SUSTAINABILITY REPORTING AS A STRATEGIC TOOL FOR SUSTAINABLE DEVELOPMENT

A multi-case study of organizational practices in the global energy industry



Master's Thesis

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ABSTRACT

This paper investigates the strategic use of sustainability reports by large global energy companies. The problem statement seeks to answer in what ways the companies use sustainability reporting as part of their strategic approach to sustainable development. The paper employs institutional, legitimacy, and contingency theories, as well as a comprehensive literature review. Six key themes were identified through the literature review and using a multi-case analysis of the energy companies' sustainability reports, they were analyzed based on these themes. The findings suggest that sustainability reporting is a significant strategic instrument for companies in the energy industry, and company characteristics play a significant role in reporting. Overall, the case companies show evidence of a uniform approach to sustainability reporting, while individual and company-specific needs direct how each company employs the standardized guidelines to meet their requirements. At first glance, the companies may appear alike but diving deeper into the reports reveals that unique institutional and contextual factors, such as (supra)national legislation and cultural norms, play an important role. Further, empirical evidence suggests that the quest for legitimacy and a social license to operate are also significant factors in shaping the companies' sustainability reports. Finally, the findings imply that contingency theory is at play, in that no universal best practice seems to be present. The results highlight the importance of making relevant, adequate, and credible reports, which have a strategically important role for the company's sustainable development. The paper concludes that sustainability reporting provides companies with a unique opportunity to inform and satisfy stakeholders externally while motivating and directing their efforts internally. The study suggests several future research directions, including studies of other industries and comparisons across industries, to further investigate the role of sustainability reports in achieving sustainable development.

1 INTRODUCTION

1.1 Case Introduction

Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future.

- (World Commission on Environment and Development, 1987, p. 39)

In recent years, there has been a significant emphasis on how individuals and companies respond to the growing focus on sustainability. This includes the need for individuals to change their lifestyle habits, such as recycling practices and purchasing behaviors, as well as for companies to reassess their operations. It is widely recognized that for society and the world as a whole to become more environmentally conscious, and transparent, transformative actions are necessary. However, before implementing any changes, it is crucial to understand the current status quo. This is where reporting plays a critical role. For decades, companies have reported on their activities to various stakeholders, including employees, suppliers, shareholders, and potential investors. Business operations involve more than just producing and selling products for profit; they also require justifying the business's existence and securing a sustainable future. Historically, companies have primarily focused on their current financial situation and future aspirations in reports. However, historical examples of companies acting responsibly on what we today would consider corporate social responsibility (CSR) do exist; it is widely recognized that social responsibility emerged from companies' dedication to philanthropy and charitable activities in the late 1800s. During this period, prominent businessmen such as Carnegie and Rockefeller donated significant sums of money from their companies to support social causes. This was part of the companies' public relations strategy to project an image of responsible, generous, and socially conscious entities (Association of Corporate Citizenship Professionals, n.d.).

In recent times, however, there has been an increasing pressure on companies to account for their non-financial performance. Consequently, more companies have started to disclose information on how they contribute to society, such as through their involvement in local communities. This has given rise to concepts and notions such as the double bottom line, the triple bottom line, and corporate social responsibility. Non-financial performance information has become increasingly significant both internally and externally, and reporting on such aspects has a considerable impact on a company's justification. As a result, a growing number of companies now publish reports on their sustainability goals and strategies, along with their current performance in achieving these goals. IPIECA, a global not-for-profit oil and gas industry association for environmental and social issues, states how "[s] ustainability reporting acts as a key enabler to provide decision-useful information and can help to foster understanding and collaboration with a wide range of stakeholders." (IPIECA, 2020, p. viii). These reports present environmental, societal, and governance (ESG) information alongside

financial information, highlighting sustainability as a crucial component of modern business practices. While many companies opt to disclose their sustainability performance voluntarily, they are, however, also subject to external pressures from various stakeholders, including the general public, media, investors, NGOs, trade associations, national governments, and supranational institutions, among others. Supranational institutions, in particular, have a significant impact on this conduct, as they form legislation and regulations that mandate companies to disclose information on ESG matters. As such, they play a crucial role in shaping the expectations of stakeholders regarding sustainability reporting, and their influence can considerably impact companies' reporting practices, as well as aiding the reports' comparability across national borders and industries, which is considered to be an important factor in an ever-increasing global economy.

In many cases, it serves as a competitive advantage, allowing customers, employees, and potential investors to differentiate between sustainable and non-sustainable companies in their decision-making processes. With sustainability emerging as a vital component of modern business practices, there has been a growing concern over "greenwashing" practices, which is the term used when some companies (purposely) appear more environmentally friendly than they genuinely are (Cambridge Dictionary, n.d.). From time to time, cases of corporate wrongdoing have been observed in relation to CSR issues, including various forms of "color washing". For instance, companies may engage in "pink washing" by using LGBT+ symbols to appear diverse, without actually supporting the cause through funding or activism.

Although sustainability reporting has become increasingly common across various industries, it is particularly relevant in industries that generate significant pollution, such as large manufacturing companies. This thesis focuses on the global energy industry, given the significant attention it has amassed in recent years due to the worldwide demand for energy and supply challenges. Notably, Russia's war on Ukraine has significantly affected energy supply in Europe, which, in turn, has had far-reaching consequences. As a result, energy companies face the challenge of meeting production demands while also acting sustainably and ensuring long-term viability. Hence, this study analyzes sustainability reporting as a strategic tool through the lens of four global energy companies. The case companies will be presented in further detail below.

Scholars Hahn & Kühnen (2013) explain how a broad and diverse set of stakeholders pursue different economic, environmental, and social interests that determine the success of an organization. One of the most critical channels through which the organization tries to meet these demands is sustainability reporting. The motives for organizations to disclose information include, among others, increasing transparency, enhancing brand value, upholding reputation and legitimacy, motivating employees, and signal competitiveness. As sustainability reporting gains recognition in contributing to corporate sustainability, the concept receives ever growing attention in both business and academia (Hahn & Kühnen, 2013, p. 5). Nonetheless, there have also been instances where the information in sustainability reports was not accepted at face value, leading to significant organizational ramifications. For instance, with the Shell case, a group of the company's own shareholders

sued the organization for not taking enough action, as indicated in their sustainability report. The Shell case will be examined in further detail in the discussion section 5.1.

1.2 Problem Statement

The introduction and initial considerations have led to the following problem statement that this thesis aims to address.

In what ways do organizations operating in the global energy industry use sustainability reporting as part of their strategic approach to sustainable development?

In order to arrive at a comprehensive answer to the problem statement, it is essential to examine various components individually beforehand, which will be addressed during thesis analysis. The research questions pertain to selected key themes that emerge from the literature review, and are as follows:

- 1. To what extent do organizations use integrated thinking in their sustainability reports?
- 2. How are sustainability reporting frameworks being utilized by organizations, and how might they enhance credibility?
- 3. How do organizations demonstrate materiality assessments in their sustainability reports, and to what extent do organizations apply double materiality assessments?
- 4. How do organizations report on ESG issues, and how do they present such issues in their sustainability reports?
- 5. In what ways do organizations' sustainability reports serve as risk mitigators and compliance instruments?
- 6. What evidence do the organizations' sustainability reports provide of their usage both internally and externally?

The six research questions will, individually and collectively, enhance the knowledge on organizations' sustainability reports, in order to arrive at a comprehensive response to the overall problem statement.

1.3 Company Introductions

The energy industry on a global scale is characterized by the presence of significant, large players. These players include well-known companies involved in oil and gas, integrated energy organizations, as well as those primarily engaged in renewable energy sources such as hydro, solar, and wind power. This thesis analyzes four companies chosen based on their size and geographical location, comprising one European company, one North American company, one Middle Eastern company, and one Asian company. This selection allows for an exploration of possible regional disparities in

reporting practices, even though some of these companies have a global presence. It is worth noting that some of the companies are either partly or (near) wholly state-owned.

1.3.1 Ørsted

Ørsted, a Denmark-based renewable energy company, is a significant player in the global energy industry with operations in Europe, Asia, and the United States. The company has established itself as a global leader in offshore wind power and has been instrumental in driving the transition to renewable energy. In 2017, Ørsted sold its oil and gas operations with the aim of changing completely to renewable energy production in an exhaustive organizational "rebirth", including shifting its name from DONG (Danish Oil and Natural Gas) to Ørsted – a tribute to the world-renowned Danish scientist H.C. Ørsted, who invented electromagnetism. With approximately 8,000 employees, Ørsted reported a revenue of \$19.7 billion USD in 2022. The company also ventures into onshore wind power and solar energy, along with energy storage and renewable hydrogen. The company has pledged to achieve carbon neutrality by 2025 and net-zero emissions by 2040. To realize this goal, Ørsted aims to reduce its carbon footprint, further invest in renewable energy, and work with stakeholders to promote sustainable development. The company's innovations and technological advancements have enabled it to remain at the forefront of the renewable energy transition. Overall, Ørsted stands out as a global leader in renewable energy, committed to sustainability, innovation, and responsible business practices (Ørsted, n.d.).

1.3.2 Saudi Aramco

Saudi Aramco is a prominent global energy and chemicals organization headquartered in Saudi Arabia. Operating in more than 80 countries internationally, the company has a diverse portfolio of high-quality assets, such as oil and gas reserves, refineries, and petrochemical plants. In 2022, Saudi Aramco reported 70,500 employees and generated a revenue of \$604.4 billion USD, making it the world's most profitable company. Saudi Aramco's business comprises three primary segments: upstream, downstream, and chemicals. The upstream segment covers exploration and production of crude oil and natural gas. The downstream segment focuses on refining, marketing, and distributing petroleum products. The chemicals segment produces and markets various petrochemical products. Apart from the core energy and chemicals business, Saudi Aramco has invested in several renewable energy initiatives, including wind and solar energy. The company is committed to sustainability, as demonstrated by its efforts to curb greenhouse gas (GHG) emissions, with a goal of achieving netzero scope 1 and 2 emissions by 2050. In overall terms, Saudi Aramco is a global energy industry leader with a firm commitment to innovation, sustainability, and conscientious business practices (Saudi Aramco, n.d.).

1.3.3 ExxonMobil

ExxonMobil is a worldwide energy company headquartered in Texas, United States, with a global presence in more than 60 countries. The company's primary operations encompass upstream, downstream, and chemical segments, emphasizing the exploration, production, and sale of crude oil, natural gas, and petroleum products. In 2022, ExxonMobil's employee count was approximately 72,000, and it generated \$56 billion USD in earnings. Furthermore, the company has made significant investments in developing cleaner energy solutions, such as biofuels, hydrogen, and carbon capture and storage. ExxonMobil is committed to reducing its scope 1 and 2 GHG emissions, with a goal of achieving net-zero emissions by 2050. ExxonMobil's worldwide presence and more than 140 years of expertise in the energy sector have enabled it to establish alliances with leading companies in the industry. The company's commitment to innovation and technological advancements has allowed it to stay at the forefront of the energy industry for over a century (ExxonMobil, n.d.-a).

1.3.4 PetroChina

PetroChina is a prominent oil and gas company headquartered in Beijing, China, with diverse operations within exploration and production, refining and chemicals, as well as natural gas and pipeline operations. With a staggering 398,000 employees, PetroChina generated a revenue of \$471.4 billion USD in 2022, solidifying its position as one of the largest publicly traded firms in China. Like some of the other companies, PetroChina's upstream operations primarily involve the exploration and production of crude oil and natural gas, with vast reserves in Central Asia, Africa, and China. The company's downstream segment engages in refining crude oil to products such as diesel. PetroChina also operates in natural gas and pipeline operations, including pipeline construction. As part of its commitment to sustainable development, PetroChina has invested significantly in R&D, with the aim of improving energy efficiency, reducing GHG emissions, and developing new energy technologies. The company has also made strides in renewable energy, such as wind and solar power, to expand its renewable energy business. Generally speaking, PetroChina is a key player in the energy sector, particularly in Asia (PetroChina, n.d.).

2 METHODOLOGY

To answer the problem statement and its research questions, this section will provide an overview of the research methodology, data collection, scope, as well as the analytical framework. The research approach affects both how the data is identified, selected, and collected, and the research theory, which, in turn, will impact the findings of the study (Saunders et al., 2009). Saunders, Lewis & Thornhill (2009) introduce in their book, *Research Methods for Business Students*, the research onion approach, which has been assessed as a valuable line of action for the methodology of this thesis. The six layers in order from the outer to the inner are (1) *research philosophies*, (2) *research approaches*, (3) *research strategies*, (4) *research choices*, (5) *time horizons*, and (6) *research techniques and procedures*. The following subsections will deal with the different layers of the research onion by Saunders et al., as illustrated below in figure 1.

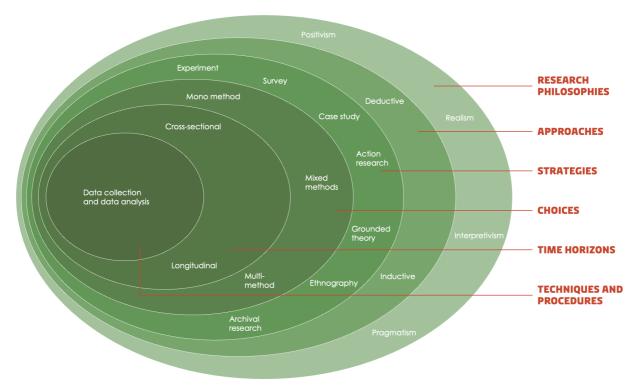


Figure 1: Research Onion

2.1 Research Philosophy

The term *research philosophy* covers both the development and the nature of knowledge, with different assumptions about the way the world is seen. There is no superior research philosophy, as it depends on various factors, including, for instance, the problem statement. Guba & Lincoln (1994) argue that the research paradigm is more important than the specific research methods used. The approach or framework used in a study has a greater impact on results than the techniques or

tools used. The research paradigm shapes the researcher's perspective, influencing their assumptions about reality, knowledge, and the researcher's role. Choosing the right paradigm is crucial for valid, reliable, and meaningful research (Saunders et al., 2009, p. 106).

Ontology is a branch of research philosophy that concerns the nature of reality, and the assumptions researchers hold about the world. Objectivism and subjectivism are two aspects of ontology that are widely accepted by researchers as valid sources of knowledge, according to Saunders et al. The *objectivist* ontology assumes that reality exists independently of human perception and can be observed and measured objectively, while the *subjectivist* ontology assumes that reality is socially constructed and depends on the individual's subjective interpretation (Saunders et al., 2009, p. 110). Within ontology, this thesis has adopted the subjectivist perspective, which asserts that social phenomena are shaped by the perceptions and actions of the individuals being studied. The subjectivist ontology argues that social actors, such as organizations, may place many different interpretations on the situations in which they find themselves. So, individual organizations will perceive different situations in varying ways because of their own view of the world. Additionally, the research employs a social constructivist approach, delving into the subjective meanings behind the behaviors observed (Saunders et al., 2009, p. 111).

Epistemology is a branch of philosophy dealing with acceptable knowledge. It considers what knowledge is, how it is acquired, and its reliability. In research, it refers to the researcher's beliefs about valid knowledge and its acquisition. These beliefs impact the choice of research methods and findings interpretation. Within epistemology, several philosophies exist, including positivism, realism, and interpretivism (Saunders et al., 2009, p. 113). Positivist philosophy is characterized by its adoption of the stance of natural scientists, which favors working with observable social reality to generate law-like generalizations. The positivist research strategy entails the development of hypotheses based on existing theories that are then tested against observable facts, which in turn are then used to refine the theories. Realism posits that objects exist independently of the human mind and can be divided into direct and critical realism. Direct realism holds that our sensory experiences accurately depict the world, while critical realism suggests that experiences are representations shaped by social conditioning. Business research favors critical realism for its social world awareness. Interpretivism, which is a criticism of the 'far too simplistic' positivist philosophy, emphasizes understanding the differences between humans as social actors and how they interpret and act out their roles in society. This approach tries to understand things from the point of view of the actors being studied, and to use this approach, the researcher needs to try to understand and feel what it is like to be in the world of the people they are studying. Large amounts of the findings in this thesis are based on interpretivist philosophy, meaning the perception of social actors (i.e., organizations).

The study of axiology is concerned with the assessment of values, including those in ethics, aesthetics, and social inquiry. Researchers' values heavily influence research processes, including topic selection, philosophical approach, and data collection methods. Thus, the current research process has, more or less consciously, been shaped by the values of the author. Axiologically, the thesis is

characterized by a combination of realism and pragmatism, in that the research is not value-free; the researcher is somewhat biased through his world view, cultural experience, etc. (i.e., realism), plus he adopts both objective and subjective points-of-view in that value plays a role in interpreting the findings (i.e., pragmatism) (Saunders et al., 2009, p. 119).

The concept of research paradigms is used to further explore research philosophy. The term "paradigm" is commonly used in social sciences; in this context, a paradigm refers to a way of studying social phenomena that provides specific insights and allows for attempts at explanation. Saunders et al. have developed a figure illustrating four research paradigms (see figure 2 below) (Saunders et al., 2009, p. 120).

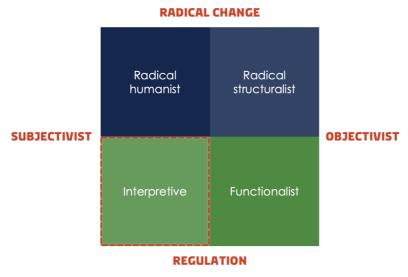


Figure 2: Research Paradigms (Interpretive highlighted)

The *functionalist* paradigm considers organizations as rational and aims to provide practical solutions to practical problems, while the *interpretive* paradigm seeks to understand meanings and power dynamics. The *radical humanist* paradigm aims for radical change and a critical perspective, whereas the *radical structuralist* paradigm analyzes power relationships and conflict patterns for fundamental change. For the thesis, the interpretive paradigm has been adopted, because it is concerned with understanding the meanings attached to organizational life, including irrationalities and power dynamics. In general, interpretive research is focused on understanding and explaining what is going on (Saunders et al., 2009, p. 121).

