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A Comparative Analysis of Firms' Corporate Social Responsibility in Norway

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A Comparative Analysis of Firms' Corporate Social Responsibility in Norway

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Abstract

Corporate social responsibility (CSR) has been known throughout history, but has not until recently been given a more important role in the companies' day-to-day operations. Measuring companies' degree of corporate social responsibility through various CSR activities is a challenge, and to what extent this will have an impact on sustainable development. This has opened up the possibility of using environmental, social and governance (ESG) ratings as a unit of measurement of the effect of corporate social responsibility. This thesis examines how the ESG scores contribute to giving an indication of what level Norwegian industries are in relation to their corporate social responsibility. This is supplemented by examining the development of CSR, gaining a broader understanding of the definitions of CSR and what value this adds to society, shareholders and stakeholders in connection to the ESG score. In addition, a review was made of the various variables in the ESG score to gain a better understanding of which elements in companies influence the score. A comparative analysis was performed of descriptive statistics, evolution over time, correlation and t-test of ESG scores in 11 different industries in Norway. Conducting these analyses, makes it possible to establish a better overall understanding of which elements can affect companies' corporate social responsibility and what differences and similarities these present. Based on the analysis, a comparison of CSR in Norway reveals significant variances and similarities. The testing for significant difference reveals that the majority of the industries within the environmental and social pillars are statistically significantly different, while the majority of the industries within the governance pillar score indicate equal means. Furthermore, there have been no obvious patterns in terms of differences and similarities, either within or between industries.

Keywords: Corporate Social Responsibility; Environment, Social and Governance (ESG); Sustainable Development; ESG Ratings; ESG Score; Thomson Reuters Refinitiv; Descriptive Statistics; Correlation, T-test; P-values

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Disclaimer

It is possible to develop a comprehensive representation of corporate social responsibility in Norway by combining the information in this thesis, which is enlightened through the use of ESG reporting. The data and analysis supplied allows the authors of this thesis to draw certain conclusions, but it also leaves room for future research that could be useful in the context of this thesis. While there has been gathered as much material as possible from reliable and verified sources, it cannot be ruled out that any of the information in this thesis is incorrect. This is due to the high number of distinct sources that have been used in this dissertation's work.

1. Introduction

Interest in sustainability is growing; both investors and firms are looking at sustainability ratings. McKinsey & Company (2017) states that investors recognize environmental, social, and governance factors as drivers of value (Bernow et al., 2017). The report illustrates an increasing demand for sustainable investments. Norway's Government Pension Fund Global (GPFG) is mentioned as one of the largest institutional investors that practices sustainable investing now (Bernow et al., 2017). The increasing interest in socially responsible investing, corporate social responsibility (CSR), sustainability, sustainable development, and environmental, social, and governance (ESG) leads us to believe that there is an increase in the ESG score of firms in Norway. We will explain various concepts, methods, measurements, and theoretical positionings related to the topic. To illuminate and analyse the scope, development and differences of the ESG operation in the Norwegian market, a comparative analysis highlights the development of CSR and ESG measuring in several industries in Norway. This is supplemented by examining the CSR term, and CSR and the economy. In addition, we will go further into CSR in Norway, before we examine CSR measures and ESG, which is used in the analysis of this thesis. Statistical and comparative analysis of ESG scores such as descriptive statistics, examining evolution over time, correlation, and t-test is conducted as a part of this study. By conducting this analysis, we are able to get an overview and an understanding of the scope of the ESG score operation in Norway, represented by 11 different industries.

1.1 Background

The adoption of the UN Sustainable Development Goals (SDGs) reinforces the focus and importance of sustainable development. Among other things, the development requires significant allocations of capital to secure investments that contribute to a greener world economy. This development affects several different industries, some to a greater extent than others. Sustainability, sustainable development, and corporate social responsibility (CSR) has been widely discussed in recent years, and is only becoming more and more important. A definition that is widely used in the literature is the sustainable development definition from the landmark report entitled Our Common Future in 1987 by The commission chaired by Gro Brundtland; "Sustainable development is development that meets the needs of the present

without compromising the ability of future generations to meet their own needs" (WCED 1987a: 43) (Scoones, 2007). Correspondingly, is CSR commonly defined as "a process with the aim to embrace responsibility for the company's actions and encourage a positive impact through its activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere who may also be considered stakeholders" (Tai & Chuang, 2014). Furthermore, the next chapter is devoted to the CSR term and concept, due to the wide discussion and lack of definition accuracy. The use of the terms is constantly increasing in both academic research and companies' reporting. In recent years, CSR has been supplemented by "environmental, social, and governance" (ESG), which refers to a company's ethical effect and sustainable practices.

ESG is mentioned in more recent literature, a concept of which CSR is said to be the forerunner. As already stated, CSR is defined as a process with the aim of encouraging a positive impact through its activities on the different factors involved in the business (Tai & Chuang, 2014). Because assessing sustainability is so difficult, a variety of actors and metrics have emerged, with the ESG score being one of the most often utilized (Ahlklo & Lind, 2019). The initials E, S, and G stand for environmental, social, and governance, which are three elements typically used to assess an investment's long-term viability (Ahlklo & Lind, 2019). Over the past 25 years, there has been an exponential increase in the number of companies measuring and reporting environmental data, social data, and governance data, also called ESG data (Amel-Zadeh & Serafeim, 2018). ESG is used to obtain a better knowledge of overall CSR activities, such as how companies develop CSR concerns in relation to their long-term growth targets and goals, how they manage risks and other organizational characteristics in terms of general management practices, and so on (Han et al., 2016). ESG is a composite measurement, of which environmental data includes, among other things, carbon emissions, water consumption, and waste production (Amel-Zadeh & Serafeim, 2018). Social data includes, among other things, employee make-up, product information, customer-related information (Amel-Zadeh & Serafeim, 2018). Finally, governance data includes, among other things, political lobbying, anti-corruption programs, and diversity on the board (Amel-Zadeh & Serafeim, 2018).

The conventional goal of businesses is to maximize shareholder value, whereby the shareholder is the residual claimant, and the company maximizes benefit by maximizing the equity owned by the shareholders (Langeland & Ugland, 2019). The fact that other parties are bound by contractual arrangements supports this claim (Friedman, 1962). Stakeholders both within and

outside the company are affected by environmental, social, and governance factors. As a result, the counter-argument to exclusively focusing on shareholder value is that stakeholders' contracts do not fully protect them, implying that the company should expand its scope to include stakeholders' perspectives (Freeman, 1984). Said in other words, sustainable investment is not supported by shareholder theory, while stakeholder theory claims that sustainable investments create value. These views are often mentioned when discussing CSR and sustainability, we will return to this in the third chapter.

1.2 Objective

This thesis aims to investigate the prevalence of corporate social responsibility in Norway, represented by ESG data in 11 different industries. Firms' sustainability performance is throughout this thesis measured in terms of the ESG disclosure score reported from Thomson Reuters Refinitiv. Therefore, the objective is to understand the development of CSR in Norway. To pursue this objective, we examine the concept's theoretical meaning in existing literature, which helps us better understand the different elements. We also look at ESG data to see how well the theory suited the findings.

1.3 Importance of Thesis

A contribution to the literature on CSR in Norway is useful due to the lack of description consistency and the broad range of understandings of the term. CSR activities can be applied in a variety of ways depending on the goals and interests of a specific company, so CSR can take several different forms in different companies and industries. Thus, a comparative analysis is beneficial to enlighten the differences between the industries. At the same time, we assume that CSR will continue to gain traction and spread in the business field, and that any contribution is thus favorable.

1.5 Thesis Structure

This thesis consists of a total of eight chapters. Chapter 1 introduces the thesis' topic, and presents the thesis's background, objective as well as its relevance and importance. Chapter 2

deals with the overarching concept of CSR and involves relevant literature regarding the topic and becomes a central point in enlightening the overall thematic of the thesis. After the background context is established and relevant terms are introduced, **Chapter 3** accounts for CSR and the economy and its relevance to the thematic is described. **Chapter 4** involves examining CSR in Norway, as the analysis that is conducted is stated there. This includes, among other things, the concept's history in the country and the influence of its government. **Chapter 5** enlightens some relevant measures of CSR. Correspondingly, the following **Chapter 6** explains ESG rating and the different elements involved, being the widely used measurement of CSR, and also the measurement that is used in the analysis of this thesis. **Chapter 7** contains the analysis that is conducted and presents the central findings. Lastly, **Chapter 8** summarizes the central findings and makes some concluding remarks.

1.5 Summary of Outcomes

A comparison of CSR in Norway reveals significant variances and similarities. The differences and similarities are identified both within and across industries. The study sheds light on how CSR differs depending on the individual industries. To conclude, the industries within the environmental and social pillars are statistically significantly different, rejecting the null hypothesis of equal means at the 1% significance level. This is, however, not possible regarding the industries within the governance pillar score. The p-values reveal dominating values of > 0,1, indicating that the null hypothesis is not rejected and that most industries have equal means. Furthermore, no apparent trends in terms of differences and similarities have been observed, either within or between industries.

2. What is Corporate Social Responsibility?

Hundreds of terms and meanings relating to a more humane, ethical, and open way of doing business are introduced in scholarly discussions and business environments. Defining these concepts is a comprehensive subject and the terms and concepts are widely discussed in the literature. The terms are often used interchangeably, but still have some differences. However, the differences are not very significant, as there is usually an overall agreement on what the concepts entail. A common understanding and consensus is still desirable, and it is therefore

necessary to look into the development of CSR. This chapter explains the different understandings and concepts of CSR (sub-chapter 2.1), as well as how history has affected the development (sub-chapter 2.2). Finally, a study of the role that governments have played, and continue to play, in the implementation of the definition is conducted (sub-chapter 2.3).

2.1 Defining CSR

Despite the fact that the term is constantly increasing in use, there is still no consensus on the definition, despite CSR being a big talking point in the business and social fields these days. While there is a significant amount of literature that examines and discusses various aspects and issues concerning CSR, most of it comes to a halt when attempting to define CSR. CSR is based on the idea that business is an integral part of society and most definitions of CSR have significant implications for environmental concerns, poverty eradication, job creation and labor practices, environmental conservation, education, and human growth (Khan et al., 2012). Several different meanings and understandings of the concept can be found in the literature. Sheehy (2015), for example, argues that the current debate over a lack of shared understanding stems from the concept's complexity and complication. Furthermore, Khan (2012) introduces two different elements of CSR; explicit CSR and implicit CSR, of which companies that practice explicit CSR communicate their plans and practices to their stakeholders using CSR terminology, while companies that practice implicit CSR do not. Others, such as Visser (2012), advocate for further advancement of the concept. The author proposes a CSR 2.0 model that centers on four obligation bases: value creation, good governance, societal contribution, and environmental integrity. Finally, Moir (2001) stresses that CSR can be implemented in a number of ways, depending on the company's needs and interests, so CSR can take several different forms in different industries. This is a short sampling of what has been discussed in the literature, and this chapter will expand on these ideas.

Sheehy (2015) addresses the issue of lacking a definition and states, among other things, that the concept of CSR's ubiquity makes it difficult for it to have a distinct meaning. The author gives a summary of the definition's implications for CSR as an area of research, a management practice, and a strategy for enhancing the conversation about business's social contribution. The author also mentions several reasons why the term is often described as both complex and complicated. The complexity is mainly argued on behalf of the nature and context of the

problems. CSR is deeply interested in the ecology, culture, and economic system, all of which are highly complex dynamic processes (Sheehy, 2015). This is illustrated with an example of which the interests of investors are limited to economic interests, and a political agenda emerges which prioritises and secures economic interests while delegitimizing other demands. This effort becomes a complicating factor in an already complex area (Sheehy, 2015). Another layer of complexity that is mentioned is the determination of the degree or extent of the damage to be addressed. Here, the challenge is to decide what to involve, and what can be seen as small and distant injuries. If all injuries are to be addressed, as some believe it should be, it may be the case that many of the goods and services that allow the modern lifestyle will have to disappear (Sheehy, 2015). The third layer of complexity is related to the second, namely which party should be responsible for addressing which damages (Sheehy, 2015). It is debated whether the local government is responsible for promoting or whether it is the nongovernmental agency that collects donations that is responsible (Sheehy, 2015). Another possibility is also that subcontractors and manufacturers themselves take responsibility for this (Sheehy, 2015). If none of these options are available, the buyer would have to pay a premium over the price to solve the issue (Sheehy, 2015).

As mentioned, the concept is not only complex but also complicated. Sheehy (2015) explains that the concept is complicated by four different agendas that are engaged in the definition, of which these agendas complicate the definition company for the distinct purpose of promoting specific interests. The first of the four complications mentioned involves the business. They represent a group of interested actors who focus on whether an organization's policies and actions, and thus the organization itself, can legitimately claim to be socially responsible (Sheehy, 2015). Each company creates specific cases for CSR based on its own assets and opportunities, but pays little attention to the questions of definition accuracy (Sheehy, 2015). This illustrates the importance of a consensus and a more accurate approach to CSR at the strategic level. In the business world, the question of meaning is obviously contentious. Part of the debate is whether CSR is simply "greenwashing" - i.e. in which businesses are required to provide environmental information and make other social commitments while continuing to cause undue damage, such as social costs, or if it is a genuine and serious attempt to control and improve behavior in order to distribute more evenly the costs and benefits of industrial development - that is, to use profits for non-income-generating social purposes, whether to minimize harm as social costs or to create a public as poverty reduction (Sheehy, 2015). The second complication stems from numerous scholarly description attempts. Occasionally, the

review will move on to establishing parameters for making the decision (Sheehy, 2015). Such descriptive concepts, on the other hand, are stated to fall short of addressing the core problem, which is determining the essence of the phenomenon in question (Sheehy, 2015). The significant battle between political ideologies that underpin the discourse and debate is the third complication in defining CSR (Sheehy, 2015). The public–private divide, the position of government, the place of private business or "markets," and political rights are all discussed in these political ideologies (Sheehy, 2015). The fourth and final complication, mentioned by Sheehy (2015), represents the government's desire to encourage and use CSR to address social and environmental problems, perhaps in the hope of finding a compromise that is less politically expensive than direct government control. Sheehy (2015) states that governments fail to do so, due to them being trapped between the need to resolve policy imperatives arising from electoral commitments, political self-interest, and business politico-economic influence. As a result, the author states, it is clear that governments have their own agenda, which is distinct from, and often at odds with, academics', companies', and political philosophers' agendas (Sheehy, 2015).

Khan et. al. (2012) address similar conflicts and state, among other things, that identifying a coherent and sensible meaning from among the bewildering variety of terms and meanings suggested in the literature is one of the challenges of investigating the concept of CSR. The authors introduce two distinct elements of CSR; explicit CSR and implicit CSR. Corporate policies that assume and articulate responsibility for certain social interests are referred to as "explicit CSR" (Khan et al., 2012). It usually refers to corporate voluntary initiatives and policies that combine social and business benefits while often resolving problems that are seen as part of the company's social responsibility (Khan et al., 2012). The key point here is the voluntary nature of explicit CSR (Khan et al., 2012). The term "implicit CSR" refers to corporations' role in advancing society's interests and concerns through formal and informal institutions (Khan et al., 2012). It entails principles, norms, and rules that place responsibilities on companies to deal with stakeholder concerns and establish mutual obligations (Khan et al., 2012). Generally speaking, companies that practice explicit CSR use CSR terminology to communicate their strategies and procedures to their stakeholders, while companies that practice implicit CSR do not.

Visser (2012) claims that CSR has failed as an enterprise, governance, and ethics framework. If we are to reverse the current trajectory of many of the world's most pressing social,

environmental, and ethical trends, the author contends that a different kind of CSR is needed. Visser (2012) begins by examining business's historical development through the Ages and Stages of CSR: going through the Ages of Greed, Philanthropy, Marketing, and Management, respectively, using protective, charitable, promotional, and strategic CSR approaches. Then he looks at the Three Curses of Modern CSR (incremental, peripheral, and uneconomic), before speculating about what CSR could look like in an emerging Age of Responsibility (Visser, 2012). Finally, he proposes the implementation of CSR 2.0, also known as systemic or radical CSR, which is focused on five principles (creativity, scalability, responsiveness, glocality, and circularity) and serves as the foundation for a new DNA model of responsible business centered on the four elements of value creation, good governance, societal contribution, and environmental integrity (Visser, 2012). Furthermore, these five elements, introduced by Visser (2012), are described in brief. The first principle, creativity, is argued with the need for innovation and imagination to succeed in the CSR revolution. The second principle, scalability, states that CSR strategies that cannot balance the scale and urgency of the sustainability challenges we face, whether it's climate change or poverty, are red herrings at best and evil diversions at worst. The third principle, responsiveness, necessitates uneasy, transformative responsiveness, raising the question of whether the market or business model is part of the solution or part of the problem. The fourth principle, glocality, refers to that companies will have to become much more sophisticated in their interpretation of local contexts and the relevant local solutions they demand, without sacrificing universal values. Lastly, the fifth principle, circularity, elevates the value of sense in work and life to parity with environmental stewardship and financial viability.

Visser (2012) states that these principles are the acid test for future CSR practices. These shifting principles present CSR 2.0. The four DNA Responsibility Bases are at the heart of the CSR 2.0 DNA model; value development, good governance, societal contribution, and environmental integrity (Visser, 2012). Every DNA Base has a primary target, with main indicators for each goal (Visser, 2012). When arguing value creation, it's acknowledged that it involves more than just financial profit. Economic growth is the aim, which entails not only enriching shareholders and executives, but also improving the economic environment in which a business operates, such as investing in infrastructure, creating employment, and providing skills development, among other things (Visser, 2012). When explaining good governance, the author states that it has yet to be fully acknowledged or incorporated in CSR circles. Furthermore, this is argued since institutional efficiency is just as critical as loftier social and

environmental goals (Visser, 2012). Along with embedding ethical behavior in the culture of businesses, trends in reporting, as well as other types of disclosure such as social media and brand- or product-linked public databases of CSR results, will become increasingly important measures of progress (Visser, 2012). The third DNA base involves societal contribution (Visser, 2012), which is often mentioned when recognizing CSR. The societal contribution restores philanthropy to its proper position in CSR while also emphasizing the value of fair labor practices (Visser, 2012). One of the most difficult and crucial aspects of CSR is stakeholder involvement, group participation, and supply chain transparency (Visser, 2012). The last base that is mentioned is environmental integrity, which raises the bar well beyond harm minimization, aiming to protect and improve ecosystem sustainability (Visser, 2012). The author makes some concluding remarks regarding the term. He remarks that sustainability and responsibility are different terms, but, at the same time, yet complementary elements of CSR. He states that sustainability can be thought of as the final destination, while responsibility is more about the journey (Visser, 2012).

A wide range of stakeholder groups exert pressure and demand for CSR initiatives (Moir, 2001). As a result, several mechanisms for categorizing, ranking, and reporting CSR initiatives have emerged. Moir (2001) introduces one of these, CSR Europe, which is a membership group for large European companies with its own reporting requirements, which looks at six areas where CSR activities should be focused and considered; employees, the market (customers, suppliers), the environment, society, ethics, and human rights. At the same time, the author emphasizes that CSR can be applied in a variety of ways, depending on the priorities and interests of the company in question, so CSR can take several different forms in different industries (Moir, 2001). Several fields, however, are shared by many businesses. Those who hold the firm's neoclassical values, for example, claim that the company's only social duty is to provide jobs and pay taxes (Moir, 2001). An alternative view of the firm, based on behavioural theorists, might look at corporate social activity from the perspective of political and noneconomic effects on managerial behavior (Moir, 2001). The discussion continues and demonstrates several aspects of the concept. There is a clear similarity of this interpretation and Sheehy's (2015), stating that much of the conflict is the result of the complexity and complication of the concept.

Aside from the complicated existence of the issues faced by CSR and these complicating factors, it is obvious that CSR is a vast and multifaceted enterprise. This chapter shows that it

is difficult to find or create a concept that doesn't concentrate on only one or a few of these causes, problems, actors, or solutions. However, some interesting suggestions and statements have been made, and the chapter therefore illustrates briefly what the concept involves. It is beneficial to examine different points of views to get a better understanding, and, possibly, recognize some of them when analyzing concrete data at a later point in time.

2.2 History of CSR in the World

Despite its recent development and success, evidence of the business community's concern for society can be traced back centuries. CSR is a concept with a long and varied history and while the term CSR has become more common in recent years, there are signs that it has been around for much longer (Carroll, 2015). The idea can be traced back to the industrial revolution (Carroll, 2015), the spread of business philanthropy (Jhawar & Gupta, 2017), the realization that workers' productivity is influenced by their working conditions (Mosca & Civera, 2017), and a number of other factors. This section explains how the concept has evolved from an emphasis on a few close-knit stakeholders to one that is more far-reaching and inclusive, gradually being global in nature (Carroll, 2015).

Carroll (2015) has examined the history of CSR, how the concept has grown, manifested itself, and flourished. The author considers the late 1800s, or the Industrial Revolution, as a beginning point when looking at the development of CSR. A similar statement is made by Mosca and Civera (2017). They state, among other things, that some of the earliest traces of socially conscious practices can be found in the mid 1800s, with the start of the Industrial Revolution, when businesses realized the social impacts that their daily business operations would have on minors, workers' household spending, female labor, and working conditions in general (Mosca & Civera, 2017). When looking at emerging companies in the mid-to-late 1800s, it is clear that they were particularly concerned with employees and how to make them more efficient workers (Carroll, 2015). However, determining what organizations do for business purposes, i.e., to make workers more efficient, and what organizations do for social reasons, i.e., to help meet their needs and make them better and more contributing members of society, was difficult then, as it is now (Carroll, 2015). Carroll (2015) acknowledges poor factory systems to have been the source of numerous social problems, including labor unrest, poverty, slums, and child and female labor. As a result, the industrial betterment/welfare movement arose, which was defined

as a patchwork of humanitarianism, philanthropy, and business acumen (Carroll, 2015). This movement's welfare schemes aimed to avoid labor problems and increase production by taking steps that were both corporate and social in nature (Carroll, 2015). Hospital clinics, bathhouses, lunchrooms, benefit sharing, leisure facilities, and other similar activities are examples of facilities that were offered as a result of the welfare schemes (Carroll, 2015). Several scholars, including Jhawar and Gupta (2017), discuss this argument for the growth of CSR. Among other things, businesses began to provide social welfare on a small scale with the advent of the labor movement and the spread of slums caused by the industrial revolution, including the building of hospitals and bath houses and the distribution of food coupons (Jhawar & Gupta, 2017). However, as previously mentioned, it is unclear if the design of these schemes to improve workers' working conditions should be labeled business decisions or social decisions. Likewise, it is unclear if they represent a company's willingness to take responsibility for its employees beyond what is required by law (Jhawar & Gupta, 2017). It's difficult to offer definitive answers to these questions, despite the fact that both motivations seem to be obvious. In addition to concern for workers, philanthropy began to emerge in the late 1800s, although it was often difficult to distinguish between individual philanthropy and company philanthropy (Carroll, 2015). Early business leaders were very charitable, and such philanthropy by business people dates back decades, with patrons of the arts, church builders, educational endeavors, and money providers for various community projects among them (Carroll, 2015).

