of Lerøy Seafood Group ASA

Our research case is Lerøy Seafood Group ASA (LSG), an international seafood group with over 6,000 employees (Lerøy, n.d). The group's core activities are spread across Aquaculture, Wildcatch, Value-Added Processing, Sales and Distribution (Lerøy, 2023). Saunders et al., (2019) emphasize that a single case can be chosen on the grounds that it is unique, or because it provides you with an opportunity to observe and analyze a phenomenon that few have

considered before. LSG published its first environmental report back in 2008 (Lerøy, n.d), which indicates their long experience. Their experience can therefore provide us with important insights and understanding, that few have considered before. Additionally, Patton (1990) highlights that theory-building research relies on revelatory contexts, where the dynamics under investigation are particularly transparent. The Norwegian seafood industry is characterized by being a world leader in sustainable seafood production (Seafood Norway, 2019). At the same time, Lerøy is among the top ten companies in Norway named as climate winners in PwC's annual climate index (Løvstad, Bjørklund & Liverød, 2023). This testifies both a company and an industry that are open about their work and routines related to ESG performance. By using LSG as our single case, we can illuminate important principles and a better understanding of the phenomena.

Inevitably, an important aspect of using a single case is defining the actual case (Saunders et al., 2019). Therefore, Given LSG's breadth, we have narrowed our empirical case to focus on a smaller group of units within the corporate group. This includes the ESG and Quality department in corporate management and the sub-units that in our context are referred to as the segments, Lerøy Havfisk AS, Lerøy Norway Seafood (LNWS), as well as the business unit Department Stamsund as a sub-unit of LNWS.

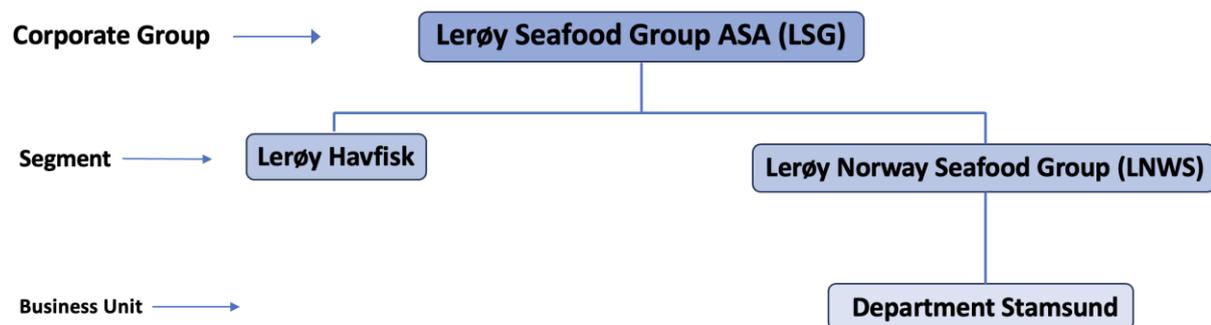


Figure 4: Overview of corporate group, segment, and business unit.

LNWS operates 12 shore facilities in Northern Norway and has approximately 600 employees, meanwhile, Havfisk operates ten trawlers with approximately 400 employees (Regjeringen, 2021). The Stamsund department specializes in the production of fish products for human consumption, utilizing residual raw material.

When presenting our empirical case, we find it relevant to point out reporting frameworks, standards, and digital tools currently in use, to increase the understanding of our case. We have identified that the group currently utilizes digital technologies such as Excel, Power BI, and CEMAsys. CEMAsys is a digital tool used for sustainability reporting and managing ESG information by collecting and sharing data (Cemasys, n.d). LSG currently reports according to the internationally recognized GRI framework. Together with their own internal initiatives outside the GRI framework. Among these is LSGs own "50-50-5 initiative," where the company aims to reduce food waste and consumption of non-recyclable plastic by 50% (Sjømat Norge, 2020). Lerøy has also published an extensive sustainability library to communicate their efforts to stakeholders (Lerøy, n.d).

Externally, LSG is assessed by the Collier FAIRR Protein Producer Index, which measures the world's 60 largest protein producers against selected sustainability indicators, including greenhouse gas emissions, animal welfare, labor conditions, and food safety (Lerøy, n.). Furthermore, LSG reports according to the Carbon Disclosure Project (CDP), a non-profit organization that collaborates with companies to accelerate the development of a more sustainable world by reporting through CDP to achieve transparency (CDP, n.d.). LSG is also assessed according to ESG100, an assessment conducted by the Governance Group of the 100 largest companies listed on The Oslo Stock Exchange. Finally, LSG is evaluated by PwC's climate index and Sustainalytics, which specializes in sustainability analyses and assessments for investors (Sustainalytics, n.d).

3.4 Data collection: Interviews

Using Grounded Theory, one can employ a combination of qualitative data and approaches, such as observations, documents, and interviews (Strauss & Corbin, 1990). Due to our timeframe and geographical practicalities, there is an emphasis on the semi-structured interviews as the primary source. Documents have been used to a greater extent to establish a deeper understanding of the various phenomena. An unstructured interview is based on general themes and allows the questions and conversation to develop along the way (Johannessen, et al., 2005). As our research question seek new insights, we found it suitable to use semi-structured interviews, as there is room for flexibility in the process of the interview (Saunders et al., 2019). It was deemed important to ensure that we could talk about general themes and aspects during our interviews, since our informants had different backgrounds and positions.

To ensure that we reviewed all the themes considered relevant, we used an interview guide. The guide consisted of a list of general and overarching questions and themes to ensure we got answers to the most relevant areas, the initial guide is presented in Appendix A. We adapted the guide if necessary to each interview, based on the informant's position and experience. As the overarching questions did not always cover the themes we moved on to in the conversations, we made sure to ask follow-up questions on the themes we considered relevant. This is also supported by Saunders et al. (2019), in that semi-structured interviews possess the ability to "probe" a response, where one may want the informant to explain or build on their previous answers.

To secure information obtained through the interviews, one acted as an interviewer, while the other wrote down field notes, at the same time as we used two devices for sound recording. The sound recording was used for transcribing the interviews which is foundational for ensuring both understanding and quality. All our interviews were transcribed using the audio file making up a total of 68 Word pages of manual transcription. We chose not to focus on body language, as we did not consider our knowledge of this sufficient.

According to Grounded Theory, the sample of informants should not be determined in advance of data collection (Strauss and Corbin, 1990). This means that the choice of informants is guided by the development of theory and analysis, and the need for whom one wants to interview. The process began by conducting three interviews at the Stamsund business unit to understand the reporting processes at the outer levels of the corporate hierarchy. This was to comprehend how reporting was done regarding operations of the business unit. Based on this understanding, we aimed to gain deeper insights into how reporting is established at higher levels of the group, leading us to interview our first informant in the corporate unit. Our findings then guided us to gather more information about the segments, where we spoke with the two segments under the corporate management.