To sum, the current research is to be approached from primarily an interpretivist and social constructionist perspective in that there are multiple realities and contexts to be understood, and that they all impact the overall success or failure of the sustainability reporting efforts.

2.2 Research Approach

The second layer of the research onion involves determining a research approach. Saunders et al. (2009) argue that choosing a research approach is important for three reasons; first, it helps make informed decisions about how the research should be conducted (i.e., the research design); second,

it will help determine the research strategies and choices that work (and those that do not); and third, in knowing the different research traditions the researcher can adjust the research design when facing challenges (Saunders et al., 2009, p. 126).

Research needs theory, and the level of clarity about the theory influences the choice of research approach. The research onion by Saunders et al. (2009) suggests two approaches: inductive and deductive. The inductive approach moves from specific observations to general conclusions, while the deductive tests hypotheses with data. These two research approaches are generally associated with different philosophies, with deduction linked to positivism and induction to interpretivism. A third approach, the abductive, shares similarities with both the inductive and deductive approaches as it is used to make logical inferences and construct theories.

The research approach adopted for this thesis is the inductive. The observations from the case companies' sustainability reports will lead to a conclusive generalization. Also, as Saunders et al. contend, when researchers use an inductive approach, they focus more on the situation where events occur. This means that studying a small group of actors might be better than studying a large group, as is the case with the deductive approach. This way, researchers can learn more about the specific context of the situation. With the inductive approach, however, there is the constant risk that no useful data patterns and theory will emerge (Saunders et al., 2009, pp. 126–127).

2.3 Research Strategy

The third layer of the research onion involves choosing a research strategy. The research strategy is based on the purpose of the research, for which reason this must be discussed first. Overall, there are three distinctions of research purposes, namely, the exploratory, descriptive, and explanatory. This thesis employs the exploratory research purpose, which is characterized as a beneficial means of seeking new insights and assessing phenomena. One of the advantages of exploratory studies is that they are flexible and adaptable to change, which also entails that the researcher must be willing to change direction as a result of new information. At the same time, the thesis, however, is also characterized by descriptive elements (Saunders et al., 2009, p. 139). One of the ways in which it is demonstrated that the thesis is exploratory in nature is via the literature review. The literature review serves multiple purposes and can take various forms, however for this thesis it aims to inform and focus the primary research by identifying gaps, patterns, and trends in existing literature.

Regarding research strategies, Saunders et al. discuss experiments, surveys, case studies, grounded theory, and ethnography (Saunders et al., 2009, p. 141). It is important to note that studies can make use of several research strategies simultaneously. The thesis adopts the case study research strategy, which is defined as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence" (Saunders et al., 2009, pp. 145–146). The case study strategy is deemed as a particularly useful strategy in obtaining a rich understanding of the context and processes under investigation, which is exactly what this thesis aims for. Case study types include single, multiple, holistic, and embedded

cases. This thesis makes use of the multiple case study as several companies' sustainability reports are explored. The multiple case study is particularly good at establishing whether findings from one case occur in other cases, and to generalize the findings. As the organization as a whole is under investigation, the case study is termed as holistic. Although some are of the perception that case studies can be unscientific, they can be a valuable means of exploring and challenging existing theory (Saunders et al., 2009, p. 147). The four case companies chosen for the study were selected with the deliberate intention of ensuring geographic diversity. This enabled the investigation of contextual and institutional factors such as legal, cultural, and social conditions, as well as the country's overall ESG ranking.

2.4 Choice

The fourth layer of the research onion is the choices the researcher must make in relation to which methods to use, and how to use them. Terms such as quantitative and qualitative data are commonly used throughout business and management research to differentiate between data collection techniques and analysis based, typically, on numeric or non-numeric data. Usually, research methods involve using either a single data collection technique with the corresponding analysis procedure – the mono method – or more than one data collection technique and multiple analysis procedures – the multiple method (Saunders et al., 2009, pp. 152–154).

The thesis data is qualitative (i.e., multiple case study) and follows a mono method. The mono method provides a clear and focused research design for a deep understanding of the problem. A mono method approach can result in consistent findings, which can be useful in identifying patterns and trends. There are, however, also some disadvantages to the approach. While the method is good in deepening the researcher's understanding, it may be limiting in widening the understanding. Thus, using a single method can lead to limited generalizability and validity of the findings (Saunders et al., 2009, p. 151). However, for the thesis in scope it has been assessed that the mono method is suitable in answering the problem statement and its research questions.

2.5 Time Horizon

The fifth, and second-most inner, layer of the research onion is the time horizon by which the study is conducted. Typically, studies are either cross-sectional (a "snapshot" in time) or longitudinal (longer period) (Saunders et al., 2009, p. 155). As most studies undertaken for academic courses, such as the thesis in focus, are time constrained, the time horizon for these is most often cross-sectional. This thesis is no exception as the scope only allows for a snapshot into the case companies' sustainability reports. If the thesis were to take the form of a longitudinal study, multiple reports from each company over a predetermined time period (for instance, a 3- or 5-year period) were to be studied. As with the other choices above, each has its advantages and disadvantages. One of the advantages of a cross-sectional study is that it gives a solid (and often deep) insight into a population,

which also makes it possible to compare subgroups. However, the primary disadvantage is that it is not possible to see trends and developments over time. Notably, the time horizon of a study is independent from the remaining research design. Thus, the time horizon chosen for the research project is not dependent on the choice of e.g., research strategy, approach, or philosophy (Saunders et al., 2009, p. 155).

2.6 Research Technique and Procedures (Data Collection)

The sixth and final layer of the research onion is the research techniques and procedures, which involve data collection and analysis. This stage involves making critical decisions, including determining whether to use primary or secondary data sources, among others. These decisions are aligned with the research philosophy, approach, strategy, and choices previously established. Secondary data are used primarily in descriptive and explanatory research that is often part of a case study (Saunders et al., 2009, p. 258), which is exactly the case of the thesis in question.

This thesis relies entirely on secondary data, which primarily have been published by the chosen case companies. The secondary data, in the form of sustainability reports, is readily accessible on the companies' websites, for analysis and interpretation. Specifically, it concerns the most recent annual, sustainability, and ESG reports from the case companies.

Additionally, industry reports and reports on reporting frameworks, which similarly are categorized as secondary data, have been consulted. For example, the latest edition of IPIECA's guidelines specifically aimed at assisting organizations within the oil and gas industry with their reporting practices has been widely used for obtaining an understanding of the industry and its sector-specific reporting framework. Similarly, Ramboll's quick guide to the CSRD directive has been consulted for understanding the directive and its influence on European companies.

There are several advantages to using secondary data. Among other things, it usually requires fewer resources to collect secondary data, it is often of high quality, and unlike primary data, secondary data is generally permanent and easy for others to check. This means that research and its findings are more open to public scrutiny. Naturally, there are also disadvantages to using secondary data, among them, that it may not match the research question or objectives, that access to secondary data may be difficult or costly, and that it may have limitations in terms of aggregations, definitions, quality, and representation due to the initial purpose for which it was collected (Saunders et al., 2009, pp. 269–272).

2.7 Research Structure

To facilitate the reader's understanding of the research structure, the thesis design is presented below as a guide to the research methodology and course of action. The study begins with an introduction, including an introduction to the case companies, problem statement, and methodology. The theory that underpins the thesis is then introduced and explained, followed by a comprehensive

literature review, which identifies key themes in the existing literature. Using the theory and central themes identified, the case companies' sustainability reporting practices are analyzed and interpreted. Finally, in the discussion, the findings are further examined and discussed.

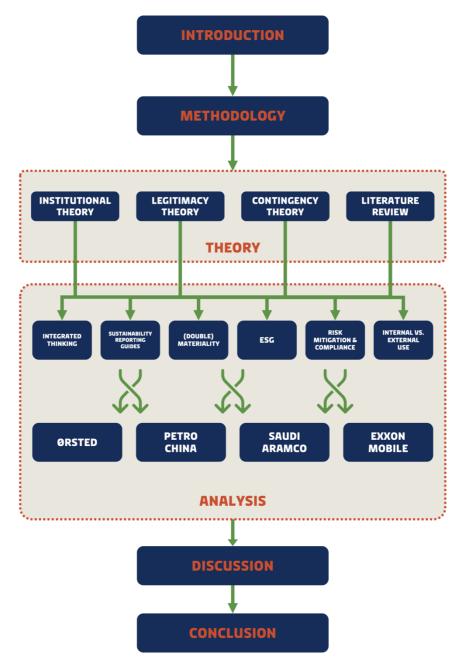


Figure 3: Research Structure

2.8 Summary of the Methodology

In conclusion, the methodology section has provided a detailed examination of numerous approaches, strategies, and methods that are employed in the research project. As emphasized, there is no single best way to conduct research, as it is dependent on the specific context, problem statement,

and the researcher themselves. However, by applying the research onion as proposed by Saunders et al. (2009) as a lens through which to view the study, relevant research choices have been identified, and the approach, strategy, and method most suitable for the thesis have been selected. All layers of the research onion have been peeled off, and the different alternatives in each layer have been discussed, including the advantages and disadvantages of specific choices. The methodology is summarized in table 1 below.

Research Onion Layer	Description
1. Philosophy	The interpretive paradigm has been adopted. Within ontology, the subjectivist perspective was adopted, while the epistemological considerations are rooted in interpretivist philosophy. Axiologically, the thesis is characterized by a combination of realism and pragmatism.
2. Approach	The inductive approach was adopted, which involves making specific observations that lead to a general conclusion or theory based on the data analysis. The observations from the case companies' sustainability reports will lead to a conclusive generalization.
3. Strategy	This thesis employs an exploratory research purpose with descriptive elements, using the multiple case study research strategy to explore several companies' sustainability reports.
4. Choice	The research choice is categorized as a mono method, where a single data collection technique and analysis procedure has been followed. It has been assessed that the mono method is suitable in answering the problem statement and research questions.
5. Time Horizon	The thesis is a cross sectional study – a "snapshot" in time – in which the phenomenon is analyzed. Because of time constraints and as with most studies undertaken for academic courses, a cross-sectional research project was chosen over a longitudinal.
6. Techniques and Procedures	The thesis relies exclusively on secondary data – that is, sustainability, ESG, and annual reports from the case companies, supplemented with industry reports, guidelines, legislation, etc.

Table 1: Research Onion Summary

3 THEORY

This thesis aims to explore how organizations use sustainability reporting practices. To achieve this objective, several theoretical frameworks are used to explain why and how. As shown in figure 3 (Research Structure), these theoretical frameworks include Institutional Theory, Legitimacy Theory, and Contingency Theory. They are used to explain why organizations do what they do under the various key themes identified in the literature review. Using these theories, the study seeks to understand the mechanisms that drive sustainability reporting practices. Furthermore, this section provides a comprehensive review of the extant literature on sustainability reporting, including its antecedents, consequences, and determinants. The theoretical framework, together with empirical evidence from the four case companies, will offer a general understanding of the phenomenon that is sustainability reporting.

3.1 Theoretical Underpinnings

3.1.1 Institutional Theory

Institutional theory suggests that organizational activities need not necessarily follow a purely business rationale, but instead answer to the institutionalized expectations of the surrounding environment. Meyer & Rowan's (1977) foundational article within institutional theory and organizational sociology has been widely cited and examines the ways in which organizations use formal structures and procedures to create the appearance of rationality. Even when these structures and procedures may not actually be effective in achieving organizational goals. They suggest that organizations are not just rational systems designed to achieve specific goals but are also cultural and symbolic systems that are shaped by and respond to societal expectations. Meyer and Rowan suggest organizations adopt formal structures and procedures to gain legitimacy, even if they are not the most efficient or effective way of achieving their goals (Meyer & Rowan, 1977).

DiMaggio & Powell (1983) take institutional theory a step further by examining the phenomenon of institutional isomorphism, which refers to the process by which organizations in a given field become increasingly similar in structure, practices, and beliefs over time. DiMaggio and Powell argue that this process is driven by the pressures organizations face to conform to the dominant institutional norms and values in their field, as well as the desire to gain legitimacy and avoid sanctions from external audiences such as customers, regulators, and other stakeholders. Similarly, they highlight the role of collective rationality in shaping organizational behavior, suggesting that organizations may adopt certain practices not because they are effective in achieving their goals, but rather because they are perceived as legitimate or necessary by other actors in their field. More specifically, they point to three types of isomorphic mechanisms that organizations practice in response to institutional pressures: (1) *Coercive isomorphism*, (2) *Mimetic isomorphism*, and (3) *Normative isomorphism*. First, coercive isomorphism refers to the pressure organizations face to comply with external

regulations, laws, and formal standards. It arises from the threat of legal or other sanctions for non-compliance, and it often results in organizations adopting similar formal structures and procedures (DiMaggio & Powell, 1983, pp. 150–151). Second, mimetic isomorphism refers to the tendency for organizations to imitate the practices and behaviors of other organizations in their industry, particularly those that are perceived as successful or legitimate. The mimetic isomorphism process stems from uncertainty about what practices are most effective or appropriate, as well as the desire to gain legitimacy and avoid risk (DiMaggio & Powell, 1983, pp. 151–152). Third, normative isomorphism involves the pressure organizations face to comply with the beliefs, values, and norms of their professional or social groups. This type of isomorphic behavior results from professionalization and the desire to be seen as legitimate and trustworthy by peers and other audiences, and it often results in organizations adopting similar cultures, language, and symbols (DiMaggio & Powell, 1983, pp. 152–153).

Hahn & Kühnen (2013) describe how the research from both Meyer & Rowan and DiMaggio & Powell is relevant when examining sustainability reporting. In Hahn & Kühnen's research, they argue how institutional theory may be a suitable theoretical anchor when studying, for instance, the topic of voluntary versus mandatory sustainability reporting (Hahn & Kühnen, 2013, p. 13). Furthermore, they question how other determinants might play a role in sustainability reports, because if one is to believe the fundamentals of institutional theory, then businesses operate not just to "make money" but because of external expectations. However, Hahn & Kühnen asserts that if this is indeed the case then companies would gradually align due to institutional isomorphisms, but studies have not (yet) found clear evidence of this (Hahn & Kühnen, 2013, p. 14).

3.1.2 Legitimacy Theory

Institutional theory and legitimacy theory are closely related because both theories focus on the importance of organizations gaining legitimacy in the eyes of stakeholders in order to survive and thrive in society. While institutional theory argues that organizations must adhere to societal norms and expectations in order to be seen as legitimate by stakeholders, and that organizations that fail face potential devastating consequences, legitimacy theory, on the other hand, specifically focuses on how organizations use communication and disclosure to demonstrate their adherence to societal norms and values. Deegan (2002) asserts how organizations need to have legitimacy in the sense of a so-called "social license to operate" for it to gain access to the necessary resources needed for a successful business conduct. Accordingly, some organizations opt for reporting and disclosing as a result of threats to the organization's legitimacy, for instance, negative media attention or poor rating results (Deegan, 2002, p. 290). Correspondingly, Hahn & Kühnen (2013) state that legitimacy theory also suggests that no organization has "an inherent right to exist", but that the organization is subject to acceptance granted by the society. Like Deegan, they affirm that the organization's societal justification is in the firing line if the organization is not operating in a socially acceptable way (Hahn & Kühnen, 2013, p. 14). A way in which an organization can obtain and raise its legitimacy is through

information and disclosure to stakeholders (both internal and external) about the organization's activities. The information should demonstrate its commitment to social and environmental responsibility, behavior that is considered ethically correct, and other values that are important to the society and industry in which it operates.

Michelon et al. (2015) studied the different approaches to corporate legitimacy practices, and they differentiate between two fundamental approaches; the substantive approach; and the symbolic approach. First, the substantive approach to legitimacy suggests that organizations attempt to obtain legitimacy through concrete (actual) changes in its strategies, actions and policies, as a strategic response to external conditions and social norms. Second, the symbolic approach, on the other hand, suggests that corporate actions emerge to positively guide stakeholders' perceptions, which (mis)leads stakeholders to mistakenly believe that the organization is sincerely committed to societal expectations (Michelon et al., 2015, p. 60). Hence, the symbolic approach to legitimacy as Michelon et al. describe is closely related to the previously mentioned illegitimate business practice of greenwashing.

Likewise, Diouf & Boiral (2017) assert that impression management may explain the symbolic approach. Impression management – in the context of sustainability reporting – can be defined as occurring when the organization selects which pieces of information it reports and presents the information in a way that is intended to alter the readers' perceptions of the organizations' performance (Diouf & Boiral, 2017, p. 644). For example, Cho et al. found evidence that American companies with poor environmental performance tend to emphasize good news and conceal bad (Cho et al., 2010, pp. 441–442). Hahn & Kühnen (2013) also address impression management when discussing voluntary sustainability reporting, as they assert that sustainability reporting is not only about concealing negative activities and issues, but several scholars also note how voluntary disclosure allows companies to use sustainability reporting as an impression management tool to improve an organization's reputation (Hahn & Kühnen, 2013, p. 16).

To sum, both institutional and legitimacy theories recognize that organizations operate within and are bound by social and cultural contexts, and that gaining acceptance and upholding a positive reputation are vital for the organizations' long-term survival. Furthermore, in their quest for legitimacy, some companies may engage in symbolic approaches intending to deceive the stakeholders' perception of the organizations' sustainability performance.

3.1.3 Contingency Theory

While institutional theory and legitimacy theory may be excellent in explaining *how* organizations behave, contingency theory might assist in answering *why*. Within business and management research, contingency theory proposes that there is no one best way to manage or organize a business. Rather, the most effective management approach depends on numerous factors, such as the external environment, the size of the organization, its technology, the organizational culture, the personalities of the employees and managers, and so on (Donaldson, 2001). An imperative aspect of contingency

theory is that what seems to work for one organization may not be suitable for another organization with different characteristics. Thus, management practices should be tailored and adapted to the specific organization's needs and the context in which the organization finds itself. For that reason, flexibility and adaptability seems to be two integral competences organizations must possess (Donaldson, 2001).