The world had changed dramatically as a result of the industrial revolution. Coal, iron ore, and clays were mined on a large scale, leaving massive scars on the landscape (Srivastava et al., n.d.). Most towns and cities began to build factories, and the population began to expand (Srivastava et al., n.d.). People started to recognize toward the end of the 1950s and early 1960s that technology and economic development were not necessarily optimistic, and that they could have disastrous consequences (Srivastava et al., n.d.). From there, the international community began to pay serious attention to a new way of development (Srivastava et al., n.d.). Despite the fact that such social issues have been adopted since the earliest types of more developed businesses were formed, CSR did not reach the business terminology until the 1950s (Carroll, 1999). Howard R. Bowen's pioneering book Social Responsibilities of the Businessman (1953) is widely regarded as the start of the modern age of literature on the topic (Carroll, 1999, 2015; Jhawar & Gupta, 2017; Khan et al., 2012; Mosca & Civera, 2017; Srivastava et al., n.d.). This contribution is stated, to mark the new age of social responsibility (Srivastava et al., n.d.). Bowen's work was based on the belief that the world's largest corporations were critical centres

of influence and decision-making, and that their decisions had a wide impact on citizens' lives (Carroll, 1999). "What societal obligations could businessmen fairly be supposed to assume?" he questioned, among other things (Carroll, 1999). This is essential in the discussion of the topic until this day. Bowen argued that while social responsibility is not a panacea, it does contain an important reality that must drive future business decisions (Carroll, 1999). Because of his early and seminal work, Carroll (1999) refers to him as the "Father of Corporate Social Responsibility".

Further, the 1960s was said to mark an important period in the evolution of CSR (Mosca & Civera, 2017). The 1960s saw a major increase in attempts to formalize or, more precisely, define what CSR is (Carroll, 1999). Carroll (1999) cites Davis (1960) and his arguing that social responsibility is a nebulous idea but should be seen in a managerial context. Furthermore, according to the same author, some socially responsible business decisions can be justified through a lengthy, complicated process of reasoning as having a good chance of delivering long-term economic benefit to the company, thereby compensating it for its socially responsible outlook (Carroll, 1999). Davis gained prominence for his views on the relationship between social responsibility and corporate influence (Carroll, 1999). This is particularly intriguing because, in the late 1970s and 1980s, this viewpoint became widely accepted. Both Carroll (1999) and Mosca & Civera (2017) mention Davis's "Iron Law of Responsibility" (Carroll, 1999; Mosca & Civera, 2017). According to the saying, avoiding accountability would inevitably lead to a loss of social control for businesses, which is why entrepreneurs should plan actions and make decisions that go beyond purely economic concerns (Mosca & Civera, 2017). In addition, in the 1960s, William C. Frederick (1960), Joseph W. Mcguire (1963), and Clarence C Walton (1967) is mentioned by Srivastava et. al. (n.d.) to have shed light on CSR and to provide more concise descriptions.

Although significant progress was made in CSR conceptualisation and strategic significance during the 1950s and 1960s, concrete CSR programs within organizations did not begin to concentrate on activities other than philanthropy until the 1970s (Mosca & Civera, 2017). When describing CSR's history and the 1970s, Harold Johnson's (1971) *Business in Contemporary Society: Framework and Issues* is regularly mentioned (Carroll, 1999, 2015; Jhawar & Gupta, 2017; Mosca & Civera, 2017; Srivastava et al., n.d.). Instead of focusing solely on increasing shareholder returns, the author suggested that a responsible business considers the needs of workers, vendors, distributors, local communities, and the nation as a

whole (Jhawar & Gupta, 2017). In its 1971 publication, Social Responsibilities of Business Corporations, the Committee for Economic Development (CED) made a groundbreaking contribution to the definition of CSR (Carroll, 1999, 2015; Mosca & Civera, 2017). The CED went on to define social responsibility in three concentric circles: the inner circle, the intermediate circle, and the outer circle (Carroll, 2015). Whereby, the basic obligations for the efficient execution of the economic function—products, employment, and economic growth are clearly defined in the inner circle (Carroll, 2015). The intermediate circle includes the duty to carry out this economic role while being responsive to shifting social values and priorities, such as environmental conservation, hiring and employee relations, and more stringent consumer demands for details, equal treatment, and injury prevention (Carroll, 2015). Finally, the outer circle delineates newly evolving and yet nebulous roles that businesses can take on in order to become more broadly involved in actively improving the social climate (Carroll, 2015). The CED's construction of CSR is notable in that it is made up of businesspeople and educators, reflecting a significant practitioner perspective on the evolving social contract between business and society, as well as businesses' newly emerging social obligations (Carroll, 1999).

Poverty, demographic pressure, social inequity, and trade terms were all problems in the early 1980s, while biodiversity was recognized as a vital characteristic in the proper functioning of the global environment (Katsoulakos et al., 2004). The Brundtland report developed the principles of sustainable development in the late 1980s, and core ideas such as natural resources and measuring sustainability began to emerge. Over the same time period, the number of countries encouraging environmental and social reporting grew (Mosca & Civera, 2017). The controversy over businesses' very real responsibility emerged and grew in the 1980s, with the emergence of theories supporting CSR as a theory guiding managerial decision making through economic, legal, ethical, and discretionary responsibility (Mosca & Civera, 2017). In the 1980s, the emphasis on creating new or refined meanings of CSR gave way to CSR research and a fragmentation of writings into alternate terms and themes such as corporate social responsiveness, corporate social performance (CSP), public policy, business ethics, and stakeholder theory/management, to name a few (Carroll, 1999). The strategic and ethical value of people directly and indirectly linked to and engaged in a company's activities became the guiding force behind CSR conceptualisations from this decade onwards, in line with the corporate citizenship claim, which advocates a corporate role that seeks to enhance the effect of corporations' acts and behaviors on society (Mosca & Civera, 2017). The late 1980s and

1990s mark the ages of scholars who contributed to enriching CSR's managerial implications and promoting its institutionalization as a normal strategic growth of CSR (Mosca & Civera, 2017).

International trade, concerns about energy supply and global warming, the boom of telecommunications, an increasing obsession with international terrorism and conflict, and an escalation of the social problems of the 1990s have all dominated the twenty-first century (Srivastava et al., n.d.). The CSR movement has been a global phenomenon for the past 20 years, but particularly in the 2000s (Carroll, 2015). It is possible to gain significant management experience in legal and ethical enforcement (Carroll, 2015). This is due in part to the growing institutionalized support in terms of daily business practices, management principles, professional societies, and specialist consulting and auditing services (Carroll, 2015). CSR has become more pragmatic in the corporate sense as a result of the proliferation of standards and norms (Srivastava et al., n.d.). Srivastava et. al. (n.d.) cite the Global Reporting Initiative (GRI), the United Nations Global Compact, triple bottom line accounting, and AccountAbility's AA1000 as CSR reporting initiatives that were introduced during these years. The Global Reporting Initiative was established in 1997 by the US-based non-profits Coalition for Environmentally Responsible Economies (CERES) and Tellus Institute, with funding from the United Nations Environment Programme (UNEP), and the guidelines are widely credited with bringing sustainability reporting into the mainstream of business (Srivastava et al., n.d.). The United Nations Global Compact is a global agreement that encourages companies to implement and report on sustainable and socially responsible policies. Companies are brought together with UN agencies, labor organizations, and civil society under the Compact (Srivastava et al., n.d.). John Elkington coined the phrase "triple bottom line accounting" in 1994, extending the conventional reporting system from financial performance (profit) to environmental (planet) and social (people) (Srivastava et al., n.d.). Finally, through quality social and ethical accounting, auditing, and reporting, AA1000 offers a mechanism to assist organizations in increasing their transparency and social responsibility (Srivastava et al., n.d.). It addresses the need for businesses to incorporate stakeholder participation into their everyday operations (Srivastava et al., n.d.).

History of CSR often necessitates an understanding of the shifts that shaped CSR's approach and resulted in its broadening reach. Jhawar & Gupta (2017) explain some of the factors that have contributed to changing the environment of business. The first factor that is mentioned is

globalization. Globalization of the economy, as well as the activities of small businesses, is a key factor (Jhawar & Gupta, 2017). Companies that operate internationally face a variety of new challenges (cultural and regulatory differences, labor and child labor standards, bribery and corruption, health crises, human rights, deforestation, etc.) (Jhawar & Gupta, 2017). Secondly, companies have been forced to adapt by the exponential growth of civil society organizations (CSOs) and nongovernmental organizations (NGOs), which often challenges corporate actions (Jhawar & Gupta, 2017). The NGOs at the heart of this grassroots CSR campaign are diverse in terms of aims, ranging from direct assaults on corporations' fundamental control to attempts to improve positive and mitigate negative impacts, and equally diverse in terms of tactics used, ranging from conflict to cooperation, from stand-alone operations to extremely sophisticated coalitions of NGOs (Jhawar & Gupta, 2017).

Furthermore, political pressure has sparked initiatives in legislative and intergovernmental bodies. The World Trade Organization (WTO), which sets the rules for global trade, has been a focal point for discussion about the scope of business obligations, despite its aversion to connecting economic and social issues (Jhawar & Gupta, 2017). Climate, labor rights, human rights, trade, corruption, corporate governance, health, accountability and disclosure, and so on are among the topics covered (Jhawar & Gupta, 2017). The third factor regards societal values. Companies' obligation to better society and the world seems to be emphasized by societal standards (Jhawar & Gupta, 2017). The growth of NGOs, shifting informal norms as well as legal prescriptions for business behavior, the rise of cause-related marketing, and the connection between a company's image and its giving and community engagement can all be linked to shifts in public values and opinion (Jhawar & Gupta, 2017). In addition, socially responsible investment is mentioned. Environment, military armaments, alcohol, tobacco, and community or economic growth – to name a few – have all piqued the interest of "ethical" investors (Jhawar & Gupta, 2017). Socially responsible investors (SRI) and analysts have increased pressure on businesses to disclose social, environmental, and ethical risks that could affect their company, as well as to report on social, environmental, and financial performance on a regular basis (Jhawar & Gupta, 2017). The last factor that is mentioned is codes and standards. Although some codes and guidelines are the result of business leaders' own efforts, many others are the result of customer and non-governmental organization lobbying and public frustration with corporate conduct (Jhawar & Gupta, 2017). In several cases, businesses have joined multi-sector projects to create standards as collaborators (Jhawar & Gupta, 2017). Some are based on international treaties, such as the UN Declaration on Human Rights or the various ILO labor conventions (Jhawar & Gupta, 2017).

The principle of corporate social responsibility (CSR) has a long and varied history in the literature. While there are many references to CSR prior to the 1950s, the decade marked the beginning of the so-called "modern age" of CSR definitions (Carroll, 2015). In the 1970s, there was a proliferation of CSR definitions (Carroll, 2015). Alternative emphases, such as corporate social responsiveness and corporate social performance (CSP) (Carroll, 1999), became prevalent at the same time as CSR meanings became more precise. There were less original concepts of CSR in the 1980s, and rather more attempts to quantify and perform CSR analysis, and alternative thematic frameworks (Mosca & Civera, 2017). In the 1990s and the new millennium, measurement initiatives and theoretical advances received increased attention (Srivastava et al., n.d.). As for the CSR concept today, it still has no universal definition, but it has economic, social, and environmental aspects in its current form (Carroll, 2015). A variety of approaches to sustainability and accountability characterize the CSR environment, as seen by a fast overview of the historical and strategic evolutions of CSR. As a result, CSR is viewed as a multidimensional concept. Since it is a vital underpinning to many other ideas and is consistently consistent with what the public needs of the business world today, the CSR definition will remain an important part of business language and practice (Mosca & Civera, 2017). In today's world of fierce global competition, it is clear that CSR will only be successful if it adds value to corporate success. However, it should be noted that society, or the general public, is increasingly playing a role in what defines business success, rather than just business executives, and as a result, CSR has a bright future in the global business arena (Mosca & Civera, 2017). However, as global rivalry intensifies, the 'business case' for CSR will continue to be at the forefront of discussion (Mosca & Civera, 2017).

2.3 Government's Role in CSR

CSR is assumed to be on the political agendas of the majority of governments around the world. All of these governments face a significant social challenge in responding to the new role of corporations in economic growth, as well as the social and environmental issues that this entails (Albareda et al., 2008). Governments have joined other stakeholders in playing a relevant position as CSR drivers over the last decade, collaborating with intergovernmental

organisations and acknowledging the importance of public policy in promoting a greater sense of CSR (Albareda et al., 2008). The word "government" refers to a country's state governance apparatus, including its political system, bureaucracies and institutions, and sublevels (Habisch, 2005). The essence of the relationship between the state and its populations and businesses, the state's vulnerability to foreign pressures, transparency and knowledge accessibility, and the implementation and accessibility of a legal system are all important factors influencing governments' willingness to meet these demands and influence extractive industry CSR growth initiatives (Habisch, 2005). This subchapter categorizes potential government positions in CSR and highlights the concerns surrounding their involvement.

Habisch (2005) acknowledges two categories when a role for government is implied in the CSR process; accompaniment or direct involvement. Whereby facilitation, capacity building, teamwork, and conflict management techniques are all examples of accompaniment, and a vision and priorities for the role of business, human rights responsibilities, setting a clear framework, and boundaries for CSR and market rules are all covered by direct involvement (Habisch, 2005). CSR requires governments to navigate a complex set of partnerships in order to create a win-win situation between businesses and social organizations (Albareda et al., 2008). As a result, it's reasonable to assume that this entails programs that include both CSR facilitation steps and explicit CSR specifications. Nidasio (2004) cites World Bank (2002) which shares a similar view, but mentions a few more roles of the government. Mandating, promoting, collaborating, and supporting are said to be the four major public sector functions in maintaining CSR, representing the overall spectrum of initiatives currently being pursued (Nidasio, 2004). Firstly, governments at various levels establish minimum standards for business performance that are enshrined in the legal system in their "mandating" role (Nidasio, 2004). Secondly, government institutions play a "facilitating" position by allowing or incentivizing businesses to participate in the CSR agenda or to push social and environmental changes (Nidasio, 2004). Thirdly, in solving complex social and environmental issues, strategic partnerships will bring together the complementary expertise and inputs of the public sector, private sector, and civil society (Nidasio, 2004). And lastly, a fourth public sector position is reflected in political support and public sector endorsement of the idea of CSR and, in particular, CSR-related initiatives (Nidasio, 2004). There are clear similarities between the two approaches, whereby facilitation is mentioned by both studies. In addition, there are observed similarities when recognizing the importance of teamwork and strategic partnerships. Finally,

both studies mention the need for clear guidelines, in the form of market rules, minimum standards and boundaries for CSR.

Despite the leadership emphasis of CSR and the widely acknowledged voluntary existence of CSR, Steurer (2010) uses five literature-based propositions to argue for governments' interests. For starters, governments are said to be interested in CSR because voluntary business activities can assist in meeting policy objectives (Steurer, 2010). This motivation encompasses not only policy priorities related to sustainable development and environmental conservation, but also goals related to human development and development assistance (Steurer, 2010). Second, CSR policies are seen as an appealing complement to hard-law regulations in situations where new regulations are politically unpalatable or impossible, and the soft-law nature of CSR and CSR policies means comparatively low political costs in terms of special interest group opposition when opposed to hard-law regulations (Steurer, 2010). In this regard, Steurer (2010) cites Haufler (2001), who defines CSR as a component of the "third way" between socialism and capitalism, which offers social protections while boosting national economic competitiveness. Third, he states that policymakers invariably associate corporate social responsibility (CSR) with traditional social and environmental legislation, since the "voluntary business commitment to sustainable growth" begins where the legal structure ends (Steurer, 2010). Fourth, a review of recent governance literature reveals that CSR policies' soft approach correlates with a wider shift in public governance, moving away from hierarchical control and toward more network-like and collaborating modes of self- and co-regulation (Steurer, 2010). Finally, since CSR is concerned with managing business relationships with a wide range of stakeholders, it reshapes not only management routines, but also the roles and relationships among companies, governments, and civil society, resulting in "shifting involvements of the public and private" sectors (Steurer, 2010). With this context, it's clear to see why governments are interested in both contributing to and affecting CSR in their respective countries. It's also fair to believe they play a key role in the implementation of various CSR initiatives.

After explaining why governments are interested in CSR, Steurer (2010) continues to build a typology of CSR policies that distinguishes five types of policy instruments (legal, economic, informational, partnering, and hybrid) and four thematic fields of action (raise awareness, improve transparency, foster socially responsible investment and lead by example). He starts by distinguishing a widely recognized standard set consisting of informational, economic and legal policy instruments (Steurer, 2010). Whereby, informational instruments are based on the

resource of knowledge, economic instruments are based on the resources of the taxing authority and money, and legal policy instruments use the state's legislative, executive, and judicial powers to administer the desired choices and behavior (Steurer, 2010). Further, the author introduces two complementary instruments; partnering instruments and hybrid instruments. Whereby, partnering instruments are based on a co-regulatory networking logic, meaning that different parties are involved in cooperating to achieve common goals, for example, so they can trade complementary resources and escape traditional regulations (Steurer, 2010). Adding hybrid instruments is said to be necessary due to the fact that numerous government initiatives on CSR either combine or orchestrate two or several other instruments (Steurer, 2010). Steurer (2010) goes on to define the areas of operation in which these policy instruments are used. He states that CSR policies can be characterised by the following four thematic fields of action: raise awareness and build capacities for CSR, improve disclosure and transparency, facilitate socially responsible investment, and lastly, leading by example (Steurer, 2010). Firstly, due to CSR's voluntary nature, raising awareness of CSR is identified as an essential task, and, as a result, management practices and business results are largely dependent on how social and environmental issues are viewed by both companies and stakeholders (Steurer, 2010). Improving disclosure and transparency is vital because investors, regulators, staff, suppliers, and consumers all need accurate information on a company's economic, social, and environmental results in order to favor those who take CSR seriously (Steurer, 2010). Thirdly, fostering SRI is stated to contribute to the integration of CSR into the workings of shareholder capitalism (Steurer, 2010). Lastly, leading by example regarding socially responsible practices is said to foster CSR. Making public procurement more sustainable, applying SRI concepts to government funds, and implementing CSR management systems and audits in public institutions are all examples of how this can be accomplished (Steurer, 2010). Steurer (2010) concludes and states that CSR began as a neoliberal ideology that helped to reduce government controls, but it has since evolved into a more radical approach to societal co-regulation.

This chapter looks at some of the variables that go into determining how governments participate and play a role in CSR. It discusses the various roles that governments play in CSR systems, as well as how they can both accompany and promote voluntary CSR while also being actively involved and establishing specific structures and boundaries. Furthermore, various explanations for governments' involvement in and willingness to contribute to CSR in a country is explored. Finally, the chapter discusses multiple types of CSR policy instruments as well as the areas of operation where they are used. The literature shows that governments have the

ability, willingness, and self-interest to influence and control CSR processes in their countries. There is no universal consensus on how it should be achieved or what role they should play, but it is fair to believe that participating in the process benefits both businesses and nations.

3. CSR and the Economy

Theories that are often referenced in the literature on CSR have been identified, whereby the shareholder theory and the stakeholder theory are two ideas that are frequently referenced in relation with the economic element of CSR. According to shareholder theory, a company should operate in the best interests of its shareholders, and including other stakeholders in decision-making will reduce shareholder value (Pfarrer, 2010). The stakeholder theory, on the other hand, contends that possible agency costs may be avoided by taking into account the interests of all stakeholders who are affected by the firm's choices (Oruc & Sarikaya, 2011). This chapter is devoted to looking at the economic aspect of the concept. The chapter starts with a section on the stakeholder theory (sub-chapter 3.1), before introducing the shareholder theory (sub-chapter 3.2). Furthermore, the last section accounts for firms' profitability.

3.1 Shareholder Theory

Throughout the ages, companies have been concerned with maximizing profits and having the least possible expenses. Companies have been more concerned with their own interests than the surroundings around the company. This may indicate that there has been minimal social responsibilities. The fact that the company is concerned with its own interests can make the company more attractive to its owners and shareholders and may in the long run attract new investors and shareholders. Getting involved in social responsibility can lead to extra costs for the company and thus negatively affect economic performance and shareholder value. The shareholder theory will provide a better understanding of why companies should not get involved in corporate social responsibility and what ways this can provide better value to shareholders, companies and the environment.

The shareholder theory has existed for over three decades, and there are many different shareholder theories that have been developed over time. Shareholder theory is one of two corporate governance theories, where the other one is the stakeholder theory (Zhang, 2011). Although there are many different shareholder theories, it is Milton Friedman's argument that has been the most famous and influential within the shareholder theory (Schaefer, 2007). Friedman's theory can be defined as "the one and only obligation of business is to maximize its profits while engaging in open and free competition without deception or fraud" (Friedman, 1962). The shareholder theory gets a lot of support in the finance community. The idea is widely accepted in the academic finance world and is a key component of corporate financial theory (Schaefer, 2007).

Milton Friedman's support of the shareholder position is from the well known quotation that is publicated in the book Capitalism and Freedom (1962) and has also been published in the New York time magazine (1970); "there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits as long as it stays within the rules of the game, which is to say, engages in open and free competition without deception and fraud" (Friedman, 1962). This statement has an important role in the discussion around the shareholder theories (Mansell, 2013). In order to appreciate this statement, there is a need to highlight the political and ethical principles Friedman argues underpin the "rules of the game". Friedman's can be associated with the liberal side, which upholds inviolability of individuals and the existence of absolute barriers protecting them from unlawful compulsion. Similarities can be drawn between Friedman's ethical principles and libratism, which are defended through the book Nozick's Anarchy, State and Utopia (1974). Friedman's views on corporate social responsibility are informed by his libertarian philosophy.

What is very central to his concept is to have the right to own property and is the basis for a free individual (Mansell, 2013). He writes in a later article as follows; "In an ideal free market resting on private property, no individual can coerce any other, all cooperation is voluntary, all parties to such cooperation benefit or they need not participate. There are no 'social' values, no 'social' responsibilities in any sense other than the shared values and responsibilities of individuals. Society is a collection of individuals and of the various groups they voluntarily form" (Friedman, 1970). Mansell (2013) states that on the basis of this statement, it is possible to extract two moral axioms. The first is that the individual can use his freedom as they wish, provided that they do not violate the same right in others (Mansell, 2013). The next is that a free-trading person should have the opportunity to own personal property (Mansell, 2013). There shall be freedom to use this property within the established limits

prepared from the first principle, and shall be the fundamental right of the individual (Mansell, 2013). On the basis of these principles, it should provide a simpler understanding of why Friedman's rejection of CSR. It is still a challenge to see how these principles should contribute to the social responsibility towards the business being able to increase profits (Mansell, 2013).

Friedman believes that corporate social responsibility does not exist, because as the free choice of the individual, only on the basis of his moral principles will individuals be able to claim to have a moral responsibility (Friedman, 1970). This is consistent with his assumptions that the freedom to possess property will be an important component of the concept of a free individual, and since the shareholders are the owners of the business, this will fall under the possibility of determining the purposes for which the various assets of the business are used (Friedman, 1970).

The numerous shareholder theories all agree that the government should have as little engagement and regulatory intervention in the corporation as feasible (Pfarrer, 2010). This is if the company manages to put its self-interest first, where the goal for the company is to maximize profits (Pfarrer, 2010). This is something the society will be able to benefit from (Pfarrer, 2010). In shareholder theories the goal is that the corporate executives should work to maximize the wealth of the shareholders in the company, rather than to take into account all the other stakeholders that are around the firm (Pfarrer, 2010). Theorists believe that solving social problems is not something the company should take responsibility for, but is something that should be left over to the state or voluntary organization (Pfarrer, 2010). Friedman is of the opinion that they can handle this development better. Activities that do not have a direct impact on increasing the shareholders "wealth, the theorists believe, are meaningless and help to waste the shareholders" money (Pfarrer, 2010). This is something that is immoral because this is like stealing money from the owners (Pfarrer, 2010).

Should companies take part in social and public policy issues, wealth within the company will be passed on to the problems that lie outside the core competence of the leaders (Pfarrer, 2010). The purpose of setting up companies is to be able to make money, not to take care of the development of the social or moral development of society (Pfarrer, 2010). Using wealth in this manner is ineffective, and it will have a detrimental impact on society in the long run (Pfarrer, 2010). It is worth noting that Friedman never supports companies that act unethically, immorally or illegally. Although he supports companies that will maximize profits for the

shareholders, it is important that this is done within the rules of the game (Pfarrer, 2010). Then it is important that the firm acts within the moral, ethical and legal boundaries of society (Pfarrer, 2010). The purpose was for the government and the citizens to take on that responsibility for creating these borders (Pfarrer, 2010).