The subsequent interview process alternated between speaking with the corporate unit and the two different segments. After a total of ten interviews, the data collected converged increasingly, which signaled theoretical saturation. We considered it especially important that the individuals in our sample had relevant and sufficiently long experience with reporting on ESG in the company. At the same time, we aspired to interview employees who worked in the business unit, the segments, and at the corporate level. This gave us a broad understanding, as

well as covering the research question, that concerns the group as a whole. Table 1 provides an overview of the informants, title, and level in the corporate group, used in our analysis.

Nr.	Title	Gender	Unit	Level
1	Factory leader	Male	Stamsund	Business unit
2	Production leader	Female	Stamsund	Business unit
3	Controller	Male	Stamsund	Business unit
4	Lead ESG and Quality	Male	LSG	Corporate
5	Controller	Male	LNWS	Segment
6	Head of ESG and Quality	Female	LSG	Corporate
7	HR leader	Male	Havfisk	Segment
8	Controller	Male	Havfisk	Segment
9	ESG and Quality	Female	LSG	Corporate
10	Improvement Manager	Male	LSG	Corporate

Table 1: Overview of informants, title, gender, unit, and corporate level.

Data collection: Other documents

Next to the interviews as our main data collection technique, we used three documents that interviewees have referred us to and highlighted as relevant. These documents and the information they contained contributed to a more comprehensive contextual understanding of the phenomena the informants brought up through the interviews. Table 2 provides an overview of the main documents we included as supplements of the interview data in the analysis.

Nr	Title	Source	Content	Scope
1	Operational Report – Department Stamsund	Controller, Business Unit	Monthly reporting of KPI-table at the business unit.	38 pages
2	Sustainability overview 2022	Sustainability library, Lerøy, 2023	Publicly available information regarding Lerøy's efforts on sustainability.	44 pages
3	Degree of Yield – Residual raw material	Controller, Business Unit	Overview of how much residual raw material used as input in production in relation to the total available residual raw material.	1 Excel sheet

Table 2: Overview of documents, source, content, and scope.

Regarding the use of documents, these have been utilized to a lower degree than the interviews but are considered relevant in illuminating the process around how the data is collected and consolidated. In response to the criticism that different types of qualitative data are not comparable, on the grounds that the same questions have not been asked, Strauss and Corbin (1990) emphasize that the data are comparable because they are sampled by representativeness of concepts. This means that we have processed documents in the same procedure as interviews. We have also assessed, in accordance with each other, the extent to which we consider the documents to be applicable, based on our research question. By utilizing documents, an important addition to our data has been added and contributes to historical and contextual background. At the same time, important internal information has helped us to verify and compare findings that emerge in the semi-structured interviews.

3.5 Data analysis

Our final dataset comprises data from multiple sources (semi-structured interviews as our primary data source, see Table 1, and text documents as secondary data source, see Table 2). To generate rich insights, we have used the grounded theory procedure from (Charmaz, 2006) and (Strauss and Corbin, 1990). Following the recommendation of Strauss and Corbin (1990), we use the same method for coding the data, irrespective of the source the data was collected

from. To be able to conduct the coding process with the highest possible quality, we decided to use the software tool Atlas.ti to perform a data-assisted qualitative analysis. Friese (2016) highlights that this type of software is particularly useful when processing larger amounts of data because it contributes to methodically linking codes to relevant sections of text data and supports visualization.

The first step according to grounded theory is the process of open coding, where the researcher breaks down the data, examine, compare, conceptualize, and categorize the data (Strauss & Corbin, 1990). By coding every transcribed page of the interviews, we identified appropriate codes for the various phenomena detected in the text, reflecting the informants' expressions and experiences. This was conducted by constantly comparing emerging phenomena with existing concepts, in accordance with Strauss and Corbin's (1990) idea of constant comparison. We specifically directed our focus towards experiences related to challenges, or solutions to problems they had identified. After this process, we were left with a total of 94 initial concepts.

During the next step of axial coding, the codes were viewed considering their relationships. Defined as "the process of breaking down, examining, comparing, conceptualizing, and categorizing the data" (Strauss & Corbin, 1990, p. 61). The categorization is presented as the second order themes, making the foundation for our development of theory. After categorizing our data, we examined whether the patterns we had identified could be confirmed in the data (Strauss & Corbin, 1990). This involves putting forward hypotheses and looking for evidence that helps explain them. Through revision of our concepts some were verified, while other claims had to be discarded.

The last phase of coding, selective coding, aims to view the findings from a broader perspective than what has been made available in earlier parts of the analysis, presented as our aggregate dimensions, in accordance with (Charmaz, 2006). Emphasis is placed on recognizing and developing the relationships between the categories that have emerged from this grounded approach to develop an explanatory theory (Saunders et al., 2019). This entails moving to a higher, more abstract level, which also means moving away from more detailed descriptions, to be able to present an overarching explanation. Our data can in this way present a static picture of a highly dynamic process of consolidating ESG information, by looking into the relationships between the emerging concepts, eventually answering our research question.

Throughout all three stages, we have focused on what Strauss and Corbin (1990) call constant comparison. Meaning that new information is compared with existing concepts and categories

as a continuous process. In this way, it ensured that the development builds further with new data, based on what we have already identified. We present our findings from the data analysis with first-order categories, second-order categories, and aggregate dimensions to illustrate their interconnections in 4.0 Findings.

3.6 Assessing the “trustworthiness” of qualitative research

Lincoln and Guba (1985) introduced the term “trustworthiness” of research, which can be considered the overarching term for the quality of qualitative research. Trustworthiness can be divided into credibility, transferability, dependability, and confirmability (Stahl & King, 2020).

These measures refer to the two overarching concepts of reliability and validity: dependability reflects the concept of reliability, credibility the internal validity, and transferability reflects the external validity. In what follows we assess the reliability and validity of our qualitative research approach.

3.6.1 Reliability

Reliability refers to ensuring consistency during a research project, and “if a researcher can replicate an earlier research design and achieve the same findings, then that research would be seen as being reliable” (Saunders et al., 2019 p. 213). Dependability can be described as “recording all the changes to produce a reliable/dependable account of the emerging research focus that may be understood and evaluated by others” (Saunders et al., 2019). To ensure the possibility of replicating the study, we have focused on ensuring a careful and thorough presentation of our research strategy through Grounded theory, case study and semi-structured interviews. This will contribute to enabling and guiding similar studies. Furthermore, there are four threats related to the reliability of our study (Saunders et al., 2019), when using semi-structured interviews and a Grounded theory approach. We present the following challenges followed by how we have solved these.

Participant error deals with factors that adversely alter how a participant performs (Saunders et al., 2019). We were clear that the respondents themselves could set the time that suited them best, while they had the opportunity to change the time for the interviews, if they did not feel ready. We had cases where interviews were postponed three times due to illness, where we did not pressure the informant to attend. Participant bias deals with “any factor that induces a false response” (Saunders et al., 2019, p. 214). We were conscious that the informants were not in

areas where they were overheard, as this could affect their answers. Additionally, we expressed there were no "right" and no "wrong" answers, but that we wanted to form understanding.