David Otley (2016) followed up on a literature review of contingency theory from 1980. He found that initially contingency theory suggested that there was no universal solution to control problems. Instead, it tried to find important factors that would help make specific plans for different circumstances. Research from the 1980s to present time, however, has identified many significant contingencies that can suggest different recommendations, making it hard for one model to give the best advice for every situation. Hence, he proposes that a more dynamic approach to contingency theory is necessary, which requires process-based models to examine the mechanisms of change (Otley, 2016, p. 46). Otley explains the term *environmental uncertainty* to describe the unpredictability of the organization's context, and how it has gained significant attention due to its impact on the need for flexible and adaptable systems in the face of unexpected events. He points that the increase in environmental uncertainty is due to factors such as globalization and increased competition (Otley, 2016, p. 50).

3.2 Literature Review

The literature review gives a detailed summary of relevant research, aiming to investigate and gather information about key areas. It sets the stage for further research and presents the literature in a structured manner. The review aims to provide readers with a comprehensive understanding of existing research on sustainability reporting and how this thesis contributes to the field. Further, the literature review also serves as the theoretical underpinning of the thesis. All theories examined in the review are of importance to the thesis and will be utilized throughout the analysis based on their relevance. This approach is considered the most effective way to proceed, given that the seven-step model for conducting a comprehensive literature search, as outlined by Onwuegbuzie & Frels (2016), has been adopted.

3.2.1 Methodology of the Literature Review

By using the seven-step process from Onwuegbuzie & Frels, an exhaustive literature review is conducted. Although the seven steps are presented in sequence (as illustrated in figure 4), they are, however, not linear. The steps are interconnected parts within the comprehensive process that involves the systematic exploration and analysis of the relevant knowledge required for the creation of an exhaustive literature review (Onwuegbuzie & Frels, 2016).

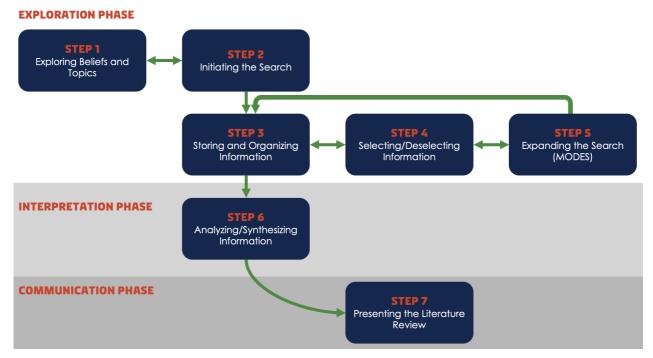


Figure 4: The Seven-Step Process by Onwuegbuzie & Frels (2016)

As similarly illustrated in figure 4, the seven steps are divided into three phases: (1) the exploration phase, (2) the interpretation phase, and (3) the communication phase. The exploration phase involves a series of investigative steps (steps 1 through 5), where key terms and databases are found, the actual search for information is conducted by selecting and deselecting various information, and the search is expanded via alternative sources (Onwuegbuzie & Frels, 2016, pp. 56–57). The interpretation phase involves the interpretation of the selected literature through analysis, evaluation, and synthesis pathways (i.e., step 6) (Onwuegbuzie & Frels, 2016, p. 57). The third and final phase of the comprehensive literature review, the communication phase, involves informing about the review (i.e., step 7) (Onwuegbuzie & Frels, 2016, p. 57).

Step 1: Exploring the Topic

To begin the literature review process, the first step involves exploring the beliefs and topics. This includes emphasizing self-awareness, cultural awareness, and critical reflection. The reviewer's actions are guided by their worldview, which encompasses research, discipline-specific, and topic-specific beliefs. As the process is iterative and not static, the focus will narrow as more information is gathered. Onwuegbuzie and Frels (2016) describe the term *worldview* as a lens through which a person interprets the world, shaped by their experiences, beliefs, and values, reminiscent of a pair of glasses that color one's understanding of things (Onwuegbuzie & Frels, 2016).

In a literature review, the focus is aligned with the problem statement. In the case of investigating sustainability reporting as the primary topic, the reviewer maintains a critical stance by keeping an open mind to opposing views and conducting a comprehensive search of the main topic. As the

problem statement is centered on the use of sustainability reporting as a strategic tool, the literature relevant to this field of academia is examined.

Step 2: Initiating the Search

This step involves multiple tasks, including identifying relevant literature and information databases, exploring information about the main topic, identifying key search terms associated with the main topic, as well as performing initial searches (Onwuegbuzie & Frels, 2016, p. 88).

The abstract and citation database Scopus has been used to perform the literature review. Scopus includes more than 84 million records and 1.8 billion citations from 7.000+ publishers. The information is indexed and organized in the database, which has a state-of-the-art search and filter tool that assists the reviewer in uncovering relevant information related to specific subject areas (Elsevier, n.d.). Scopus was chosen as the literature review database for various reasons, including that Scopus is a library subscription database, which has more scholarly journal articles than, for instance, an internet search machine has, and because the trustworthiness of the retrieved information is higher (Onwuegbuzie & Frels, 2016, pp. 94–95). To provide the input for the search tool's query string in Scopus, relevant key search terms that capture the problem statement and synonyms to those were identified. They include keywords, subject headings, terms, and phrases that are commonly used within sustainability reporting such as sustainability reporting, ESG reporting, social reporting, and so on. For the full list of search terms as well as the query string that was used as input for the literature review, please see Appendix I. After the search terms have been identified an initial search is performed. The initial search returned more than 2 million documents, thus the search must be filtered and refined to narrow the scope and increase the relevance. This narrowing of the initial search happens in Step 4: Selecting/Deselecting Information.

Step 3: Storing and Organizing Information

The database Scopus is storing and organizing the information about the documents in an easy-to-read and structured manner. It is possible to sort the results from the searches by date, source, number of citations, and relevance. That helps the reviewer to easily disseminate which documents to focus on. Further, the database offers the ability save specific searches and filters, which makes it possible for the reviewer to work iteratively without worrying about losing important searches, filters, or specific documents. In their 2016 book, Onwuegbuzie & Frels adapts a table, which utilizes sampling theory to suggest the minimum number of abstracts to be read as a function of the total number of abstracts identified via the search. As the next step will show, the total number of articles were narrowed to 815, for which the table suggests that the minimum number of abstracts to be read are somewhere around 260 (Onwuegbuzie & Frels, 2016, pp. 101–102).

Step 4: Selecting/Deselecting Information

The fourth step of the literature review is to select – or deselect – the information gathered from step 2 and 3. Similarly, it involves establishing a set of criteria to narrow the literature search to the relevant articles. Thus, selecting and deselecting information is a deliberate and focused process that involves categorizing information and critiquing its usefulness. Critical thinking and reflexive practices are necessary to assess the quality of information during the selection/deselection process (Onwuegbuzie & Frels, 2016).

By filtering the initial search of over 2 million results for relevant subject areas and date range, the number of documents was limited to 27,500. Documents not part of social sciences, business management and accounting, as well as environmental sciences were excluded. The date range was set to 1990-2023 to ensure some historical documents, while maintaining relevant up-to-date research, as this academic field is expanded constantly. Next, the results were limited to specific keywords (e.g., corporate social responsibility, sustainability reporting, disclosure, sustainability assessment, etc.), and document type was set to articles, including limiting to published documents. It further reduced the number of results to 5,000 documents. Finally, the language was set to English and the source type was limited to academic journals, which resulted in a final list of 815 documents, which the review is based on.

Step 5: Expanding the Search (via MODES)

So far, the reviewer has taken several initial steps, including selecting a topic, and conducting a search in a reliable document database, which included narrowing down the results to the most relevant documents. However, to address the problem statement more comprehensively, it is now necessary to expand the search by including relevant information that was not present in the initial results. This involves a systematic process using predetermined criteria to add information to the pool of documents. The added information can take various forms, such as Media, Observations, Documents, Experts, and Secondary data, collectively known as MODES. This framework enables the extraction of more suitable information, allowing for a comprehensive and multidimensional literature review that is both iterative, dynamic, and holistic. MODES help make the review process proactive, rather than static and passive, resulting in a more meaningful process (Onwuegbuzie & Frels, 2016). To enhance the pool of information for this literature review, secondary data was incorporated, such as industry reports, industry-specific sustainability guidelines, and other relevant information in the field of ESG. Additionally, documents in the form of books or book sections that explore the impact of sustainability reporting on management decision-making were included.

Step 6: Analyzing/Synthesizing Information

The final step of the literature review before it is presented is analyzing and synthesizing the retrieved information. During this part (i.e., the interpretation phase) of the literature review process, the researcher engages in evaluating and synthesizing the information collected from the various

sources to draw insights into patterns, themes, and gaps in the extant research. This entails, among other things, organizing the literature, identifying central themes and patterns, summarizing the findings, comparing the review outcomes, and identifying gaps in the literature. The objective of synthesizing the literature is to evaluate the current state of knowledge on the research topic and identify areas where further research is needed. By developing a conceptual framework, the researcher can gain a comprehensive understanding of the research and make a valuable contribution to the advancement of the field.

For this literature review, the process was to organize the literature by grouping articles and studies that share similarities in terms of their research question or the (sub)topic of the study. Next, central themes that emerge across the retrieved literature were identified.

Step 7: Presenting the Literature Review

The final step of Onwuegbuzie & Frels's seven-step model for a comprehensive literature review is to communicate it. The presentation of the literature review is an imperative step in the process as it allows the reviewer to communicate their findings to a wider audience. Presenting the literature review in writing is most often used in academic research and is effective in providing a detailed analysis of the literature. The literature review is presented in writing in section 3.3. Six key themes have been identified through a comprehensive review of the literature. These themes were selected based on their relevance and frequency in the literature. Although each central theme is presented under its own headline, they are not mutually exclusive. There are significant overlaps between the themes, meaning that it can be difficult to determine where one theme ends and another one begins. Thus, it is up to the reviewer to use their "creative freedom" to decide what must go under which headline.

3.3 Central Themes from the Literature

3.3.1 Integrated Thinking

First and foremost, it is important to note that an integrated report and a sustainability report is not the same thing; however, sustainability reports can bear the marks of integrated thinking, which is closely linked to integrated reports. Sustainability reports typically address a wide range of stakeholders and convey an organization's impact on the economy, environment, and society. On the other hand, an integrated report focuses specifically on explaining investors how an organization generates value in the short, medium, and long term. While some information commonly found in sustainability reports may appear in an integrated report, it must have a direct correlation with value creation over time for it to be considered an integrated report (Integrated Reporting, n.d.-b). While integrated reports and sustainability reports serve different purposes, it is still important to consider them both for the analysis. This is because they provide insight into how companies approach sustainability reporting and whether they successfully integrate sustainability topics into their overall

value creation strategy, indicating integrated thinking. In other words, the sustainability reports can reveal how well a company aligns its sustainability goals with its business objectives.

According to Integrated Reporting (IR), integrated reporting aims to "improve the quality of information", "promote a more cohesive and efficient approach to corporate reporting", and "support integrated thinking, decision-making and actions that focus on the creation of value over the short, medium and long term" (Integrated Reporting, n.d.-a). Furthermore, the purpose of integrating sustainability reporting into the annual report is most widely for the stakeholders to obtain a more holistic and fairer picture of the company's performance and potential challenges. Additionally, by using an integrated thinking approach it is possible to see linkages between the financial and ESG performance – something an increased number of stakeholders nowadays demand. It can be difficult to determine how many companies use an integrated approach as some companies only combine certain types of information and, thus, not truly integrate it, while others do indeed integrate but label it differently.

Kolk & Pinkse (2010) discuss the integration of, particularly, corporate governance in CSR disclosures. The authors highlight the seemingly highly relevant interlink between the two elements, especially for multinational enterprises (MNEs) mainly due to their activities in multiple contexts. These MNEs generally experience greater demands for disclosing corporate information such as corporate governance activities as well as information of more general CSR nature. In their 2010 paper, Kolk & Pinkse found that MNEs that disclose social and environmental issues are more inclined to integrate corporate governance information into their general CSR reporting. Kolk & Pinkse point to this finding to be a global phenomenon across industries (Kolk & Pinkse, 2010).

Sierra-García, Zorio-Grima, and Garciá-Benau (2015) add to the discussion by pointing to the fact that integrated reporting seems to gain ground among large companies as there is increased interest in integrating disclosure about companies' financial, governance, environmental, and social performance. They studied, for instance, why companies are producing integrated reporting by focusing on (external) assurance of the CSR report. By analyzing more than 7,300 companies worldwide, they found that the likelihood of disclosing an integrated report is positively associated with having the CSR report externally assured. Assuring the reports are primarily motivated by improving the quality and, not least, the credibility (Sierra-García et al., 2015).

Maniora (2017) examined when integrated reporting is a superior reporting method (relative to stand-alone reports), and whether and to what extent integrated reporting initiates internal transformational effects. Her research suggests that integrated reporting is only a superior mechanism for the integration of ESG issues into the core business model when comparing integrated reporting with the ESG reporting strategies of (1) no ESG reporting and (2) ESG reporting in annual reports. Maniora finds that the benefits of an integrated reporting approach are driven by several factors, and thus, provides empirical evidence that contradicts the general notion of integrated reporting as the superior reporting method. Rather, the findings suggest that stand-alone ESG reports have several effects: (1) generally they draw more attention to ESG issues and challenges, and (2) they increase

the ESG awareness internally among managers, employees, and other types of stakeholders within the organization (Maniora, 2017, p. 784).

3.3.2 Sustainability Reporting Frameworks

Next, when looking through the literature and examining various secondary sources, one is inevitably bound to encounter sustainability reporting guidelines. These guidelines, frameworks, or standards establish parameters for what should and must to be included in companies' sustainability reports. Such guidelines exist at the national, supranational (or regional), and international levels, each with distinct application and relevance to companies. A prominent illustration of a supranational (or regional) guide is the *EU Taxonomy*, which pertains to companies operating within the European Union (EU) and is established by the EU Commission. The EU Taxonomy represents a framework for sustainability classification, intended to facilitate organizations' communication to investors on which of their business activities may be deemed sustainable (i.e., "Taxonomy-eligible") or already align with sustainable practices (i.e., "Taxonomy-aligned"). In order to fulfill this requirement, organizations must disclose the percentage of their Turnover, Operating Expenditures, and Capital Expenditures that qualify as eligible or aligned for each related business activity (European Commission, n.d.).

Wilburn & Wilburn (2013) examined the Global Reporting Initiative's (GRI) reporting guidelines for their applicability to CSR principles, and explained the key elements of the economic, environmental, social, society, and product responsibility performance indicators. They begin by arguing how the increased demand for accountability for the actions of companies toward their stakeholders, and in particular the environment, has given rise to the need for set reporting guidelines, standards, and frameworks. More popular than others and the world-wide recognized set of guidelines, the GRI framework is the unit of analysis of their paper. They highlight that the vision of the GRI is a "[...] sustainable global economy where organizations manage their economic, environmental, social and governance performance and impacts responsibly, and report transparently" and its mission is to "[...] make sustainability reporting standard practice by providing guidance and support to organizations". Companies are classified on different application levels (i.e., level A through C) depending on their level of disclosure and compliance with indicators. Level A companies must address each performance indicator of the guidelines as well as sector-specific indicators. Level B and C companies follow less strict guidelines. Wilburn & Wilburn provide a very optimistic and supporting study of the GRI guidelines and in particular the performance indicators, which in their view provide a means to evaluate the ethical basis of a company's sustainability strategy. They demonstrate with examples how reporting through the help of the GRI framework may indicate the extent to which companies are (truly) committed to CSR (Wilburn & Wilburn, 2013).

Tschopp & Huefner (2015) dive into a specific set of GRI guidelines, namely, the G3 standards, a sustainability reporting framework that have been adopted by more than 2,000 companies, lending increased credibility and recognition to the standard on a global scale. This recognition was further

amplified by the endorsement of the United Nations Global Compact in 2006, which advocated for the use of the G3 standards, thus elevating the legitimacy of the framework. The G3 guidelines are characterized by their comprehensive nature, which accommodates the interests of various stakeholders. The harmonization of sustainability reporting standards is anticipated to progress through multiple drivers, including heightened reliance on sustainability reports by financial markets, and efforts to foster convergence among reporting organizations (Tschopp & Huefner, 2015, p. 571).

Reporting standards, specifically the GRI guidelines, have similarly been examined by taking a critical stance. Garcia-Torea, Fernandez-Feijoo & De La Cuesta (2020) studied whether the failure of sustainability reporting practices to enable effective CSR communication is due to the reporting model, the organizations' application of the model, or both. By means of communication theory and interpretive textual analysis, the authors analyze sustainability reporting as the reporting process represents a system in which firms send information to their stakeholders. They argue that the firm is the *information source* that decides the *message* to be communicated. This message is transformed through a transmitter, a CSR reporting model (i.e., GRI guidelines), into a signal, the report itself. Finally, firms distribute the report to their stakeholders through the *channel*, for example a physical report, online report, or interactive webpage. The authors conclude that it is the reporting model, i.e., the GRI guidelines, rather than the application of said guidelines, which is the main reason for, what they term, CSR reporting failure. The reporting guidelines drive most of the communication problems including relevant, comprehensive, and adequately interpretable information. Although there are some proposals to promote communication within the guidelines, they are overcome by its limitations, the authors state. Further, Garcia-Torea et al. argue that their study provides evidence that the firms are not solely to blame if and when CSR reporting fails. Their study contributes to critical research on reporting practices and calls for redirecting current practices towards a more effective approach (Garcia-Torea et al., 2020).