Although the shareholder hypothesis has many advantages, it has also been criticized. In some cases a manager will do everything possible to maximize profits. Then managers fail to follow the shareholder theory that dictates that this should only be done through legal and non-misleading means (Smith, 2003). In other circumstances, shareholder theory is criticized for focusing solely on short-term profit maximization at the detriment of the long-term. However, some shareholder theorists believe it is critical to take this into consideration and have managers assess it in a long-term perspective (Smith, 2003). The last point that has been raised as a criticism of shareholder theory is that it prohibits the corporation from investing in both charitable projects and employee morale (Smith, 2003).

3.2 Stakeholder Theory

Companies operate in markets that can be perplexing, with a wide range of stakeholders ranging from a few to hundreds. It's not always straightforward for businesses to decide which of these stakeholders to prioritize. The operation of the company can in many cases be influenced by all the stakeholders and via verses. It is no longer the case that companies only focus on maximizing profits and self-interest, but assessing the importance of all stakeholders has gained an important place in the company culture (Jensen, 2010). This is something that can have a significant impact on the economic performance and value of a business (Jensen, 2010). Through the stakeholder theory, it will try to provide a better understanding of the importance of the various stakeholders and which stakeholders companies should take into account. This theory should justify why companies that see the bigger picture can lead to the company increasing its economic performance and value (Jensen, 2010).

In the last decades, the stakeholder's theory has gotten a lot of attention and has become a rich area of research. In the business literature it is possible to trace the stakeholder concept back to the 1960s, but the idea behind the concept is possibly much older than that (R. Freeman & Phillips, 2002). The original stakeholder theory was presented as follows: "Those groups

without whose support the organization would cease to exist" and has later been modified. The stakeholders were originally composed of shareowners, customers, suppliers, lenders and society. In 1970, stakeholder theory began to emerge in several places in the strategic planning theory (R. E. Freeman, 1984). It is meant to expand the management's vision about their role and responsibility that goes beyond only profit maximization, but also to involve interests and claims of non-stock holding groups. The stakeholder theory is the second part of the two corporate governance theories (Abo et al., 2007). The stakeholder theory tries to express an important question in a systematic way; which group are stakeholders deserving or requiring management attention and which are not? (Abo et al., 2007). It is based on the company's definition of stakeholder. A firm is described as a series of connections of stakeholders where the leader in the firm tries to find the best way to control them (Freeman, 1984). There are a lot of different definitions of stakeholder, but the most common definition of a stakeholder can be traced back to Freeman (1984) publication Strategic Management: A Stakeholder Approach: "any group or individual who can affect or is affected by the achievement of the organization's objectives".

The definition of who are the stakeholders in a firm is wide, it ranges all from stockholder, creditors, employees, customers, suppliers, public interest groups, governmental, human rights, environmental activists and other groups that have the possibility to hurt or help the corporations. Each group can be subdivided into smaller components to acquire a better understanding and overview. Then there's the chance to discover that practically every employee, just like the government and other groups, is a little different (R. E. Freeman, 1984). When stakeholders are included in strategic management, it will be a new way of thinking (R. E. Freeman, 1984). When leaders begin to focus on strategic management, they can re-establish the company's success (R. E. Freeman, 1984). The different stakeholder is a key player in the firm's strategies and outcomes because all the players get influenced and are influenced by the corporate actions (Al-Shammari, n.d.).

It is not only society that the company has the opportunity to influence but also all their various stakeholders (Elijido-Ten, 2007). The stakeholder theory is about the relationship that is created between the organization and its stakeholder (Fernando & Lawrence, 2014). The stakeholder theory shows how important it is to take care of all the stakeholders who have legal interests in the organizations, regardless of their size. The theory should address the relationship that is related to the stakeholders when it comes to the process and the outcome

(Oruc & Sarikaya, 2011). It emerges from this theory that the relationship associated with the stakeholders can be managed effectively. Relationships and collaboration practice with stakeholders will be key to establishing successful company administration (Oruc & Sarikaya, 2011). By acquiring new definitions of organizational responsibility, this will help to increase efficiency. In this way, it may not be possible to achieve the shareholders 'needs until the stakeholders' needs have been met (Oruc & Sarikaya, 2011). It proposes that while establishing strategy, a broad stakeholder network and interaction should be considered, as this would help to provide a better result than simply focusing on producing the greatest profit possible (Oruc & Sarikaya, 2011). Carrol and Buchholtz (2000) claim that the concept of stakeholder has been given a more important role in being able to understand the interaction between society and society (Oruc & Sarikaya, 2011). This theory helps to give the share concept a new dimension by including elements such as interests, requirements and rights. The fact that companies are able to control the definition of sharing on a larger perspective, will it be able to make the company cope with society's expectations and achieve the expectations in a much better way (Oruc & Sarikaya, 2011). The fact that companies must be more sustainable over time will require a more management method that takes more account of the interests and the advantages of all involved stakeholders (Oruc & Sarikaya, 2011). Stakeholder theory is frequently seen as an organizational management and ethical theory, and this should aid in highlighting the values and morals that are considered fundamental in organizational management (Oruc & Sarikaya, 2011). Stakeholder theory must be able to be used as a strategic management method that is founded on ethical values (Oruc & Sarikaya, 2011)

When the starting point is that the companies are to be managed from an overall point of view and emphasize the importance of taking into account those who have an interest in the companises, it is then important to find out which groups and individuals this applies for. This is something that applies to every business (Carson & Skauge, 2019). Even though the company has many different stakeholders, this does not mean that everyone is equally important when it comes to decisions in the company. It is important to distinguish between primary and secondary stakeholders. Employees, consumers, owners or investors, vendors, and local communities are only a few examples of key stakeholders (Phillips et., 2019). When these groups are listed, it is important to remember that they can have a significant impact on the company's value development. Secondary stakeholders, such as non-profit organisations, activists, government officials, and the media, have a more indirect involvement in the business and can only be considered in exceptional circumstances (Phillips et al., 2019).

When the companies have the ability to take good care of the various stakeholder groups mentioned above, this might lead to it working more efficiently (Phillips et al., 2019). This can help create more dignity for the company. The corporation can use the value created to its benefit in the form of maintaining and developing the business (Phillips et al., 2019). This will help to return value to the stakeholders that have contributed to the creation of this (Phillips et al., 2019). It is possible to divide the stakeholder theory into two, where the one is managerial and the other is prescriptive (Phillips et al., 2019). The reason for this is because it is based on leadership behaviour and the interaction between the firm and its constituencies (Phillips et al., 2019).

There are many positive things that come out of having control over the various stakeholders in a company, but it is important to highlight some of the criticisms the stakeholder theory has received (Phillips et al., 2019). When companies have to deal with many different stakeholders at once, it is not always as easy to deal with conflicts that arise between the stakeholders (Phillips et al., 2019). The company does not always know what it takes to resolve the ongoing conflict between the stakeholders (Phillips et al., 2019). Another challenge is how the company should treat the various stakeholders and have control over who the most important stakeholders are. This is not only special in the stakeholder theory but also in the shareholder theory as highlighted (R. E. Freeman et al., 2004).

3.3 Firms' Profitability

With a growing global focus on economic and environmental sustainability, firms are being required to report their corporate social responsibility activities (Chen et al., 2018). Since 1960, there has been a dispute about whether social responsibility (referred as CSR) and economic performance are related. There have been disagreements on the extent to which CSR reporting is measured in relation to the performance of the firm. Different models have been proposed, some of which may be inaccurate due to the omission of key elements that explain profitability factors (Hermawan, 2015). The question of whether corporate social responsibility (CSR) improves corporate financial performance (CFP) has a significant impact on CSR decision-making in a company. For a wide spectrum of business stakeholders, such as investors and strategic managers, the impact of Corporate Social Responsibility (CSR) on financial performance is becoming increasingly essential (Giannarakis et al., 2016). Different studies

have attempted to establish a link between CSP and corporate financial performance (CFP), but their findings have ranged from favorable to inconclusive. Ullmann believes that part of the reason why there are so many different results is that there are so many different research methods and goals for economic performance (McGuire et al., 1988). Some examples of economic performance are measured by stock price change, excess return, earnings-per-share forecasts, return on equity, return on assets. These are just a few of the many used in the economy (Kang et al., 2010).

There is various literature that highlights the positive impact CSR has on the profitability of a company. Both Louis W. Fry, Gerald D. Keim, Roger E. Meiners (1982) emphasize that companies that invest more in CSR must spend less money on advertising. The consequences of this will be that it will lead to reduced costs, develop corporate identity and will help to develop the company's reputation. The stakeholder theory supports that there can be a positive effect between CSR and the financial results (Rajput et al., 2012). By achieving the implicit expectations of stakeholders, this will help to create a positive reputation among the people who have a positive effect on financial performance. This may lead to the attraction of interest from other investors and stakeholders' bodies (Giannarakis et al., 2016). When companies actively engage in CSR activities, it can also lead to them gaining a better reputation and relationship with the authorities (Balabanis et al., 1998). This can also be done to get financial benefits for the company (Balabanis et al., 1998).

CSR can help to improve a company's reputation while also lowering financial risk. When opposed to companies that do not prioritize CSR, this has the advantage of lowering the risk of bankruptcy (Rajput et al., 2012). Developing CSR of a firm can improve customer loyalty, prevent greed perception, prevent costly class action, increase opportunities to attract, motivate and retain a qualified workforce and, not least, minimize the company's stock risk premium (Rajput et al., 2012).

By being more socially responsible, companies will achieve a lower diversifiable risk in their equity behavior, which is an advantage compared to other companies that are not socially responsible (Rajput et al., 2012). Companies must take market demands seriously, such as managing the risk of product liability in a responsible manner (Lin et al., 2009). One of the requirements may be how their facilities are handled in relation to the environmental impact (Lin et al., 2009). Another requirement is that the company ensures that employees' health,

safety and well-being are taken care of. This can help companies face fewer labor problems (Balabanis et al., 1998). These are social initiatives that have been shown to affect financial performance (Lin et al., 2009). CSR may benefit a company since environmentally conscious initiatives frequently result in less waste and hence lower expenses (Lin et al., 2009). The fact that the company is a member of a socially responsible program will assist the company in correctly allocating resources when investing in CSR (Yoon & Chung, 2018). This has the potential to improve financial performance (Yoon & Chung, 2018).

It is through the company's intangible assets that R&D can convey the relationship between CSR and the company's finances (Bhardwaj et al., 2018). When companies invest in CSR, this can have a positive effect on the company's R&D (Bhardwaj et al., 2018). It is through this investment that can help create product differentiation at product and company level (Lin et al., 2009). The way the company produces goods and services is with attributes or characteristics that give the impression to consumers that they are preoccupied with certain social issues (Lin et al., 2009). When companies run this type of strategy, this will make consumers believe that they are contributing directly or indirectly to this issue (Lin et al., 2009). This can in some cases have a positive effect on the company's finances (Bhardwaj et al., 2018).

It not only has a positive effect on the profitability of the company by investing in CSR. Throughout the literature, several factors have been mentioned that can negatively affect a company's profitability by investing in CSR. Spending resources on CSR can cause companies to delegate resources incorrectly and this can be at the expense of financial performance (Yoon & Chung, 2018). It could be considered a competitive disadvantage that companies should participate in CSR. The costs involved in participating in CSR can have a negative impact on prices, wages, profits and dividends for products (Giannarakis et al., 2016). When customers experience that there is too much exposure, it can become less attractive to get involved in CSR (Sun et al., 2019). There is a negative impact from CSR when customers get the impression that the price the company pays for CSR is added to the product that is offered (Sun et al., 2019). The financial markets will eventually discover the negative effect this has on the customer market since this is the basis for how the shareholders' value a company (Sun et al., 2019). When the customer market does not perform as has been predicted, it will become less attractive to shareholders, the present value will be lower and future cash flow will possibly be lower. This is something that will be less attractive to shareholders who are at a higher level (Sun et al., 2019). Other costs that also can affect the profitability negatively are the cost a companies have to use on donating money to charities, infrastructure development, sustainable equipment and so on (Kapoor & Sandhu, 2010). When companies practice CSR repeatedly, costs can be accelerated and efficiency can be reduced. This participation has the disadvantage of leaders participating in goals beyond their control.

They need to take part in complex and time-consuming processes with external consultants (Rajput et al., 2012). It is likely that investments in new accountability, auditing and monitoring systems will be required if they are to continue to practice CSR (Rajput et al., 2012). When companies use CSR, the consequences are that they have to sacrifice their freedom of profit in order to have the opportunity to achieve the social benefits (Rajput et al., 2012). What happens in many cases when companies practice CSR is that the public gets the impression that the companies take more social responsibility than what is actually the truth (Rajput et al., 2012). The managers of a company have been chosen as agents on behalf of the shareholders, where their only goal is to perform at their best (Rajput et al., 2012). Friedman's way of thinking is to use the resources and participate in activities that only aim to increase profits and wealth of the owners (Kang et al., 2010). The fact that scarce resources are used for activities that are not intended to serve the company in the best possible way can have a negative effect on the company's profitability (Kang et al., 2010).

Examples have now been given of what can affect profitability both positively and negatively. In this context, there are also examples of what has no effect on profitability, and which are categorized as neutral. O'neill, Saunders and Der- winski Mcarthy (1989) investigated whether the corporate social response has any impact on the profitability in a selection of business leaders (Rajput et al., 2012). It turns out that there is no connection between the director of social responsibility and the company's profitability. Kenneth L. and Jerald Hage (1990) have conducted an investigation on whether goals for community services are correlated with different organizational characteristics. Examples that have been explored are niches, structure, context and performance. It turns out that community service goals have no effect on profit goals (Rajput et al., 2012). In short, CSR's relationship to financial performance is ambiguous. The various measures of corporate social performance in empirical studies are a possible explanation of the different results.

4. CSR in Norway

This dissertation deals with CSR in Norway, this chapter is hence dedicated to the prevalence of CSR in Norway. Norway, with a population of 5.3 million people (*Befolkningen*, n.d.), is now one of the world's wealthiest countries, both in terms of GDP per capita and capital stock (Grytten, n.d.). Despite being a country of small size, it can show several impressive achievements when it comes to CSR. Habisch (2005) mentions, among other things, that the Scandinavian countries have consistently ranked first in Yale University's and the World Economic Forum's annual Environmental Sustainability Indexes, with Norway topping the European list of CSR implementation in small and medium-sized businesses. In addition, the Norwegian government was a pioneer in obtaining carbon offsets (from Costa Rica) and was one of the first to experiment with carbon emission trading schemes, along with Denmark (Habisch, 2005). The history of CSR in Norway refers to several significant developments of the concept and this chapter further looks into the development of the concept (subchapter 4.1). In addition, a chapter will be dedicated to the government's role in CSR in Norway (subchapter 4.2).

4.1 History of CSR in Norway

It is helpful to understand how CSR has evolved historically in order to gain insight into CSR in Norway. As a response, the focus of this subchapter is on the history of CSR in Norway. Before closing with some final notes, this section will go over historical events and developments in a more or less chronological order. History shows that earlier emphasis was placed on working conditions, social welfare and the social aspect of CSR in general, before environmental considerations and the governance aspect were included. Furthermore, the environmental and governance aspect of CSR has generally been optional in Norway's history, as reporting on environmental and social issues in yearly reports was viewed as voluntary action (Baldo, 2015). Furthermore, despite having an active government (Baldo, 2015), it took several years for the Norwegian authorities to become truly engaged with the modern CSR agenda (Ihlen & Hoivik, 2015). Non-financial reporting has only gained focus in the recent decade (Baldo, 2015).

In Norway, local agricultural communities were historically combined with other forms of industry, primarily fishing, hunting, wood and timber, as well as a domestic and international-trading merchant fleet (Baldo, 2015; Grytten, n.d.; Ihlen & Hoivik, 2015). Nonetheless, the Norwegian economy did not seem to be growing at the same rate as the European economy (Grytten, n.d.). One of the explanations, according to both Baldo (2015) and Ihlen & Hoivik (2015), was due to the small size of the operations in agricultural communities and the other forms of industry. Because of the small size, little wealth was amassed in contrast to developments in Europe, and only a small noble class emerged, with associated little influence (Baldo, 2015). This, according to Ihlen & Hoivik (2015), had consequences for the creation of a relatively democratic culture, which would later affect Norway's interpretation and practice of CSR. However, the pattern seemed to reverse a short time later. Mining operations began in the 1620s, which aided in the formation of the first larger companies in Norway (Ihlen & Hoivik, 2015). Furthermore, the Norwegian economy thrived during the first age of liberalism, and the merchant fleet expanded rapidly (Grytten, n.d.). To this day, these factors can be used in the light of CSR.

A market economy system was developed at the initiative of public-sector workers in the aftermath of the 1814 Norwegian constitution, and it is known as publicly-staged capitalism (Baldo, 2015). The first Norwegian prime minister advocated for a more refined version of market liberalism that took into account societal needs (Baldo, 2015). The prime minister, who served from 1873 to 1880, announced that market liberalism needed to be refined so that it could be more closely aligned with a style of ethics that was more deeply focused on society's wider needs (Ihlen & Hoivik, 2015). Hence, in Norway, an early significant CSR driver was present in the form of governmental orders, rather than voluntary business activities (Baldo, 2015). A similar statement is supported by Habisch (2015), but the author adds the factor of an older tradition of socially conscious business magnates. Several businesses that were founded on a strong basis of social responsibility are listed. Freia and Norsk Hydro, two of Norway's most well-known pioneer companies, are now at the forefront of CSR production (Habisch, 2005). Norsk Hydro built and operated small local communities by using the region's natural resources. As a result, Norsk Hydro generated jobs for local residents, leading to the business being given more assignments and establishing itself as a significant cornerstone company in the city (Baldo, 2015). Due to his burning contribution to society and employee rights, Freia's owner Johan Throne Holst is said to be the first leading prion in social responsibility (Baldo, 2015). These businesses were lauded for their ability to concentrate on both economic and

societal development, and are therefore often mentioned when discussing CSR in Norway. Thus, the earliest part of Norway's CSR history displays a stronger emphasis on the social side of CSR, rather than the environmental and managerial aspects of CSR; however, this appears to be increasingly incorporated subsequently.

In addition, during the same period, the pietistic Hauge movement, which argued that business should serve a higher purpose – God – had a significant impact on Norwegian business (Baldo, 2015). It is believed that Hauge's ideals were instrumental in the formation of modern Norway, among other things (Grytten, 2014). Hauge became a lay preacher after experiencing a spiritual awakening, and the suffering he saw around him, his social conscience, and the Bible's message of charity, work ethic, and social responsibility all had an impact on him (Grytten, 2014). Based on this, he developed a Lutheran-Pietist theology as well as a British-Puritan work and business ethic (Grytten, 2014). As a result, Hauge's theology and way of life included business practice, social responsibility, and employer responsibility. The Hauge movement's central concept was that true Christians should start businesses and provide jobs for those in need (Grytten, 2014). Hauge's business interests ranged from agriculture to industry to service provision, with one of the most impressive accomplishments being the founding or restoration of more than 30 production companies (Grytten, 2014). Hauge named the companies' managers, oversaw and was responsible for their practical learning, and then handed over ownership and management to entrepreneurial talents (Grytten, 2014). Product and manufacturing information, organization, ordering, sales, delivery, financial management, accounting, and worker welfare are all included in the training, as well as emphasis on spiritual and social responsibility (Grytten, 2014). Such ideals had a significant impact in Norwegian industry during the early nineteenth century, and in some parts of Norway, this tradition is still alive today, including the fishing, textile, wharf, and furniture industries (Baldo, 2015). In the 1840s, the birth of a new economic society was heralded, thanks in part to the adoption of new innovations in the farming, shipping, fishing, and timber industries (Ihlen & Hoivik, 2015). Following the par value conversion of the Norwegian speciedaler to silver in 1842, Norway experienced a period of significant economic growth that lasted until the mid-1870s (Grytten, n.d.). The high productivity growth in agriculture, as well as the progress of the foreign sector, were stated to be key factors in the growth process (Grytten, n.d.).

Although some business people participated in philanthropic efforts, they were sometimes met with skepticism and were often seen as a tool for wealth accumulation and the suppression of the working class (Baldo, 2015). The development up to that time was dominated by individuals as leaders and their perspective was often characterized as a form of paternalism (Baldo, 2015). This ideology was to be seen for a long time, especially in the typical factory towns, but was later weakened by the introduction of social legislation in 1889 and onwards (Baldo, 2015). A national workers' union and a national employers' association were formed in 1899 and 1900, resulting in the rise of a certain sort of corporatism, where the basic premise was that competing and mutual interests needed to be reconciled (Baldo, 2015). When the Labour Party came to power in 1935, it signaled a period of social renewal, with new laws and social welfare programs being implemented and institutionalized (Baldo, 2015). After WWII, cooperation persisted and expanded in new and more comprehensive ways, with one distinguishing feature being that the government became more involved, for example, by being the sole or majority owner of three of Norway's largest corporations (Baldo, 2015). And when oil was discovered in the North Sea, the state-owned oil company called Statoil was founded and favored as a tool for the common good (Baldo, 2015; Ihlen & Hoivik, 2015). The legislative system, particularly in regard to industrial policy, was characterized by strong public-private cooperation until the 1980s (Ihlen & Hoivik, 2015). Ihlen and Hoivik (2015) argue that this cooperative political culture included non-governmental organizations, such as those working in the environmental field.

Until the 1980s, there was a lot of public-private collaboration, and the political culture of consultation and cooperation spread to things like environmental policy development (Baldo, 2015). To summarize, many social problems related to CSR in other countries are addressed in Norway by public policy, legislation, and collective agreements (Baldo, 2015). This is further elaborated in the next subchapter, namely 5.2 government's role of CSR in Norway. Norway is also mentioned frequently in the sense of sustainable development. This is due to the fact that the widely used term is based on the Brundtland Commission's 1987 definition of sustainable development, whereby the commission is named after former Norwegian Prime Minister Gro Harlem Brundtland (Strand et al., 2015). The definition's principle applies to the entire community and implies a specific political goal, in which social, ecological, and economic considerations must all be taken into account if sustainable development is to become a reality (Loew et al., 2004). Since the head of this UN commission was Norway's prime minister for three terms and before that, Minister for Environmental Affairs, Norway ought to be a successful role model for other countries and a leader in CSR, both in terms of the environment and other social issues (Baldo, 2015).

In addition, several events prompted the creation of forums for government and business consultation on how to deal with ethical issues faced by international businesses (Baldo, 2015). These include, among others, the Ministry of Foreign Affairs' white paper in 2000 (Baldo, 2015) and the Norwegian Confederation of Business and Industry (NHO) special advisory committee (Habisch, 2005). The white paper from the Ministry of Foreign Affairs included a request that companies consider human rights, and the government made it clear that businesses should act internationally as they would at home (Baldo, 2015). The aim of NHO's ethics advisory committee has been to increase ethical understanding and experience in business and industry (Habisch, 2005). In addition, in 1998, kompakt, the "Consultative Body for Human Rights and Norwegian Economic Involvement Abroad," formally defined corporate social responsibility as part of the government apparatus (Gjølberg, 2010). Kompakt was established in response to public concerns about Norwegian companies operating in countries where human rights are widely violated and it is a consultative body made up of conventional corporate partners, as well as NGOs and academia, with the specific purpose of providing a platform for discussion (Gjølberg, 2010). The ethical screening of the Norwegian Pension Fund, a fund built on the significant revenues of Norway's petroleum industry, is a second prominent institutional aspect of Norwegian public policy on CSR (Gjølberg, 2010). A Council on Ethics oversees the fund's overseas investments to ensure that it doesn't "contribute to unethical acts or omissions, such as violations of fundamental humanitarian principles, serious violations of human rights, gross corruption, or severe environmental damages" (Gjølberg, 2010).