Researcher error is any factor that "alters the researcher's interpretation" (Saunders et al., 2019, p. 214). We made sure that we were well-rested and felt prepared to conduct the interviews. Using the interview guide ensured fixed points of reference and a connection to our research themes. All interviews were conducted in pair, ensuring the opportunity for follow-up questions that one party may have overlooked. Researcher bias is "any factor which induces bias in the researcher's recording of responses" (Saunders et al., 2019, p. 214). We made sure to use two recorders to record during the interviews so that we secured the conversations for further transcription. We also made sure to develop concepts and analyze after each interview so that we did not start the first interview with concepts that we wanted to verify. By conducting the interviews in pair, we could also discuss our findings, which led to a more balanced understanding and analyses of the interviews.

3.6.2 Validity

Validity refers to whether a test measures what it aims to measure (Galaczi, 2020), where we further distinguish between internal and external validity (Saunders et al., 2019). For internal validity, reflecting credibility in qualitative research, "emphasis is placed on ensuring that the representations of the research participants' socially constructed realities actually match what the participants intended" (Saunders et al., 2019, p. 217). We had a focus on building trust and familiarity with our informants at the start of the interview. Furthermore, we specified that we would not share company-specific or sensitive information. We also had a focus on follow-up and clarification of questions we received, so that we ensured that statements were understood correctly. By using the software, Atlas.ti, we could discuss coding and concepts at different geographic locations. In this way, we could eliminate reconceived assumptions we might have and ensure that they were not prioritized over our informants' constructed realities.

To ensure the external validity, known as transferability, it is done by "providing a full description of the research questions, design, context, findings and interpretations, the researcher provides the reader with the opportunity to judge the transferability" (Saunders et al., 2019). We have therefore pursued being transparent, by providing insight about how we conducted our research, and show how we arrived at our emergent model.

3.7 Research ethics

As researchers, we commit to maintaining high ethical standards throughout the research process, starting from the choice of topic, the use of existing theory, the treatment of respondents, data material, and the case company (Johannesen et al., 2004). To comply with these standards, we have been in contact with The Norwegian National Committees for Research Ethics (NSD/NNCRE) and familiarized ourselves with the General guidelines (NSD, 2019). Based on this information, we have implemented the following principles into our research: respect, good consequences, fairness, and integrity.

Therefore, we confirmed compliance at LSG with their HR regulations and secured the willingness of key personnel to participate in our study. Additionally, we have followed the regulations regarding handling of personal information and applied to NNCRE, and had it approved for our research project. This has influenced how we collect information and how we present our results in the findings and presentation of our model.

3.8 Usage of artificial intelligence

Given the emergence of digital Artificial intelligence (AI) tools, we wish to be transparent about our use throughout the research process. This is to enable others to evaluate our work, and how the use of AI may affect the quality of our research. Labadze, Grigolia, and Machaidze (2023) found in their study that usage of AI chatbots may help students help offering explanations and clarifications on various subjects, an enhance student engagement and motivation.

We have used Elicit and ChatGPT 4.0. Elicit is a digital tool for finding articles based on research questions (Elicit, n.d). We used this tool in the initial theoretical foundation of the thesis, to establish an understanding of the themes and literature associated with our research question. Further, we have made more use of the chatbot ChatGPT from OpenAI 4.0. Initially, the chatbot was used to translate English-language information into Norwegian, to grasp the theory more easily. When using Atlas.ti software, we chose not to use the artificial intelligence function that establishes codes for the user, as we did not consider it to be precise enough. Overall, we consider AI to be a good support tool for our work with the thesis, which has helped to increase the effectiveness in certain areas. At the same time, it both requires greater follow-up and critical thinking.

4.0 Findings

In the following chapter, we present our data according to grounded theory. These are our findings from the coding process interspersed with citations from our informants. Further, four overarching aggregate dimensions have been identified that contribute to explaining the central stages of consolidating ESG information. Figure 5 provides an overview of the first and second order themes and aggregate dimensions.

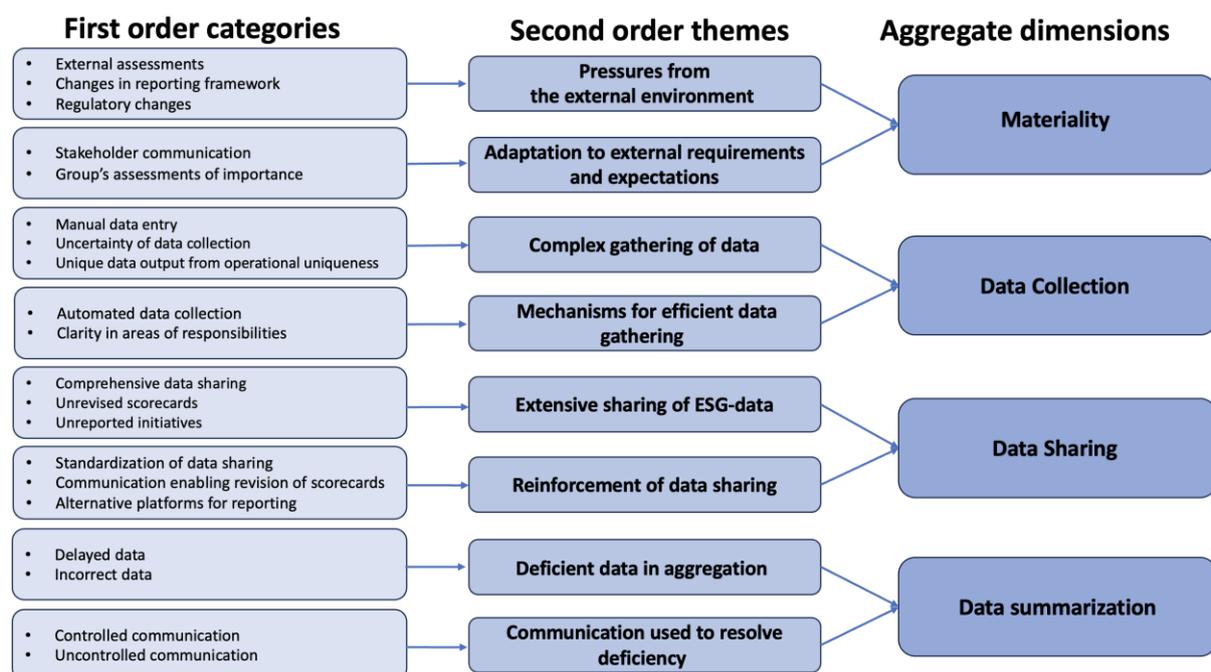


Figure 5: Presentation of first order, second order and aggregate dimensions.

4.1 Complexities and mitigations of materiality: The starting point

We have found that the groups basis and starting point for ESG reporting stem from what the group considers of importance, influence from external stakeholders but also assessments and changes in regulations and frameworks. To overcome the collective pressure from the external environment, active stakeholder communication, and consideration of the group's own needs, have been identified as important. This evaluation and prioritization of importance are resulting in the groups own materiality analysis.

Pressure from the external environment

The collective pressure from the external environment arises through continuous assessments, new regulations by formal institutions, and changes in existing reporting frameworks. This pressure is leading to extensive adaptations for the group, which they must evaluate and prioritize.