Governments and the EU have become aware of the inefficacy of voluntary reporting, which often results in a mix of unbalanced, inaccurate, inconsistent and, in particular, incomparable information. As a result, many countries and even the EU as a supranational entity have begun to require mandatory reporting (Aureli et al., 2020, p. 2393). Therefore, very recently a new reporting directive has seen the light of day – The Corporate Sustainability Reporting Directive (CSRD), which applies to companies operating in the 27 EU member states. The directive came into effect in December 2022; however, it has not yet had any regulatory effect on companies in the EU. For instance, large public interest companies with over 500 employees must report under the CSRD for financial years starting in 2024. For other companies, the directive will apply to financial years starting in 2025 or later. With the directive, large companies and listed SMEs covered by financial statement acts throughout Europe are obliged to report on sustainability according to mandatory standards set by the EU. For example, The Danish Business Authority (i.e., Erhvervsstyrelsen) expects a total of approx. 2,300 Danish companies will be affected by the CSRD. With the implementation of the CSRD, companies are enforced to report on the environment, including climate, social conditions

and corporate governance – in other words, ESG performance indicators – similarly to the GRI framework. European companies covered by the CSRD must report on several various indicators for each of the ESG aspects. For the environment, companies must report on e.g., climate change, water resources, biodiversity, and pollution. For social issues, they must report on e.g., working conditions, human rights, and equal opportunities for all. Finally, for governance, the affected companies ought to report on the management's tasks in relation to the company's sustainability, corporate ethics and culture, as well as corporate control and risk management particularly relative to sustainability risks. The reporting must be given in the annual report and accompanied by an auditor's statement to increase the credibility and accountability. Standards are currently being developed to determine the detailed content of the information that companies must report on (Erhvervsstyrelsen, 2023).

Aureli et al. (2020) investigated how the shift from voluntary to mandatory nonfinancial information, started by the *EU Directive 95/2014*, influenced corporate practices. Using institutional theory and legitimacy theory, the authors set out to study how sustainability-related regulation affects a given company's environment strategy and its governance structure as well as how it influences the fostering of a multi stakeholder dialogue. They found that a legislative requirement (e.g., the CSRD) can be perceived by the company as an opportunity rather than an obstacle or challenge. From setting up the sustainability report, many companies can improve relations with both internal and external stakeholders, as well as achieving greater strategic awareness (Aureli et al., 2020).

3.3.3 (Double) Materiality

Torelli, Balluchi & Furlotti (2020) studied how materiality assessment and stakeholder engagement affects sustainability reports. In more detail, their study examined the relationship between the materiality principle in non-financial reporting and stakeholder engagement processes, using Stakeholder Theory and Instrumental Stakeholder Theory as frameworks. The research focused on different industries with varying types of stakeholders, as well as the application of GRI and integrated reporting guidelines. Materiality is a crucial principle for companies seeking to disclose their sustainability activities. By applying this principle, companies can identify and select issues to be included in their integrated and sustainability reports, which align with the expectations and needs of all stakeholders. However, since no organization can disclose all sustainability issues, it is important to focus on aspects that reflect a company's significant economic, environmental, and social impacts. In the field of non-financial information, where regulatory indications are often minimal or absent, a materiality analysis is necessary to guide companies in identifying relevant topics and determining the appropriate level of detail to be reported. Torelli et al. found that industry, adherence to reporting standards, and stakeholder engagement are important factors for achieving high levels of materiality application and report quality for stakeholders (Torelli et al., 2020).

Also, Jørgensen, Mjøs & Pedersen (2022) examined the tension between two different approaches to materiality in sustainability reporting: one based on stakeholder importance and the

other on financial materiality. When defining materiality, from a practical standpoint, the objective is to differentiate between sustainability issues that are material, meaning that they are likely to impact the decision-making processes of stakeholders such as investors, customers, and regulators, and those that are non-material, meaning that they are unlikely to have such an impact. Jørgensen et al.'s study reveals how tensions between the different approaches to materiality in practice can lead to unjustified conclusions being drawn based on materiality assessments. The authors emphasize the need for clarity in the communication of materiality in non-financial reports, which is important for both investors pursuing financial return on green investments and society at large (Jørgensen et al., 2022).

While materiality is a popular concept utilized by countless organizations, the concept of double materiality is gaining ground. Rambøll, a Danish engineering and consulting firm, recently released a report on the CSRD directive and its significance for companies operating within the EU. The report delves into the principle of double materiality, a key pillar of the new directive. Double materiality refers to the assessment of the impact of a company's operations on the environment, economy, and society, as well as the impact of the environment, economy, and society on the company (please see figure 5 below).



Figure 5: Double Materiality

Double materiality and the CSRD expand the scope of what is considered material for sustainability reporting. With the CSRD, businesses are required to assess which sustainability topics are material to them from the perspective of both financial and impact materiality (Ramboll, 2022).

Baumüller & Sopp (2022) studied double materiality by discussing the development of the principle of materiality in the European accounting framework. They assume that with the inclusion of double materiality in the CSRD directive it will lead to a larger amount of information the companies must report on. They argue that on the one hand the increase in information will lead to a more

complete and holistic report, but on the other hand there is a risk of information overload, which may only be suitable for a very limited number of stakeholders. In their examination, Baumüller & Sopp found that the principle of materiality is important in how reporting requirements are understood, with a trend from single to double materiality observed. Conclusively, they assert that companies will need to operate in an increasingly challenging environment and develop new processes and reporting systems to meet the increased demand for sustainability information from stakeholders (Baumüller & Sopp, 2022).

3.3.4 Environmental, Societal, and Governance – ESG

David Hess's (2008) article provides a useful starting point for understanding the key elements and components of sustainability reporting, which is crucial to delve into the central theme of ESG. He discusses using social reporting for achieving sustainable development but acknowledges that it may hinder it if used instead of stricter regulations. Hess continues by outlining what he terms a "New Governance" approach to regulating sustainable development using flexible regulation and participation of external civil society actors. The approach is founded on three pillars, namely, disclosure of material information, dialogue with stakeholders, and the moral development of the corporation. Diving into each of the three pillars, Hess unfolds how disclosures require that organizations provide relevant information on social and environmental policies and performance, and how dialogue involves problem-solving and consensus-building with stakeholders. Besides, Hess explains that development requires organizations to integrate social reporting information into their policies and organizational practices. During the article, Hess also identifies the failures in the pillars, being dissembling in disclosure (i.e., organizations "hide" unfavorable information and highlight favorable information), directing in dialogue (i.e., organizations directing and limiting stakeholder participation), and decoupling in development (i.e., organizations do not meaningfully incorporate the reporting information into the business). Therefore, Hess suggests a cycle of disclosure, dialogue, and development to avoid ineffective reporting and promote sustainable development through social reporting. This requires stakeholder dialogue, corporate efforts, performance disclosure, and continued dialogue to be effective (Hess, 2008).

Now, having gained an understanding of the success factors for effective social reporting, it is time to examine what type of content on which the organizations report.

ESG – Environmental, Societal, and Governance – have turned out to be a substantial and powerful concept that gains traction by the day. In the literature and among companies that report on these performance markers, ESG and CSR are used interchangeably, although differences between the two concepts exist. CSR, for instance, often covers both companies' compliance with voluntary initiatives and national legal requirements. CSR is also business-driven, which means that it is part of the company's core business and is therefore not seen as something separate from the business. ESG, on the other hand, covers essential information about a company within the environment and climate, the company's societal impact, and the general management of the company. ESG data is

increasingly demanded by investors and analysts when assessing a company's ability to create value and long-term growth opportunities (i.e., sustainable development). The concepts of CSR and ESG share a considerable amount of similarity, particularly in terms of data, measurability, and transparency regarding a company's impact on society. However, ESG mainly focuses on meeting the expectations of investors, whereas CSR aims to cater to a broader range of stakeholders, including authorities and regulators, civil society organizations, customers, as well as employees. While ESG emphasizes transparency to external parties, CSR also involves implementing change management strategies internally in the organization (Dansk Erhvery, 2020). The theme of internal use versus external use of the reports will be examined in greater detail below in section 3.3.6.

Tschopp & Huefner (2015) examined the evolution of CSR reporting by comparing it to financial reporting. The authors argue that the first phase of modern CSR reporting began roughly 40 years ago with the rise of greenwash reports used in eco-marketing campaigns, though these reports provided little useful information. The second phase, roughly ten years later, was characterized by more "quantifiable and verifiable" reports, but also as "damage control" for companies involved in scandals and crises (Tschopp & Huefner, 2015, p. 572). The third phase, which began by the turn of the new millennia, is characterized by a multi-stakeholder approach and specified reporting guidelines. Particularly, the increase in socially and environmentally responsible investors have helped increase the demand for more detailed and holistic sustainability reports. The authors continue by arguing that the increasing number of companies issuing sustainability reports provides evidence that the practice is becoming more the norm, especially among large MNEs. Tschopp & Huefner argued (in 2015) that CSR reporting was still in its infancy relative to its timeline compared to financial reporting, which is manifested by deficiencies in comparability, consistency, reliability, and relevance of the reports, they conclude (Tschopp & Huefner, 2015).

Aras & Crowther (2008) juxtapose corporate governance and sustainability in importance for the longevity of the company. They examined the relationship between the two concepts by examining 100 companies' corporate governance policies and found that companies, which have a complete – or holistic – understanding of both sustainability and of corporate governance are more likely to address these issues more thoroughly (Aras & Crowther, 2008). Stated differently, corporate governance holds the same level of significance for an organization as environmental and societal performance indicators do.

To sum, several approaches to ESG reporting have been suggested, including a new governance approach, which rests on three pillars: disclosure of material information, dialogue with stakeholders, and the moral development of the corporation. While ESG reporting covers crucial information about a company's environmental, societal impact, and governance, CSR reporting usually includes both voluntary initiatives and legal requirements. The ESG information in the sustainability reports caters to a broad range of stakeholders, whereof the most significant are authorities, investors, customers, management, employees, and the civil society.

3.3.5 Risk Mitigation & Compliance

The current focus and emphasis on corporate conduct, particularly regarding environmental impact, social responsibility, and management practices, exposes firms to potential harm to their reputation. To mitigate these risks, organizations can adopt sustainability reporting as a means of limiting reputational vulnerabilities. One might say that compliance seems expensive and disruptive, however, non-compliance may potentially be even more expensive and disruptive for an organization.

Karwowski & Raulinajtys-Grzybek (2021) studied how the application of CSR actions influenced reputational risks in organizations. They argue that reputational risk, as opposed to environmental, social, or governance risks, can be the most influential motive for companies to report on issues of social responsibility. Further, the authors show how companies engaging in CSR activities help build their reputation and improve their image among stakeholders. A good reputation earned through CSR can lead to positive evaluations and profitability, as socially responsible firms are preferred by customers. Satisfied customers resulting from CSR engagement also help mitigate firm risk during economic downturns. Conversely, firms with bad reputations suffer the most during such downturns. Stated differently, engaging in CSR activities and reporting on it acts as a risk mitigator, they find. The authors conclude that stakeholders require detailed risk information, which influences their evaluation of the company. Additionally, they found that CSR actions in multiple reports they studied were referred to as "risk mitigation steps", and that they can be directly linked with specific risks with the goal of minimizing them (Karwowski & Raulinajtys-Grzybek, 2021).

Murphy & McGrath (2013) examined the motivations for companies to report on ESG by proposing that deterrence theory and the associated concept of avoidance can explain the latent corporate motivations to issue ESG reports. By studying how class actions and their associated financial penalties, as well as other regulatory practices affects companies, Murphy & McGrath posit that some companies increase ESG disclosures to avoid, or mitigate, the risk of the consequences. Further, they conclude that companies, and in particular those in "sensitive" industries, are motivated to issue strategic ESG reports as evidence of their compliance, and thus as a risk mitigator (Murphy & McGrath, 2013).

3.3.6 Internal vs. External Usage

By their very nature, sustainability reports are an essential tool for organizations to meet the informational needs of a diverse set of both external and internal stakeholders such as employees, customers, suppliers, shareholders, management, governments, NGOs, media, and the general public. The underlying principle of sustainability reporting is to equip stakeholders with relevant information that can aid in their decision-making processes. While governments utilize sustainability reports for regulatory compliance purposes, investors may employ it as a basis for their investment decisions, and management can treat it as a strategic guiding mechanism. In addition, organizations can use the reports internally to evaluate cost-saving opportunities, incentivize their employees, or act on ethical principles. Furthermore, organizations can employ sustainability reports externally to

enhance their reputation or cultivate relationships within the supply chain (Tschopp & Huefner, 2015, p. 570).

Esch, Schnellbächer & Wald (2019) investigated whether and how integrated reporting on ESG matters influenced internal decision making. They found that ESG information prepared for external stakeholders also benefited internal decision-makers such as leadership and BoDs. This information was easily transferable within the company. Esch et al. argue that the motivation to implement integrated reporting in a company should be the result of both mandatory and voluntary *external pressure* as well as *internal motivation* (Esch et al., 2019). With their study, Esch et al. show that although the publishing of sustainability reports might stem from external demand, there are great opportunities and useful knowledge to leverage internally in an organization.

3.3.7 Summary of the Literature Review

Key themes	Summary
Integrated Thinking	Integrated thinking and reporting aims to enhance information quality, accountability, and decision-making. Integrating sustainability reporting with the annual report provides stakeholders, particularly investors, with a comprehensive view of a company's value-creation and performance, including potential challenges linking financial and ESG performance. As interest in integrated disclosure grows, companies are publishing sustainability reports based on integrated thinking with external assurance to improve credibility.
Sustainability Reporting Frameworks	The Global Reporting Initiative's (GRI) guidelines provides a uniform framework for companies to report on sustainability issues. Thousands of firms use the GRI standards due to their comprehensive nature and stakeholder accommodation. Voluntary reporting inefficiencies have led to mandatory reporting requirements like the EU's CSRD. Other recognized standards exist, both sector-specific and non-sector-specific.
(Double) Materiality	Materiality principle is crucial for sustainability disclosure. The materiality analysis identifies relevant topics and the level of detail. Clarity in communication is crucial for investors and society at large. Double materiality expands the reporting scope beyond a company's impact to include the society, economy, and the environment's impact on the company as well. It results in more comprehensive reporting but may lead to information overload.
ESG	ESG and CSR are often used interchangeably but differ in scope. CSR covers compliance with initiatives and national laws, while ESG includes a company's environmental, societal, and governance impact. Investors and analysts increasingly demand ESG information, while CSR caters to broader stakeholders. Both share similarities in data, measurability, and transparency. EGS information often includes GHG emissions, protection of biodiversity, human rights, community welfare, responsible business conducts, and sustainable finances.
Risk Mitigation & Compliance	Organizations' lack of focus on environmental impact, social responsibility, and management practices may harm their reputation, making them vulnerable to reputational risks. To mitigate these risks, organizations can adopt sustainability reporting as a means of limiting reputational vulnerabilities. Sustainability activities can help build organizations' reputation, improve their image among stakeholders, and act as a risk mitigator by minimizing specific risks.
Internal versus External Usage	Sustainability reports provide relevant information for a diverse group of internal and external stakeholders to aid in their decision-making processes. Governments, investors, and management may use sustainability reports for regulatory compliance, investment decisions, and strategic guidance, respectively. Information from sustainability reports is not only beneficial for external use, but also internal decision-making and can be easily transferable within an organization, illustrating the importance of both external and internal motivations for leveraging the findings.

Table 2: Literature Review Summary

In the following section, 4 ANALYSIS, the sustainability reports of each of the four case companies will be reviewed and then analyzed against the above central themes.

4 ANALYSIS

In the analysis section, each of the four case companies' sustainability reports are analyzed within each of the above six central themes stemming from the literature review. The analysis is divided into a predetermined order based on a logical progress: (a) *Integrated Thinking*, (b) *Sustainability Reporting Frameworks*, (c) *(Double) Materiality*, (d) *ESG*, (e) *Risk Mitigation and Compliance*, and (f) *Internal vs. External Use*. Finally, and based on the analysis of each of the six central themes, an overarching analysis is conducted to assess whether there are any industry-specific reporting practices within the energy industry. The scope of the analysis is to examine and determine common features and trends across the four case companies regarding their reporting practices to answer each of the six research questions. The analysis will be supported by specific examples from each company to provide evidence and strengthen the arguments. The goal is to answer the overall problem statement (section 1.2), which reads "*In what ways do organizations operating in the global energy industry use sustainability reporting as part of their strategic approach to sustainable development?"*

4.1 Integrated Thinking

To address research question no. 1, which reads "To what extent do organizations use integrated thinking in their sustainability reports?", it is relevant to start examining the types of sustainability reports being used by the case companies, particularly whether they fall under the integrated reporting category. Additionally, it is crucial to assess whether the companies exhibit behavior that indicates integrated thinking. This analysis will help to determine the level of integration between financial and non-financial information and provide initial insights into the companies' sustainability reporting practices.

All four case companies have separate sustainability reports that complement their respective annual reports. Information and disclosure related to ESG and sustainability are partially presented in the annual report, while the full disclosure is to be found in the dedicated sustainability reports. Even though the focus is the common features and/or the differences between the case companies on an overall basis, it is worthwhile diving into each of the companies to further investigate how their sustainability reporting practices unfold, specifically regarding integrated thinking.

In addition to its sustainability report, Ørsted issues a report solely focused on the ESG performance with all their targets, metrics and performance data (Ørsted, 2022b). Thus, the sustainability information is split into several reports: the general overview in the annual report, the detailed information in the sustainability report, and finally the actual performance data in a third report. This tripartition does not align with the concept of integrated thinking particularly well, however, integrated reporting, as stated in section 3.3.1, does not solely entail combining financial and non-financial information in one report, but also involves providing linkages between the two. In that sense, Ørsted successfully gives the readers the necessary linkages. For instance, in the letter to their stakeholders, the Chairman of the Board and the CEO explain how being a sustainable company and

having a financially successful business complement each other to further drive expansions of renewable energy across the world as well as investing in innovative solutions (\emptyset rsted, 2022a, pp. 7–10).

