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The Relationship between Corporate Social Responsibility and Financial Performance

Evidence from Nordic firms

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ABSTRACT:
Social responsibility has during the past few decades become a remarkable megatrend guiding the behavior of different actors in various aspects of life. Consumers are increasingly aware of the societal impacts of their decisions, growing concern about the climate change has forced governments to commit to stricter emission targets, and companies are facing an increasing pressure to consider the large-scale implications of their actions. At the same time the academic discussion around corporate social responsibility has gone through a dramatic change. Only a couple of decades ago the debate largely focused on whether companies have obligations towards the society in addition to generating profits to their shareholders. Nowadays corporate social responsibility is increasingly seen as an essential part of every company's strategy, and according to the prevailing view corporate social responsibility is believed to enhance companies' financial performance.

Nordic countries are widely recognized as pioneers in responsibility related matters. However, Nordics have been largely neglected in the previous academic research on the relationship between corporate social responsibility and financial performance. Using the research methodology established in the existing academic literature, the purpose of this study is to find out whether corporate social responsibility enhances the financial performance of Nordic firms. The study aims to figure out whether the positive relationship between corporate social responsibility and financial performance observed in the previous studies hold when focusing solely on the part of the world where the general level of social responsibility is higher than anywhere else. More specifically, the study examines the impact of corporate social responsibility on the firm profitability and value in Nordic publicly listed firms during the period from 2010 to 2020.

The empirical results of the study indicate that the overall corporate social responsibility score is positively and significantly related to firm profitability. Of the three dimensions of corporate social responsibility, the results show that especially environmental and social aspects of corporate responsibility enhance firm profitability, whereas corporate governance aspect turns out to have a negative impact on firm profitability. The evidence doesn't support the existence of a direct relationship between corporate social responsibility and firm value. However, corporate social responsibility can be seen to impact firm value indirectly through enhanced profitability.

The study contributes to the academic discussion by providing new evidence on the relationship between corporate social responsibility and financial performance in the previously neglected geographical context of Nordic markets. From the practical perspective, the empirical findings confirm that Nordic firms can benefit financially from the investments in corporate social responsibility, especially what it comes to environmental and social aspects of responsibility.

KEYWORDS: Corporate Social Responsibility, ESG, Financial Performance, Profitability, Firm value, Nordic firms

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Abbreviations

CFP	Corporate Financial Performance
CSR	Corporate Social Responsibility
CSP	Corporate Social Performance
ESG	Environmental, Social, Governance
ROA	Return on Assets
R&D	Research & Development
SRI	Socially Responsible Investing

1 Introduction

Over the past decades, sustainability and responsibility have become fundamental megatrends affecting and reshaping the world in every aspect of life. Individuals all over the world are more aware and concerned than ever about what kind of implications their actions and decisions may have beyond their own personal scope of life. Global warming is no longer just a subject for concern but something that can be observed in reality and that must be dealt with in order to keep the earth a viable place to live for future generations. Governments are committing to more and more ambitious targets to reduce carbon emissions, and public authorities are imposing stricter regulations for businesses and individuals to obey, hence guiding them towards more responsible behavior.

Since the surrounding world has become more conscious about societal and environmental issues, companies are increasingly forced to consider the impacts of their actions on the society. As a result, corporate social responsibility (CSR) has grown from a narrow and often marginalized notion among a small group of academics into a complex and multi-faceted concept increasingly central to corporate decision-making (Cochran 2007). In today’s world it’s no longer enough for companies to just play by the rules – everyone is expected to do more and be better than that. Consumers are increasingly willing to buy eco-friendly goods and services that have been produced sustainably, even if they cost more than less responsible alternatives. Even business-to-business relationships are impacted by the responsibility megatrend, as especially large companies are increasingly requiring their suppliers and other partners to comply with different quality and ethical standards and refuse to do business with firms that fail to meet the requirements. Furthermore, also the media and different non-governmental organizations are actively keeping an eye on the renowned companies and do not hesitate to bring any unethical behavior to public attention. It is not only companies’ own actions that matter, but a misconduct revealed anywhere across the company’s entire supply chain may create negative publicity and cause costly damage to the company and its public image.