A recurring aspect that arose through several of the interviews pertained to a pressure through external benchmarks and assessments. This pressure provides a complexity in terms of establishing expectations of the group's performance on these assessments, where rating agencies collect data and assess the company against other companies within and outside the same industry. The information they gather may be based on the company's sustainability reporting according to a specific framework, but also assessments of the measures the company takes beyond these frameworks.

"In addition, you have PWC which also has its rankings according to who is on track to meet the Paris Agreement in 2030 with a 46% reduction in CO2, [...] "We are also measured on the KLP index, they extract information based on what is in the sustainability library" (Informant 4 - Lead ESG and Quality).

The collective pressure, explain how firms are continuously evaluated based on their performance on a multitude of areas within their operations. There is a large consensus among the informants that this is something one must validate in order to adapt and perform on the assessment. At the same time, there is a great diversity in the evaluations and what they are assessed after, making the expectations on performance extensive.

Another prevailing topic among the informants in the interviews was the issue of both new legal requirements and framework changes. This refers to both regulations exerted by formal institutions, legally required to follow, and changes in voluntary reporting standards.

"We start with the sustainability directive next year, it is, after all, a legal requirement for us to follow" [...] "Now there is a GRI standard, with a sector standard where all KPIs that we need to consider are included, due to them being in that sector standard" (Informant 6 - Head of ESG and Quality).

It becomes clear that these changes constantly must be considered and adjusted for, including the new sector standard from GRI, the EU taxonomy, and the upcoming CSRD, as stated by

our informants. The framework changes are mentioned more frequently among the company's corporate management, requiring active evaluations on how this can be incorporated into already existing procedures. Furthermore, there exists an understanding across the business unit and segments what these changes involve, as the consequence prescribes the adaptations they must undertake.

Adaptation to external requirements and expectations

The corporate unit dedicates significant effort to understanding and evaluating the significance of factors that arise from external pressure. The aim is to ensure that the corporate group can effectively accommodate the assessments from the external environment, as well as adapt to new regulations and alterations in existing frameworks. Collectively, stakeholder communication and the group's own assessments of importance constitute the company's overall materiality analysis. Such a materiality analysis defines the most important areas based on the group itself and its stakeholders.

Our data shows that external stakeholders and continuous communication is an important source for identifying concrete areas of importance, which forms a vital starting point for prioritizing.

“We are in contact with the various stakeholders and what they are concerned about us reporting on, and we also have regular meetings with many different stakeholders throughout the year, so we know very well what parameters they are concerned with and what questions they have regarding different issues” (Informant 6 - Head of ESG and Quality).

Through meetings with a broad spectrum of stakeholders, the group, establishes a foundation for prioritization. By actively communicating with actors who assess the group, this contributes to a higher understanding of the assessments, their content, and requirements, which in turn leads to better adaptation towards them. Further, stakeholders with an understanding or connection to specific frameworks play a crucial role in adapting to these requirements. Their insights and experiences within these frameworks, are valuable in tailoring approaches to suit the characteristics of different operations and sectors.

Additionally, as business units are spread over large geographical areas, with great variation in the footprint of their operations, active stakeholder communication has proven to be an

important source for forming an understanding of fields valued to external stakeholders, based on the various footprints of corporate units.

A central theme that emerged early in the first interviews was the groups' own assessments of importance. These are the evaluations that help decide how the company adapts to the collective pressure. Central to this is that the group management themselves have the best understanding of the company's current situation, an important foundation for adaptation. Therefore, the corporate group conducts an analysis of what are the most material areas, which further dictates what they should prioritize and report.

"It is always up to us to update the materiality analysis, so things that are material to us in Lerøy should be included and not just from the stakeholders" (Informant 6 Head of ESG and Quality).

This serves to demonstrate that the basis of what is considered important does not solely stem from stakeholders and actors in the external environment. It is essential to understand the areas that are deemed to be of high importance to the group itself, based on its operations. Combined with external communication, this leads to both a comprehensive understanding of, and the starting point for, what the company prioritizes to report on.

4.2 Complexities and mitigations of data collection

We have identified three complexities and challenges that characterize data collection. These involve extensive manual processes, uncertainty related to the gathering of data, and varying data output as a consequence of operational uniqueness. As a response, our informants expressed that automation of data collection and communication of clear roles and responsibilities were mechanisms to improve data collection. In our context, data collection pertains to the process of employees when gathering data and information related to business operations, suppliers, and staff, encompassing all three dimensions of ESG. This is the antecedent process before the data is shared further through the corporate group.

Uncertainties and complexities in data collection

The identified complexities in data collection include labor-intensive manual data entry, uncertainty in data collection, and challenges with unique data output from operational uniqueness.

In our informants' telling, they stressed how there is still a great part of manual punching in today's data collection. Manual punching refers to the labor-intensive and time-consuming task of manually entering data, often from one system over to another, involving a high degree of detail, and the need for accuracy.

«There has been a lot of manual punching, a lot of looking at invoices to find out how much diesel has been used, for example» (Informant 4 - Lead ESG and Quality).

As a result, these time-consuming tasks may put limitations on the reporting procedures, as increasing the load of parameters to report on will substantially increase the demand of the employee's workload. The process is also fraught with potential inaccuracies and inefficiencies. Given that employees are required to manually convert data from one format to another, there exists the potential for errors. The possible result of such errors is that incorrect data could aggregate further, reflecting the wrong situation.

We also discovered that employees experience uncertainty in the data collection process. The informants indicates that this uncertainty is caused by a lack of feedback and communication. This issue was identified within the business unit and segments, where specific data concerning concrete parameters are requested.

"I've never seen the end result [CEMASys]. I have not received any feedback. I think it's a bit strange because both are perhaps unsure if I'm doing what needs to be done, I had to figure out for myself how to clean up the data" (Informant 3 - Controller).

The uncertainty can result in wrong data being collected, with the possibility of additional work for the receiving end, and data not accurately reflecting the current situation.

Lastly, varying data output from operational uniqueness was identified as a complexity bound to data collection. Certain segments of the data gathered originate from various suppliers, operations and employees delivering data to the ones responsible of collecting.

"In addition, the figures have to be recalculated, since there are different factors for what we report on and what goes into CEMAsys" (Informant 7 - HR leader).

Operational uniqueness of the diverse business units leads to varying notations and factors of the data being collected, caused by the differences amongst the core operations. The result is data in numerous disparate formats that are not easily transferable to the data system. This was

mentioned by the controllers in the segment, which collect the diverse data from the business units, and are responsible for collection and further sharing.

Automation and communication as mitigation mechanisms

To address uncertainty and complexities in data collection, we found that automation reduces manual efforts and possible errors in collection and establishing clear roles and responsibilities to mitigate uncertainty and unique data output challenges.

Automation refers to the degree of using digital technologies to perform tasks with minimal human intervention, which can significantly streamline data collection and reporting processes. This includes the processes where data is extracted from suppliers as well as the collection of data within the units, directly from their operations.