Similar to Ørsted, Saudi Aramco also issues both an annual report and a sustainability report; in fact, the latest sustainability report (from 2021) is the company's inaugural report marking the beginning of a new reporting practice for the Middle Eastern giant. Despite being the first report issued by the company, the report does not mention an integrated thinking approach of sustainability reporting. One would have expected the company to refer to established and internationally recognized methods when preparing the inaugural ESG report. It is important to note that preparing an integrated report is not a legal requirement, except for a few countries (e.g., Japan and South Africa) (Deloitte, n.d.) (Johner, n.d.); rather, it is entirely up to the individual company to determine. Importantly, Saudi Aramco does use guides, standards, and frameworks to prepare its sustainability report (further details on this will be provided subsequently in section 4.2). Considering the definition of integrated thinking by IR1, it can be argued that the company's sustainability report shows certain signs of integrated thinking. It considers the relationship between Saudi Aramco's operations and the different ESG elements throughout the report. For instance, Saudi Aramco states that although they are the world's largest exporter of crude oil, they have a unique responsibility for the communities in which they operate, the customers who rely on them, and the shareholders (Saudi Aramco, 2021, p. 6). Similarly, Saudi Aramco explains how the sustainability approach and their journey towards a net-zero future, by example of the creation of a 1.5 billion USD sustainabilityfocused venture capital fund, will provide the company with opportunities and a competitive advantage (Saudi Aramco, 2022, p. 11). This represents yet another instance of the synergy between sustainability and customary business operations and the value it creates. In essence, it signifies the company's adeptness at conveying the mutual reinforcement and fundamental nature of conventional business practices and sustainability measures, thereby providing a holistic representation of their reporting strategy and value-creation.

Just like the first two case companies, ExxonMobil similarly publishes multiple reports, including an annual report, a report focused on how the company advances climate solutions, a report centered around the outlook for energy, a community investment report, and lastly a sustainability report (ExxonMobil, n.d.-b). Hence, ExxonMobil's sustainability reporting approach bears resemblance to that of the above companies. Various scholars have outlined how stand-alone ESG or sustainability reports may attract greater notice as opposed to being "hidden away" within the annual report, as exemplified by Maniora (2017). Although ExxonMobil issues multiple reports they explicitly present how they follow an integrated approach to ESG in their sustainability report (ExxonMobil,

¹ "The active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects. Integrated thinking leads to integrated decision-making and actions that consider the creation, preservation or erosion of value over the short, medium and long term." (Integrated Reporting, 2022, p. 54)

2022, p. 45). Throughout the sustainability report, ExxonMobil provides several examples of integrated thinking by providing linkages between their operations and sustainable development as a way of creating value, like illustrated in the company's sustainability approach, in which they state, "We have continued to expand our portfolio to help meet energy demand while addressing potential impacts to the environment and society." (ExxonMobil, 2022, p. 5).

While PetroChina's sustainability report resembles the other three companies' reporting approach in many senses, it does, however, place great emphasis in that ESG has been integrated into the company's operations (PetroChina, 2022, p. i). This corresponds nicely with the notion of integrated thinking.

A prevalent sub-theme of integrated thinking is assurance, more specifically external assurance. As theory discussed how external verification of sustainability reports is a way to enhance credibility and accuracy of the disclosed ESG performance data, we see that three case companies, namely, Ørsted, Saudi Aramco, and PetroChina, have had their reports externally assured. When explaining the motives for engaging with independent (third-party) assurance firms, terms such as "reliability" appear (PetroChina, 2022, p. i), which implies that companies prioritize ensuring the credibility and trustworthiness of their written content and data presentation, in order to avoid any potential accusations of greenwashing. Correspondingly, the case companies work with well-known and internationally renowned auditing firms, counting KPMG, PwC, and EY, which is also a contributing factor in enhancing the credibility of the ESG reports. The case companies that have had their sustainability reports externally reviewed and assured have engaged the auditing firms to conduct a so-called limited assurance. As PwC, the independent auditing firm for Ørsted, states in their assurance report on the ESG data, "a limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to [...] risk assessment procedures [...]" (Ørsted, 2022b, p. 45). Hence, the three externally assured case companies have not had their full ESG performance data assured, but rather a select range of data. For Saudi Aramco, only six ESG performance metrics have been subject to assurance. The company asserts how the six areas are "prioritized" but provides no explanation on which factors the prioritization includes. The six assured performance metrics include number of fatalities, female employees in percent, scope 1 emissions, and scope 2 emissions (Saudi Aramco, 2021, p. i).

To summarize, it is apparent that the case companies utilize integrated thinking to varying extents, and they demonstrate behavior that suggests certain high levels of integrated approaches. All companies publish both an annual report and a sustainability report, with varying degrees of integration between financial and non-financial information. Ørsted stands out with a separate ESG performance report, while ExxonMobil explicitly follows an integrated approach to ESG. Saudi Aramco's inaugural sustainability report lacks a clear integrated thinking approach, but it does demonstrate, however, the linkages between the company's operations and various ESG elements. Petro-China places great emphasis on integrating ESG into its operations. Finally, all three companies with

externally assured reports place great importance on ensuring the reliability and authenticity of their reports.

4.2 Sustainability Reporting Frameworks

To gain insight into how organizations build the foundation and structure of their sustainability reports and the potential impact on their credibility, the next step involves examining their sustainability reporting frameworks. This analysis addresses the second research question, which reads "How are sustainability reporting frameworks being utilized by organizations, and how might they enhance credibility?"

The sustainability reporting landscape is a complex and dynamic domain that presents challenges to organizations in terms of time and effort required to navigate through it. The landscape consists of a multitude of stakeholders that can be broadly classified into four categories, namely, *global goals and principles* (such as the UN's 17 SDGs), *ESG ratings and indices* (for instance, Sustainalytics and MSCI), *regulation* (including the CSRD and the EU Taxonomy), and *sustainability reporting frameworks* (such as GRI, SASB, and IR). The landscape is illustrated in figure 6 below. The presence of diverse stakeholders across various categories may lead to confusion and disorientation among organizations, making it exhausting for them to engage in sustainability reporting. Nevertheless, as the empirical evidence below suggests, the case companies demonstrate a capable understanding of sustainability reporting across the different categories mentioned above.

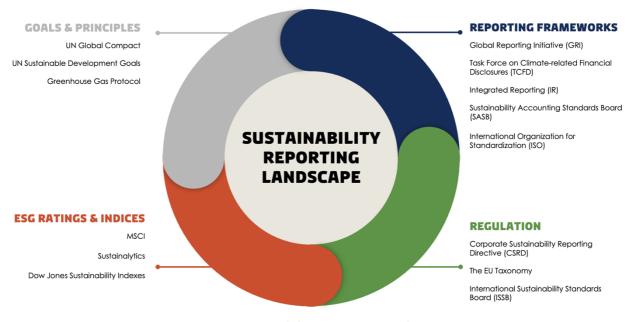


Figure 6: Sustainability Reporting Landscape

While being its own separate theme, sustainability reporting frameworks is closely related to integrated thinking. In alignment with integrated thinking, the emphasis lies on the reporting approach of the company, including the procedures and methodological framework utilized, as well as

the guidelines, frameworks, or standards on which the report and ESG performance data are founded. As the literature review unveiled, companies may opt for various frameworks based on their type of industry, company size, and experience with sustainability reporting, among other factors. Nevertheless, GRI stands out as the most prevalent framework. GRI consists of internationally recognized guidelines that provide direction for ESG disclosures by a variety of companies. An interesting aspect of the analysis pertains to the possible regional disparities since the four case companies are geographically distributed across North America, Europe, the Middle East, and Asia.

First, we notice that all case companies are very transparent and explicit in stating the respective frameworks and guidelines they are using. Ørsted, for instance, states that the ESG indicator selection is guided, among other things, by international sustainability reporting standards and guidelines. Further, the company expresses that they align partially with several frameworks. By that, Ørsted means that the company "[...] use the framework as a starting point from which to develop accounting practices". However, Ørsted also fully complies with other frameworks (Ørsted, 2022b, p. 46). Moreover, the Danish energy company lists the guidelines they use, which include the EU Taxonomy, the Task Force on Climate-related Financial Disclosure (TCFD), the Sustainability Accounting Standards Board (SASB), the UN's Sustainable Development Goals (SDGs), and the GRI (Ørsted, 2022b, p. 46). Regarding SASB, Ørsted communicates that although they do not comply with SASB's reporting requirements, they have performed a cross-referencing analysis to determine the extent and scope of their current reporting practices' compliance with SASB's. The motive for performing that particular analysis is left in the unknown. With reference to GRI, Ørsted states that they only use the GRI standards for selected ESG data, and that they do not strive for full GRI-based disclosure (Ørsted, 2022b, p. 46). The ESG performance data aligned with GRI standards pertains to waste and biodiversity (Ørsted, 2022b, p. 49). Apart from the above-mentioned sustainability reporting frameworks, Ørsted being a Danish company, and thus in the EU, also mentions the CSRD directive in their 2022 sustainability report. They express how they are currently working with the European Sustainability Reporting Standards (ESRS) as preparation for implementing the EU directive in 2024. The statement is further backed by Group President and CEO of Ørsted, Mads Nipper, in his foreword of the sustainability report, as he writes that the standardization of sustainability impact reporting provides companies with transparent metrics and allows conscious decision-making by customers and investors. Therefore, he argues that Ørsted endorses such developments, including the coming CSRD from the EU, and has already integrated its sustainability reporting into its annual report for 2022 to comply with upcoming requirements (Ørsted, 2022d, p. 6). Similarly, they write how they follow the developments of other frameworks in their aim at establishing global sustainability reporting standards. Lastly, Ørsted asserts that they aim to grow the use of ESG frameworks "[...] as they [the frameworks] further harmonize their work into a comprehensive, global platform for corporate sustainability reporting." (Ørsted, 2022b, p. 46). Thus, the Danish energy company has declared its preparedness to comply with the CSRD directive. Additionally, it places significant emphasis on expressing its strategy towards sustainability reporting, for

both present and future frameworks. The company supports the objective of harmonizing various sustainability reporting practices into a uniform global sustainability reporting framework.

Saudi Aramco, similarly, is very transparent in what guidelines and frameworks they used - even down to which reporting standards and sustainability frameworks have been used for specific parts of their sustainability report. At the very beginning of the report, they disclose the applied guidelines, which count, for instance, the GRI. They present how they have made use of the IPIECA reporting guidelines for all ESG disclosures. Thus, different from Ørsted, given the divergence in the nature of the two case companies, Saudi Aramco applies an industry-specific reporting framework for its ESG performance data. For the development of the materiality matrix and reporting on said analysis, the Middle Eastern oil giant has used the GRI's sustainability reporting principles. For measuring and reporting on its carbon emissions as well as its health and safety performance metrics, Saudi Aramco uses yet another set of guidelines (Saudi Aramco, 2021, p. i). All this testifies that the company uses the standards and guidelines it deems necessary and appropriate for various specific areas of the sustainability report. It may also be an indicator that there is no reporting framework or guidelines that (yet) cover all – or at least the majority – of the ESG elements. As mentioned earlier, this is also the first time that Saudi Aramco has produced a sustainability report, which also impacts how they report and thus their approach to it. They explain how the process began in 2020 with focused materiality assessments, which included a review of reporting standards counting the UN SDGs and the afore-mentioned IPIECA standards (Saudi Aramco, 2021, p. 18). The company mentions that it has applied to become a participant of the UN Global Compact (Saudi Aramco, 2021, p. i), which is the world's largest corporate sustainability initiative calling companies to align strategies and operation with universal principles on, for instance, human rights, environment, and labor (UN Global Compact, n.d.). This demonstrates how the Saudi company takes great steps towards both becoming a more sustainable business as well as standardizing how it reports on ESG issues. Traditionally, energy companies – and perhaps more specifically oil companies – particularly in the Middle East have been described as very unsustainable organizations, especially in relation to their environmental impacts. It is imperative for a business of Saudi Aramco's size, being the world's largest commercial oil producer (Saudi Aramco, 2021, p. 22) and a significant international player, to demonstrate adherence to international standards and guidelines to maintain its viability in the long term. Failure to comply with recognized frameworks could potentially have harmful consequences, as it may be perceived as a lack of trustworthiness and reliability. Like the other companies, both the American ExxonMobil and the Chinese PetroChina prioritize adherence to globally recognized and leading sustainability guidelines, including the GRI and SASB, which have become common features in the case companies' practices.

A consistent pattern emerges upon reviewing these companies' reports: they are keen to explain their compliance with established standards and specify the guidelines they follow. Empirical evidence suggests that no outliers exist, indicating that GRI remains the preeminent sustainability framework. All companies included in this study employ these guidelines to varying degrees, underlining the critical role of sustainability reporting as a central theme for businesses. Although there are slight differences in how each organization utilizes the guidelines, it is generally inferred that they conform to them. The studied companies not only adhere to global sustainability standards but also incorporate regional or national guidelines into their reporting. For instance, PetroChina follows the Hong Kong Stock Exchange ESG Reporting Guide while ExxonMobil adheres to the guidelines provided by the American Petroleum Institute. The use of regional and national standards underscores the need for companies to consider not only global requirements but also local contexts. It is likely that companies adopt these guidelines due to mandatory (regulatory) requirements, alignment with the information they wish to communicate, contextual and institutional factors that influence the company, or a combination of these factors.

In conclusion and to address research question no. 2, the analysis finds that organizations use diverse sustainability reporting guidelines to different extents, but that there is a noticeable trend to employ globally recognized frameworks that cross national borders and various sectors. Empirical evidence does not identify any outliers among the case companies, although each company may use these frameworks to varying degrees. All the organizations mention the standards they utilize in their reports, which may indicate a desire to enhance their credibility. The use of acknowledged and trustworthy reporting frameworks can enhance the credibility of organizations, communicate their responsibility and conscientiousness, and ultimately contribute to their reputation.

4.3 (Double) Materiality

Now, to understand how organizations determine which information to incorporate in their sustainability reports and what these specific topics reveal about the organization's priorities, it is essential to explore the concepts of materiality and double materiality. This adds another layer on top of the frameworks the organizations have chosen. This analysis aims to address the third research question: How do organizations demonstrate materiality assessments in their sustainability reports, and to what extent do organizations apply double materiality assessments?

An imperative aspect of sustainability reporting involves the identification and selection of information and performance indicators that a company chooses to disclose and report on, which is commonly referred to as materiality analysis. As we saw in the literature review, materiality refers to the principle of organizations identifying the most material issues to be included in their sustainability reports, and which are aligned with the expectations of the stakeholders. Plus, although some are willing to disclose as much information as possible, it is simply not always suitable to present everything, meaning that companies must prioritize. Without prioritization there is a risk of information overload, which in turn may increase the complexity of the sustainability report and, thus, reduce the value and quality of the report. The materiality analysis process can be accomplished through various mechanisms, such as through a materiality matrix, which are among the most used materiality analysis tools. Typically, a materiality matrix comprises two parameters: the importance to the

company (as seen through the minds of the stakeholders) and the impact on the company. In simple terms, the materiality assessment process can be streamlined to identification, prioritization, and validation. However, there are many ways in which companies construct and utilize the materiality matrix, which is also the case for the four case companies.

Three of the four case companies, namely, Ørsted, Saudi Aramco, and PetroChina, explicitly communicate how they make use of a materiality matrix to identify which specific issues they deem relevant and important for their organizations. ExxonMobil has similarly conducted an assessment to determine which topics should be included in its sustainability report. However, their approach to identifying these topics differs from utilizing a materiality matrix. Instead, the company made use of a topic selection process based on various sustainability reporting guidelines. Similar to the other three companies analyzed in this study, ExxonMobil identified topics based on a comprehensive set of potential ESG topics, benchmarking, input from relevant stakeholders, and an iterative analysis process. The identified topics were then reviewed and validated by top management (ExxonMobil, 2022, pp. 18–19).

The three remaining companies, however, utilize a materiality matrix to identify and prioritize the most critical ESG topics. As previously mentioned, there are different approaches to working with a materiality matrix, which is also reflected in the methods used by these companies. Petro-China, for instance, employs a "classical" approach by ranking their ESG topics based on their importance to stakeholders along one axis and their importance to the sustainable development of the company along the other axis (PetroChina, 2022, pp. 3-4). Saudi Aramco, on the other hand, has an approach where they contrast the identified ESG topics against a specific reporting standard and the UN's 17 SDGs. Additionally, the topics are "tested" on relevant stakeholders, and are presented in the report according to their impact on the company as well as the SDGs they "fall under" (Saudi Aramco, 2021, p. 18). In contrast, Ørsted adopts a unique approach to the materiality matrix, which goes beyond the "classical" approach, as exemplified by PetroChina. In addition to the classic approach, Ørsted adds another layer to the method by diving deeper into the one field (out of the four fields in the regular 2x2 matrix) of ESG topics deemed high on both impact of the business and impact of the surroundings. Within that particular field, Ørsted focuses on the ESG topics by defining the appropriate actions. They differentiate between four actions termed Observe, Build, Continue, and Strengthen. The company, thus, develops a matrix within a matrix, focusing on its capabilities to adequately address the identified material ESG topics (Ørsted, 2022d, p. 11). These examples effectively demonstrate how one approach can manifest itself in various ways. Each company is unique and decides for itself which method it finds most applicable and advantageous, which fully aligns with contingency theory. Furthermore, every company operates within its own distinctive surroundings and is subject to different contextual pressures that influence how it approaches the task of identifying the most material topics relevant to its operations. As a result, it becomes challenging for readers to obtain comparable information across different companies. For instance, in

financial auditing, the materiality analysis is typically based on a standardized set of criteria, which, in turn, facilitates comparisons across different entities.