CSR in Norway has a long history of focusing on the social part of CSR, with environmental issues and governance being largely optional. Non-financial reporting, however, went from voluntary to mandatory as a result of rising internationalization, primarily due to the oil industry, which drew foreign corporations to Norway (Baldo, 2015). International pressure, stock exchange requirements, and the need to remain competitive all contributed to this change (Baldo, 2015). Reporting regulations were updated in 1996 as a follow-up to the Rio Conference in 1992, which resulted in companies being required to report on environmental effect, gender equality, discrimination, and working conditions (Baldo, 2015). Nonetheless, many businesses, particularly those with well-known brand names, have chosen to publish major environmental and later CSR reports (Baldo, 2015). The Accounting Act's actual wording can be interpreted in a variety of ways, causing corporations, accountants, and

researchers to disagree on how to interpret the statutory reporting obligations (Baldo, 2015). NGOs also criticized several of the firms for reporting primarily on their good CSR initiatives, rather than the more relevant— and perhaps less successful—activities that have negative impacts for our planet and its inhabitants (Baldo, 2015). "Requirements for reporting on CSR," a report to the Ministry of Finance, was released in October 2010, and large corporations are now expected to report on CSR beginning with their 2012 annual reports (Baldo, 2015). Large corporations are now obligated to report on their CSR activities under this new accounting law (Baldo, 2015). Furthermore, simply supporting the UN Global Compact or reporting in accordance with the Global Reporting Initiative (GRI) is enough to satisfy the new accounting criteria (Baldo, 2015). Although these regulations were not mandatory until recently, it is reasonable to conclude that they are advantageous to the development of CSR. However, it is worth noting that just because they were not mandatory until recently does not mean that corporations did not make environmental concerns.

Ihlen and von Weltzien Høivik (2015) address the history and development of CSR in Norway and point to six important factors. First, there is a significant difference between Norway and other countries, particularly in terms of public perceptions of the state and the position that the state should play, with the government driving the CSR agenda in Norway (Ihlen & Hoivik, 2015). This is due in part to the Norwegian government's involvement in most of the country's industry by direct and indirect ownership of several of the country's largest companies (Baldo, 2015). Second, Norway is regarded as a state-friendly society, and it distinguishes itself by considering industry to be one of several important institutions in society, rather than the most important (Ihlen & Hoivik, 2015). Thirdly, in the Norwegian model, companies are also seen as arenas of negotiation, where collaboration, consensus, engagement, and power sharing are respected (Ihlen & Hoivik, 2015). The fourth factor that is mentioned is size. Since the majority of Norwegian companies are small, the gap between workers and management can often be bridged, and formal democratic processes are not often needed (Ihlen & Hoivik, 2015). Correspondingly, many small businesses are deeply rooted in their communities, and they often engage in some kind of stakeholder engagement without necessarily marking it as CSR or a Norwegian equivalent word (Ihlen & Hoivik, 2015). The fifth factor is linked to the previous one, and it notes that small units have historically lacked economic power. Due to a lack of economic power, neither a large-scale philanthropic culture nor tax incentives have grown (Ihlen & Hoivik, 2015). The sixth and final factor that is mentioned states that most of what is covered by CSR in other countries is already covered by Norwegian legislation (Ihlen &

Hoivik, 2015). This is particularly true when it comes to labor rights, environmental concerns, working conditions, and safety concerns (Ihlen & Hoivik, 2015). Therefore, as a result, businesses can rest assured that they are already meeting CSR standards thanks to Norwegian legislation.

As seen, Norway's establishment of CSR is focused on the country's long history of global commitments and obligations in international organizations. This subchapter shows how corporate social responsibility, as an ethical rather than a managerial term, has long been a part of Norwegian business consciousness. Voluntarism, rather than specific law, has characterized much of Norway's CSR history. Nonetheless, the government has taken a number of steps to address some of the CSR issues. Early regulation concentrated on working conditions and social welfare, according to history. Non-financial reporting has also gained a focus in recent years.

4.2 Government's role in CSR in Norway

While there is wide agreement that CSR is guided by business and that the business sector is the primary focus of CSR growth, from a relational perspective, attention must also be paid to the development and implementation of CSR within the context of other stakeholders, such as governments (Albareda et al., 2008). Chapter 2 looked at some of the factors that influence governments' participation in CSR initiatives. Governments can serve as both facilitators and active participants, according to the chapter, among other things. Furthermore, it was discovered that governments had a vested interest in participating in the practice, as well as the use of various forms of CSR policy instruments. This section looks at the government's role in CSR in Norway, as well as its practical implications, function, and practice.

Albareda et. al. (2008) address this by focusing on legislative drivers and reactions when discussing CSR measures and public policies in Norway (as well as in Italy and the United Kingdom). Norway is stated to be a developed welfare state with a resource-based economy, which sets it apart from the other countries (Albareda et al., 2008). CSR in Norway has grown out of a combination of long-standing advanced welfare state traditions and cutting-edge innovations in response to the modern challenges that business, government, and society are facing as a result of increased globalization. When examining the CSR strategy in Norway,

Albareda et. al. (2008) state that it is focused on the country's foreign goals in environmental policy, as well as its peace and human rights policies. Furthermore, the Norwegian Ministry of Foreign Affairs is the most prominent focal point in the Norwegian government's CSR strategy, and other ministries and leading industrial players acknowledge this (Albareda et al., 2008). As a result, the government's approach favors the international dimension of CSR, which is related to core policy areas like peace, human rights, and democracy, all of which are flagged as key elements in Norwegian foreign policy (Albareda et al., 2008).

When examining the legislative drivers and reactions of CSR in Norway, Alabareda et. al. (2008) do so by analyzing government CSR vision, objectives, strategy and priorities, governmental structure and policy implementation across various levels of the government. According to the authors' account of Norway's CSR vision, CSR is almost entirely supported and justified in economic terms. This is argued on the grounds that CSR is portrayed as a winwin concept, but the authors point out that a White Paper on Human Rights and Globalization, which takes a more rights-based, normative approach to CSR, is an exception (Albareda et al., 2008). The authors take into account a number of factors and practices when evaluating Norway's CSR objectives. These include a commitment to decent and socially responsible trade in "difficult commercial contexts," an active multilateral commitment to human rights and international CSR initiatives, business focus toward socially responsible investment (SRI), and broadening the sustainability agenda to include CSR, such as work-life balance (Albareda et al., 2008). CSR is incorporated into policies relating to sustainable development, the environment, and human rights as part of the strategy (Albareda et al., 2008). Furthermore, the domestic focus is on more conventional legislative approaches (Albareda et al., 2008). Promotion of peace, human rights, corruption, democracy, the international influence of business, and ethical investment are among the priorities and concerns on the CSR agenda (Albareda et al., 2008). When looking at the internal governmental structure of CSR, the Ministry of Foreign Affairs is seen as the main advocate, with the Coordinating Council for State Secretaries providing formal support (Albareda et al., 2008). The study of Alabareda et al. (2008) examines CSR responsibilities at various levels of government, and several CSR crosscutting policies are listed in relation to the Norwegian government, including the Ministry of Environment, Ministry of Labor and Social Affairs, Ministry of Trade and Industry, and Ministry of Finance. In addition, CSR elements appear in social and labor markets under the headings of "inclusive labor conditions" and "health, climate, and protection" (Albareda et al., 2008).

CSR in Norway is also examined by Welle-Strand and Vlaicu (2013) in the light of how the government and companies are juggling international development agendas. They do so by examining the CSR interactions between governments and transnational corporations (TNCs), as well as the possibilities for linking CSR to the international development agenda. Beginning of the 2000s, the Norwegian government's development cooperation strategy started to give the private sector a larger role in economic growth and development (Welle-Strand & Vlaicu, 2013). TNCs' normal business practices are now seen as catalysts for economic development, as they kick-start a chain of productive operations, create jobs, and pay taxes (Welle-Strand & Vlaicu, 2013). The authors look at how governments play a part in CSR and how they affect it. The conclusion is that, despite state control at the international level through involvement in international forums and organisations, the effect at home through ownership and regulation is more pronounced (Welle-Strand & Vlaicu, 2013). Although the degree of government control varies, ownership is likely to increase the extent to which governments can, if they wish, engage in business, and ownership appears to matter when pursuing and reporting CSR activities (Welle-Strand & Vlaicu, 2013). In conclusion, it appears that the state in Norway wields considerable control over the business sector as a result of significant state ownership, and is thus able to contribute to the country's CSR development.

This section aims to investigate the government's position in CSR in Norway, and as a result, it looks at a number of factors that affect the growth and impact of various markets and industries. Albareda et. al. (2008) states, among other things, that CSR in Norway is concerned with the country's foreign policy priorities in terms of environmental policy, as well as peace and human rights. Further, Welle-Strand and Vlaicu (2013) introduces the effect of transnational corporations, and how interactions between governments and TNCs are central in Norway's CSR development. According to the findings, the Norwegian government wields considerable influence over the corporate sector as a result of state ownership of large corporations. The government clearly plays an important role in the growth of CSR in Norway. The government serves a variety of functions, making it difficult to pinpoint its precise power.

5. CSR Measures

This chapter discusses numerous social responsibility measures as well as some of their drawbacks. This is useful for getting a deeper understanding of the issues and complications that arise as a result of CSR. The work of Turker (2009) shows how measuring CSR can be done in several methods, including using indexes or databases, single- and multiple-issue measures, publications, and individual- and organizational-level CSR scales. In addition, Ueberwimmer (2015) provides another approach, namely using ethic rating to provide information to decide whether a company's behaviour is socially responsible. Furthermore, Gjølberg (2010) proposes a CSR index which aims to measure CSR practices, covering sustainability reporting, membership in CSR organisations and networks, certification practices, as well as different rankings of CSR performance along the triple bottom line. There is a constant increase in new tools, methods, systems, etc. to be used when measuring CSR (Turker, 2009), however, several limitations are also mentioned. Lu et. al (2018) proposes another challenging factor, namely the vast selection of systems leads to conflict due to the lack of harmonization. Finally, the ESG score is mentioned briefly. This measurement is included due to it being the data that is used in this thesis, namely because of its extensive use in previous studies and transparent score methodology.

Despite the rising body of literature on the topic, CSR measurement remains a challenge (Turker, 2009). The measurement of what is known as CSR has sparked a lot of interest and an increasing number of studies. According to Leaniz and Bosque (2013), the increasing interest is primarily due to the lack of agreement on how to quantify it, owing to the large amount of research on the topic. There are over 400 sustainability reporting instruments in use around the world at the moment (Lu et al., 2018). This demonstrates a high level of interest in reporting, but the complexity makes comparisons challenging. Leaniz and Bosque (2013) perform a literature review, which shows the existence of various methods for evaluating socially responsible behaviour; however, several of the measurements are claimed to have limitations. As a result, the focus of this chapter is on discussing some of the various CSR measurements available today. Finally, the chapter will clarify ESG as a measurement and make the case that it is a beneficial option for this thesis.

Turker's (2009) work on evaluating corporate social responsibility is one study that has looked into this subject. Turker's (2009) research aims to create an initial, accurate, and reliable CSR

measure that reflects a company's obligations to various stakeholders. By doing so, the author examines current literature and proposes the following methods for calculating CSR: reputation indexes or databases, single- and multiple-issue measures, content analysis of corporate publications, individual-level CSR scales, and organizational-level CSR scales. The most commonly used tools for measuring corporate social practices are reputation indexes and databases (Turker, 2009). Turker (2009) mentions some examples of these databases; The Kinder, Lydenberg, and Domini (KLD) database, the Fortune Index, and the Canadian Social Investment Database (CSID). The KLD database contains data on a variety of CSR initiatives and issues, including environmental, community, employee relations, diversity, product, and corporate governance (Wang et al., 2018). Fortune's reputation index is also a comprehensive instrument for assessing socially responsible practices from a management standpoint (Turker, 2009). The final database that is considered is CSID, which calculates a company's net strength and weakness across seven dimensions: society, diversity, employee relations, climate, international operations, product and business practices, and corporate governance (Turker, 2009). Although these databases represent some main stakeholder relationships, Turker (2009) claims that their most significant limitation is their restricted scope of assessment; they are only designed to examine companies in a few countries.

Turker (2009) mentions the use of single- and multiple-issue indicators as a second alternative method. The performance of pollution control reported by the Council of Economic Priorities (CEP) and corporate crime are two examples. The method's unidimensionality is cited as a major limitation here (Turker, 2009). The author therefore proposes to use a combination of these indicators. Even when using a multiple-issue indicator, however, this method is constrained in its ability to delineate the entire framework of CSR (Turker, 2009). Furthermore, as mentioned in the previous paragraph, these metrics are not global in scope and only report on the activities of companies in a small number of countries, limiting their utility.

A third method that is mentioned to be used in the literature is content analysis of corporate publications. This approach will also allow for the creation of new corporate social responsibility measures (Turker, 2009). The use of content analysis as a method of calculating CSR has increased as a result of the increasing body of literature on the topic (Turker, 2009). This method is said to provide a "objective rating of companies because once the social attributes are chosen, the rating process is standardized," among other things (Turker, 2009). However, the details provided in a corporate report can vary from actual corporate activities,

and corporations can therefore deceive future report readers in order to project a more desirable picture (Turker, 2009). Due to this, Turker (2009) states that the dependability of company reports may be a major limitation of the method.

The fourth method that is mentioned by Turker (2009) is to use scales that measure the CSR perception of individuals. The author highlights one of the most commonly used scales, namely Aupperle's (1984) development regarding measuring the individual CSR values of managers according to Carroll's four-dimensional model. This scale is stated to be the first serious attempt to understand the multifaceted essence of CSR (Turker, 2009). While the scale is appropriate for investigating managers' socially responsible beliefs, it is stated to not be a valuable tool for gathering information about organizations' socially responsible behaviors (Turker, 2009). Second, Turker (2009) introduces a scale to assess managerial attitudes toward social responsibility, based on a two-dimensional model that encompasses the scope of corporate responsibility as well as the spectrum of consequences of corporate social commitments. While this scale is useful for assessing managers' CSR views in various cultural and economic contexts, it is not intended to assess an organization's participation in socially responsible activities (Turker, 2009). The Perceived Role of Ethics and Social Responsibility (PRESOR), which attempts to quantify managerial perceptions of the role of ethics and social responsibility in achieving organizational effectiveness, is the final scale mentioned to measure individuals' perceptions of CSR. PRESOR, like the previously listed scales, focuses on calculating human values rather than socially responsible business practices, and is therefore subject to the same limitations (Turker, 2009).

The fifth, and last, method mentioned by Turker (2009) involves scales to measure organizational perception of CSR. According to Turker (2009), Maignan and Ferrell (2000) established the most important scale in the literature in this category based on the principle of corporate citizenship. Corporate citizenship was described in this study as the degree to which businesses meet their stakeholders' economic, legal, ethical, and discretionary obligations (Turker, 2009). The creation of this scale is undoubtedly a significant contribution to the literature; however, the scale's primary limitation is that it only recognizes three primary stakeholders (customers, employees, and public) (Turker, 2009). "These stakeholders are not the only ones that can place obligations on companies and whose welfare can be directly affected," the responsible developers stressed (Turker, 2009).

Ueberwimmer (2015) introduces another method of measuring CSR; ethic rating. Stakeholders may use rating ethics to better understand and measure a company's effect on society and the environment (Ueberwimmer et al., 2015). In the same way that credit ratings increase transparency and performance, social and environmental ethics may provide information to decide whether a company's behaviour is socially responsible (Ueberwimmer et al., 2015). In their methodologies, ethical, social, and environmental rating agencies examine CSR disclosed information on a company's website, such as annual and sustainability reports (Ueberwimmer et al., 2015). Furthermore, ethical ratings include certain qualifications and requirements, which are based on international values from the United Nations, the OECD, and EU guidelines (Ueberwimmer et al., 2015).

Gjølberg (2009) has similar claims in her research regarding developing an index measuring CSR practices, which is based on global CSR initiatives and rankings. The index's metrics were based on global CSR initiatives and ratings and the final selection was based on four key criteria: (1) the indicator must contribute to some aspect of CSR – ideally a triple bottom line approach, (2) the indicator must have a global and general application, and (3) the indicator must include at least 100 businesses, and (4) at the country level, accurate and comparable data must be accessible (Gjølberg, 2009). These criteria were met by nine CSR initiatives and scores, yielding an index with four broad indicator categories: (1) ratings based on socially responsible investment criteria (Dow Jones Sustainability Index, FTSE4Good and "The Global 100 Most Sustainable Corporations" list), (2) membership in CSR communities (UN Global Compact and the World Business Council for Sustainable Development), (3) sustainability reporting practices (KPMG Sustainability Reporting Survey and the Global Reporting Initiative), and (4) certification schemes (ISO14001) (Gjølberg, 2010).

Several of the same tools are also mentioned in the work of Lu et. al. (2018). The authors' aim is to examine and categorize public policies and measures that encourage CSR, as well as to evaluate the effect of CSR. By doing so, they discuss policies and monitoring initiatives to encourage CSR, as well as their complexities. The authors discuss the controversy that has arisen as the number of reporting systems has increased. While the high interest is undoubtedly advantageous, the vast number of systems available makes it challenging due to a lack of consensus. Harmonization of CSR reporting instruments is a major goal of international organisations, policymakers and regulators, stock exchange operators, industrial unions and

associations, standard setting authorities, and academics working on advanced reporting tools implementation and creation (Lu et al., 2018).

Another CSR measurement that is widely used in the literature is the ESG rating score (Han et al., 2016). The ESG database provides an evaluation of corporate ESG performance, and disaggregates scores on environmental, social, and governance issues, respectively (Wang et al., 2018). The ESG data is used to obtain a better understanding of overall CSR activities, such as how companies build CSR problems in relation to their long-term growth goals and plans, how they handle risks and other organizational characteristics through general management practices, and so on (Han et al., 2016). The data used in this exercise is ESG data, and the next chapter will include a more detailed and comprehensive account of the measurement (chapter 6). Given that sustainability is a multidimensional term (Escrig-Olmedo et al., 2019), it is stated that ESG rating agencies develop wider and integrated evaluations of the company's sustainability (Han et al., 2016). As a result, ESG is seen as a sensible unit of measurement in this dissertation.

6. ESG Scores

The environmental, social and governance (ESG) issues have become an enthusiasm concern for speculators, shareholders and governments, while it has become an emerging part of their competitive strategies for companies (Tarmuji et al., 2016). The use of ESG information from stakeholders, especially investors, has increased in recent years (Ionescu et al., 2019). There is limited information regarding non-financial data, in particular ESG disclosures (Ionescu et al., 2019). Most of the data they referred to was in many cases taken from the company's own annual reports and websites (Ionescu et al., 2019). There has recently been a change where companies are switching to data flow in order to maintain competitiveness (Tarmuji et al., 2016). This has come as a consequence of greater pressure from stakeholders on environmental issues such as climate change, pollution and waste (Tarmuji et al., 2016).

The importance of ESG data has been debated in the academic literature for more than 35 years, proving the high quality and relevance of ESG exposure (Tarmuji et al., 2016). Research indicates that companies with a higher ESG score are rewarded by the financial markets versus companies with a lower ESG score (Ionescu et al., 2019). This could indicate that companies

with lower ESG scores are at a higher risk since they are handled inefficiently compared to other companies in the same industry (Ionescu et al., 2019).

The importance of ESG criteria that will contribute to generating value for companies and societies has been highlighted (Ionescu et al., 2019). As a result, companies have made considerable efforts to strengthen the integration of ESG criteria into their operations (Ionescu et al., 2019). The company has great responsibility for providing the requested data to its socially responsible investors (Ionescu et al., 2019). Companies should be able to demonstrate their commitment to transparency and proactive management approaches through the public report on ESG issues (Ionescu et al., 2019). This should demonstrate how the corporation should deal with various externalities (Ionescu et al., 2019). It has been argued that companies that have good ESG performance are an expression of good management efficiency (Ionescu et al., 2019). Companies that succeed in meeting the ESG criteria are expected to adapt better to market situations (Ionescu et al., 2019). This with the help of lower production costs and employees who are more motivated and productive (Ionescu et al., 2019).

The extent to which ESG factors have an impact on the market value of companies has been discussed intensively throughout the literature. It is difficult to draw a common conclusion, which is reflected in the literature (Ionescu et al., 2019). According to some authors, there is no link between ESG performance and company market value (Brammer et al., 2006). It has also been identified that the factors and market value are not significantly related (Ionescu et al., 2019). On the other hand, researchers such as Porter & Kramer (2011) have done studies in recent times that have shown that there is a possibility that ESG activities can have a positive impact on the company's market value (Nollet et al., 2016). In isolation, the problems are to link good environmental, social and corporate governance with the market value of the company (Ionescu et al., 2019). Recently, companies engaged in ESG's business reporting not only looked at how ESG issues can be handled, they also clarified the measures taken to participate in the global engagement and to identify possible solutions. It should not be limited to how the corporation deals with the consequences of its actions (Ionescu et al., 2019).

In the literature, there are three different international financial service agencies that have a leading role in measuring ESG scores. These agencies are; KLD, Bloomberg and Thomson Reuters (Tarmuji et al., 2016). The measurements and the definitions of CSR are performed differently among these three different agents. It is therefore important to clarify the difference

in order to gain a better understanding (Dor, 2015). The first agent KLD is based on 3,000 of the largest American firms by market capitalization (Dor, 2015). This database uses an assessment model based on binary indicators from 7 ESG related groups (Dor, 2015). These are as follows; environment, governance, social issues such as community, human rights, employee, relationships, diversity and customers (Dor, 2015). The KLD rating agency uses 70 ESG indicators, and the difference between the two other rating agencies is that the total score for the different ESG sub-criterions is not used. There is also no total score for ESG (Dor, 2015). On this basis, KLD evaluation results are evaluated on the basis of various binary ESG indicators (Dor, 2015).

The next Bloomberg is based on the 20,000 largest trading public companies (Dor, 2015). When it comes to Bloomberg, they use the 100 data points associated with ESG (Dor, 2015). As a good combination of environmental, social and governance findings, Bloomberger uses what is called "Total ESG Disclosure Score" (Dor, 2015). This has been adapted for different company sectors so that each company can evaluate on the basis of the best data points related to its industry (Dor, 2015). Like the other two assessment agents, the data presented will provide a degree of how sustainable the companies are.

The last to be mentioned and used in this thesis is Thomson Reuters which takes its starting point in over 9000 companies globally and has historical data back to 2002 (Dor, 2015). Thomson Reuters employs a two-part model. One is the ESG score, which is used to assess a company's environmental performance. This rating is based on independently verified reports that have been made public in the region (Refinitiv, 2021). The ESGC score is the next one included in the ESG score assessment. This score addresses the various effects of ESG controversies (Refinitiv, 2021). This is explained in greater detail in the next chapter (chapter 7). This will give a better understanding of how the company is evaluated in terms of its sustainability impact and how the company behaves over time (Refinitiv, 2021).

Thomson Reuters employs 500 different ESG metrics at the company level (Refinitiv, 2021). This is based on 186 different metric subsets (Refinitiv, 2021). These should be the most comparable and material in each industry, assisting in the total business evaluation and point process (Refinitiv, 2021). Furthermore, it is divided into ten separate categories which help design the three pillar points from the total ESG score (Refinitiv, 2021). This score should give

a picture of the company's ESG performance, dedication, and efficiency based on publicly available data (Refinitiv, 2021).