“The ideal would have been if data could be extracted digitally, whereas today it is the exact opposite. It takes a lot of work to get this data in” (Informant 7 - HR leader).

These citations elaborate on how automation of data collection could mitigate the current situation of manual punching, either through improving the data collection process internally or by extracting data directly from suppliers. By automating data extraction, the need for human manipulation of the work, or conversion from one format to another, is obviated. This ensures that the correct output from one system is directly transferred as input into another. In this manner, the accuracy and timeliness of data are ensured.

A possible mechanism for addressing the complexities of uncertainty and unique data output from operational uniqueness was emphasized through the establishment of clarity in roles and responsibilities.

“There must be very clear roles and responsibilities, and there must be a clear structure for how to collect the data, how to structure the data and how to report the data further” (Informant 10 - Improvement Manager).

Informants have indicated that it is imperative to establish clarity in roles, areas of responsibility, and the structure governing data collection processes. By ensuring ownership of roles, employees gain a more profound comprehension of their specific job tasks, thereby diminishing uncertainty in data acquisition. Establishing structure in the data collection process facilitates the adaptation of varying data that may not conform to existing data systems through enhanced understanding.

4.3 Complexities and mitigations of data sharing

We will followingly display the complexities related to data sharing, and how these are addressed. Data sharing is the process subsequent to data collection, wherein the data is disseminated through multiple levels within the corporate group. Complexities and challenges are posed by comprehensive data sharing, unrevised scorecards, and unreported initiatives. In order to address these, standardization to manage comprehensiveness in data sharing, the verification of scorecards through revision, and the use of alternative reporting platforms were found to be important.

Extensive sharing of ESG data

Complexities in data sharing stem from the comprehensive scope of the materiality analysis, and unrevised scorecards. Combined with the unreported initiatives, they form the theme of extensive sharing of data.

Comprehensive data sharing is primarily influenced by the company's determination of what is materially significant to report on. This extensive scope affects all parts of the group, culminating in a complexity that is manifested through widespread data sharing.

“There are too many KPIs to report on, and there's a list of 80 KPI's that must be reported on every month by all departments ... It takes a lot of time” (Informant 7 - HR leader).

The informants state that the amount of data to be shared is of great comprehensiveness, and this complexity can be seen as ambiguous. Comprehensiveness is emphasized as positive in terms of the information shared with the external environment. At the same time, the complexity of this scope is the vast amount of data to be aggregated. The consequence entails extensive amounts of work to correctly share the set reporting requirements, in substantial parts of the group.

Furthermore, we found a complexity regarding unrevised scorecards. The corporate group uses balanced scorecard management to ensure that parameters reported are monitored according to target achievement and ensured follow-up actions in case of deviations from the objective. In this context, the informants highlighted the growing number of KPIs included in the monthly reporting process.

“It [Scorecard] shows that you have sort of just built on it, but you may not have been able to take anything away” (Informant 1 - Factory leader).

The process of reporting on KPIs, as highlighted by informants, appears to be an evolving one, often characterized by the continuous addition of layers without necessarily removing outdated elements. The consequence of unrevised KPI-tables is deviations from the norm being overlooked, or those attending the reporting meeting not understanding the content of the data being shared.

Other quotes repeatedly stressed unreported initiatives. The reason being that the uniqueness of the business unit's operations leads to the initiative not being considered in the internal reporting frameworks. At the same time, it is that they cannot quantify the specific value of an outcome. This complexity refers to the extent of the actual situation surpassing the reported situation, despite the comprehensive framework.

“But how it should be measured, I am a bit unsure about. Perhaps the proportion we manage to receive, and in relation to what is available internally in the Group, or the percentage” (Informant 1 - Factory leader).

This citation points to a specific case where the core operations of the business units entail uniqueness, making the activity difficult to adapt to the chosen internal reporting frameworks. The company uses residual raw material as input in production in what is considered a sustainable initiative, where in the current situation only increased waste is captured by the reporting. Unreported initiatives are not unique to this instance but is a recurring challenge across other business units and locations within the corporate group. Overall, the complexity of unreported initiatives results in unrealized potential or misleading outcomes.

Reinforcement of data sharing

To address uncertainty and complexities during sharing of data we have found that standardizing frameworks ensure consistency in data, with communication being crucial as a part of revising data. We also identified how initiatives falling outside the framework can be addressed by alternative reporting.

The informants emphasized that standardizing the reporting provided the greatest effect on their internal data sharing. Standardizing the reporting ensures consistency across the business unit, to ensure effective data aggregation.

“We have tried to work to standardize because we are so many companies. They must have these framework conditions to be timesaving and less likely to make mistakes. The effect of being standardized is greater than the effect if it had not been, so to speak” (Informant 4 - Lead ESG and Quality).

There are two reasons for using standardized frameworks internally to address the comprehensive data sharing. Firstly, by standardizing across different business units, the group ensures collection of data on the most essential parameters, which collectively represent an important total value for the entire group. Secondly, the effectiveness of ESG reporting is enhanced through the standardization of KPIs. This finding underscores how implementing standardized KPIs across various business units addresses the handling of comprehensive data sharing effectively, but also improves the overall quality and comparability of the data collected.

To mitigate the unrevised balanced scorecard table, we found communication through in-person meetings to be an important source of enabling revision of the scorecard. These in-person meetings in the business unit are an arena for discussing the achievement of the set KPI's so that they can again be assessed against the monthly reporting to the segments. The importance of such meeting points is illustrated through the following quote:

“If there's extra reporting on KPIs, it's very important to ensure that those in the meeting understand what's being discussed. Not just that you insert extra or incomprehensible KPIs that everyone collecting them doesn't understand, because then it just creates more noise for those we report further to” (Informant 3 - Controller).

We found that it is crucial to ensure that the content of the KPI-table is understandable for those involved in the meeting, by making sure that the KPIs are not incomprehensible or subject to misunderstandings. In this way, the increasing number of KPI's resulting in unrevised scorecards are addressed, and data sharing through monthly reporting will continue to facilitate monitoring of performance.

Lastly, we found that unreported initiatives need alternative platforms for reporting, in order to communicate these to stakeholders. This is because the unreported initiatives are not caught by the internal reporting frameworks caused by the uniqueness of the business units' operations.

“The business units report those figures to us, but it is difficult to collect them in a group report [...] We write quite a bit about it in the sustainability library.”

(Informant 6 - Head of ESG and Quality).

Alternative platforms for reporting serve as a solution for realizing the potential of the initiatives not reflected in the reporting. The informants' argument for not reporting on these measures in the standardized framework is multifaceted. Firstly, the effect of these measures summed up on a group level does not match the quantified value of other initiatives. Secondly, including the initiatives unique for each business unit would increase the extent of the continuous data sharing on every level. However, the information may have additional value not reflected by the frameworks used, but still relevant for stakeholders. Hence, reporting the unrealized potential through alternative platforms address the complexity of these initiatives falling outside the standardized framework.

4.4 Summarization of ESG data

Summarization of ESG data represents the terminal phase of aggregation from business unit level to corporate management, wherein data is accumulated and summarized. To guarantee the timely receipt of data, it has been demonstrated that communication outside the standardized systems occupies a pivotal role.