Both contingency and institutional theory may be influential in providing insight into why the North American energy company has adopted a different approach to the materiality process. While the other three companies operate in different environments and are exposed to varying institutional pressures, there may be something distinctive about the North American company. ExxonMobil states in their sustainability report that they rely on IPIECA's guidelines to determine material ESG topics (ExxonMobil, 2022, p. 18). IPIECA's standards suggest that companies should utilize a simple, transparent process to select the information to include in their reports. The process should include the steps of *Identification*, *Prioritization*, *Check*, *Disclose*, and *Review*. Additionally, IPIECA guidelines note that "US-listed companies should take care to ensure that any use of the term 'materiality' in sustainability reporting is clearly defined in relation to US Securities law to avoid any concerns about legal liability." Therefore, there may be legal and regulatory conditions that are special to American companies (IPIECA, 2020, pp. 1.11-1.12). Further, IPIECA mentions that the organization may illustrate the prioritization of the chosen material issues by using a matrix diagram, however it is not something they recommend over other methods (IPIECA, 2020, p. 1.15). This leaves the impression that it is purely up to the individual organization to choose their approach. Consequently, organizations tend to adopt their own unique approach, thereby refraining from using a standardized methodology, which, again, is a testament to contingency theory.

Institutional theory may similarly provide an explanation for why the three remaining companies have chosen to use a materiality matrix to present their most important ESG topics. While the companies operate in varying geographical environments and are subjected to diverse institutional pressures, there may still be some similarities in their decision-making process. It is possible that the use of a materiality matrix has become a widely accepted and established norm within the industry, and thus these companies have adopted it as a management decision. This bears the resemblance of a combination of mimetic and normative isomorphic behavior. Therefore, the use of a materiality matrix, which is aligned with international reporting standards and expectations, can be perceived as an institutional pressure. Indeed, this argument contradicts contingency theory, which posits that there is no universal solution or approach that applies to all organizations. Nevertheless, empirical evidence suggests that the majority of organizations in the given sample exhibit similar behavior to some extent. However, the specific ways in which these organizations utilize the materiality matrix, despite following a similar overall approach, may still vary considerably. This could be better explained using contingency theory, which highlights the fact that organizations may apply the materiality matrix in unique and diverse ways to suit their specific needs and contexts. Ultimately, the decision to use a materiality matrix may reflect the company's desire to comply with industry norms, and to meet the demands of stakeholders who expect a clear and transparent process for identifying material ESG topics.

Apart from the materiality assessment, it is also interesting to analyze the case companies' approach towards double materiality. As described (and illustrated) in section 3.3.3, double materiality refers to the assessment of the impact of an organization's activities on the surroundings and the impact of the surroundings on the organization – implying a double impact. When looking at common features in the case companies' sustainability reports concerning double materiality, it quickly becomes evident that one company stands out from the rest. Ørsted attracts attention in its explicit communication concerning double materiality. The company states, among other things, that "[...] we consider both the impact that we as a business have on our surroundings and the impact that the identified themes may have on us as a business." (Ørsted, 2022d, p. 9). Consequently, Ørsted's identification of the critical ESG topics is in line with the definition of a double materiality approach. The report also presents each of the five identified themes, which Ørsted has uncovered through its materiality analysis, along with its impact on the company as well as the surrounding society. Furthermore, Ørsted reports that its materiality assessment has always been guided by the principle of adopting a double perspective on materiality, thereby implying its expertise on double materiality (Ørsted, 2022d, p. 11). While Ørsted's sustainability report explicitly demonstrates double materiality, its presence is less pronounced in the reports of other companies. ExxonMobil and PetroChina report on the influence of their selected ESG topics on both the company and society, although they do not refer to it as double materiality (ExxonMobil, 2022, p. 23) (PetroChina, 2022, p. 3). Saudi Aramco, on the other hand, only describes how the chosen ESG topics impact the company, indicating financial materiality or outside-in impact (Saudi Aramco, 2021, p. 18). Conclusively, the companies in the case study largely adopt a double materiality approach, apart from the Middle Eastern company. This deviation may be attributed to the different institutional requirements from the external environment. Comparatively, Saudi Aramco seems to place less emphasis on considering ESG issues from a double perspective possibly due to its context. It is possible that the organization exhibits symbolic legitimacy behavior, as suggested by Michelon et al. (2015), which involves emphasizing positive information while downplaying negative information, such as the impact of their activities on the surroundings. However, this is speculative, and it remains unclear why Saudi Aramco has opted not to adopt a double materiality approach, as no clear explanation for its decision was provided.

To summarize and, thus, also answer research question no. 3, the case organizations all utilize materiality analyses in their sustainability reports to varying degrees, in order to identify, select, and justify which specific topics they choose to report on. While some organizations spend considerable effort explaining their materiality process, others only briefly mention it, even though much of their reports are based on these topics. This reflects the organizations' priorities in conveying to stakeholders why they have chosen certain topics. Furthermore, several of the organizations use visualizations such as materiality matrices to illustrate the significance of these topics. In short, there is no uniform approach to materiality, with each organization adopting a unique approach, which largely aligns with contingency theory. Among the case organizations, three out of four use the principle of double

materiality in their analyses, albeit under different terminologies. Overall, the evidence suggests that double materiality is a crucial component in the organizations' selection of important focus areas, and in demonstrating to stakeholders that they have a holistic focus on how their operations impact society and vice versa.

4.4 ESG

Now that we have established the frameworks that organizations use to prepare their sustainability reports, and how they use materiality analyses to select and justify specific ESG topics, the next step is to examine how they report on these topics. This forms the basis of research question number 4: How do organizations report on ESG issues, and how do they present such issues in their sustainability reports?

All four companies have prepared a report on sustainability or ESG, with the majority referring to it as a "sustainability report". These reports cover the company's environmental, social, and business topics, which hold varying degrees of importance for the companies and their justification. It is worth noting that the preparation of sustainability reports can be influenced by legitimacy theory, which will be explored in greater detail below.

It is evident that especially the environmental aspects hold significant importance in the sustainability reports of all four companies, with climate and environmental issues making up a substantial portion of their identified ESG topics. Ørsted, Saudi Aramco, and PetroChina all dedicate approx. 40% of their material ESG topics to climate and environment, while ExxonMobil seems to allocate a slightly lesser proportion of its report to the same issues. However, this does not necessarily imply that ExxonMobil sees the environment as a less critical factor. Considering that the companies operate in the energy industry, their impact on the environment and climate is undeniable. Thus, it is reasonable that these factors feature predominantly among their critical ESG topics. Some people would argue it is quite the paradox that the organizations responsible for producing the highly sought-after, yet environmentally harmful product of energy (in various forms) are remarkably adept at disclosing ESG information. One might assume that organizations producing particularly environmentally harmful products would be hesitant to disclose such information, but they do so seemingly due to contextual pressures.

Nonetheless, it should be noted that social and governance aspects also hold importance. Notably, the public discourse on climate change and the human impact on the environment has been highly relevant in recent times, possibly leading to a greater emphasis on environmental aspects in the reports compared to social and governance issues. As an example of the companies' focus on environmental issues, waste and, in particular, waste management are identified as a common area of environmental impact across all sample companies. It can be argued that it is recognized as an evident institutional common feature that the companies all relate to.

In a similar way, human rights, for example, is also a common theme for the companies. It is one of the areas where there is consensus across the companies. For several years now, there has been an

increasing focus on human rights and workers' rights, especially in certain parts of the world, including the Middle East and China. Thus, it is useful to see that both Saudi Aramco and PetroChina acknowledge human rights as an essential aspect of their corporate responsibility. In their report, Saudi Aramco emphasizes its role in promoting human rights in the workplace and corroborates its compliance with internationally recognized human rights standards (Saudi Aramco, 2021, p. 54). Similarly, PetroChina claims to abide by labor rights stipulated by the International Labor Organization (ILO) and asserts that it has never employed child or forced labor (PetroChina, 2022, p. 72). Despite operating within the "Western world" where social issues such as human and labor rights are not equally as critically prioritized, the remaining half of the case companies nonetheless declare their dedication to upholding human rights. Alongside other institutional pressures, ExxonMobil and Ørsted are similarly committed to this fundamental value, as demonstrated by their policies and strategies. Both companies also prioritize transparency in reporting any instances of human rights violations, showcasing their consistent commitment to this issue.

As mentioned, certain institutional conditions exist that companies are aware of, more or less consciously, and which they perceive as "forcing" them to issue sustainability reports. Apart from legislation and regulatory requirements mandating sustainability reporting by companies there are also implicit, "invisible" societal pressures that warrant consideration. It can be argued that in modern times, businesses are anticipated to act as responsible entities and be deemed as "good" corporate citizens. Although it is mentioned that the expectations are unspoken, there are of course also explicit expectations in the institutional contexts in which the companies operate. By going through the isomorphic behavior patterns that companies often display, several of these institutional pressures become evident.

The coercive pressures, which concern formal as well as informal rules and regulation that are enforced by external actors, such as governments, policy makers, regulators, and industry organizations, undoubtedly play an influential role for companies in disclosing sustainability reports. Therefore, companies may be required by law to report on sustainability matters or face financial consequences and, not to forget, social illegitimacy for their non-compliance. Many examples of coercive behavior are found in the case companies' reports, for instance, "Our Corporate Ethics Policy is to comply with all applicable laws, rules and regulations [...]" (ExxonMobil, 2022, p. 28), "[We are] strictly complying with local environmental protection policies and laws and regulations [...]" (Petro-China, 2022, p. 11), and "[The Compliance Committee] monitors our compliance with laws, rules, standards, and internal codes of conduct that apply to our business areas, including within sustainability." (Ørsted, 2022d, p. 43).

The *normative pressures*, which are the social norms and behavioral expectations that are shared among the actors in certain contextual environments, may also play an important role for companies. They may perceive pressure from a variety of stakeholders, such as customers (individuals, organizations, and governmental customers), investors, employees, NGOs (trade organizations, envi-

ronmentalist organizations, etc.), and governments. There are numerous examples of the case companies being subject to normative pressures throughout the sustainability reports, for example, "Many of these [stakeholders] have concerns, needs, and expectations that we must listen to and address." (Ørsted, 2022d, p. 10), "[...] environmental expectations and globally accepted industry practices [...] guide our day-to-day operations." (ExxonMobil, 2022, p. 28), and "We integrate macro policy environment, [...] expectations and demands of stakeholders into our ESG risk identification analysis." (PetroChina, 2022, p. i).

The *mimetic pressures*, which refers to companies imitating other companies' behavior that is perceived as legitimate in a specific context, may similarly play a decisive role in issuing sustainability reports. Some companies may feel that reporting on sustainability issues is expected because competitors within the same industry are reporting. Although normative and coercive mechanisms are relatively easy to identify in sustainability reports, identifying mimetic pressures can be more challenging. This is because companies do not explicitly assert in their sustainability reports that they are reporting because their competitors are doing so as well. Therefore, one must search for indirect evidence that may suggest mimetic isomorphic behavior. Among the four case companies, Saudi Aramco is the only one that has recently started publishing sustainability reports (Saudi Aramco, 2021, p. 0). While this may be attributed to coercive pressures, it could also be interpreted as the company responding to other organizations, which it perceives as legitimate and socially acceptable within the industry, and that are disclosing ESG information. The fact that the other case companies have released sustainability reports for several years could support the notion that Saudi Aramco is displaying some degree of mimetic isomorphic behavior.

In addition to the isomorphic behavior patterns, *economic pressures* could also play a critical role in motivating companies to disclose information about their sustainability performance. In this regard, economic pressures refer to the expectation that companies act in their economic self-interest by managing the risks and opportunities associated with reporting sustainability information. Investors may be more inclined to invest in companies that are transparent about their sustainability practices and have a robust ESG performance. Thus, potential economic benefits resulting from disclosing information related to sustainability may, too, influence the decision to do so.

As discussed, it becomes increasingly evident that legitimacy plays an essential role in explaining why the case companies report on ESG in general, and the specific issues they chose to highlight as material. Assessing whether sustainability reports are a "legitimacy practice" – i.e., whether they are just for appearance – can be exceedingly challenging based solely on the reports themselves. As previously mentioned, the sustainability reports of most of the case companies have undergone external verification, which enhances credibility and therefore legitimacy. There are no obvious indications that the companies are engaging in symbolic legitimacy behavior. This is demonstrated by the fact that several companies not only present positively charged information but also draw attention to areas that require improvement and greater focus in the future; "Although we produce renewable elec-

tricity with close to zero direct emissions, there are still emissions linked to the manufacture, installation, and transportation of our renewable energy assets." (Ørsted, 2022d, p. 16) and "ExxonMobil works to continuously improve its approach to identifying, measuring and addressing emissions." (ExxonMobil, 2022, p. 82).

Another possible incentive for companies to report on ESG issues is negative publicity resulting from scandals or other similar events – thus, closely related to legitimacy. As an example, in March 1989, the Exxon Valdez, a supertanker, ran aground off the coast of Alaska, spilling more than 40 million liters of crude oil into the ocean causing severe environmental consequences. In the wake of this scandal, Exxon (prior to its merger with Mobil) ramped up its reporting on the environmental impact of its corporate activities. A few years later, in 1992, Dennis M. Patten, professor in accounting, investigated the repercussions of Exxon's crisis on other companies within the industry with regard to their environmental reporting. He discovered that the oil spill had led to a significant increase in non-financial reporting by companies. The findings of his quantitative study align with legitimacy theory's predictions of increased disclosure following a negative shift in the public discourse (Patten, 1992). Thus, it reinforces the notion that threats to a company's social acceptance can prompt them to disclose more information about their social responsibility. ExxonMobil does not mention the Valdez Oil-spill in its 2022 sustainability or annual reports, and none of the remaining companies have had any major scandal lately.

In conclusion, the case companies cover a broad range of environmental, societal, and governance issues in their sustainability reports, including, for instance, GHG emissions, human rights, and responsible business conduct, respectively. The reports are typically structured according to the E, S, and G areas, which include the material topics identified through materiality analyses. The companies emphasize their successes, such as significant reductions in negative indicators, while also acknowledging areas with room for improvement. The reporting is assessed to be done in a way that demonstrates honesty and avoids accusations of symbolic legitimacy or even greenwashing. Overall, the companies demonstrate awareness of the ESG issues that are relevant to their business activities and their impact on the environment and society. Notably, environmental and climate issues are significantly emphasized across the case companies, which is likely due to the nature of the energy industry. Institutional and legitimacy theory may, individually and collectively, provide explanations as to the different patterns of reaction of the case companies.

4.5 Risk Mitigation and Compliance

The fifth research question (*In what ways do organizations' sustainability reports serve as risk mitigators and compliance instruments?*) entails taking a broader perspective on sustainability reports, beyond the review of ESG topics, and examining their potential role as risk mitigation and compliance tools.

Although the previous analyses centered on how sustainability reports arise due to institutional factors and companies' desire for social approval, this section focuses on how these reports can be

utilized to manage corporate risks. It is necessary to distinguish between what the companies write in the reports regarding, which risks could potentially affect them, and the fact that the report itself constitutes a vehicle for risk mitigation, in that it sends a signal demonstrating the organization's commitment to sustainability and transparency. By being proactive through publishing sustainability reports, organizations can mitigate the risk that could arise by not doing so. Especially if third parties found incriminating material that the organization itself has not accounted for.

By outlining the management and board's objectives, initiatives, and strategies that promote sustainable development encompassing environmental, societal, and governance aspects, organizations can reduce potential risks. These risks may include public risks, where positive public sentiment turns negative, or financial risks, such as fines or penalties for non-compliance. Although there are obvious external benefits of disclosing sustainability related information, these reports can similarly assist internally by improving the organizations' ESG performance through identifying areas for improvement, thus enabling more effective risk management. By building trust with stakeholders, sustainability reports may aid organizations in fostering better relationships with investors, customers, employees, and other associates, which ultimately helps mitigate risks associated with sustainability issues, as well as legal and reputational matters.

While the case companies do not explicitly state that their sustainability reports behave as risk mitigation tools, there may be indications of this within the reports. Upon examination it becomes evident that they disclose various types of risks, including cyber risks, human rights risks, climate risks, financial risks, and reputational risks. One noteworthy example is Saudi Aramco, which dedicates a part of their report to discussing risk mitigation, particularly relative to the energy transition. They explain how technological advancements and demographic trends have led to an increasing demand for energy, and it is the responsibility of energy companies to meet this demand. However, this task also comes with various scenarios and inherent risks (Saudi Aramco, 2021, p. 24). By presenting these risks, Saudi Aramco increases their credibility as it demonstrates their preparedness and awareness of potential challenges. Similarly, PetroChina explicitly addresses how the organization places strong emphasis on risk management of ESG issues, and how it performs risk analysis and risk control (PetroChina, 2022, p. i).

The case companies' motivations for emphasizing their sustainability activities may be a combination of avoidance and deterrence, as well as a sincere desire for disclosure. The similarity to contingency theory arises because motivations may differ from company to company and are influenced by individual contextual circumstances, making it challenging to pinpoint exact motives. However, regardless of the motivations, the result is a higher degree of acceptance and credibility among stakeholders, which can ultimately lead to reduced risks and improved performance.

While it is not identified as one of their material topics, Ørsted nonetheless highlights one of its sustainability programmes, namely its aim of exhibiting responsible business conduct. They address how they have a strict policy against bribery and corruption, which is promoted through training

and reporting mechanisms. Moreover, the company has a whistle-blower hotline for reporting concerns, which supports business integrity. It encourages employees to report any non-compliant or unethical behavior within the company. This helps to prevent potential risks before they become more critical issues. Interestingly, in many companies, irrespective of their industry, employees may face termination or suspension for failing to report instances of non-compliant behavior. Consequently, reporting such behavior is not merely advised, but mandatory. Further, Ørsted emphasizes how they continue to strive at improving the compliance set-up to meet the regulatory obligations (Ørsted, 2022d, p. 41). Altogether, it demonstrates how risk mitigation and compliance practices are deeply embedded in the organizations and how they operate.