Each ESG pillar point is derived from the relative total of various weights (Refinitiv, 2021). It will differ from industry to industry in terms of environmental and social categories, but it will be the same for all industries in terms of governance (Refinitiv, 2021). The weighting of the various pillars is determined by a percentage ranging from 0-100 (Refinitiv, 2021). The ESG score is ranked on a points scale between 0-100 by Thomson Reuter. When it comes to ESG scores, this is calculated in a different way than regular ESG scores, where this is based on 23 ESG controversial topics (Refinitiv, 2021). If there are any new controversies, this will be counted in the last financial year and should there be no controversy, it will be counted as double (Refinitiv, 2021). This score will be added to the total ESG score and is calculated as the ESGC (combined score), which is used in this thesis.

6.1 Environment

All industries and companies are commonly aware that they have a form of environmental impact. Environmental sustainability is described as a company's or supply chain's ability to reduce overall carbon footprints of products by combining multiple competencies (Rajesh, 2019). This pillar is used to measure companies by how they deal environmentally with various perspectives (Refinitiv, 2021). The environmental part is divided into three different categories; resource use, emissions and innovation (Refinitiv, 2021). When referring to the factor that applies to resource use, this includes how and in what way companies manage the various resources (Engström & Martinsson, 2020). It should also indicate a company's ability to select environmentally friendly manufacturing alternatives (Engström & Martinsson, 2020). It will also be assessed which materials the company uses in its products and to what extent this is sustainable (Engström & Martinsson, 2020). Emissions are the following category. In this category, the company's expertise in terms of emissions from production and production must be demonstrated (Engström & Martinsson, 2020). In this category the companies get a score in relation to how willing they are to make a change and thus reduce the emissions (Engström & Martinsson, 2020). Innovation is the last category mentioned. In this context, a company is assessed in terms of the skills it holds to integrate new innovations and how it can deal with new environmental opportunities on the market (Engström & Martinsson, 2020).

6.2 Social

In the social pillar, there are four elements that are emphasized (Refinitiv, 2019). The elements included in this score are as follows; workforce, human rights, community and product responsibility (Refinitiv, 2021). These aspects will serve as the foundation for grading the company on how it handles the social part within the organization and what decisions it makes in terms of long-term sustainability (Engström & Martinsson, 2020). It is through the workforce that the company receives a score that will show how effective they are in maintaining job satisfaction (Engström & Martinsson, 2020). They must show that they are a healthy and safe workplace, which promotes the opportunity for diversity, equal opportunities and that there must be equal development opportunities for the workforce (Refinitiv, 2019). As far as human rights are concerned, it will measure how and in what ways the company is doing it in respect of the fundamental conventions on human rights (Engström & Martinsson, 2020). The next factor that concerns the community, is to measure the ways in which the company is a good citizen and behaves in community. These factors should reflect how the company works towards being a good citizen, respecting the environment and enforcing good business ethics (Refinitiv, 2019). Product responsibility is the final component of the social pillar. This element assigns a score to a corporation depending on how responsible it is when producing a product and producing quality goods (Refinitiv, 2019). The company's customers must not be harmed by the product it produces, and the company must treat the privacy of its customers seriously (Refinitiv, 2021). The overall social pillar's purpose is to demonstrate how skilled the organization is at treating its employees and the society surrounding them in certain social areas (Engström & Martinsson, 2020). The consequences of not following investors' guidelines can have an impact on the investment decisions (Engström & Martinsson, 2020). There is also a possibility that this may affect the reputation of the company (Engström & Martinsson, 2020).

6.3 Governance

In the last factors that apply to the governance pillar criteria, three different factors have been taken into account. This is as follows; management, shareholders and CSR strategy (Refinitiv, 2019). What should be reflected in the governance score is how capable the company is at handling the treatment of various shareholders and encouraging environmentally sustainable

operations (Engström & Martinsson, 2020). The management score is determined by the company's commitment and efficiency in dealing with corporate governance principles in the most efficient manner possible (Refinitiv, 2019). The following category is concerned with how a corporation treats all of its different shareholders fairly. Internal rules that positively affect shareholders are an excellent example, as is avoiding techniques that can negatively influence shareholders (Engström & Martinsson, 2020). The CSR strategy is the final and possibly most essential piece of the governance pillar. This will demonstrate how adept the organization is in incorporating economic, social, and environmental factors into its day-to-day decision-making procedures (Refinitiv, 2019).

6.4 Combined

A so-called ESGC score (referred to as environmental, social, governance and combined) is also calculated, where significant ESG controversies that affect the calculation are taken into account (Refinitiv, 2019). The ESGC ratings provide a balanced and thorough assessment of a company's ESG performance which is based on information documented from the ESG pillar, which includes ESG controversies collected from worldwide media sources (Refinitiv, 2019). Based on 23 different ESG controversies, ESGC is calculated. Should a scandal occur during the year, the companies involved will be penalized, and this will affect the company's total ESGC score and rating. There is a possibility that this can also affect the score the following year, this can happen if there are new developments related to the event in question. Examples of such types of incidents may be; lawsuits, ongoing legal disputes or fines. Should any new media material arise, this will be included in this process (Refinitiv, 2019). The major purpose of this score is to aid in the reduction of ESG results as a result of bad media coverage. This is accomplished by incorporating key ESG controversies into the overall ESGC (Refinitiv, 2019). If ESG controversy is involved, the ESGC score is determined as the weighted average ESG score and ESG controversies score per accounting period, with recent controversy reflected in the latest reporting period (Refinitiv, 2019). The ESGC score will be similar to the ESG score if companies are not involved in any ESG disputes (Refinitiv, 2019).

6.5 Limitations of the Measurement

There are numerous advantages to utilizing ESG as a basis for evaluation, but it is vital to recognize some limitations. It is critical to emphasize this in order to obtain a more reliable evaluation of the ESG score. One limitation is how larger companies have the ability to influence voluntary information such as ESG (Setyahuni & Handayani, 2020). Disclosure of information often has better quality and quantity due to the fact that larger companies have stronger resources than smaller companies (Setyahuni & Handayani, 2020). Another limitation is that there are many different ESG agents that provide ESG data. In this connection, there is a great possibility that these agents disagree with the ESG data that is available. And since this information is public, suppliers are much more unique in their perception of the information (Kotsantonis & Serafeim, 2019). The next thing that can be a limitation when using the ESG measurements is that there is a lack of data (Kotsantonis & Serafeim, 2019). Not all models are the same and thus there will be some who will be missing data or data that is not available. This helps to reduce the strength of the measurement (Kotsantonis & Serafeim, 2019).

The next limitation is data consistency and this is in some cases worse than one perceives. When companies use different units of measurement to measure performance, it can be a challenge when companies are to be compared (Kotsantonis & Serafeim, 2019). When the basis is different, it is not as easy to determine which companies do it best based on the units of measurement and thus give an incorrect result (Kotsantonis & Serafeim, 2019). The last limitation to be mentioned is how to choose the way of "Benchmarking". When we are going to use a "Benchmarking" to measure how a company does it, there may be differences in how this has been calculated (Kotsantonis & Serafeim, 2019). This does not necessarily have to be done the same in all industries and thus get a discrepancy (Kotsantonis & Serafeim, 2019). Then it is difficult again to compare companies on how they do it on performance (Kotsantonis & Serafeim, 2019).

7. Analysis of ESG Scores in Norway

Several topics of CSR are discussed and examined in this thesis. It also looks into the origins and development of the notion in Norway. In addition, the topic of CSR reporting has been discussed. The evaluation of existing literature is advantageous in terms of improving overall understanding of the concept and allowing for the identification of new contributions. CSR, as

previously stated, is a complex and difficult topic to grasp. Nevertheless, this chapter aims to explore CSR in Norway further. As a result, a comparison of ESG data for different industries in Norway is carried out. The data and its collection is presented in the first section (subchapter 7.1). Subchapter 7.2 compares descriptive statistics, both within each industry and between the industries. Subchapter 7.3 discusses how the scores have changed throughout time. Moreover, subchapter 7.4 considers the correlation and thereby the relationship between E, S, and G ratings within each industry as well as between industries. In subchapter 7.5, a t-test is performed and the discrepancies are addressed. In addition, , subchapter 7.6 summarizes the results of the comparative analysis, before limitations of the data sampling and statistical method are accounted for in subchapter 7.7.

7.1 Data Description

This section focuses on the choice of data sample, how it is collected, its calculation methodology and its construction. The first part (subchapter 7.1.1) provides a thorough review of the Thomson Reuter Refintiv ESG data collection and calculation methodology. Furthermore, the data sample for this dissertation is presented (subchapter 7.1.2).

7.1.1 Thomson Reuters ESG Database

The ESG data is retrieved from Thomson Reuters Refinitiv, which is the world's largest ESG rating database (Dorfleitner et al., 2020). The Thomson Reuters database makes it possible to gather ESG data on a firm and, as a result, an ESG rating for that company (Sikacz & Wołczek, 2018). The database has, among other things, transparent scoring methodology (Dorfleitner et al., 2020), and can thus be considered a suitable data source for this dissertation. In addition, over the last 15 years, ESG scores from Refinitiv ESG have been used (or referenced) in over 1,200 academic publications (Berg et al., 2020). The data has been provided publicly by different firms and industries on a yearly basis (Refinitiv, 2021). The Thomson Reuters Refinitiv database allows for the extraction of raw data from environmental, social, and governance data. There is also an overall score (ESG combined) that is reported. Refinitiv's ESG scores are based on company-reported data and are intended to quantify a company's relative ESG performance, commitment, and effectiveness in a transparent and objective manner (Refinitiv, 2021).

Over 500 business-level ESG measures are captured and calculated by Refinitiv, with a selection of 186 of the most similar and material per industry powering the overall company assessment and scoring process (Refinitiv, 2021). These are divided into ten groups, each of which reformulates the three pillar scores as well as the final ESG score (Refinitiv, 2021). The ESG pillar score is a weighted average of the environmental and social category weights, which vary by industry (Refinitiv, 2021). The weights for governance are the same across all industries (Refinitiv, 2021). The pillar weights are normalized to a range of 0 to 100 percentiles (Refinitiv, 2021). An overview of the ten categories, indicators in scoring, and weights of each pillar, reproduced from Refinitiv (2021), is given in the table below (table 1).

Table 1: Pillar Scoring and Weights

Pillar	Category	Indicator in Scoring	Category weights (%)	Pillar weights (%)
	Resource use	20	8 %	
Environmental	Emissions	28	10 %	34 %
	Innovation	20	16 %	
	Workforce	30	10 %	
Social	Human rights	8	15 %	42 %
Social	Community	14	8 %	42 /0
	Product responsibility	10	9 %	
	Management	35	16 %	
Governance	Shareholders	12	5 %	24 %
	CSR strategy	9	3 %	
Total		186	100 %	100 %

Source: (Refinitiv, 2021)

The ESG scoring methodology is summarized by Refinitiv (2021) as a five-step process flow. These five steps are the focus of the rest of this subchapter. Step 1 involves the ESG category scores. When processing underlying data points, boolean and numeric data are used. Answers to Boolean queries are commonly "Yes," "No," or "Null" (Refinitiv, 2021). When no relevant data is identified in a company's public disclosure, a default value of 0 is applied to Boolean data points (Refinitiv, 2021). The polarity of each metric indicates whether a greater value is positive or negative (Refinitiv, 2021). Having an emissions reduction policy, for example, is a positive, but having environmental conflicts is a negative (Refinitiv, 2021). Boolean data points are translated to numeric values for the percentile score computation based on their polarity (Refinitiv, 2021). Regarding the category scores calculation methodology, the 10 category scores and the ESG controversy score are calculated using a percentile rank scoring technique that is based on three factors: (1) How many companies are worse than this one? (2) How many companies have the same market valuation? (3) How many companies have a value at all?

(Refinitiv, 2021). It's worth noting that while the percentile rank score is dependent on the rank, it's not very sensitive to outliers (Refinitiv, 2021). The formula below is gathered from Refinitiv and explains how the score is calculated (Refinitiv, 2021).

$$Score = \frac{a + \frac{b}{2}}{c}$$

whereas:

a – number of companies that have performed worse than the one being evaluated,

b – number of companies that have performed the same that the one being evaluated,

c – number of companies with results.

The TRBC industry group is utilized as a benchmark to compute the environmental and social category scores, as well as the controversies score, because these concerns are more important and material to companies in the same industries (Refinitiv, 2021). The nation of incorporation is utilized as the standard for calculating the governance categories since optimal governance practices are more consistent among nations (Refinitiv, 2021).

Step 2 involves the materiality matrix. The Refinitiv ESG magnitude matrix was established as a proprietary tool to apply an objective, unbiased, and reliable evaluation of the relevance of each ESG subject to different industries and it is used at the category level (Refinitiv, 2021). Refinitiv ESG defines materiality in terms of category weights (Refinitiv, 2021). To assess the proportional relevance of each topic to each industrial group, category weights are established using an objective and data-driven method (Refinitiv, 2021). Data points with appropriate transparency are utilized as a proxy for industry size based on the themes addressed in each category (Refinitiv, 2021). Themes and data points have a one-to-one connection, which means that each topic has just one data point (Refinitiv, 2021). Due to limited transparency, there are no data points that can be used as good proxies of relative importance for some subjects (Refinitiv, 2021). Refinitiv can identify important data points across the themes where reporting is adequate to use as a proxy for materiality by listing all of the various themes (Refinitiv, 2021). In addition, Refinitiv (2021) notes a few key points about how category weights are derived. The analysis reveals a complicated calculating structure, with various components weighted differently for different industries. In short, the category weight is calculated by dividing the magnitude weight of each category by the total of the magnitude weights of the relevant industrial group (Refinitiv, 2021).

The third step continues with the overall ESG score calculation and pillar score. Category weights per industry are applied using data-driven and objective reasoning to generate the overall pillar and ESG scores (Refinitiv, 2021). The ten category weights (shown in table 1), which are generated using the Refinitiv magnitude matrix, are used to aggregate ESG values (Refinitiv, 2021). The first step is to calculate the sum of category weights, which is done by adding all category weights together (Refinitiv, 2021). Nextly, new category weights are calculated based on the sum of the category weights (Refinitiv, 2021). New category weights = category weights divided by the sum of the category weights of the respective pillar (Refinitiv, 2021). Finally, the calculation of column points remains. This is done by multiplying the category score by new category weights (Refinitiv, 2021).

The fourth step includes the calculation of the controversy scores. On the basis of 23 ESG controversial subjects, the ESG controversies score is produced (Refinitiv, 2021). If a scandal arises during the year, the firm involved is punished, and this has an impact on their total ESGC score and grading (Refinitiv, 2021). The controversy score also takes into account market cap bias, which affects large size corporations since they receive more media attention than smaller size firms (Refinitiv, 2021). The ESG controversy score isn't included in this dissertation's data. The component will no longer be elaborated as a result of this. The fifth and final step of the ESG scoring methodology, summarized by Refinitiv (2021), involves the ESGC score. When there are controversies throughout the fiscal year, the ESGC score is determined as the average of the ESG score and the ESG controversies score (Refinitiv, 2021). When the controversy score is higher than the ESG score, the ESG and ESGC scores are identical (Refinitiv, 2021).

7.1.2 Data Sample

The data used in this thesis represents the individual E, S, and G score for different firms in different industries in Norway, in the period 2002-2020 if their ESG score provision is available. This availability issue restricts the number of sample firms to 165 out of around 406 firms. In addition, the time-span had to be reduced to 2008-2019 due to the lack of a reported score. This led to half of the industries being forced to be excluded, reducing the number of industries from 22 to 11. As a result, the final sample consists of 11 different industries, spread

over 165 firms, over an 12-year period. An overview of the relevant industries, the number of companies within each industry and its observations is given in table 2 below.

Table 2: Sample Industries

Industry	Num. Of Companies	Observations
Banks	11	44
Chemicals	7	28
Fixed Line Telecommunication	7	28
Food Producers	17	68
Industrial Engineering	7	28
Industrial Metals and Mining	19	76
Industrial Transportation	20	80
Life Insurance	12	48
Oil and Gas Producers	18	72
Oil Equipment and Service	38	152
Software and Computer Services	9	36
Total	165	660

The number of companies represented in each industry ranges from a few to several, as seen in the overview of the differences in the number of companies and observations in each industry. The data set obtained in this thesis consists of environmental pillar score, social pillar score, governance pillar score and combined score. This gives four scores per company, resulting in 660 observations in the final sample. It may not be possible to represent the entire industry in industries where only a few firms are represented, but it is reasonable to assume that it is possible to obtain an indication of the ESG score level.

7.2 Descriptive Statistics

This section will give descriptive statistics for each of the different industries, as well as the average of all industries in the last table. Descriptive (summary) statistics is useful to investigate while conducting a comparative analysis due to its informative perspective. The reporting of descriptive statistics is used in existing literature on ESG rating (Ahlklo & Lind, 2019; Crespi & Migliavacca, 2020; Drempetic et al., 2020; Spallini et al., 2021). Statistical analysis is a valuable approach for condensing the data obtained from participants into a single number, allowing to interpret the results (Fisher & Marshall, 2009). Furthermore, descriptive statistics is an effective method for summarizing data and describing the sample (Fisher & Marshall, 2009). Mean represents the average score (Fisher & Marshall, 2009), min (minimum) and max (maximum) represents the highest and lowest score (Sannes, 2004), standard deviation represents the average difference of each score to the mean (Kaur et al., 2018), and lastly, the

kurtosis is an estimate of the fourth standardized moment of the normal distribution (Ho & Yu, 2015). The kurtosis is calculated in excel, which results in a different equation than the original formula. The kurtosis formula in Microsoft Excel takes into consideration the sample size and subtracts 3 from the kurtosis. The kurtosis of a normal distribution is thus 0 using this equation. The descriptive statistics for each of the industries in the sample (subchapter 7.2.1) and the average and differences between all industries (subchapter 7.2.2) is presented in this section, whereby the relevant variables are interpreted and discussed.

7.2.1 Comparing Descriptive Statistics Within Industries

The descriptive statistics for the variables utilized in the Banks industry are presented in Table 3. The table demonstrates that the three ESG scores differ. Social has the highest average (mean) value of the three scores, while environment has the lowest mean value. Social is the most stable in terms of standard deviation, whereas environment is the least stable. A point to note about the variables is that the environment pillar has the biggest standard deviation, as well as its maximum values, whilst the social variable is the least volatile. Regarding the kurtosis, the social pillar has the only positive kurtosis. Whereby, both the environment pillar and the governance pillar have negative kurtosis values. The kurtosis thus suggests that the probability of rare outcomes is greater than the normal distribution dictates for the social pillar, but less for the environment and governance pillar.

Table 3: Descriptive statistics for banks

	Mean	Min	Max	St. dev.	Kurtosis
Environment	60,93	38,47	92,07	21,83	-1,53
Social	75,48	65,13	82,97	5,60	0,46
Governance	61,85	34,04	78,09	14,18	-0,42
Combined	66,58	56,73	80,25	8,42	-1,27

The Chemicals industry is represented in Table 4 by descriptive statistics. The environment has the greatest mean value of the three ESG scores, while the social score has the lowest. However, the average value varies slightly amongst the three, ranging from 31,42 to 36,93. These statistics deviate significantly from the mean figures for the previously mentioned industry, namely Banks. Governance has the lowest minimum value and the greatest maximum value in terms of maximum and minimum values. As a result, the government sector has the biggest standard deviation. This suggests that the governance score is more volatile than the other two. The environment pillar is the only pillar in the Chemicals industry that has a positive kurtosis

value. This suggests that the probability of rare outcomes is greater than the normal distribution dictates for the environment pillar, but less for the environment and governance pillar, due the kurtosis values for these pillars are negative.

Table 4: Descriptive Statistics for Chemicals

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	36,93	22,57	51,43	7,47	1,02
Social	31,42	17,30	43,80	8,41	-0,79
Governance	36,90	11,86	60,03	15,84	-1,24
Combined	34,83	25,84	42,36	5,44	-0,97

Table 5 shows the descriptive statistics for the Fixed Line Telecommunications industry. The mean value for social is the highest, while the mean value for governance is the lowest. This holds true for the minimum score as well, with social being the greatest and governance being the lowest. Surprisingly, the maximum value and standard deviation are the polar opposites, with governance being the highest and social being the lowest. The highest values of all three categories, on the other hand, are more similar than the mean and minimum values. Governance receives a far lower score than the other two. In the Fixed Line Telecommunications industry, the only positive kurtosis is seen in the social pillar. The environment and governance pillars, respectively, exhibit negative kurtosis scores. As a result, the kurtosis indicates that the chance of uncommon occurrences is higher than the normal distribution required for the social pillar, but lower for the environment and governance pillars.

Table 5: Descriptive Statistics for Fixed Line Telecommunication

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	66,85	56,91	75,66	6,87	-1,76
Social	68,75	59,56	74,77	4,04	1,60
Governance	54,44	32,19	79,73	17,13	-1,69
Combined	59,92	37,38	70,76	10,40	0,82

The descriptive statistics for the Food Producers industry are shown in Table 6. The highest mean value is for social, while the lowest is for governance, which is likewise much lower than both environment and social. This is also true for the minimum value, with social ratings being the greatest and governance being far lower. In terms of maximum value, all three are becoming increasingly similar, although social is still the highest and governance is the lowest. Governance has the biggest standard deviation, which is understandable. The social has the lowest standard deviation, implying that social is more stable than government. In general, the

environment and social issues appear to be more similar, whereas government exhibits some distinct variances. In fact, all kurtosis values for this industry are positive. This suggests that the probability of rare outcomes is greater than the normal distribution dictates for everyone.

Table 6: Descriptive Statistics for Food Producers

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	73,79	51,83	82,02	8,69	2,86
Social	79,56	64,59	86,19	6,56	0,96
Governance	52,09	35,37	75,57	10,94	0,80
Combined	68,60	56,85	79,65	7,01	-0,73

Table 7 shows the descriptive statistics for the Industrial Engineering industry. The environment has the highest average score, while government receives the lowest average. This is also true for the minimal value, with the environment receiving the greatest score and government receiving the lowest. For the maximum value, however, the contrary is true: governance has the highest value, while the environment has the lowest. Governance has a significantly greater standard deviation value, whereas the environment has the lowest. One of the pillars of kurtosis sticks out in particular. This is especially true for the environmental pillar, which has a significantly larger value than the others. This implies that the chance of uncommon events is far higher than the normal distribution predicts. On the other hand, the remaining pillars have a negative kurtosis value, indicating a smaller chance of unusual events than the normal distribution suggests.

Table 7: Descriptive Statistics for Industrial Engineering

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	55,95	42,31	60,60	4,61	8,28
Social	48,32	25,50	61,75	11,65	-0,46
Governance	44,22	14,00	70,85	18,44	-0,67
Combined	45,68	25,10	63,93	13,10	-1,50

The descriptive statistics for the industry Industrial Metals and Mining are presented in Table 8. The mean value for social is the highest, while the mean value for governance is the lowest. This holds true for the minimum value, with social receiving the greatest minimum score and governance receiving the lowest. When it comes to the maximum value, the disparities aren't as noticeable, but social has a little edge over environment. In terms of standard deviation, governance has the highest score when compared to the social score. The different kurtosis values indicate that the environmental pillar is more likely to have rare outcomes than the

normal distribution indicates. The opposite is true for the other pillars, as they point to a negative kurtosis value.

Table 8: Descriptive Statistics for Industrial Metals and Mining

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	82,56	73,77	86,86	3,56	2,69
Social	93,07	89,22	96,08	2,44	-1,31
Governance	75,42	50,65	95,21	12,97	-0,07
Combined	72,71	41,03	89,29	17,63	-1,04

Table 9 shows the descriptive statistics for Industrial Transportation. In terms of the mean value, the environment receives the lowest score, while governance has the best. Environment, on the other hand, has the lowest minimum value, which is really zero. Governance presents the highest minimum value. It's worth noticing that there aren't as many variances between the maximum values as there are between the minimum values. However, the environment is still ranked last, while government is ranked first. In terms of standard deviation, the environment has the largest value, which is understandable. When reporting a zero value, this is a logical assumption. For this industry, all kurtosis values are positive, with the environmental and social pillars having much greater kurtosis values than the governance pillar. That is, uncommon outcomes have a higher chance than the normal distribution suggests, while the governance pillar has a somewhat lower likelihood.