Deficient data in aggregation

When considering data summarization as the final point, this encompasses data compiled through standardized systems as well as data external to these standardized frameworks, which has been identified during the data sharing process.

Informants in the corporate group emphasized that one of the biggest challenges was getting the right data at the right time. This means that there is a challenge in correctly aggregating data for those who need it, and this issue may originate from several complexities identified, through the consolidation process.

"It is to get them to report on time, and then to ensure that they report accurate figures."

(Informant 6 - Head of ESG and Quality).

The challenge was identified in corporate management and turns out to be a recurring issue. The ramifications of delayed and erroneous data can be substantial for the corporate unit. The

corporate management conducts monthly monitoring of goal achievement against established targets and further refines measures based on the collected data. In the absence of precise data, there can be a postponement in the formulation of targets, or the implementation of new measures may be predicated on inaccurate metrics.

Communication used to resolve deficiency

To meet the challenges of delayed and erroneous data, it has been identified that communication plays the most important role. This is communication outside the standardized systems, as it helps to identify the root of the problem and ensure that the correct data is received.

Throughout the interviews, it became evident that phenomena related to communication were a recurring topic of discussion. When discussing communication, we refer to the process of how a message is transmitted from a sender to a receiver. The group has established two processes where only one is used.

"Yes, we have both a controlled and an uncontrolled process. The controlled means they can submit an improvement proposal in the quality system. Unfortunately, no one has done that, but we have received many emails with various thoughts, ideas, comments, and feedback" (Informant 9 - ESG and Quality).

The uncontrolled process, going outside standardized systems has proven to be an important source for improvements and clarifications in case of missing data. The specific value of this communication is deemed high, based on its contribution to enhancing adaptability and understanding between different units in the corporate group. Communication is used as an active tool to ensure that the correct data is received at the right time. This increased adaptability contributes to the efficiency of data sharing by clarifying the problem related to the missing or untimely data. The result of this communication also improves processes for future data collection

5.0 A model of the complexities related to navigating ESG consolidating in corporate groups

In this chapter, we introduce our conceptual model, which delineates the complexities and mitigation strategies associated with navigating ESG consolidation within corporate groups, illustrated in Figure 6. The model depicts the dynamic interplay among our second-order themes and the connection between the aggregate dimensions. The interplay between second-order themes demonstrates how the identified complexities arise and how they can be addressed. Concurrently, the aggregated dimensions reveal the linkages between different levels in the comprehensive consolidation of ESG information, underscored by its chronological nature. The selective coding and aggregated dimensions allow us the opportunity to link data and literature, by examining whether we have made new discoveries or identified findings that resonate with our theoretical foundation.

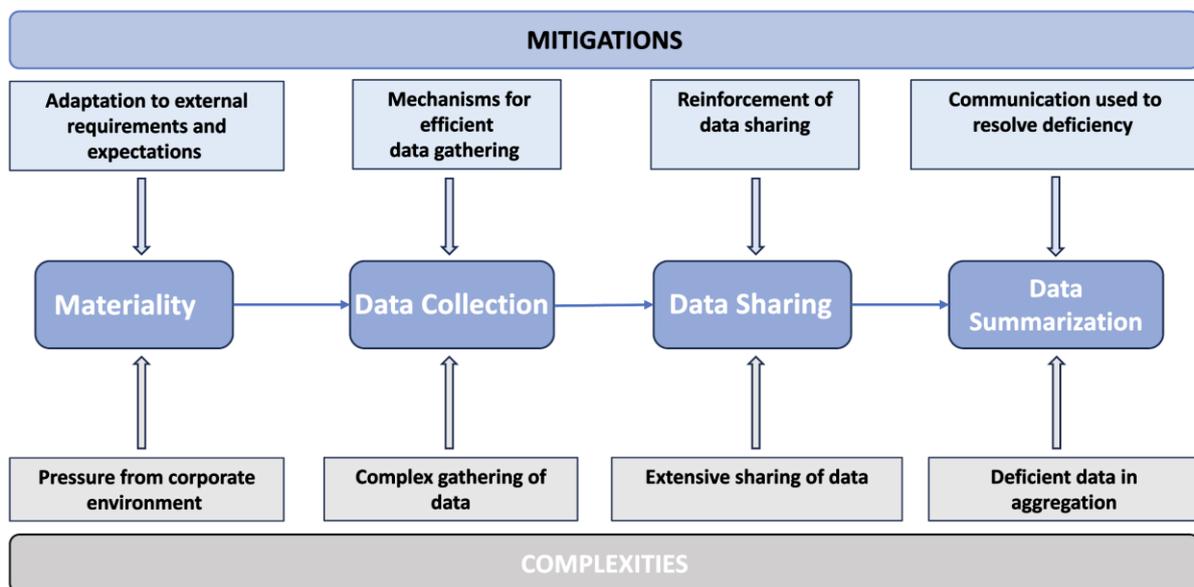


Figure 6: A model of the complexities related to navigating ESG consolidating in corporate groups

5.1 Data collection is influenced by materiality

The identified first-order concepts in the starting point of ESG consolidation, including external assessments, changes in reporting frameworks, regulatory changes, stakeholder communication, and groups assessments of importance, collectively form the basis for what the company considers to be material. The company utilizes a materiality analysis, through which we have enhanced our insight into the actual identification and prioritization underlying the assessment.

Ensuring that data collection processes are grounded in the principle of materiality, facilitates responding to the expectations of ESG reporting. Further, materiality imposes extensive requirements on what information to report. To meet these requirements, the group ought to collect the belonging data illustrating a linkage between the category of materiality and data collection. The interplay between materiality and data collection necessitates that a thorough materiality assessment will dictate the breadth and scope of data to be gathered and shared. This scope impacts both segment and business unit levels, informing the extent and specificity of data required.

The wide scope of pressure from the external environment ensures not only that the company adapts its reporting accordingly. It also entails a range of what the company chooses and what it may be obligated to report on. In this way, it also entails that the broad extent is transferred to the data collection process. By utilizing the materiality analysis as a starting point for ESG consolidation, a corporate group ensures that the collection and sharing of ESG data is targeted, relevant, and valuable for both the business and its stakeholders. The group's approach to materiality assessment, in line with GRI's Sector Standard 13 (Lerøy, 2023), also adheres to Jørgensen and Pedersen's (2018) framework, evaluating both importance for stakeholders and the corporation. Furthermore, the ESG guides emphasize materiality's critical role in ESG reporting (Nasdaq, 2019; Euronext, 2022). This concept of materiality, while not a novel finding in our research, is established as of great importance both in the theoretical foundation and emergent in the data.

5.2 Data collection and the progression to data sharing

There exists a natural linkage between the aggregate dimensions of data collection and data sharing. Together, they constitute two of the most central parts of internal ESG consolidation, from when data is extracted by business units to when it is reported up through the corporate levels.