Compliance is a key concept for organizations, as it is closely linked to risk management. Ensuring compliance with laws, regulations, and standards is critical for mitigating legal and reputational risks. All four case companies dedicate a significant amount of space in their sustainability reports to compliance. For example, Saudi Aramco's sustainability report describes the company's commitment to compliance with relevant laws and regulations, including those related to environmental protection, human rights, and anti-corruption (Saudi Aramco, 2021, p. 18). The report also discusses the company's approach to compliance management, which includes compliance analyses and the establishment of compliance committees, as illustrated in the following quote, "As part of our continued enhancements to our compliance program, we maintain committees to review findings of misconduct [...]" (Saudi Aramco, 2021, p. 55). Similar traces of the importance of risk mitigation steps and compliance management are found in the remaining case companies, as illustrated by PetroChina. The organization specifies how it considers internal control and risk management systems to be crucial. Their risk mitigation process includes identifying and assessing major risks, determining control measures, and forming solutions to ensure the internal control system's completeness and effectiveness (PetroChina, 2022, p. 24).

To sum and provide a response for the fifth research question, the importance of risk mitigation and compliance is a common theme across many industries, but it is particularly imperative in sensitive industries such as the energy industry. The sustainability report serves as an important instrument for organizations to increase their legitimacy and demonstrate their commitment to risk management and congruity. All case companies in this study dedicate significant weight to risk management, including prevention and mitigation of risks associated with environmental, societal, and governance issues. Thus, it is justifiable to conclude that the reports serve as tools for mitigating risks.

4.6 Internal vs. External Use

After examining the sustainability reports in terms of their type, framework, content selection, the actual content, and their effectiveness as a risk mitigation tool, it is now important to examine how the reports are being leveraged both internally and externally. This final stage of the analysis relates to the sixth research question: What evidence do the organizations' sustainability reports provide of their usage both internally and externally?

So far, the analysis has mainly focused on the external significance of sustainability reports for organizations, such as their impact on reputation and stakeholder perception, as well as how contextual, institutional factors influence the way organizations report. However, it is also important to examine the internal significance of these reports, particularly in terms of how they impact the organization's strategic approach to sustainability and whether the information is translated into concrete actions and results. While it may require some digging to fully understand the internal impact of sustainability reports, several of the case companies have devoted significant space to addressing how sustainability and ESG issues are anchored internally. This suggests that they recognize the reports as an important tool for driving change within the organization and ensuring that sustainability is taken seriously at all levels.

The increasing interest in sustainability reports has resulted in higher requirements from both formal and informal origins, leading large organizations to allocate significant resources, including time, money, and labor, to prepare comprehensive reports. It is only natural for organizations to use the information they gather from the analytical process that forms the basis of the reports. Although the primary aim of sustainability reports may be outward-looking, organizations also have a great interest in the report for internal use. The report serves as a status tool for management and the BoDs, and as a strategic tool when top management makes future plans. Due to this importance, several organizations have incorporated the preparation of the reports in independent departments reporting directly to top management, and sometimes even with a C-suite manager, such as a Chief Sustainability Officer.

Throughout the case companies' sustainability reports, evidence of their anchoring – external as well as internal - emerges. For instance, a common feature is a description of how they engage with stakeholders during the reporting process, and how they respond to the stakeholders' feedback and concerns. Ørsted, as an illustration, claims in their Stakeholder Engagement Policy how stakeholders are a vital part of their business, "Ørsted listens to and engages with our stakeholders to understand their positions, concerns and expectations." (Ørsted, 2022c). Likewise, ExxonMobil also incorporates the stakeholders' feedback into their business operations, as exemplified by this quote "ExxonMobil seeks to understand the perspectives of Indigenous peoples through open consultation, and we consider their feedback into project planning, design, execution and operations." (ExxonMobil, 2022, p. 54). Accordingly, numerous examples of stakeholder feedback and its beneficial nature for the companies are found throughout the reports. Perhaps the only deviant of the case companies is Saudi Aramco that does not, to the same extent at least, address feedback from stakeholders. In fact, they do not mention stakeholder feedback at all in their report, though instances of stakeholder engagements are sparsely addressed. What they do attend to, however, is how sustainability issues - particularly those they deem material - are integrated into their corporate strategy. It serves as a testament to how the findings play an important internal role. Moreover, Ørsted emphasizes multiple places in their report the importance of integrating sustainability into their operating model, specifically through

three interrelated strategic pillars, which are: (1) decision-making and accountability, (2) competences and governance, and (3) culture and leadership (Ørsted, 2022d, p. 37). By embedding lessons from the corporate sustainability assessment into the operating model, an organization like Ørsted shows how it intends to close the so-called say-do gap, i.e., the gap between what an organization says versus what they do. PetroChina has a similar internalization strategy related to its ESG information, "We have continued to improve our governance mechanism for addressing climate change, incorporating it into our overall development strategy." (PetroChina, 2022, p. 38). Additionally, the Chinese energy company also "[...] incorporate various indicators relating to benefits, operations, energy conservation, emission reduction, HSE and compliance management into our <u>management performance</u> <u>review</u>." (own underlining) (PetroChina, 2022, p. 17). Ørsted has a similar accountability scheme, though it exists at team and individual level; "To ensure that all teams work towards our common goals, we use a combination of ambitious sustainability KPIs, including [...] reductions in our scope 1-2 emissions intensity, and gender diversity [...]." (Ørsted, 2022d, p. 38). The assertion for the level of accountability being teams (as opposed to managers as is the case of PetroChina), they state, is that in order to achieve the company's sustainability goals, it is necessary for everyone within the organization to be involved and work collectively in a coordinated manner. It suggests that Ørsted sees sustainability as a shared responsibility that extends beyond individual departments or teams. Consequently, these schemes reinforce the importance of sustainability issues and incentivizes managers and teams to prioritize and improve their sustainability performance. It also highlights the importance of the information presented in the report and its direct and significant consequences for internal stakeholders.

Indeed, sustainability reports have significant internal implications for organizations. They are not only used as tools for external communication and stakeholder engagement but also have internal implications such as informing internal decision-making processes, setting goals and targets, monitoring progress, and improving organizational sustainability performance, as shown. The reports can also be used as a tool to create a common language and understanding of sustainability across different departments and levels within the organization.

To sum, the sustainability reports produced by the organizations are characterized by a large degree of utilization both externally and internally. While their most apparent use may appear to be for external stakeholders, a closer examination reveals that there are several internal benefits to leveraging the information presented in these reports. Broadly speaking, they inform, mitigate risks, and verify compliance externally, as well as guide, motivate, and create a common purpose internally. The case companies' reports illustrate how organizations internalize and integrate sustainability information into their business strategies, which elevates the reports from a mere communication instrument to a long-term strategic tool. This highlights the importance of the reports, emphasizing that they can ultimately determine the success or failure of organizations in the long run. Therefore, it is crucial for these reports to remain relevant, truthful, and informative for both internal and external stakeholders.

4.7 Industry-Specific Reporting Practices

While the above analyses focused particularly on the practices of the case companies, the focus now shifts to the energy industry, to clarify whether there are industry-specific factors that have an influence on the reporting approaches. Overall, each industry faces unique sustainability challenges, and their sustainability reporting practices reflect those challenges. Based on the analysis of the case companies, it appears that there are several common features and trends in how they approach sustainability reporting. These similarities suggest that there may be specific reporting practices that are unique to the energy industry. Although reporting on an organization's carbon footprint hardly can be confined to the energy industry, that particular industry has an exceptionally high environmental impact, which is why carbon footprint reporting is notably prevalent among energy companies. The specific measures include, for instance, GHG emissions and energy consumption. Regarding energy consumption, the energy industry places extraordinary emphasis on producing renewable energy through sources like wind, solar, and water, as well as utilizing renewable energy for their own operational needs. This trend is reflected in the case companies' sustainability reporting, in which they report on their renewable energy usage along with investments in clean energy technologies. This type of information is most prominent at Ørsted; however Saudi Aramco disclose how they invest in low-emission technologies such as solar energy for in-company application (Saudi Aramco, 2021, p. 37), and PetroChina inform about their venture into low-carbon energies (PetroChina, 2022, p. 50). As the only company, ExxonMobil does not claim to invest in renewable energy, neither in production nor in-company usage, which, in itself, is a finding. Notably, the size of most energy companies plays a significant role in their reporting practices. These large companies tend to have more influence and power, which often results in them setting the standards for others to follow. This creates a rare situation that involves a unique combination of both mimetic and coercive isomorphic behavior.

The materiality assessment is not industry-specific, however the issues considered material for the energy industry might be rather unique. For example, the beverage industry may find water usage more relevant, whereas the energy industry may find process safety, spill risks, responsible business conduct, and biodiversity conservation more material. Stakeholder expectations are closely linked to the materiality assessment, and the sustainability issues that stakeholders in the energy industry expect organizations to report on may similarly differ from other industries. As an example, customers may be more concerned about packaging waste in the beverage industry, while investors may be more focused on climate change risks and opportunities in the energy industry. Thus, the sustainability reporting practices of the energy industry are also impacted by the context and actors within it.

Similarly, regulatory requirements vary by industry, resulting in different standards. For instance, the energy industry may face stricter regulations on GHG emissions, while the restaurant sector may face more rigorous requirements on food safety and food waste. These industry-specific regulatory standards influence the sustainability reporting practices of companies.

Given the significant impact that the energy industry has on GHG emissions, it is not surprising that there are industry-specific frameworks and guidelines in place. Two such frameworks are the IPIECA and GRI, which provide specific guidance for the oil, gas, and energy sector. These guidelines focus on key areas such as carbon footprint, health and safety, supply chain management, waste reduction, spill mitigation, and stakeholder engagement with local communities (IPIECA, 2020).

In their introduction to the sustainability report, PetroChina addresses the current environment of the energy industry and the challenges it faces in the below excerpt.

At present, the world is undergoing an era of volatility and change, with changes in the world, changes in the times, and unprecedented historical changes. In 2023, the macroeconomic situation in and outside China will become more complex and volatile. Instability, uncertainty, and unpredictability will become the norm. In the face of coexisting opportunities, risks and challenges for development, the energy industry will nevertheless continue to move forward and carry out full-scale reforms.

(PetroChina, 2022, p. 13)

PetroChina's statement illuminates the significant shift that the energy industry is experiencing, as it moves away from traditional fossil fuels and embraces renewable sources such as biofuels, wind, hydro, and solar energy. All while the political and societal landscapes are changing at a fast rate. This transformation is reflected in the changing expectations and demands from external stakeholders for more comprehensive and transparent sustainability reporting from established energy companies. Therefore, it is imperative for these companies to adapt and evolve their reporting practices to align with the industry's evolving sustainability standards.

According to IPIECA's latest edition of its sustainability reporting guidelines, companies in the industry are highly conscious of evolving expectations, as well as opportunities and challenges. The current edition is viewed as a single milestone on an ongoing journey towards sustainable development, with certain sections expected to be updated frequently to ensure alignment with an everchanging reporting and business landscape. IPIECA also recognizes the importance of enhancing stakeholder engagement and collaboration as the industry navigates through the energy transition, emphasizing that the guidelines should serve as more than just a practical reporting tool (IPIECA, 2020, p. viii). Finally, IPIECA and its sister organizations, the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP), in cooperation state that they believe it is essential to continue providing "robust industry-developed framework[s]" to help organizations build their sustainability reporting practices – and, in particular, for organizations that have only just begun reporting (IPIECA, 2020, p. vii).

Accordingly, a picture emerges of an industry that is simultaneously subject to many of the same regulatory requirements and informal expectations as other industries, but it also has unique conditions that are specific to its sector. These include an extraordinarily great focus on climate and environmental impacts, strict process safety and spill mitigation requirements, and latent expectations

regarding investments in renewable energy sources. All of which portrays an industry, which is characterized by enormous challenges and colossal opportunities at the same time. They are likely to shape how organizations in the energy industry design, determine the content, and present their sustainability reports in the future.

4.8 Closing Remarks of the Analysis

Across the central themes from the literature review for which the four case companies have provided empirical evidence, several common features, but also significant differences emerge. They can be attributed to institutional circumstances like regional context and legal requirements, management contingency practices, including environmental uncertainty, as well as other factors such as sustainability reporting experience, company size, and stance on green energy transition.

All case companies publish annual and sustainability reports, but with varying degrees of integration between financial and non-financial data. They all prioritize ensuring the reliability and authenticity of their externally assured reports, using globally recognized reporting frameworks to enhance credibility and reputation. Materiality analyses are employed to different extents by the companies to determine and justify the most important topics they report on. The concept of double materiality is vital in demonstrating a comprehensive focus on how operations affect society and vice versa. The sustainability reports address various environmental, societal, and governance issues, structured according to the E, S, and G areas, and emphasizing both achievements and areas for improvement. Risk management receives considerable attention in the reports, which in themselves serve as risk mitigation and compliance tools. The integration of sustainability information into business strategies underscores the significance of issuing relevant reports for both internal and external stakeholders

It is challenging to evaluate whether one or more companies outperform others since they are all subject to distinct influences both externally and internally. This is demonstrated by various factors such as Ørsted's transition from black to green energy, which has led to additional demands for their business activities, the fact that Saudi Aramco's issuance of its first sustainability report was likely due to external formal and informal demands, that ExxonMobil places relatively less emphasis in its report on investments in green energy sources, and that PetroChina emphasizes informing about the internalization of their findings into the corporate strategy. However, if one company were to be singled out, Ørsted would most probably be the natural choice due to its comprehensive report that demonstrates experience and deep knowledge, relevant stakeholder engagement, highlighting both successes and areas for improvement, a robust risk analysis, and, generally speaking, an easy-to-read and easy-to-understand report. Importantly, the objective of this thesis, however, was not to determine the best approach to sustainability reporting, which, in addition, contradicts contingency theory. Rather, the purpose was to document the various ways in which companies approach sustainability reporting and to interpret why they do so. This naturally leads to the discussion section, which contextualizes the analysis findings.

5 DISCUSSION

The discussion section will tie a knot to the analysis and contextualize the sustainability reporting practices of the case companies. It is evident that the energy industry altogether is committed to sustainability reporting, but there are still significant differences in how companies report. These differences can be attributed to a range of factors, including institutional contexts, contingency practices, and organizational characteristics. One key takeaway from the analysis is the importance of sustainability reporting for a company's social license to operate. Below, the Shell case, as presented in the introduction, illustrates how failure to set ambitious sustainability strategies can lead to loss of stakeholder justification and, consequently, legal action.

Another perspective to consider is whether the case companies' sustainability reporting practices can be linked to the country in which they are based. Further research may explore whether there are national trends in sustainability reporting practices or if institutional factors at the organizational level outweigh national influences. Overall, the discussion section will provide a broader context for the analysis and identify avenues for future research in the area of sustainability reporting in the energy industry.

5.1 The Shell Case

To provide context for the sustainability reporting performance of the case companies, it may be worthwhile examining other cases, with a particular focus on the recent Shell case. Shell plc., a British oil and gas company, generated a record-revenue of 386 billion USD in 2022 (Shell plc, 2022, p. 238). The company has faced lawsuits from multiple stakeholders in recent years for inadequate reduction of its CO₂ emissions and not implementing an energy transition strategy that aligns with the Paris Agreement. In February 2023, environmental lawyers as shareholders in Shell sued the company over its climate strategy, which the group calling itself ClientEarth believes falls short of meeting internationally recognized climate goals, potentially jeopardizing the company's success. And to be more precise, ClientEarth sued the eleven directors of Shell personally. It is the first case in the world seeking to hold corporate directors liable for failing to prepare an organization for the net-zero transition. While the case is not directly related to Shell's sustainability reporting, it indirectly contributes to it. For instance, in another case Shell has been accused of overstating its spending on renewable energy, which is a direct accusation of inaccurate and purposely misleading sustainability reporting or "greenwashing" (Carrington, 2023). The current lawsuit is backed by several large institutional investors with over 12 million shares in the company, including UK pension funds Nest and London CIV, French asset manager Sanso IS, and the Swedish national pension fund AP3. Shell denies the allegations and believes its climate targets are aligned with the Paris Agreement of maximum 1.5C increase in global temperatures. However, leading third-party assessments have suggested otherwise, as Shell's strategy excludes targets to cut Scope 3 emissions, which account for over 90% of the firm's overall emissions. Shell's highest revenue and profits ever, combined with the lack of investment in low-emission technologies and other environmentally friendly measures, have also been criticized. The Chief Investment Officer of the British pension fund Nest hopes that other companies in the energy industry are paying attention to Shell's situation and making necessary changes to avoid a similar fate (Meredith, 2023).

The Shell case highlights the importance for companies, particularly those in sensitive industries, to develop ambitious sustainability strategies that align with international agreements in order to maintain stakeholder legitimacy and avoid losing their "social license to operate". Sustainability reporting plays a crucial role in disclosing these strategies, their implementation progress, and the performance of previous strategies. The Shell case similarly underscores the importance of investing adequate time, resources, and considerations into these sustainability reports, which can otherwise be the stakeholders' most important weapon against the companies, as demonstrated by the backlash from the plaintiffs in their accusations of Shell overstating their renewable energy efforts.

A quick analysis of Shell's annual and sustainability reports reveals that they meet the minimum "requirements" for sustainability reporting on the selected six key themes in this thesis. Shell has made an analysis of the most material topics, although they do not label it as such, they provide information on both E, S, and G, and there is evidence throughout the reports that they are internalizing the findings. However, despite meeting these conditions, the company still faces challenges. This indicates that meeting the conditions for how a "good" sustainability report should look like is not on its own sufficient for companies, and the content of the report is perhaps even more important – *substance over style*. Therefore, one can easily argue that Shell's sustainability reports, which serve as a crucial means of communication with stakeholders, including investors, did not effectively serve as risk mitigation tools. This serves as a valuable lesson for other companies, especially those operating in sensitive industries.