Table 9: Descriptive Statistics for Industrial Transportation

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	7,16	0,00	37,75	10,37	8,06
Social	23,21	15,08	52,33	10,12	6,93
Governance	29,92	23,10	44,82	6,73	0,50
Combined	19,63	14,47	41,62	7,35	8,71

The descriptive statistics for the Life Insurance industry are presented in Table 10. The highest mean value is reported by social, while the lowest is reported by the environment. The minimum value for social is also the greatest, while the minimum value for governance is the lowest. The maximum values do not differ significantly, although social is slightly higher than environment, and governance is in the middle. Environment and governance have similar standard deviations, however social has a significantly lower value. In this industry, the kurtosis values are all negative. This implies that in this industry, the chance of uncommon events is lower than the normal distribution would predict.

Table 10: Descriptive Statistics for Life Insurance

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	49,98	33,50	76,35	14,66	-0,47
Social	62,51	50,20	77,17	8,77	-0,57
Governance	54,59	32,81	76,43	14,56	-0,93
Combined	56,59	43,74	68,98	8,37	-0,85

The descriptive statistics for the Oil and Gas Producers industry are presented in Table 11. The values are generally similar, and there are no significant changes between them, compared to the prior industries. The mean value for governance is the highest, while the mean value for social is the lowest. The same is true for the minimal score. Governance presents the highest maximum value, while the environment presents the lowest maximum value. Governance has the biggest standard deviation, whereas social has the lowest. The only positive kurtosis in the Oil and Gas Producers industry is in the social pillar. The pillars of the environment and government, respectively, have negative kurtosis values. As a consequence, the kurtosis suggests that the risk of unusual occurrences in the social pillar is larger than the normal distribution implies, but lower in the environment and governance pillars.

Table 11: Descriptive Statistics for Oil and Gas Producers

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	46,91	40,33	54,53	4,52	-0,60
Social	45,35	40,79	50,13	2,50	0,43
Governance	51,73	43,50	59,37	4,93	-1,04
Combined	40,58	26,57	51,91	7,77	-0,68

Table 12 shows descriptive statistics for the Oil Equipment and Service industry. Oil Equipment and Service has similar values to the previous industry, Oil and Gas Producers, with no significant variances. The mean value for governance is the greatest, while the mean value for the environment is the lowest. This holds true for the lowest, maximum, and standard deviation values as well. The only positive kurtosis in the Oil Equipment and Service business is in the social pillar. The pillars of the environment and government, respectively, have negative kurtosis values. As a consequence, the kurtosis suggests that the risk of unusual occurrences in the social pillar is larger than the normal distribution implies, but lower in the environment and governance pillars.

Table 12: Descriptive Statistics for Oil Equipment and Service

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	41,95	29,25	51,83	6,73	-0,28
Social	44,63	38,01	63,08	7,14	3,54
Governance	53,54	41,19	65,29	7,33	-0,30
Combined	46,16	40,15	58,86	6,14	-0,88

Table 13 shows the descriptive statistics for the last industry, Software and Computer Service. The social factor has the highest mean value, whereas the environment factor has the lowest mean value. This is likewise true for the minimum, maximum, and standard deviation values. The only pillar with a positive kurtosis in the Software and Computer Services industry is the environmental pillar. The social and governance pillars, respectively, exhibit negative kurtosis values. The kurtosis indicates that the chance of uncommon events for the environmental pillar is higher than the normal distribution prescribes, but lower for the other pillars.

Table 13: Descriptive Statistics for Software and Computer Service

	Mean	Min	Мах	St. dev.	Kurtosis	
Environment	30,50	0,31	61,92	17,14	0,25	
Social	40,64	13,65	73,01	21,90	-1,34	
Governance	37,71	2,41	65,15	20,52	-1,17	
Combined	38,28	7,85	67,19	19,71	-1,03	

7.2.2 Comparing Descriptive Statistics Between Industries

It is feasible to interpret and examine some noticeable distinctions that have been observed after looking at descriptive statistics for each of the industries in the sample in this dissertation. It is reasonable to expect disparities between industries because they operate in different industries and have distinct CSR requirements, starting points, and goals. However, some of these disparities should be noted, and the cause for some of the differences could be assumed. As a result, the comparison of descriptive statistics for the industries is the focus of this section.

The average of each of the variables across all industries is shown in Table 14. The mean values for the three variables are steady, as illustrated, with social being somewhat higher and governance being slightly lower. There are more disparities when it comes to the minimum value. Environment and social have somewhat similar minimum values, with the environment

having the greatest. Governance, on the other hand, is far lower than the other two. The maximum values are more steady than the minimum values, with government scoring highest and environment scoring lowest. There are also distinct disparities in the standard deviation. Governance stands out because it is clearly different from the rest, with the far highest value. Environmental and social factors are more similar, with social scoring the lowest. The kurtosis reveals that the risk of unusual events is higher than the normal distribution suggests for the environmental and social pillars, but lower for the governance pillar.

Table 14: Descriptive Statistics for All Industries

	Mean	Min	Мах	St. dev.	Kurtosis
Environment	50,32	53,82	66,46	9,68	1,68
Social	55,72	43,55	69,21	8,10	0,86
Governance	50,22	29,19	70,05	13,05	-0,57
Combined	49,96	34,16	64,98	10,12	0,05

In addition, a few features stand out when comparing descriptive statistics across industries. For example, some may appear to be more stable than others. This is true in both the oil and gas producers' industry and the oil equipment and service industry. For each of the descriptive values, the two industries exhibit little variance between the three ESG variables. On the other hand, several industries have been found to have a lot greater variation. Banks, fixed-line telecommunications, food producers, industrial engineering, and industrial transportation are all examples of this. The reported mean of governance is significantly lower in fixed line telecommunications, food producers, and industrial engineering than in the other industries. Furthermore, banks stand out due to their significantly better social score as compared to the environment and governance. There are some noticeable distinctions in industrial transportation as well. Surprisingly, it displays a minimum value of zero. As a result, the mean value is significantly lower.

Regarding the mean value, the environment component has the lowest mean value in nearly half of the industries (45%). On the other hand, more than half of the sample industries (55%) report that the social component has the highest mean value. The social component is also reported by most of the industries (55%) to have the highest minimum value, while governance has the smallest score in most industries (64%). Regarding the maximum scores, the most number of industries (55%) report the smallest score in environment, whilst there are less differences between the industries, with the equal number of industries reporting social and

governance the greatest. By looking at the different standard deviation values, it is clear that most of the industries (45%) report that the environment component is the lowest, and governance is the greatest in even more of them (64%).

Regarding the kurtosis values of each of the industries, both similarities and differences are identified. Surprisingly, nearly three-quarters (73%) of the sample reports that one of the pillars has positive kurtosis, while the remaining two pillars have negative kurtosis. The three remaining industries refer to exclusively positive and exclusively negative values. The industries of Food Producers and Industrial Transportation have positive kurtosis values for each of the pillars. On the other hand, the industry of Life Insurance reports negative values of kurtosis for all pillars.

When it comes to the overall size of the scores, there are some distinct disparities between the industries. Chemicals, industrial transportation, and software and computer services report lower scores in almost all of the values. On the other hand, food producers show considerably greater scores in most of the values. This, however, does not have to imply anything significant. This is because, as previously stated, every industry has its own set of beginning principles, criteria, and regulations when it comes to CSR and ESG.

7.3 Analysis of ESG scores

Each industry's ESG score is collected on an annual basis, allowing for an examination of each score's evolution over a specified time period, in this case the years 2009 through 2020. This aids in the detection of anomalies in each of the components. It's also possible to watch how each component's development progresses in relation to the others. When comparing the development of the three different pillar scores over the given time span of this thesis, certain variations can be seen. As a result, the aim of this subchapter is to track the evolution of each pillar point within each industry (Section 7.3.1) and across all industries (Section 7.3.2).

7.3.1 Comparing Evolution Within each Industry

The graph below (figure 1) depicts the evolution of each component for the Banks industry over the 11-year period. According to the graph, the governance pillar and the environment

pillar have a considerably lower starting point than the last pillar score, being the social pillar, which is also notably higher than the combined score. However, the governance pillar score shows a significant growth the first three years, until 2011. After this, a period of decline is once again identified, which lasts for four years this time. In 2016, the graph begins to show an upturn, which lasts virtually for the rest of the given period, except for a minimal decline over the past year. The environment pillar, on the other hand, shows a stable minimal decline until 2016. In 2016, the environment pillar managed to reach a comparable level compared to the other two, and even outperformed the other scores. This outperformance lasts throughout the sample period. As mentioned, the social pillar has by far the greatest starting point. It outperformed the other pillars until 2016, when the environmental pillar experienced a dramatic upswing. In 2013, the social pillar indicates a little decrease, but by 2016 it has returned to its previous level and stays that way throughout the period. The social pillar distinguishes itself from the other two pillars by seeming more stable over time, with far less fluctuations in the sample period. The other two pillars point to much more dramatic falls and upswings.

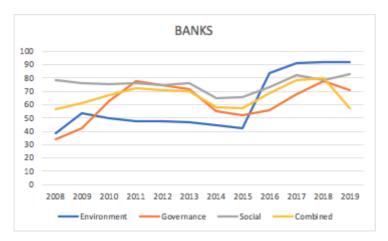


Figure 1: Evolution in Banks

The next graph (figure 2) shows the evolution of the pillars in the industry Chemicals. According to the graph, the environment and social pillars have a significantly lower starting point compared to the governance pillar. However, despite having the highest starting point, the governance pillar score experiences a significant decrease the three first years in the period. On the other hand, the other two experience a steady growth during the same period. The graph shows that the environment and social pillars have followed a relatively similar path throughout the time, with an increase lasting until 2012 and a steady decrease from 2012 and onwards.

Regarding the governance pillar, it experiences both dramatic downswings and upswings. As stated, it has a significantly higher starting point, but shows a notably downswing until 2011. From 2011, it shows a similar notable upswing, lasting until 2014, before reversing. It shows another low point in 2016 before re-establishing at a higher level in 2019, actually outperforming the other two pillars. The graph clearly illustrates that the governance pillar has far broader swings than the other two, and so appears to be considerably more unstable. Although the other two have shown decreases and increases as well, they have shown a far more consistent pattern, and thus appear more stable.

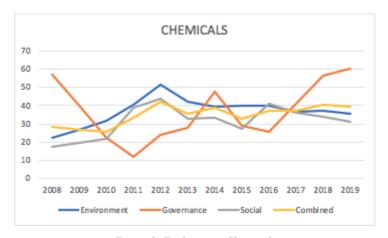


Figure 2: Evolution in Chemicals

Figure 3 shows the graphs of each of the pillars for the Fixed Line Telecommunication industry. According to the graph, it is shown that the environment and social pillar move steadily together throughout the period, without any significant fluctuations. The two pillars have a minimal decrease through the entire sample period. The environment and social pillar, have a significantly greater starting point than the governance pillar. The governance pillar has a much lower starting point and also shows greater fluctuations. From the governance pillar graph, it is possible to identify three tops. The first small increase is in 2009, before decreasing again the next two years. In 2011, the governance pillar continued to increase until 2015. The pillar experiences a dramatic downfall in 2016, and then continues to grow throughout the period. Although the governance pillar has experienced some downswings and appears to be considerably lower than the other two, the pillar scores relatively high compared to the previous industry, being Chemicals. Nevertheless, it is possible to see some similarities between the two industries. In both industries, Chemicals and Fixed Line Telecommunication, the governance pillar stands out because it is very different from the other two components, and behaves much more unpredictably.

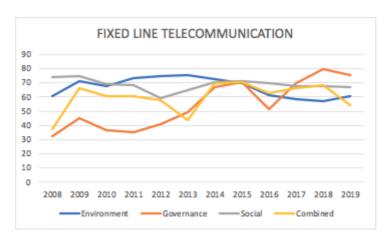


Figure 3: Evolution in Fixed Line Telecommunication

The graph below (figure 4) shows the graph for each of the pillars in the industry of Food Producers. This graph differs from the previous graphs in that it appears much more stable, with very little oscillation. All the pillars have a very similar starting point and a steady increase the first year. After the first year, the environment and social pillars continue with a more or less stable development throughout the entire period. The governance pillar, on the other hand, shows a steady decrease from 2009 until 2013. In 2013, the pillar shows a more upward evolution, but is outperformed by the other two pillars throughout the whole period. Although some fluctuations are identified in the industry, the fluctuations are not as dramatic as for other industries and the evolution shows a steady high score for each of the pillars throughout the whole sample period.

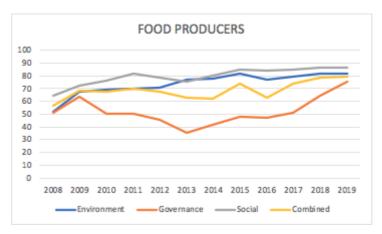


Figure 4: Evolution in Food Producers

Figure 5 illustrates the graph of each of the pillars in the Industrial Engineering industry. At first glance, it appears that this industry has substantially more variances, both across the

different pillars and across the given time-period. The industry is distinguished from all prior industries by its significant fluctuations. The three pillars have similar starting points at the beginning of the period, and have all moved differently within the first year. The environment pillar increases, the social pillar stays stable, and the governance pillar decreases. Throughout the entire sample period, all pillars show notable downfalls and upswings, but some to a greater extent than others. The governance pillar shows, without a doubt, the most notable fluctuations. Interestingly, as is the case for all the previous industries described.

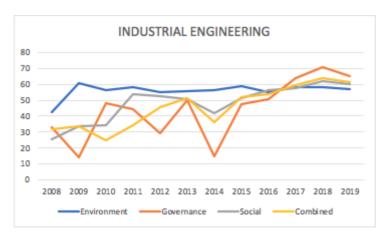


Figure 5: Evolution in Industrial Engineering

The evolution of the next industry, Industrial Metals and Mining, is presented in the graph below (figure 6). This industry undoubtedly holds the two most stable pillars in the entire sample for the given sample period. The environment and social pillars start at a relatively high starting point, and stay more or less there throughout the period. There are some small fluctuations, but none that stand out dramatically. The governance pillar, however, shows a less stable evolution. The pillar, among other things, has a far lower starting point. Although the governance pillar shows more fluctuations, it is mainly the first three years, the pillar stays somewhat stable after 2010 and onwards, except for a small downfall in 2017.

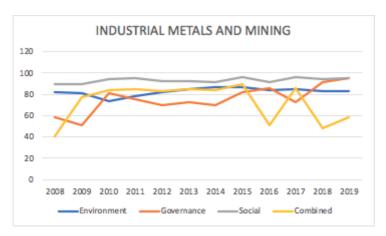


Figure 6: Evolution in Industrial Metals and Mining

The graph below (figure 7) shows the graph for each of the pillars in the industry of Industrial Transportation. What is worth noting about this graph is the large differences between all the pillars. The environment pillar has 0 as its starting point, the pillar does not show an increase until 2017, then there is a dramatic increase. Similarly, the social pillar has a bit greater starting point, and shows no significant increase until 2017. The governance pillar clearly outperforms the other two pillars the first years. However, after a slight upward trend in 2010, the governance pillar stabilizes and moves towards the social pillar. Interestingly, all pillars show a significant growth in 2018. Something that is worth noting is the incredibly low environmental pillar, of which it is without a doubt the lowest of all industries in the sample.

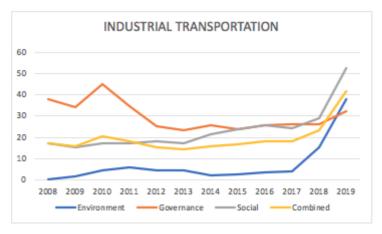


Figure 7: Evolution in Industrial Transportation

Figure 8 presents the graphs for each pillar for the Life Insurance industry. Of the three pillars, the environment pillar stands out as having the lowest starting point. Until 2013, the pillar was also significantly lower than the other two. At that time, the governance pillar experienced a

notable decrease, while the environment pillar experienced a notable increase. The period from 2014 until 2018, all pillars show great fluctuations. The most significant increase happened to the environment pillar in 2016. Although the pillars show some fluctuations, they are not as dramatic as shown in several of the other industries.

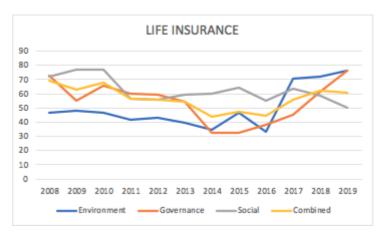


Figure 8: Evolution in Life Insurance

Figure 9 illustrates the graphs for each of the pillars for the industry of Oil and Gas Producers. All three pillars show great similarities and almost no differences. According to the graph, the only notable difference is the slightly higher level of the governance pillar score the last four years. What looks interesting from the graph is how the combined pillar looks much more unstable than the others. In addition, it is interesting noting that the governance pillar outperforms the other pillars. This is engaging since this is the only industry in which this occurs.

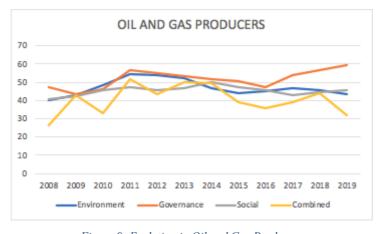


Figure 9: Evolution in Oil and Gas Producers

The evolution of the next industry, Oil Equipment and Service, is presented in the graph below (figure 10). The starting points for each of the three pillars vary, with the governance pillar being the greatest and the environment pillar being the lowest. Overall, there are not many differences in the pillars, only a few notable fluctuations are identified. Interestingly, between 2010 until 2013, the three pillars are almost identical. After that period, the governance pillar shows a steeper increase throughout the period. The other two, environment and social pillar, show a steady decrease the first year, before growing simultaneously the rest of the period. A point to consider is that all pillars end at a generally high level.

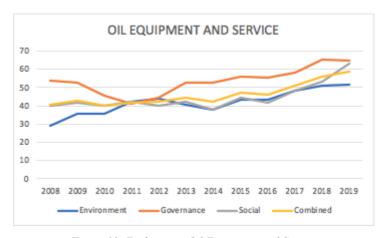


Figure 10: Evolution in Oil Equipment and Service

Lastly, figure 11 illustrates the graph for each of the pillars in the Software and Computer Services industry. This graph stands out as it behaves very differently compared to all of the others. What makes it stand out is the extremely low starting point, before it ends at a somewhat high level. This is the case for all the three pillars. There are really only two notable fluctuations. The first is the dramatic decrease of the governance pillar in 2013, and the second is the dramatic decrease of the environment pillar in 2015. The two pillars nevertheless appear to stabilize during the period.

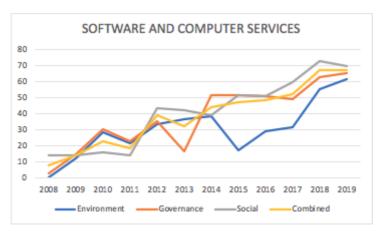


Figure 11: Evolution in Software and Computer Services

7.3.2 Comparing Evolution Across Industries

After looking at the evolution of each ESG pillar score for each of the industries in the relevant sample, it is possible to evaluate and study some notable differences. Because they operate in various industries and have varied CSR standards, starting points, and goals, it is realistic to expect discrepancies amongst industries, as stated in the previous section. Nevertheless, it is possible to identify and map some of the most obvious differences. Following a thorough examination of each industry, a few stand out. Large fluctuations, small fluctuations, very high scores, considerably low scores, and one of the pillars showing a considerable divergence from the other pillars are some of the discrepancies identified. As a result, this section focuses on comparing the varied evolutions of each of the pillars for the industries.

Regarding the fluctuations in some of the industries, there are industries that stand out due to seeming stable and seeming unstable. The industries that seem stable show minimal fluctuations between the different pillars. For two of the industries, Food Producers and Oil Equipment and Service, the governance pillar stands out. In the Food Producers industry, the governance pillar has a similar starting point as the other but gradually performs at a lower level throughout the rest of the period. For the industry of Oil Equipment and Service, the governance pillar stands out since it outperforms the other two, whereby the other two act somewhat simultaneously. In addition, the Oil and Gas Producers industry stands out, since the combined score shows great fluctuations, while the three ESG pillars have a steady development. The last industry that is identified as stable is the Software and Computer

Services industry. Apart from the two cases of short-term falls in the curve, the graphs move very stably in the same direction. On the other hand, the Industrial Engineering industry is identified as the most unstable industry. The graph shows great fluctuations in each of the different pillars.

When comparing the various industries, industries have also been identified that score generally "better" and generally "worse" than the others. When assessing the "better" performers, it is assumed that each of the components is above a certain level. The industries that meet these criteria are the Food Producers industry and the Industrial Metals and Mining industry. On the other hand, the "worst" performer is identified in the Industrial Transportation industry. Apart from a short-term growth at the beginning of the period, all the components generally show a much lower level compared to the others. A recurring factor in several of the industries is the fact that the governance pillar stands out and shows great differences from the other pillars. This is the case for one third of the sample industries. In the Fixed Line Telecommunication industry and the Food Producers industry, the governance pillar shows significantly lower scores compared to the other pillars. In addition, in the industry of Chemicals and Industrial Engineering, the governance pillar stands out because of a far more fluctuating result.

7.4 Correlation

A correlation is to measure the relationships between two variables (Ratner, 2009). The correlation coefficient, which measures the strength of the presumed linear link between the variables, is used to measure correlation (Mukaka, 2012). The correlation coefficient value is always between -1 and 1, and if the correlation coefficient is zero there is no relationship. When the value of the correlation coefficient is between 0 and 1, it means that the variables are positively correlated and when it is 1, it is perfectly correlated (Puth et al., 2014). In contrast, the correlation coefficients are negatively correlated when it is between 0 and -1 and when it is -1 it is perfectly negatively correlated (Puth et al., 2014). When a positive correlation coefficient occurs, the second variable also increases when there is an increase in the first variable or they both decrease (Taylor, 1990). This means that the variables are directly related (Taylor, 1990). When a negative correlation occurs, an increase in one variable will lead to a reduction in the other and a decrease in one variable will lead to an increase in the other (Taylor,

1990). There are five different degrees of correlation depending on how close the score is to 1 and -1; Very high (0.9 - 1), high (0.7 - 0.9), moderate (0.5 - 0.7), low (0.3 - 0.5) and insignificant (0 - 0.3) (Mukaka, 2012). The correlation analysis that is conducted in this dissertation is done on the basis of these criteria. The first part (subchapter 7.4.1) looks at the correlation that occurs within each industry, before subchapter 7.4.2 looks at the correlation across the sample industries.

7.4.1 Correlations between E,S and G scores within each industry

In this part of the thesis, an examination is made of the level of correlation between the different ESG scores; environment, social, governance in each of the different industries. This is done to get a better understanding of how the different ESG scores can affect each other and whether there are big differences.

Based on the table illustrated below (table 15), all the ESG pillar scores in the banking industry have a positive correlation coefficient value. This means that when there is a positive increase in one of the ESG scores, the other ESG scores will also have a positive increase. When the banking industry takes more social responsibility and they for example achieve a higher environment pillar score, the benefit will be that all the other ESG pillar scores also get a higher score. This can help make it more attractive for banks in the banking industry to focus more on corporate social responsibility. The one with the highest correlation coefficient value in the table is the correlation between the environmental pillar and the social pillar, which is 0.57. This one has a moderate correlation between each other. This means that when banks are more skilled and deal with the environment in the form of different aspects then this can affect the environmental pillar score positively which in turn affects the social pillar score positively. Conversely, companies that handle the social aspects in a better way can achieve a higher social pillar score and this thus has a positive impact on the environmental pillar score.