One of the relationships is anchored to how complexities originating in data extraction propagate to data sharing. This causes the alignment or misalignment of shared data to often have its roots in data collection. Complications caused by uncertainty due to insufficient communication were found leading to shared data inheriting the same complications, ending up with the recipient of the data to handle. These findings are aligned with the literature explored in the theoretical foundation, where FIE (2011), indicated that data is the biggest single challenge to ESG reporting, both in terms of data collection and data sharing. This is further supported by Euronext (2022), emphasizing how robust internal ESG data collection and management processes is imperative for implementation and operational management of ESG data consolidation.

Another connection originates from the operational uniqueness of business units, causing complexities in both collecting and sharing data. This operational uniqueness is directly causing both varying data formats and notations on outputs and unreported initiatives. To deal with special types of operational data, the company uses alternative channels of sharing. This allows the group to share data that stems from operational uniqueness and can show this through alternative platforms.

The relationship between the aggregate dimensions can be understood not only based on their names and nature but also on how their first-and second-order themes' interrelationships have effects on each other. This relationship shows the ESG reporting from data extracted at the business units to how the data is aggregated up through the group.

5.3 Data sharing finalizes in summarization

The sharing of data through different levels is rooted in the necessity that the data needs to be summarized, before external reporting according to selected frameworks, or for internal purposes. This information can then be conveyed to the external environment with the goal of accurately reflecting the corporate group's performance within the ESG dimensions.

Extensive sharing of data contributes to the increased likelihood of incorrect data being shared further, resulting in possible deviation from the utilized reporting framework. By utilizing specific follow-up on data sharing and revision, this complexity is reduced. It still occurs that deficient data reaches its final point in the summarization. The solution to this has been identified as communication in unstandardized processes, by having this communication directly address where the issue arose, to resolve it. While unstandardized communication enables agile problem-solving directly at the root cause, it was emphasized that it was unfortunate that the controlled process was not taken in use yet.

In summary, incorrect data still gets reported during data sharing despite how these complexities are addressed within the corporate group. To meet these challenges, open communication is utilized as the most suitable tool. Ensuring accurate data is provided in a timely manner prevents delays for further reporting in the external environment or the development and revision of new objectives within the corporate group.

6.0 Conclusion

This master thesis has aimed to shed light on the following research question: *“What complexities do corporate groups face when consolidating ESG information across business units, and how do they address these complexities?”*. The primary objective of reporting on ESG is to transparently communicate the company's impact on ESG issues to all its stakeholders. In order to effectively communicate, it is imperative to consolidate information that accurately reflects the current situation.

Our study has provided insights into complexities and challenges tackled by a prominent Norwegian seafood group within its natural context, an area within ESG reporting that has been relatively unexplored to date. However, our theoretical foundation emphasized the range of beneficial impacts of ESG reporting, particularly in terms of gaining competitive edge and enhancing financial outcomes. This highlights the importance of enhancing and augmenting comprehension of how to effectively aggregate ESG information to proficiently realize these benefits.

Employing a single case study and a grounded theory approach, our emergent model has delineated the central steps constituting the core of consolidating ESG information as a linear process. The initial step addresses the development of the materiality analysis, which establishes the foundation for the data collected. The group actively and continuously assesses the pressures from the external environment, along own assessments of importance and stakeholder communication, to prioritize and adapt accordingly. With a foundation established for what is deemed material, this sets the parameters for the data to be collected. The complexities of the process were identified to be low efficiency due to time-consuming and manual tasks, associated uncertainty in the process, and variations based on different business unit operations. To address these complexities, it was identified that automation significantly streamlines the data collection process, and that clarity and definition of roles and responsibilities can have a profound effect on the quality of data gathered.

Following the collection of data, the subsequent process involves sharing the data. This process was identified as extensive in terms of widespread data sharing, unrevised scorecards, and unreported initiatives. These were addressed by reinforcing data sharing through standardization, considered to be among the most crucial tools. Further, active communication through meetings to revise the established scorecard. In order to capture initiatives that fall

outside the realm of data sharing, alternative platforms can be utilized to ensure the visibility of all initiatives to stakeholders. Within the summary of data, it was identified that communication outside controlled channels was the most important way to address data that does not emerge in a timely or incorrect manner. This communication enables feedback and ensures improvement of existing process.

By empirically illustrating the process of consolidation with its complexities and how these are managed, our model serves not just as a visual representation, but as a theoretical framework that encapsulates and provides insights into the entire process of consolidating ESG information within corporate groups. With this said, our study contributes new insights in a domain with limited knowledge and literature, while we hope to aspire to further research in this field.

Contribution to the literature

In the following, we will outline our main contributions to the current literature. Overall, by elucidating the complexities and mitigation mechanisms in ESG reporting's internal processes, we offer new insights into consolidation of ESG information. Extant research has enriched our insight into the benefits of ESG reporting facilitating financial and strategic benefits, as well as the complications of numerous options of reporting standards. Through our exploration of a diverse group, we contribute by addressing the internal navigation of challenges and complexities.

Firstly, through our theoretical foundation, we discovered that FIE (2021) identified data as the foremost challenge in ESG reporting, which relates to the processes collection, compilation, analysis, and control. We recognize that complexities associated with these same processes exist, but we contribute by developing an understanding that emphasizes how these are concretely addressed, rather than identifying the challenges themselves.

Secondly, our emergent model exhibits similarities to the processes presented by Euronext (2022), which delineates three stages in ESG reporting. This includes the materiality analysis (Jørgensen & Pedersen, 2018) as a critical starting point for the process and to establish robust internal ESG data collection and management processes (Euronext, 2022). Our study thus further reinforces the understanding of this fundament and the importance of robust internal processes capable of handling the extensive reporting requirements identified through the materiality analysis.

Third, we have conceptualized the ESG consolidation, and its aggregate dimensions through the chronological nature of the process. This is done by defining and ensuring clarity of central terms and ideas, that we deem crucial elements of the process. These terms and definitions contribute by providing a concrete process within ESG consolidation.

Managerial and practical implications

Our findings have practical implications as well as implications for managerial change. Overall, we regard our research as a beneficial insight for other corporate groups current practices in consolidating ESG information, but due to our methodological approach which emphasizes exploring the phenomenon, the generalizability to other contexts is considered limited.

Firstly, enhancing the implementation of automated processes and clarity in areas of responsibility could diminish manual and time-consuming tasks, and reduce the complexity of data collection. Further it is deemed valuable in streamlining employees' workflow and reduce erroneous data, in the processes of data collection. Secondly, our research emphasizes the importance of standardization, and revision. By emphasizing these steps and processes the efficiency of data consolidation could be potentially reinforce the sharing of data.

Lastly, it is crucial to focus on establishing transparency and understanding related to data consolidation. Employees should be able to openly discuss challenges and problems encountered, as communication should not be confined to standardized procedures. This is based on the limited existing knowledge about internal ESG reporting, which contributes to general uncertainty where clear answers and understanding may be scarce.

7.0 Limitations and future research

This study comes with theoretical and methodological limitations. In terms of theoretical limitations our study has examined literature related to our research question focusing on the theoretical foundation of ESG and sustainable investing, together with commonly used frameworks for ESG reporting. There is currently a scarcity of literature and theory in this field, which also underpinned our desire to delve deeper into this area. Therefore, there is not a strong theoretical foundation in this study which may be a limitation.