5.2 Findings in Relation to Indices

The location of a company may correlate with its approach to sustainability reporting, as discussed earlier. ESG and sustainability indices can provide insight into why companies behave the way they do, including their reporting practices. Two examples of such indices are the Global Risk Profile's (GRP) ESG and risk index, which evaluates 183 countries based on environmental, human rights, and health & safety risks, and The Sustainable Development Report (SDR), which assesses all 193 UN member states' overall progress towards achieving the UN's 17 SDGs. ESG and sustainability indices offer insights into country-specific risk and sustainability assessments, which can reveal patterns. For example, some countries have stricter environmental regulations or laws requiring specific sustainability reporting, while others have more lenient requirements. Furthermore, a country's cultural and societal norms may also impact how companies approach sustainability reporting. For instance, environmental issues might be of greater importance to customers and investors in some countries, thereby incentivizing companies to prioritize and report on those issues. Moreover,

the political landscape of a country influences companies' sustainability reporting practices. For instance, if a government places significant emphasis on social issues and enacts policies to foster human rights, employee diversity, wellbeing, and similar concerns, it could motivate companies to give higher priority and report more meticulously on such issues as well.

Beginning with the United States, GRP estimates the risks to be *low*, meaning that on average there are low risks associated with the environment, human rights, and the health & safety of people in the US (Global Risk Profile, 2022). According to the SDR, the US is ranked 41st with a score of 74.5, which is considered relatively high. However, the country profile highlights that there are certain areas where the US needs to improve, such as responsible consumption and production, reduced inequalities, and climate action (Sustainable Development Report, 2022d). In their report, ExxonMobil provides a few examples of how they work towards sustainable development in relation to the SDGs, for instance on sustainable consumption and production, for which they provide materials for various industries and are working on advanced recycling capacity for plastic waste to be turned into high-value raw materials (ExxonMobil, 2022, p. 25). It shows that the company is working towards the same challenges that the country generally is facing. Hence, ExxonMobil is affected by the national challenges, which are then expressed in their sustainability reports, although it is not communicated very prominently. This contributes to the assessment that there is a medium degree of conformity between the ranking indices and ExxonMobil's ESG reporting.

Next, we move to Saudi Arabia, for which GRP assesses the risks to be *medium*. From the index it is evident that it is particularly the environmental risks that drive the risk level up (Global Risk Profile, 2022). As reported by the SDR, Saudi Arabia is ranked 96th with a score of 66.6, which is considered medium. The country profile reveals how Saudi Arabia struggles with significant and major challenges within all the SDGs, but that improvements are seen within clean water and sanitation as well as industry, innovation, and infrastructure (Sustainable Development Report, 2022c). The results of these indices align with Saudi Aramco's publication of its first ever sustainability report in 2021, indicating that sustainability has not been a top priority for the country. However, this trend may be reversing as Saudi Aramco, the largest company in the country, has begun to disclose its sustainability strategies, initiatives, and performance. Significant political and economic developments in Saudi Arabia, and the entire MENA region for that matter, have increased the country's global visibility and attention, creating a need for legitimacy that extends to its companies, including Saudi Aramco. The company's sustainability report highlights in several instances its efforts to reduce GHG emissions in line with the country's national goals (e.g., (Saudi Aramco, 2021, p. 3) and (Saudi Aramco, 2021, p. 6)). Thus, this indicates, through concrete empirical evidence, that there is a strong correlation between Saudi Aramco's reporting practices and the overall sustainability approach of the country.

Moving on to China, we observe that GRP ranks the country to be of *medium* risk, with environmental risks posing the greatest threat followed by human rights risks, and lastly health and safety risks (Global Risk Profile, 2022). According to the SDR, China is ranked 56th with a score of 72.4,

which is considered medium-high. The country profile reveals that China has made significant progress in several areas such as within poverty elimination and high-quality education. However, there are still several sustainable development goals that require significant attention, particularly in the areas of climate action, inequality, and fair institutions. This highlights a society that has achieved substantial progress in the social sphere but faces substantial challenges in the areas of environment and governance (Sustainable Development Report, 2022a). There is a correlation between China's sustainability assessment and PetroChina's sustainability reporting practices, albeit a light one. In their report, PetroChina showed a large table with the 17 SDGs and the company's initiatives and performance of each of the SDGs. For those SDGs where China lacks progress PetroChina seems to be on track with initiatives. For instance, in relation to climate action PetroChina have established committees, strategies, and plans to combat GHG emissions, and in relation to fair institutions the company has implemented anti-bribery and integrity manuals for their employees (PetroChina, 2022, pp. 10–11). Thus, where the nation altogether seems to lack momentum PetroChina shows a clear proactiveness.

Lastly, we look at Denmark, which has a very low risk, according to the GRP. Denmark is ranked at 10th in the world providing evidence of very little risks for each of the elements, namely, environmental, human rights, and health & safety risks. Although the overall risk is assessed as very low, the environmental risks, however, make up the majority of the risks for people living in Denmark (Global Risk Profile, 2022). Of all the 193 UN member states, Denmark is ranked 2nd by the SDR with a score of 85.6, indicating a very high level of progress towards fulfilling the SDGs. The country profile shows evidence of this in that half of the goals are either achieved or on track to being achieved. It testifies to Denmark being a rather sustainable country. There are, however, also some areas in which Denmark is not performing very well, namely, in fighting hunger, responsible consumption and production, and within climate action (Sustainable Development Report, 2022b). Denmark has been focusing heavily on promoting sustainability among both its citizens and companies, with a significant push from the government. This has also been reflected in companies such as Ørsted, who have placed a strong emphasis on sustainable practices. Considering the recent energy crisis and the war in Ukraine, the Danish government has ordered Ørsted to temporarily continue operating its remaining oil and coal power plants, which the company had initially planned to phase out, with the goal of eventually transitioning to 100% renewable power. This order is highlighted in Ørsted's sustainability report (Ørsted, 2022d, p. 2), indicating that Denmark's political climate and overall sustainability performance are crucial factors for companies such as Ørsted. Overall, there is a strong alignment between Denmark's sustainability approach and the reporting practices of Ørsted. This is likely due in part to the favorable conditions in Denmark that have enabled Ørsted to successfully transition from a "traditional" oil and gas company to a "modern" producer of green energy through renewable sources. Denmark's strong climate awareness, political focus, economic capacity, and robust legislative institutions have provided an advantageous environment for such a transition to take place.

Throughout their sustainability report, Ørsted shows how each of their 18 programmes (i.e., important topics of which five are deemed as *material*) contribute to the SDGs, including those Denmark, as a nation, has not achieved yet. For example, Denmark lacks progress within the climate action SDG, however Ørsted informs how their strategies for decarbonizing the supply chain and energy production support the SDG, and how the company's endeavors within circular resource use supports the SDG focused on responsible consumption and production (Ørsted, 2022d). As a result, there are many instances where Ørsted has shown its support for the SDGs, despite Denmark not yet fully complying with them.

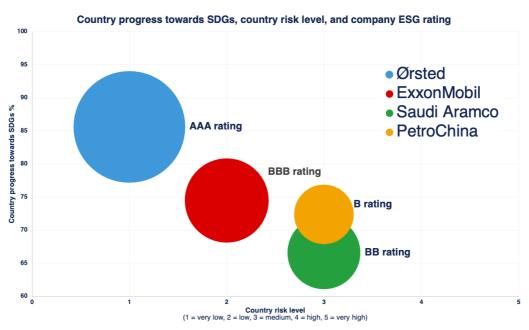


Figure 7: Country progress vs Country risk vs Company ESG rating

Figure 7 illustrates the aforementioned information. The bubble diagram depicts the percentage of progress each country has made towards the SDGs and their corresponding risk levels, with 1 denoting very low risk, 2 denoting low risk, 3 denoting medium risk, and so forth. The size of the bubbles represents the ESG ratings of the case companies by MSCI (MSCI, n.d.), with a larger bubble indicating a higher rating, AAA being the highest. As a result, the ideal position for a company is the upper left corner of the graph, which represents low risk, high progress towards the SDGs, and a larger bubble indicating a higher rating.

Based on a comparison of the reporting practices of each of the case companies with the sustainability focus of the countries they come from, it appears that there is a high degree of correlation between the two. The sustainability reports of these companies provide empirical evidence that reinforces this notion, especially when one examines the risk and sustainability assessments of the countries in question. Some countries, such as Denmark, are assessed to pose lower risks to their populations and perform well on a range of internationally recognized sustainability indicators. This is reflected in the sustainability report of the associated company, where the country's sustainability

focus is more prominently expressed. The influence of a company's operating context on its sustainability practices is a clear indication that institutional theory is at play, as demonstrated by the findings of this thesis. When viewed from a broader perspective, the country of origin is just one of several factors that impact a company's sustainability reporting practices and its strategic use of such reports.

5.3 Theoretical and Managerial Implications

The empirical evidence derived from the companies' sustainability and annual reports provides theoretical support for the six key themes selected from the literature. This indicates a strong correlation between practice and theory, including institutional, legitimacy, and contingency theories. The evidence extends existing theory and suggests that the theory is justified and accurate, as there are no significant deviations between the theoretical framework and empirical findings. Similarly, the exploratory and documentary nature of the thesis imposes inherent limitations on the extent to which the study can be groundbreaking.

The study's findings highlight the constant significance of prioritizing and expanding the use of sustainability reports by organizations. Such reports play a crucial role in communicating with multiple stakeholders, particularly investors, who are essential to ensuring the organization's long-term viability and sustainable development. The study thus emphasizes the importance of sustainability reporting to organizational management. Organizational management must view sustainability reporting as a strategic tool, as it not only provides a retrospective view but also serves as a crucial guide for the organization's future direction. In this sense, reporting acts as a strategic compass, setting the course for the organization's upcoming actions and decisions. In the future, the use of sustainability reports presents an inherent conflict between an organization's desire to tailor the report to meet its unique needs, and stakeholders' need for accessible and comparable information across organizations and sectors. This conflict necessitates a balance between encouraging more universal reporting frameworks while still allowing organizations the flexibility to independently approach sustainability reporting. Therefore, management is recommended to support the adoption of standardized reporting frameworks while still allowing for some level of customization.

One clear limitation of this study is its generalizability. As stated in the method section, doubts may arise regarding the generalizability of findings obtained through case studies, especially when using a single method. While the study's findings may provide insights into the energy industry, considering regional dispersion and the type of energy business (e.g., oil and gas versus renewable energy sources), caution must be exercised in extrapolating conclusions to other industries, as there are several other factors to consider. To enhance both the generalizability and validity of conclusions, energy companies could have been interviewed to obtain their perspectives on the study's results. This approach was not prioritized due to the study's scope, but it could be pursued in future research.

6 CONCLUSION

In recent years, there has been an escalating emphasis on the environmental impact of individuals and organizations, as well as the treatment of people, and the need to operate a sensible business. This shift in focus has resulted in a growing awareness of ESG. An essential way in which this awareness is expressed is through organizations' sustainability reports, which provide an account of the company's goals, strategies, and performance in areas crucial to the business. These reports have gained considerable attention due to increased scrutiny and legal requirements, both externally and internally, for organizations to demonstrate their commitment to sustainability. The energy industry, in particular, is under immense pressure to report accurately as it contributes significantly to GHG emissions yet faces increasing demand. The aim of this thesis was to examine how large global energy companies use sustainability reporting as part of their strategic approach to sustainable development.

This study involved a multi-case analysis of sustainability reports of energy companies using institutional, legitimacy, and contingency theories, alongside an extensive literature review. The reports were analyzed based on six themes identified through the literature review, namely, integrated thinking, sustainability reporting frameworks, (double) materiality, ESG, risk mitigation and compliance, and internal vs. external use. The analysis revealed a broad agreement among energy companies on reporting methods, with unique approaches emerging for each theme due to institutional and contextual conditions, such as legislation and cultural norms. Contingency theory is exceptionally good at explaining the deviations to the general trends. The study found that company characteristics play a significant role in reporting, and companies strive for social acceptance and external justification to ensure their long-term survival. The findings highlight the importance of making relevant, adequate, and credible reports that are predicted to influence a company's sustainable development. Sustainability reports are, therefore, a significant strategic instrument for companies.

This thesis has some limitations regarding the generalizability and validity of the results. Several future research directions are suggested, including studies of other industries, comparisons across industries, and analyses based on other central factors. It would also be interesting to examine the extent to which sustainability reports act as "legitimacy instruments". Overall, this study confirms that sustainability reports provide companies with a unique opportunity to inform and satisfy stakeholders externally while motivating and directing their efforts internally. The importance of sustainability reporting cannot be overstated, and companies must maintain their focus on making relevant and credible reports to ensure their long-term sustainable development.

7 FUTURE RESEARCH

While this study has provided valuable insight into the strategic use of sustainability reports by energy companies, it has also revealed potential avenues for future research. One potential direction for future studies would be to apply the same six key themes analyzed in this study to organizations in other industries. This could shed light on whether similar trends exist across industries or if there are differences in the use of sustainability reports, such as a greater variance in other industries. In this context, it would be valuable to investigate how companies in the financial services or healthcare industries use sustainability reporting as part of their strategic approach to sustainable development. Such research could contribute to a deeper understanding of the role of sustainability reporting as a strategic tool for companies across different industries and provide guidance for companies seeking to improve their sustainability practices.

Another possible area of research would be to investigate companies using a different set of factors, for instance, the extent to which the constant search for legitimacy influences how companies prepare and present sustainability information in their reports. Specifically, this research could explore whether companies only present sustainability reports to obtain a "social license to operate", or if other factors also influence their reporting practices.

Moreover, it would be interesting to gather more quantitative data for this study by conducting statistical analyses. Such data could strengthen the findings of the study, or perhaps debunk them. Additionally, obtaining insights from companies and its stakeholders using interviews or other primary data collection techniques regarding their reporting practices, the utilization of sustainability reporting frameworks, the effectiveness of their reports as risk mitigation tools, and how they incorporate the reports' results into their sustainability strategies would be insightful. Overall, there remain numerous interesting avenues to explore on this imperative topic.

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APPENDIX

Appendix I: Key Search Terms and Query String

Key Search Terms

sustainability reporting, ESG reporting, CSR reporting, corporate social responsibility reporting, social reporting, environmental reporting, governance reporting, corporate social reporting

Query String

TITLE-ABS-KEY ("sustainability" AND "reporting") OR TITLE-ABS-KEY ("ESG" AND "reporting") OR TITLE-ABS-KEY ("CSR" AND "reporting") OR TITLE-ABS-KEY ("corporate social responsibility" AND "reporting") OR TITLE-ABS-KEY ("social" AND "reporting") OR TITLE-ABS-KEY ("environmental" AND "reporting") OR TITLE-ABS-KEY ("governance" AND "reporting") OR TITLE-ABS-KEY ("corporate social" AND "reporting") AND PUBYEAR > 1999 AND PUBYEAR < 2024 AND PUBYEAR > 1999 AND PUBYEAR < 2024 AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "ENVI") OR LIMIT-TO (SUBJAREA, "BUSI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (EXACTSRCTITLE , "Business Strategy And The Environment") OR LIMIT-TO (EXACTSRCTITLE , "Corporate Social Responsibility And Environmental Management") OR LIMIT-TO (EXACTSRCTITLE, "Journal Of Business Ethics") OR LIMIT-TO (EXACTSRCTITLE, "Sustainability Accounting Management And Policy Journal") OR LIMIT-TO (EXACTSRCTITLE, "Social Responsibility Journal") OR LIMIT-TO (EXACTSRCTITLE, "Corporate Governance Bingley") OR LIMIT-TO (EXACTSRCTITLE, "Corporate Ownership And Control") OR LIMIT-TO (EX-ACTSRCTITLE, "Journal Of Management And Governance") OR LIMIT-TO (EXACTSRC-TITLE, "Sustainable Development") OR LIMIT-TO (EXACTSRCTITLE, "Journal Of Global Responsibility") OR LIMIT-TO (EXACTSRCTITLE , "Journal Of Environmental Management") OR LIMIT-TO (EXACTSRCTITLE, "Corporate Communications")) AND (LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (EXACTKEYWORD, "Sustainability") OR LIMIT-TO (EXACTKEYWORD, "Corporate Social Responsibility") OR LIMIT-TO (EX-ACTKEYWORD, "Sustainable Development") OR LIMIT-TO (EXACTKEYWORD, "Corporate Governance") OR LIMIT-TO (EXACTKEYWORD , "Sustainability Reporting") OR LIMIT-TO (EXACTKEYWORD, "Global Reporting Initiative") OR LIMIT-TO (EXACT-KEYWORD, "Corporate Strategy") OR LIMIT-TO (EXACTKEYWORD, "Accountability") OR LIMIT-TO (EXACTKEYWORD, "Integrated Reporting") OR LIMIT-TO (EXACTKEY-WORD, "Sustainability Report") OR LIMIT-TO (EXACTKEYWORD, "Reporting") OR LIMIT-TO (EXACTKEYWORD, "GRI") OR LIMIT-TO (EXACTKEYWORD, "Corporate Sustainability") OR LIMIT-TO (EXACTKEYWORD , "Environmental Reporting") OR LIMIT-TO (EXACTKEYWORD, "CSR") OR LIMIT-TO (EXACTKEYWORD, "Disclosure"

) OR LIMIT-TO (EXACTKEYWORD, "Corporate Social Responsibilities (CSR)") OR LIMIT-TO (EXACTKEYWORD, "Corporate-sustainability") OR LIMIT-TO (EXACTKEYWORD, "Environmental Assessment") OR LIMIT-TO (EXACTKEYWORD, "Sustainability Assessment") OR LIMIT-TO (EXACTKEYWORD, "Sustainability Performance") OR LIMIT-TO (EXACTKEYWORD, "ESG") OR LIMIT-TO (EXACTKEYWORD, "Sustainability Reports") OR LIMIT-TO (EXACTKEYWORD, "CSR Reporting"))