Table 15: Correlation Matrix for Banks

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,3994	1		
Social	0,5789	0,2973	1	
Combined	0,4546	0,6951	0,3956	1

In contrast to the banking industry, there is only one positive correlation coefficient in the chemicals industry, shown in the table below (table 16). This positive correlation coefficient is 0.87 and is the correlation between the environmental pillar score and the social pillar score. This correlation coefficient indicates that there is a high positive correlation. When companies in this industry focus on environmental aspects such as resource use, emissions and innovation, this can lead to them achieving a higher environmental pillar score. There is then a high correlation to the social pillar score. In contrast, this increase will affect the governance column score with a negative correlation. Should companies within this industry, on the other hand, focus more on management, shareholders or CSR strategy that may affect the governance pillar score, then there will be a negative correlation up to the other two pillar scores.

Table 16: Correlation Matrix for Chemicals

	Environment	Governance	Social	Combined
Environment	1			
Governance	-0,4842	1		
Social	0,8789	-0,3699	1	
Combined	0,7437	0,1719	0,8236	1

In the fixed line telecommunication industry, table 17 below shows that all the correlation coefficient values are negative. The highest negative correlation is between environment pillar score and governance pillar score. These negative correlations are moderate and are -0.44, while there is low correlation between governance and social. Since there is a moderate correlation, we can assume that companies within this industry that focus on environmental aspects such as resource use, emissions and innovation can get a higher environmental pillar score. This will reflect that companies get a reduction in governance pillar score. On the other hand, if there should be less focus on this area, we can assume that there will be an opposite effect, i.e. an increase. We will assume this will be the same if companies focus on management, shareholders and CSR strategies. There is almost no correlation between the social pillar score and the governance pillar score. This may indicate that companies that focus on social aspects within the organization can get a higher score, this will not affect the governance pillar score at all. This is something that applies the opposite way. The social pillar score has a negligible correlation with the environmental pillar score and thus hardly be affected by each other.

Table 17: Correlation Matrix for Fixed Line Telecommunication

	Environment	Governance	Social	Combined
Environment	1			
Governance	-0,4403	1		
Social	-0,2355	-0,0819	1	
Combined	-0,0338	0,5288	0,0733	1

It is possible to observe from the table 18 below that there is a positive correlation between all the column scores. There is a high correlation between the environmental pillar score and the social pillar score, where this has the highest value of 0.89. There is an insignificant correlation between the environmental pillar score and the governance pillar score but also between the governance pillar score and the social pillar score. We can assume that companies in this industry choose to focus on carbon emissions of production and social aspects of the organizations. This can lead to a higher environmental and social pillar scores with a high positive correlation to each other. On the other hand, should companies choose to focus on governance such as management, shareholders and CSR strategies to get a higher score, there will be an insignificant impact on the environmental and social pillar score.

Table 18: Correlation Matrix for Food Producers

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,1062	1		
Social	0,8974	0,2495	1	
Combined	0,7222	0,1962	0,6722	1

Table 19 shows that in the industrial engineering industry there is a moderately positive correlation between the environmental pillar score and the social pillar score. This also applies between the governance pillar score and the social pillar score, which has the highest score of 0.68. This may mean that companies that focus on reducing their carbon footprint in production and managing their social aspects within the organizations can assume that they achieve a higher governance and environmental pillar score. This will affect each other with a positive correlation. There will also be a positive correlation with the social pillar score if companies focus on management, shareholders and CSR strategies where we assume a higher governance pillar score is achieved and vice versa.

Table 19: Correlation Matrix for Industrial Engineering

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,1537	1		
Social	0,5239	0,6826	1	
Combined	0,2865	0,7162	0,8465	1

Table 20 illustrates the correlation coefficient of industrial metals and mining, we can observe that there is an insignificant correlation between the environmental pillar score, the governance pillar score and the social pillar score. On the other hand, there is a moderate correlation between the governance pillar score and the social pillar score, with the highest score on 0,65. Companies in this industry that focus on management, shareholders and CSR strategies can be assumed to get a better governance pillar score where there will be a moderate correlation against the social pillar score. The same will apply if companies focus on the workforce, human rights, society and product responsibility and get a higher social pillar score. On the other hand, there will be insignificant correlation for both towards the environmental pillar score.

Table 20: Correlation Matrix for Industrial Metals and Mining

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,0222	1		
Social	-0,0399	0,6517	1	
Combined	0,0114	-0,2027	0,3982	1

The correlation coefficient values for industrial transportation are shown in table 21 below, we can observe that there is a very high correlation between the environmental pillar score and the social pillar score. This value is as high as 0.93 while against the governance pillar score it is almost completely insignificant. The same insignificant correlation also applies between the governance pillar score and the social pillar score. Companies within this industry that choose to have environmental aspects such as resource use, emissions and innovation in focus, we will assume get a higher environmental pillar score. Since there is a very high correlation with the social pillar score, this will lead to an increase in the social pillar score. The opposite happens if companies choose to focus on the social aspects such as the workforce, human rights, society and product responsibility. On the other hand, should companies choose to focus on governance such as management, shareholders and CSR strategies, it will not affect the score for social and environmental. This is because there is an insignificant correlation.

Table 21: Correlation Matrix for Industrial Transportation

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,0312	1		
Social	0,9323	-0,1291	1	
Combined	0,9692	0,2081	0,9308	1

According to table 22 for life insurance, there is some variation between all the correlation coefficients. There is a low correlation between the environmental pillar score and the governance pillar score, which has the highest value of 0.44, while there is an insignificant negative correlation with the social pillar score. On the other hand, an insignificant correlation between the governance pillar and the social pillar score. If companies choose to focus on carbon emissions from production, we assume that a higher environmental score is achieved, where there is a low correlation to the governance column score. On the other hand, there will be an insignificant negative reduction in the social pillar score. By companies choosing to focus on management, shareholders and CSR strategies, we assume that there will be an increase in governance pillar score so there will be insignificant impact on social pillar score while there is low correlation to environmental pillar score.

Table 22: Correlation Matrix for Life Insurance

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,4488	1		
Social	-0,1438	0,0862	1	
Combined	0,4392	0,8644	0,5329	1

When it comes to the industry for Oil and Gas Producers, there is a low correlation coefficient value between all the column scores. From table 23, it is possible to observe that the highest correlation is between the environmental pillar score and the social pillar score which is 0.48, while there is the lowest correlation between the governance pillar score and the social pillar score. Companies in the Oil and Gas industry that take resource use seriously, minimize emissions and are innovative, it is possible assume a higher environmental pillar score since it is assumed that the companies reduce the carbon footprint of production. On the other hand, when there is an increase in this score, the social pillar score will experience a positive correlation. If, on the other hand, the companies take this less seriously, we can assume that the consequences are reversed and the environmental pillar score is reduced. We can assume that it will be less attractive to focus on the governance pillar score since the correlations here are even lower and we will have less effect on the other scores.

Table 23: Correlation Matrix for Oil and Gas Producers

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,4273	1		
Social	0,4824	0,3426	1	
Combined	0,6931	0,3165	0,6098	1

The next industry is the oil equipment and service industry, and its correlation coefficients are shown in table 24 below. It is observed that there is a positive correlation coefficient value between all the column scores. There is a high correlation between the environmental pillar score and the social pillar score, which has the highest score of 0.76. The governance pillar score comes right behind with also a high correlation of 0.75 against the social pillar score. While there is a moderate correlation between the environmental pillar score and the governance pillar score. In this industry, we assume that it would be an advantage to focus on getting a higher score since this will affect the other scores with high and moderately positive correlation. We can assume that this may be a factor in why more companies may wish to take part in social responsibility in the environment in which they operate.

Table 24: Correlation Matrix for Oil Equipment and Service

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,5446	1		
Social	0,7641	0,7554	1	
Combined	0,8686	0,8531	0,9471	1

Table 25 shows the correlations coefficients for the Software and Computer industry, and it is clear that there is a high correlation coefficient value between all the column scores. There is the highest correlation between the governance pillar score and the social pillar score where this is 0.85, while the lowest is between the environmental pillar score and the governance pillar score. Since there is a high correlation within this industry, we can assume that companies that focus on achieving higher scores within environmental, governance or social pillar scores will have a positive effect on the other scores. This may indicate that it may be attractive for companies in the Software and Computer industries to invest significant work in focusing on corporate social responsibility.

Table 25: Correlation Matrix for Software and Computer Services

	Environment	Governance	Social	Combined
Environment	1			
Governance	0,7548	1		
Social	0,7726	0,8566	1	
Combined	0,8328	0,9470	0,9732	1

7.4.2 Correlations Between E, S, and G Scores Across Industries

Following the correlation study within each industry, it is also beneficial to do a correlation study across industries. Thus, the degree of correlation between the various ESG scores; environment, social, and governance amongst the various industries will be investigated in this section of the thesis. This is done to have a better knowledge of how the various E, S, and G scores interact with one another in comparison to other industries.

Table 26 below illustrates the correlation coefficients between the environmental pillar scores across all industries. When the industries are analysed in more detail, it is possible to register that the highest positive environmental correlation coefficient is between Food Producers and Oil Equipment and Service industries. There is a high positive correlation between the two industries, where this value is 0.82. Other industries that have the same high positive correlation coefficient are between; Oil equipment and service and Software and Computer service, Industrial Transportation and Software and Computer and Banks and Oil Equipment and Service. In contrast, there is a high negative correlation coefficient between the Banks and fixed line telecommunications industries, where the value is -0.74. Other industries that experience a negative correlation coefficient have only a moderate or insignificant negative correlation.

Table 26: Correlation Matrix for Environment Pillar Score

	E (Banks)	E (Chemical E	(Fixed Lin E	(Food Pro E	(Industria E	E (Industrial E	E (Industria E	E (Life Insu: E	(Oil and CE	(Oil Equip E (S	Software
E (Banks)	1										
E (Chemicals)	0,0374	1									
E (Fixed Line Telecommunicaion)	-0,7479	0,4339	1								
E (Food Producers)	0,5517	0,5592	-0,0863	1							
E (Industrial Engineering)	0,3071	0,3833	0,2313	0,7222	1						
E (Industrial Metals and Mining)	0,1384	0,3027	-0,0368	0,4723	0,0814	1					
E (Industrial Transportation)	0,6088	0,0465	-0,3723	0,4416	0,1883	-0,0096	1				
E (Life Insurance)	0,7211	-0,1902	-0,6655	0,3336	0,1851	0,0124	0,7066	1			
E (Oil and Gas Producers)	-0,2292	0,7529	0,6336	0,1429	0,2890	-0,2030	-0,1507	-0,2953	1		
E (Oil Equipment and service)	0,7903	0,5182	-0,3585	0,8201	0,5435	0,3118	0,6644	0,6507	0,1688	1	
E (Software and Computer Service)	0.6543	0.4363	-0.2247	0.7387	0.3993	0.1736	0.7684	0.5350	0.1776	0.7960	1

The next correlation matrix to be analysed across industries is the social pillar score. From table 27 below, it is possible to observe that the highest positive correlation coefficient value is between industrial transportation and oil equipment and service. This differs from the other positive correlations since it has a very high positive correlation, where it is 0.91. While the next levels of positive correlation are only high and moderately positive correlation. Some of these correlations are between; food producers and industrial engineering, industrial engineering and software and computer service, chemicals and industrial engineering. On the other hand, the negative correlation coefficient across industry is most negative between industrial engineering and life insurance, where the value is -0.82. Where there is minimal change down to the next negative correlation which is between chemicals and life insurance. Both of these values have a high negative correlation but the remaining negative values have a moderate negative correlation.

Table 27: Correlation Matrix for Social Pillar Score

	S (Banks)	S (Chemical S	(Fixed Lin S	S (Food Pro S	(Industria S	(Industrial S	S (Industria S	(Life Insu: S	(Oil and C S	(Oil Equir S (Software
S (Banks)	1										
S (Chemicals)	-0,0404	1									
S (Fixed Line Telecommunicaion)	-0,1845	-0,7523	1								
S (Food Producers)	-0,0393	0,6297	-0,3667	1							
S (Industrial Engineering)	0,1872	0,7823	-0,6074	0,8906	1						
S (Industrial Metals and Mining)	0,1263	0,3341	-0,3500	0,7354	0,6538	1					
S (Industrial Transportation)	0,3579	0,1628	-0,1614	0,5892	0,5676	0,3731	1				
S (Life Insurance)	-0,0574	-0,8209	0,6206	-0,6434	-0,8224	-0,3322	-0,5819	1			
S (Oil and Gas Producers)	-0,6679	0,4773	-0,3093	0,4738	0,3491	0,3319	0,0704	-0,4824	1		
S (Oil Equipment and service)	0,5769	0,0733	-0,1588	0,5632	0,5995	0,4891	0,9111	-0,4444	-0,1339	1	
S (Software and Computer Service)	0,1638	0,4806	-0,4395	0,7687	0,8151	0,4496	0,7211	-0,6600	0,1926	0,7090	1

Thirdly, table 28 provides an overview of the different correlation coefficient values when it comes to governance pillar scores throughout the industries. This table gives an indication that there is the highest positive correlation between fixed line telecommunication and software and computer service. This value has a high positive correlation and is 0.85. There is not much difference down to the next positive correlations between the different industries which also have a high correlation, but with a slightly lower value. Some of these correlations are between; Banks and oil and gas producers, chemicals and oil equipment and service, industrial engineering and industrial metals and mining. When it comes to the negative correlation coefficient in governance column scores across industries, the most negative is the correlations between fixed line telecommunications and Industrial Transportation. This value is -0.56 where there is a moderate negative correlation. This correlation differs from the other negative

correlation coefficient values due to the fact that there is only a low and insignificant negative correlation between the other industries.

Table 28: Correlation Matrix for Governance Pillar Score

	G (Banks)	G (Chemical C	Fixed Lii C	Food Prc G	i (Industri: C	i (Industria C	ે (Industria C	(Life Insu G	(Oil and CG	(Oil Equij G	(Software
G (Banks)	1										
G (Chemicals)	-0,2754	1									
G (Fixed Line Telecommunicaion)	0,2578	0,5280	1								
G (Food Producers)	0,0420	0,5652	0,3671	1							
G (Industrial Engineering)	0,5649	0,1357	0,4912	0,3190	1						
G (Industrial Metals and Mining)	0,5914	0,0608	0,5767	0,2961	0,7980	1					
G (Industrial Transportation)	-0,2661	-0,0249	-0,5641	0,3122	-0,1167	-0,1832	1				
G (Life Insurance)	0,1511	0,2936	-0,3164	0,5377	0,2281	0,0378	0,6275	1			
G (Oil and Gas Producers)	0,8009	0,1457	0,4733	0,2210	0,5424	0,5705	-0,3874	0,2161	1		
G (Oil Equipment and service)	-0,0317	0,7921	0,8190	0,5570	0,5317	0,4464	-0,3421	0,0225	0,2536	1	
G (Software and Computer Service)	0,4215	0,2769	0,8574	0,3474	0,5210	0,7919	-0,4434	-0,2986	0,5095	0,5985	1

The last pillar that is analysed across industries is the combined pillar score. Based on table 29 below, the highest positive correlation coefficient is the value between industrial engineering and oil equipment service, where the value is 0.87. This coefficient value has a high positive correlation. There is little difference in the coefficient value down to the next positive correlations, which also have a high positive correlation. Some of these correlation is between; oil equipment and software and computer service, food producers and oil equipment and service, chemicals and software and computer service. While the highest negative correlation coefficient value is between chemicals and oil and gas producers, where there is a moderate negative correlation. This value is -0.53.

Table 29: Correlation Matrix for Combined Score

	C (Banks)	C (Chemical C	(Fixed Lit C	(Food Prc C	(Industria C	(Industria C	(Industrial C	(Life Insu C	(Oil and CC	(Oil Equit C (Software
C (Banks)	1										
C (Chemicals)	0,3565	1									
C (Fixed Line Telecommunicaion)	0,1962	0,2085	1								
C (Food Producers)	0,2835	0,3407	0,4841	1							
C (Industrial Engineering)	0,3689	0,7084	0,1900	0,6204	1						
C (Industrial Metals and Mining)	0,0738	-0,0491	0,3523	0,0792	-0,2261	1					
C(Industrial Transportation)	-0,1775	0,2472	-0,0596	0,6179	0,4090	-0,3730	1				
C (Life Insurance)	0,0423	-0,5004	-0,4591	0,0918	-0,3069	-0,3168	0,2570	1			
C (Oil and Gas Producers)	-0,2540	-0,5380	0,1704	-0,0763	-0,3523	0,0164	-0,1720	0,3354	1		
C (Oil Equipment and service)	0,2098	0,5396	0,2224	0,8143	0,8735	-0,3221	0,7451	-0,0124	-0,2090	1	
C (Software and Computer Service)	0,2522	0,7688	0,4327	0,6789	0,8704	-0,1419	0,5460	-0,3828	-0,5029	0,8606	1

7.5 Difference Between Each E, S, and G Score Across Industries

Descriptive statistics, evolution over time, and correlation have all been examined so far. This has been done within industries as well as across industries. The numerous analyses provide

for a comprehensive picture of CSR in Norway during the course of the study period. Nonetheless, a final analysis is advantageous. As a result, this subchapter is dedicated to ttesting. A t-test is a statistical test that compares two groups' means (Kim, 2015). There are two different types of t-tests. The independent t test may be used when the two groups being compared are independent of one another, while the paired t-test may be used when the two groups being compared are dependent on one another (Kim, 2015). For each pillar, t-testing is used to statistically prove similarities and/or differences. A hypothesis test is required for assessing if there is a significant difference between the means of two groups. Hypothesis testing is a scientific method for determining whether or not a hypothesis is acceptable (Park, 2010). By doing so, a null hypothesis is developed. A null hypothesis is a particular assertion that will be tested, and it generally takes the form of "no effect" or "no difference" (Park, 2010). Either a two-tailed or one-tailed hypothesis applies (Park, 2010). The following hypothesis testing will be done in this thesis:

The null hypothesis is that the mean value of the two groups are the same

 H_0 : mean of industry A = mean of industry B

and the alternative is that the means are different

 H_1 : mean of industry $A \neq$ mean of industry B

This is a two tailed hypothesis

The T-test output gives p-values for each combination of industries. Based on the p-values, it is decided whether the null hypothesis is rejected or not. In short, this means that a small p-value proves against the null hypothesis because one would reject the null hypothesis even at small levels of significance. The opposite applies to large p-values, as there is evidence in favour of the null hypothesis. These are the requirements for rejection or not, and the different levels of significance:

p-value < 0.01, the null is rejected at the 1% significance level 0.01 < p-value < 0.05, the null is rejected at the 5% significance level 0.05 < p-value < 0.1, the null is rejected at the 10% significance level p-value > 0.1, we fail to reject the null even at the 10% significant level

The t-test is used to examine this null hypothesis. The hypothesis is kept if the pillar score mean is equal, as determined by the t-test. Otherwise, the hypothesis is rejected, indicating a

difference between the two industries. P-values for each pillar (environmental, social, governance, and combined) are compared across industries. When conducting a t-test, there are three options; paired, equal variance samples, and unequal variance samples. The variance of the samples is not known, so both latter tests are conducted. The overview of the p-values for each pillar is shown in the appendices (appendix 5, 6, 7, and 8), whereas 2,2 indicates equal variance and 2,3 indicates unequal variance.

7.5.1 Environment

The first two-tailed t-test that is conducted compares the environmental pillar score for each of the industries. The results of the t-test (p-values) are shown in table 30 below. The majority (78%) of the p-values < 0,01, which means that the null of equal mean between most of the industries is rejected at the 1% significance level. A few are rejected at 5% (0.01 < p-value < 0.05) and 10% (0.05 < p-value < 0.1). Even at a 10% significance level, however, it is impossible to reject all. We fail to reject the null hypothesis in six cases, implying that their means are equal. The p-values of the t-test between the environmental indicate rejecting the null for; Fixed Line Telecommunication (66,85) and Banks (60,93), Industrial Engineering (55,95) and Banks (60,93), Life Insurance (49,98) and Banks (60,93), Software and Computer Services (30,50) and Chemicals (36,93), Industrial Engineering (55,95) and Life Insurance (49,98), Life Insurance (49,98) and Oil and Gas Producers. Based on the scores (given in parentheses), it is possible to identify similar values, and thereby accept the result. The results of the t-test for environmental score shows that both samples (both equal and unequal variance) have the same level of significance.

Table 30: T-test (p-values) for Environment Pillar

	Banks		Chemicals		Fixed Line Telecommunication		Food Producers		Industrial Engineering	
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Banks										
Chemicals	0,001579207	0,003024437								
Fixed Line Telecommunication	0,380052602	0,386454618	8,15696E-10	8,78358E-10						
Food Producers	0,07116209	0,078202898	1,61521E-10	2,10284E-10	0,04089426	0,041503952				
Industrial Engineering	0,44752022	0,454281918	1,66617E-07	5,35761E-07	0,000151213	0,000204833	2,5136E-06	8,81524E-06		
Industria Metals and Mining	0,002649574	0,005653	3,45037E-15	2,56548E-12	4,61582E-07	2,34526E-06	0,003791102	4,02553E-07	1,6475E-13	4,95591E-13
Industrial Transportation	1,08812E-07	1,00386E-06	5,06733E-08	1,01276E-07	6,03935E-14	8,093E-13	3,55123E-14	6,3552E-14	5,61295E-13	1,7918E-10
Life Insurance	0,162960516	0,164956349	0,011767624	0,014115355	0,001545375	0,002421175	7,70761E-05	0,000132908	0,191551499	0,20058885
Oil and Gas Producers	0,040379233	0,050149243	0,000663971	0,000907892	2,58883E-08	7,92992E-08	2,9892E-09	4,08133E-08	7,57852E-05	7,5857E-05
Oil Equipment and Service	0,008721118	0,012863483	0,098039532	0,098188765	8,36174E-09	8,38948E-09	1,12542E-09	2,08375E-09	5,52669E-06	9,13997E-06
Software and Computer Service	0,000984291	0,001062844	0,245832821	0,251612414	7,4703E-07	7,05355E-06	8,84177E-08	8,84177E-08	5,68273E-05	0,000282949
	Industrial Meta	ls and Mining	Industrial Tra	Industrial Transportation		urance	Oil and Gas Producers		Oil Equipment and Service	
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Industrial Transportation	3,30855E-17	1,84434E-12								
Life Insurance	1,7485E-07	6,40325E-06	3,43506E-08	7,58789E-08						
Oil and Gas Producers	3,02413E-16	1,0718E-15	2,99137E-11	3,42825E-09	0,496352697	0,50121636				
Oil Equipment and Service	6,93326E-15	1,50105E-12	1,90693E-09	8,38583E-09	0,098662465	0,104589217	0,045404894	0,047102373		
Software and Computer Service	6,96851E-10	2,68827E-07	0,000550705	0,000765503	0,006714036	0,006829624	0,004050551	0,007152198	0,042446586	0,048726811

7.5.2 Social

Table 31 shows results (p-values) from the t-test of the social pillar score between the industries. The majority (80%) of the p-values < 0,01, which means that the null of equal mean between most of the industries is rejected at the 1% significance level. A few are rejected at 5% (0.01 < p-value < 0.05) and 10% (0.05 < p-value < 0.1). However, even at a 10% significance level, it is hard to rule out all possibilities. We fail to reject the null hypothesis in eight cases, meaning that their means are the same. The p-values of the t-test between the social indicate rejecting the null for; Banks (75,48) and Food Producers (79,56), Chemicals (31,42) and Software and Computer Service (40,64), Industrial Engineering (48,32) and Oil and Gas Producers (45,35), Industrial Engineering (48,32) and Oil Equipment and Service (40,64), Oil and Gas Producers (45,35) and Oil Equipment and Service (44,63), Oil and Gas Producers (45,35) and Computer Service (40,64), Oil Equipment and Service (44,63) and Software and Computer Service (40,64). Based on the scores (given in parentheses), it is possible to identify similar values, and thereby accept the result. The t-test findings for social score demonstrate that both samples (2,2 and 2,3) have the same level of significance.