Besides these, the study has several methodological limitations, where we consider the methodological scope of the study to be somewhat limited. We have used a total of ten interviews in one corporate group considering a master's thesis, this is seen as a reasonably substantial sample. On the other hand, within research in general, this is considered more limited. A multiple or embedded case studies could have provided us with greater insight, and potentially yielded findings that are more transferable to other settings.

Additionally, all our interviews were conducted in Norwegian before being translated into English, which may present a limitation for our study. We have made every effort to translate these from Norwegian to English in a manner that preserves the original content. However, it is important to note that the translation process might have led to nuances or explanations lacking the same clarity in formulation.

Our analysis is done according to grounded theory, which we consider a demanding method, when used for the first time. We have not followed the grounded theory approach fully but made some practical limitations due to limited time and resources. Lastly, the study was conducted over a semester, in the period from August to December of 2024. A longer period would have allowed us to expand the theoretical review of literature along with a larger empirical sample.

Regarding future research, we wish to highlight some areas that are considered intriguing, encountered in the course of our work on the thesis. Firstly, today's business world is facing the introduction of the CSRD in 2024. It would be interesting to see research focusing on how this implementation is conducted and how companies succeed in implementing the first legally mandated framework. It can be reasonably assumed that this will increasingly reflect the future of business, hence a need for increased understanding of how this is carried out.

Secondly, it would have been interesting to see how initiatives that are not captured in standardized reporting are evaluated and what effect this could have on the variation of stakeholders. Lastly, future research could examine multiple corporate groups and a larger number of business units. This could provide even better insight into how large diversified corporate groups manage to aggregate and collectively report on ESG.

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Appendix

Appendix A - Initial interview guide

Interview Guide

RQ: “What complexities do corporate groups face when consolidating ESG information across business units, and how do they address these complexities?”

Introduction questions to ensure relevant background information

Q: Start with a formal chat to get acquainted with the informant and to explain their rights.

Q: What is your position, and how long have you been working at the company?

Q: What is your connection to the company's reporting on ESG and Sustainability?

Consolidation and ESG Reporting

Q: What is your understanding of ESG and its role for LSG?

Q: Which reporting frameworks do you as a company use in the external environment?

- Which specific parameters does LSG report on?

Q: Do all business units report on the same parameters?

- What are the possible differences in reporting?

Q: What works well in today's consolidation of ESG data?

Q: What are the biggest challenges in the consolidation of ESG data?

Q: Are there challenges with getting parameters or KPIs implemented across the company's differentiated operations?

Q: Is there an awareness of what might be missed through standardized reporting?

Preparation of ESG Reporting

Q: Can you tell us a bit about how you arrived at the current reporting system?

Q: Who is responsible for the development of KPIs and target management in ESG reporting?

- How are these developed?
- What are the biggest challenges with this work?
- What works well?
- Is it difficult to prioritize which KPIs to aggregate?

Q: How is reporting weighted between the E-S-G dimensions?

Q: How do communication with stakeholders influence the company's focus on ESG reporting?

Q: Is standardized reporting important for the reporting to be aggregated?

Q: Are there any other things related to our questions that you would like to highlight?

Q: Conclude the interview, thank for the time the person has taken, let them ask us questions.

Appendix B - Declaration of consent

Would you like to participate in the research project?

This is a question for you about participating in a research project where the purpose is to explore ESG reporting and implementation between corporate and business units. In this document, we provide you with information about the goals of the project and what participation will entail for you.

Purpose

The purpose of this master's thesis is to explore existing literature and Lerøy Seafood Group ASA's strategic decisions regarding implementation and reporting on ESG.

Who is responsible for the research project?

Frederick Gudim Strøm and Edvard Hyvang at the Norwegian School of Economics (NHH) are responsible for the project, with Professor Björn Schmeisser as our supervisor.

Why are you being asked to participate?

You are asked to contribute to the study because we wish to gather relevant information about ESG for our master's thesis. The selection consists of professionals within Lerøy Seafood Group, who possess knowledge that is relevant for our thesis.

What does it mean for you to participate?

If you choose to participate, this involves an interview tailored to your competence and your area of responsibility. Information collected will involve information that you have by answering questions about topics such as Lerøy's ESG performance and reporting. The information should not be stock-sensitive information for the company. Furthermore, the information will be stored as audio recordings to ensure accurate reproduction of information. Data collected will be stored digitally, on password-protected platforms during the project's duration. Furthermore, the data will be deleted when the project is terminated.

Participation is voluntary

It is voluntary to participate in the project. If you choose to participate, you can withdraw your consent at any time without giving any reason. All your personal data will then be deleted. There will be no negative consequences for you if you do not want to participate or later choose to withdraw.

Your privacy – how we store and use your information

We will only use the information about you for the purposes we have told you about in this document. We process the information confidentially and in accordance with privacy regulations. Persons who will have access to the documents collected will be the students at the Norwegian School of Economics working with the master's thesis; Edvard Hyvang and Frederick Gudim Strøm. Supervisor Björn Schmeisser at the Norwegian School of Economics will also have access to the data. All collected information will be stored in an external network in the form of a cloud. Computers that have access to the external network will be password-protected.

What happens to your personal information when the research project is completed?

The project is planned to be terminated when the thesis is approved. The date will be no later than March 31, 2024. The information is deleted no later than when the project is terminated/the thesis is approved. According to the plan, this will be January 15, 2024.

What gives us the right to process personal information about you?

We process information about you based on your consent. On behalf of the Norwegian School of Economics, Sikt – Knowledge Sector's Service Provider has assessed that the processing of personal data in this project is in accordance with privacy regulations.

Your rights

As long as you can be identified in the data material, you have the right to:

- Insight into what information we process about you, and to be provided with a copy of the information
- To have corrected information about you that is wrong or misleading
- To have personal data about you deleted
- To send a complaint to the Data Inspectorate about the processing of your personal data

If you have questions about the study, or want to know more about or use your rights, please contact:

- Norwegian School of Economics by Associate Professor/supervisor Björn Schmeisser, can be reached by email Bjorn.Schmeisser@nhh.no
- Norwegian School of Economics by master's student Edvard Hyvang, can be reached by email edvard.hyvang@student.nhh.no
- Norwegian School of Economics by master's student Frederick Gudim Strøm, can be reached by email frederick.strom@student.nhh.no
- Our data protection officer: personvernombud@nhh.no

If you have questions related to the assessment made by Sikt's privacy services, you can contact via:

- Email: personverntjenester@sikt.no or phone: 73 98 40 40.

Sincerely

Frederick Gudim Strøm, Edvard Hyvang

Consent Declaration

I have received and understood information about the project and I consent to:

- Participate in the interview.
- Written consent can be obtained electronically as the communication channel I received the information from is secure, and that I can prove that I am the right person by providing full name and email address.
- That information about me is published so that I can be recognized [Position and company].

I consent to my information being processed until the project is completed

(Signed by the project participant, date)