Table 31: T-test (p-values) for Social Pillar

	Banks		Chemicals		Fixed Line Telecommunication		Food Producers		Industrial Engineering	
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Banks										
Chemicals	4,26462E-13	4,32842E-12								
Fixed Line Telecommunication	0,002700467	0,002976534	2,39994E-12	2,92272E-10						
Food Producers	0,115717184	0,116069776	2,14355E-13	5,89762E-13	7,40563E-05	0,00012058				
Industrial Engineering	2,70539E-07	1,95936E-06	0,000502832	0,000589664	8,93142E-06	5,69188E-05	4,83929E-08	2,6903E-07		
Industria Metals and Mining	1,24509E-09	5,00685E-08	2,04761E-17	3,92685E-12	1,40442E-14	6,23848E-13	1,00895E-06	1,03809E-05	8,04944E-12	1,98956E-08
Industrial Transportation	2,07161E-13	1,36714E-11	0,041893277	0,042278243	1,00529E-12	5,50688E-10	1,05908E-13	1,64062E-12	1,14437E-05	1,22682E-05
Life Insurance	0,000276409	0,000382209	1,0306E-08	1,04543E-08	0,035682373	0,040334154	2,04874E-05	2,63706E-05	0,002738081	0,002951928
Oil and Gas Producers	3,74118E-14	2,52003E-11	1,58332E-05	0,000104125	3,61369E-14	1,04717E-12	4,50768E-14	9,22876E-11	0,398328571	0,405902588
Oil Equipment and Service	5,63867E-11	1,14053E-10	0,000421628	0,000441355	8,61461E-10	9,45032E-09	1,86772E-11	2,05798E-11	0,359523394	0,359523394
Software and Computer Service	2,31928E-05	0,000156331	0,187242607	0,194704243	0,000242428	0,000952948	6,18617E-06	5,32124E-05	0,294983151	0,298559518
	Industrial Meta	als and Mining	Industrial Tra	ansportation	Life Ins	surance	Oil and Gas	Producers	Oil Equipmen	t and Service
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Industrial Transportation	5,64223E-17	1,61116E-11								
Life Insurance	7,18891E-11	3,87123E-08	8,91344E-10	1,10104E-09						
Oil and Gas Producers	1,25277E-23	1,28586E-23	2,3023E-07	7,47236E-06	1,47334E-06	2,10944E-05				
Oil Equipment and Service	1,42654E-16	4,76078E-12	4,9908E-06	7,77038E-06	1,65991E-05	1,90385E-05	0,741882074	0,743788241		
Software and Computer Service	3,57345E-08	4,17836E-06	0,020260374	0,023963727	0,004009074	0,006052662	0,466094529	0,473401247	0,554476856	0,558424014

7.5.3 Governance

The third two-tailed t-test that is implemented tests the governance pillar score between the individual industries. The resulting p-values are shown in table 32. Interestingly, the governance score shows a much greater proportion of industries show p-value > 0,1, meaning null is failed to be rejected even at 10% significance level and the industries therefore have equal mean. While the other pillars show a large proportion (78% and 80%) of the samples being rejected at the 1% significance level, correspondingly only 36% of the sample with regards to the governance pillar is rejected at this level. Regarding the high p-value, three industries in particular stand out. These are the industries; Fixed Line Telecommunication, Food Producers, and Industrial Engineering. The results of the t-test for the governance score show that both samples (2,2 and 2,3) have the same level of significance.

Table 32: T-test (p-values) for Governance Pillar

	Banks		Chemicals		Fixed Line Telecommunication		Food Producers		Industrial Engineering	
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Banks										
Chemicals	0,000512571	0,000522897								
Fixed Line Telecommunication	0,260551095	0,260976778	0,016155937	0,016202973						
Food Producers	0,072277527	0,073138397	0,012093831	0,012938398	0,692786563	0,693463744				
Industrial Engineering	0,015416042	0,015915924	0,308393694	0,308649298	0,173270593	0,173346086	0,216434969	0,219444301		
Industria Metals and Mining	0,022965391	0,023037601	1,47768E-06	1,78208E-06	0,002683034	0,002885682	9,38325E-05	0,000100547	8,69091E-05	0,000114356
Industrial Transportation	4,52693E-07	3,04238E-06	0,173926894	0,180534621	0,000133886	0,000377437	5,09742E-06	1,09639E-05	0,019379618	0,02449341
Life Insurance	0,22876389	0,228773006	0,009343406	0,009383922	0,981970452	0,981975743	0,6395602	0,639920696	0,140445267	0,141204514
Oil and Gas Producers	0,029040775	0,035376944	0,005248937	0,008403243	0,60375293	0,607480882	0,917968921	0,91837898	0,18638322	0,196525858
Oil Equipment and Service	0,085018676	0,089614369	0,003227394	0,004637574	0,86897186	0,869691862	0,706305505	0,706831586	0,117693725	0,125149412
Software and Computer Service	0,002875339	0,003240007	0,914154808	0,914217744	0,041226636	0,041591996	0,043472152	0,047116124	0,423009406	0,423106891
	Industrial Meta	le and Mining	Industrial Transportation		Life Insurance		Oil and Gas Producers		Oil Equipment and Service	
				_						
* * * * * * * * * * * * * * * * * * * *	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Industrial Transportation	2,9932E-10	6,77094E-09								
Life Insurance	0,001251055	0,001272621	2,39522E-05	7,57751E-05						
Oil and Gas Producers	5,96618E-06	3,65399E-05	7,12361E-09	1,52542E-08	0,526342838	0,530482007				
Oil Equipment and Service	4,27141E-05	8,56273E-05	3,71623E-08	3,91891E-08	0,826180119	0,8269018	0,484787328	0,485834854		
Software and Computer Service	2,10408E-05	3,68387E-05	0,224130162	0,23247991	0,029777884	0,030886823	0,031208076	0,039651311	0,019613093	0,02487951

7.5.4 Combined

The fourth and final two-tailed t-test that is performed compares the combined score for each of the industries. The overview of the p-values is shown in table 33 below. The majority (69%) of the p-values < 0,01, which means that the null of equal mean between most of the industries is rejected at the 1% significance level. A few are rejected at 5% (0.01 \leq p-value \leq 0.05) and 10% (0.05 < p-value < 0.1). However, it is not possible to reject all, even at 10% significance level. We fail to reject the null hypothesis in nine cases, meaning they have equal means. The p-values of the t-test between the combined indicate rejecting the null for; Banks (66,58) and Food Producers (68,60), Banks (66,58) and Industrial Metals and Mining (72,71), Chemicals (34,83) and Software and Computer Service (38,28), Fixed Line Telecommunication (59,92) and Life insurance (56,59), Food Producers (68,60 and Industrial Metals and Mining (72,71), Industrial Engineering (45,68) and Oil and Gas Producers (40,58), Industrial Engineering (45,68) and Software and Computer Service (38,28), Oil and gas Producers (40,58) and Software and Computer Service (38,28), Oil Equipment and Service (46,16) and Software and Computer Service (38,28). Based on the scores (given in parentheses), it is possible to identify similar values, and thereby accept the result. Appendix 8 indicates that the results are generally valid at the same level of significance, apart from one of the tests. The t-test of the combined score between Life Insurance and Industrial Metals and Mining are rejected at different levels of significance. When assuming equal variance, the test results in a p-value < 0,01, rejecting the null at 1% significance level. On the other hand, when assuming unequal variance, the test results a p-value > 0.01 and < 0.05, rejecting the null at 5% significance level.

Table 33: T-test (p-values) for Combined Score

	Banks		Chemicals		Fixed Line Telecommunication		Food Producers		Industrial Engineering	
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Banks										
Chemicals	2,17647E-10	1,2812E-09								
Fixed Line Telecommunication	0,099152111	0,099762842	2,08717E-07	1,19455E-06						
Food Producers	0,528412555	0,528628668	6,35813E-12	1,50866E-11	0,025502422	0,026858383				
Industrial Engineering	0,00012405	0,000180997	0,01462674	0,018441193	0,007426417	0,007688591	2,30182E-05	5,57505E-05		
Industrial Metals and Mining	0,288526048	0,29309856	3,91847E-07	7,63697E-06	0,041615158	0,044310538	0,461074861	0,46521593	0,000317491	0,000369284
Industrial Transportation	8,97577E-13	1,20831E-12	8,56815E-06	1,16913E-05	2,22605E-10	7,51007E-10	5,48391E-14	5,72442E-14	4,77919E-06	1,3115E-05
Life Insurance	0,008040575	0,008040727	1,52708E-07	4,08029E-07	0,396339785	0,396762747	0,000953523	0,000995409	0,023719068	0,025362169
Oil and Gas Producers	7,93058E-08	8,28334E-08	0,0474283	0,048834852	3,59421E-05	4,5287E-05	4,66766E-09	5,14686E-09	0,258610784	0,26142128
Oil Equipment and Service	8,02333E-07	1,29039E-06	8,89275E-05	9,21281E-05	0,000685801	0,000959728	2,89523E-08	3,30421E-08	0,910323599	0,910743125
Software and Computer Service	0,000148509	0,000372521	0,56500731	0,569322618	0,002799413	0,003758823	4,99902E-05	0,000197919	0,290197032	0,291930644
	Industrial Meta	ls and Mining	Industrial Tra	ansportation	Life Ins	urance	Oil and Gas	Producers	Oil Equipmen	t and Service
	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3	2,2	2,3
Industrial Transportation	2,39074E-09	9,71769E-08								
Life Insurance	0,009067353	0,011455744	9,04476E-11	1,11253E-10						
Oil and Gas Producers	8,22025E-06	3,53559E-05	8,09435E-07	8,2326E-07	7,52426E-05	7,63039E-05				
Oil Equipment and Service	6,27503E-05	0,000240523	2,52382E-09	3,40375E-09	0,002120171	0,002335236	0,064020459	0,064721359		
Software and Computer Service	0,000173247	0,000177901	0,005587516	0,008292713	0,007199186	0,009780023	0,709976505	0,711882543	0,199620831	0,208638242

7.6 Summary

To create a full comparison of the industries in the sample, several statistical analyses are performed. The diverse methods' compositions are chosen for their unique importance and unfolding. The various methods enable insight and understanding of several aspects of the concept. One of the assumptions is that there are some disparities, which are assumed to be related to the fact that the companies operate in various industries. Each industry has its own set of beginning principles, standards to follow, and CSR approaches. The goal is thus to develop a pattern between similarities and disparities, rather than just differences. This subchapter presents a summary of some of the most notable discoveries.

The descriptive statistics for each of the industries summarizes the most informative values. The examination of each industry allows for the comparison of similarities and disparities of the descriptive statistics for the sample. In terms of average mean value (combined), the Industrial Metals and Mining industry has the greatest mean average, while the Industrial Transportation industry has the lowest mean average. In terms of the pillars, the social pillar has the highest score across the board, accounting for six of the eleven industries. In nearly half of the sample sectors, though, the environment pillar has the lowest average mean. In addition to reporting averages, the descriptive statistics report minimum and maximum value. These

values are instructive to note how much variance there is in the values within each pillar. The Software and Computer Service industry has the most conspicuous gap in values. The opposite is true for the Oil and Gas Producers industry. When this statistic is compared across all industries, the governance column comes out on top with the biggest deviance. The social pillar, on the other hand, exhibits far greater consistency and definitely the least fluctuation. By comparing standard deviations across industries, the same findings were reached.

Kurtosis is the last value provided in descriptive statistics. Kurtosis estimates whether the probability of rare outcomes is greater or less than the normal distribution indicates. This value is useful in gaining a better understanding of the industry's potential risks. There are both similarities and variances in the kurtosis levels of each of the industries. Surprisingly, the majority of the sample indicates positive kurtosis in one of the pillars, while the remaining two exhibit negative kurtosis. The remaining industries are only concerned with solely positive and solely negative values. The kurtosis value in the Industrial Engineering industry is certainly the highest, compared to the other industries. The Banks industry, on the other hand, has the lowest kurtosis score. However, this is not as remarkable as the last example, because a big portion of the sample has low kurtosis values. When comparing the values of the pillars, the environmental pillar has the highest kurtosis, while the governance pillar has the lowest.

It is also feasible to assess and research some noticeable distinctions after looking at the evolution of each ESG pillar score for each of the industries in the relevant sample. A few stand out after a careful review of each industry. In summary, the Oil Equipment and Service business exhibited the least evidence of volatility and variation. Industrial Engineering, on the other hand, was without a doubt the most diverse and fluctuating industry. Throughout the period, this was true for all pillars. In terms of industry development, certain industries appear to be growing, while others appear to be declining. Without a question, Software and Computer Services is the industry in the sample that is growing the fastest. It's not as evident when it comes to deterioration. Several of the industries have similar starting points and ending values, although the industries for Industrial Metals and Mining, as well as Oil and Gas Producers, still show small evidence of decline.

In terms of the correlation analysis, it was desirable to examine how the various pillars interact with one another. This is carried out both within each industry and across industries. Through a correlation matrix, it is possible to gain a better understanding of the effect of a change in one

industry and how this affects another industry. In all the pillars, a high positive correlation is achieved where the one who stands out extra is the social pillar. This achieves a very high correlation between the industries industrial transportation and oil equipment and service. Only half of the columns achieve high negative correlation while the other half achieve maximum moderate negative correlation. Across all the pillars, none of the same industries achieve the highest positive or negative correlations. The only industry that achieves both the highest negative and positive correlation in two different pillars is industrial engineering. This is still up against different industries. Beyond this, it is difficult to see any common features across all the pillars.

Finally, a t-test was used to statistically validate the already conducted analyses' findings. Although the previous analyses have provided a wealth of information, being able to statistically confirm the conclusions is beneficial. It is possible to detect certain discoveries by comparing the different p-values for the different pillar scores. The outcome where the null hypothesis is rejected at the 1% significance level is replicated in the tests for the environmental pillar score, social pillar score, and the combined score. This indicates that at the 1% level, the null hypothesis of an equal mean between the majority of the industries is rejected. The significant number of p-values in the governance pillar score that argue in favor of preserving the null hypothesis, even at the 10% significance level, is the result that sticks out the most. This indicates that the null hypothesis of equal averages between the industries (within the governance pillar score) is omitted, and that they can thus be assumed to have equal means. The descriptive statistics presented in subchapter 8.2 confirm this.

7.7 Limitations

While this study adds to the existing literature in a number of areas, it does have several limitations that should be noted when interpreting the results. One essential component has been to maximize the thesis's reliability through transparency, which has been achieved through the use of theory and data selection, as well as comparable statistical testing. However, when executing the analysis, several constraints and restrictions must be recognized. The data is limited to the data accessible on datastream because it was gathered from Thomson Reuters datastream. Thomson Reuters only possessed data for the majority of the companies throughout the 11-year period, as stated in the data description, which is a limitation in terms of long-term

implications. As a result, no meaningful judgments about the long-run effect will be available. Furthermore, the ESG score is a constraint in and of itself, because different agencies employ different methods to calculate the ESG scores. As a result, the final score for the same company may vary from one agency to the next. The findings in this thesis, however, will be relied on this data because Thomson Reuters is argued to be a high-quality rating agency.

8. Conclusion

The purpose of this dissertation is to look at the prevalence of corporate social responsibility in Norway as measured by ESG data across 11 different industries. A comprehensive and thorough review of existing literature and previous research is carried out as part of this effort. Based on this review, it is possible to gain a deeper understanding of the topics covered in the thesis. However, the existing literature presents several shortcomings. This is mostly based on the lack of general agreement and definition of CSR as a concept, as well as the problems of measuring CSR. This thesis will not be able to fill this gap in the literature, but will nevertheless contribute by providing the literature with a collection of views in the form of a systematic review. Several important aspects have been uncovered through a comparative analysis of ESG scores in Norway. This chapter addresses the various results from the analysis and ends with the thesis' concluding remarks.

Analysing the environmental pillar reveals several interesting findings. Regarding the descriptive statistics, the environmental score is the lowest compared to the other pillars for the majority of the industries. Within the environmental pillar, the industry with the highest score is Industrial Metals and Mining, and the lowest mean is found in Industrial Transportation. The minimum and maximum score, and standard deviation, reveal little fluctuation within the environment pillar scores in the industries. This is again confirmed by examining how the scores behave over time. Apart from a few occurrences of significant increases and decreases, the graphs demonstrate a consistent curve for the pillar. The most notable increase is registered in the industry of Banks, and the most notable decrease is registered in the industry of Software and Computer Services. However, the descriptive statistics show somewhat higher values of kurtosis, compared to the other pillars, proposing that the probability of rare outcomes is greater than the normal distribution indicates. Further, the correlation matrix for the environment pillar shows a dominant proportion of positive correlation coefficients between industries. Indicating

that the corresponding industry increases when the other does so, alternatively that both decrease. The strongest correlation is found between the Food Producers industry and the Oil Equipment and Service industry. Based on this, it is assumed that the industries in the sample have similarities. This is determined by testing for statistical significance. The t-test reveals p-values < 0,01 between the majority of the industries, meaning that the null of equal mean is rejected at 1% level, showing that, within the environmental pillar, industries generally have different means.

The environment pillar score is used to measure companies by how they deal environmentally with various perspectives, based on three categories; resource use, emissions and innovation. Table 2 shows resource use being weighted 34%, emissions 10%, and innovation 16%. Some of these results are seen to have a natural explanation based on the significance and weighting of the pillar. This may, for example, be the case for the industry with the lowest average score, namely industrial transportation. Because of the high weighting of resource use and emissions, and the fact that the industry is not seen as the most environmentally friendly, it is not surprising that it does not show great scores. However, the correspondingly highest average is also an industry that is not seen as the most environmentally friendly, namely Industrial Metals and Mining. It is unclear what may explain this. A possible explanation for why the environmental column achieves the lowest score between the columns may be because the majority of the industries analyzed affect the environment to a greater extent. This is in the form of resource use, emissions and new innovations in connection to productions. Emissions and resource use are more measurable than the other assessment criteria in the other pillars. The companies can to a lesser extent influence the requirements that are adopted and thus this can lead to greater challenges when it comes to the environment. The impressive factor highlighted in the analysis is the overall high score of the pillar and the stability it shows. This is surprising, and uplifting, due to mandatory non-financial reporting not being introduced until recently. Baldo (2015) mentions, among other things, a bit about how this reporting went from being voluntary to mandatory. This indicates that these considerations were taken into account, even before reporting was regulated.

Regarding the social pillar analysis, the descriptive statistics indicate an outperforming compared to the other pillars. This is because the pillar represents the greatest mean in most industries, as well as the lowest variance (min/max) and standard deviation value. This is further supported by a look at how the pillars have evolved over time in each industry. There

is much to suggest that the social pillar performs significantly more stable than the others. However, within this pillar, the highest kurtosis values are shown for the industries. Meaning that the probability of rare outcomes is greater than the normal distribution indicates. The highest kurtosis scores are identified in the Industrial Engineering and Industrial Transportation. In terms of the correlation analysis, this pillar reveals the most evidence of negative correlation amongst industries compared to the other pillars. However, the majority (60%) of the correlation coefficients indicate a positive correlation. Meaning that when there's an increase in one industry, the majority of the other also increase. Furthermore, the t-test reveals that the p-values in the social pillar dominate being < 0.01, implying that the null hypothesis is rejected at the 1% significance level. This means that the majority of the industries are statistically significantly different within the social pillar score.

The social pillar score is used to measure how the companies handle the social part within the organization and what decisions it makes in terms of long-term sustainability, emphasized by four elements; workforce, human rights, community and product responsibility. Table 2 shows workforce being weighed 10%, human rights 15%, community 8%, and product responsibility. Some of these findings appear to have a natural explanation based on the pillar's significance and weighting. For example, it is not surprising that the industries in Norway generally show high scores on this pillar. This can be justified, for example, by Ihlen & Hovik's (2015) argument that Norway's legislation covers a major portion of CSR. Some of the topics mentioned by the authors include labor rights, working conditions, and safety concerns. This suggests that adherence to these standards, which is anticipated given that they are mandated, will result in a high score for this pillar. Given that these regulations are fulfilled, it is also reasonable that there are no significant changes across time or between industries.

When examining the governance pillar score, it is registered that it generally performs lower than the other two pillars, based on the average of the mean values for the industries. The highest performance is shown in the industry of Industrial Metals and Mining, and the smallest score is seen in Industrial Transportation. The descriptive statistics also reveal great fluctuations both within the industries (over time) and across the industries. The governance pillar score shows the greatest gap between the minimum value and the maximum value, which is further confirmed with the highest standard deviation in most industries. However, within this pillar, the lowest kurtosis values are shown for the industries. Meaning that the probability of rare outcomes is less than the normal distribution indicates. From the correlation analysis, a

surprisingly large proportion (78%) of the industries reveal positive correlation. This means that when one industry increases, the majority of the others increase as well. The governance pillar yields the most notable findings in terms of the t-test. This is due to the significant number of p-values in the governance pillar score that argue in favor of preserving the null hypothesis, even at the 10% significance level. This means that we fail to reject the null hypothesis of equal means, meaning they have equal means. This contradicts the previous premise, which states that the pillar exhibits huge disparities and variations. A deeper examination reveals two groupings of industries that appear to act similarly.

The governance pillar score accounts for three factors: management, shareholders, and CSR strategy, and determines how adept the organization is at handling the treatment of varied shareholders and supporting environmentally sustainable operations. Table 2 shows management being weighted 16%, shareholders 5%, and CSR strategy 3%. The management factor is determined by the company's commitment and efficiency in dealing with corporate governance principles in the most efficient manner possible (Refinitiv, 2019). Since the management factor is significantly larger weighted compared to the other factors, an industry showing high scores within the governance pillar is assumed to deliver on this subject. Seen in the light of the analysis that is carried out, the industry that performs best is the industry of Industrial Metals and Mining. On the other hand, Industrial Transportation scores the lowest governance score across the industries. Apart from this, it is difficult to assume anything about what is the reason for the difference. The state's engagement in many industries might be one cause. According to Ihlen and Hovik (2015), Norway's CSR policy is driven by the government. This is based on the fact that the government owns or controls numerous of Norway's largest companies, either directly or indirectly (Baldo, 2015).

As the corporate world grows more global, organizations are being pressured to be more open in their operations. Companies must begin to evaluate the influence of their activities on society as a whole as a result of this increased openness. As a result, CSR has become a major topic and trend among modern enterprises. Researchers have come up with several different interpretations and meanings for the concept, and they will most likely continue to do so. Because of the concept's complexity, reaching a universal agreement is difficult, therefore this will continue to be a significant study field. When conducting a comparative analysis of CSR in Norway, several differences and similarities are identified. The differences and similarities are identified both within and across industries. The analysis provides insight into how CSR

behaves differently for different actors. To summarize, it is evidenced that the industries within the environment pillar and the social pillar show a dominant value of being statistically significantly different, rejecting the null hypothesis of equal means at 1% significance level. This is, however, not possible regarding the industries within the governance pillar score. The p-values show dominant values of > 0.1, thereby failing to reject the null, and meaning that most of the industries have equal means. In addition, no clear patterns have been identified regarding the differences and similarities, neither within or across industries.

For future research, it might be considered to include a larger sample of industries and companies. This is undoubtedly advantageous for several reasons, but mainly to get a more representative sample. This should be possible later, as it is expected that the availability of ESG data will only continue to increase. Another possibility for further research is to perform a comparison of CSR performance between countries. This will be able to provide an insight into how Norway, possibly other countries, provide social responsibility and what inequalities are dominated by. In other words, there are countless opportunities for further research, and it is concluded that all research will be contributing research.

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