Due to the ascent of corporate social responsibility, it is becoming clear that in the future companies can hardly afford to neglect the all-encompassing demands for responsible behavior. For a company that does not take corporate responsibility seriously but continues the unsustainable business-as-usual, the preconditions for doing business may well cease to exist with an unexpectedly rapid pace. An intriguing question for companies and their decision-makers to consider is whether it is enough to maintain these preconditions of existence for the business to thrive, or if it is worthwhile to seek for more than that. Companies are increasingly forced to ask themselves, is it enough to be a good citizen, or can corporate social responsibility also be good for business.

1.1 Background of the study

While environmental impact is nowadays probably the aspect that attracts most of the attention (Lee et al. 2016) and comes first to one's mind when talking about sustainability or responsibility, the concept of corporate social responsibility (CSR) entails much more than that. The European Commission (2011) defines CSR rather broadly as "the responsibility of enterprises for their impacts on society". According to the Commission, for companies to fully meet their social responsibility, they should have a process in place "to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy". An alternative definition of CSR as "international private business self-regulation" by Sheehy (2015) further underlines the divergence of CSR from compliance with formal regulation set by governments or public authorities. While the pressure for companies to be socially responsible perhaps mainly comes from the outside, the acts of responsibility are first and foremost initiated by the companies and industry-associations themselves. The evaluation of to what extent a company meets its corporate social responsibility is often composed around the well-established concept of ESG, where the three letters represent three main aspects of CSR: environmental, social and corporate governance (IFC 2004).

In essence, the main purpose of any business is to generate profits to the company's shareholders. While some may argue that firms can't keep seeking profits at any cost but

taking care of the environment and society should be at least equally important, the reality is that in market economies businesses need to make profit to survive. In long run, an unprofitable company will go out of business, and for a company that goes out of business there are no CSR matters to take care of. Intuitively, it seems obvious that a company needs to perform financially in order to be able to perform responsibly. However, even if the former might in a way to be a prerequisite for the latter, it doesn't necessarily mean that the former is more important than the latter – or that one can only be improved at the cost of the other. Could it be that there is no trade-off between the two, but doing good actually leads to doing well?

In his famous shareholder theory, also known as Friedman doctrine, the economist Milton Friedman (1970) declares that in a free society where we live in, the one and only social responsibility of a firm is to increase its profits and thereby maximize the returns to its shareholders. According to Friedman, a firm has no responsibility to the public or society but only to its owners. Corporate executives, as Friedman states, are employees of the owners of the business, and their sole responsibility is to run the business in accordance with their employers' desires. Friedman argues that if a corporate executive engages in an activity where the company's resources are used to make a positive impact on the society at the cost of the firm's profits, he would be merely using someone else's money for his own purpose, even if it also is a general social interest. Friedman is not, however, against activities that may be called socially responsible, but he claims that they should be carried out by individuals and not by corporations. Indeed, he accepts that people may feel impelled to do something good for the society, but they should do it as principals rather than agents – spending their own money, time and energy and not the money, time and energy of their employers (Friedman 1970).

Robert Edward Freeman (1984) provides an alternative view to corporate social responsibility. According to Freeman's stakeholder theory, shareholders are just one group of many stakeholders a company must consider. Freeman counts in as stakeholders anyone invested in, involved in or affected by the company. Contrary to Friedman's (1970)

shareholder theory, Freeman's stakeholder theory suggests that the true success of a firm is dependent on satisfying the needs and expectations of all the stakeholders, not just those owning the company and gaining profits from its success. According to Freeman, by neglecting any group of its stakeholders, a company might generate profits in short term, but will not survive in long term. Without the support of all the stakeholders a company will eventually cease to exist, and hence, it indeed should be of interest for a firm to engage in socially responsible activities and foster the relationship with its stakeholders (Freeman 1984).

If Friedman (1970) is correct, corporate social responsibility does not matter, and corporate executives should not care about it. If Freeman (1984) is correct, corporate social responsibility is a vital condition for a firm's existence, and corporate executives should indeed care about it a great deal. However, even if Freeman's stakeholder theory holds true, it doesn't necessarily imply that there is any linkage between how socially responsible a firm is and how well it performs financially. An essential question remains – beyond being socially responsible enough to secure its survival, does a firm benefit from being more socially responsible than that?

The question is not exactly a new one. The relationship between corporate social responsibility (CSR) and corporate financial performance (CFP) has sparked interest in the academic world for several decades already. The origin of academic research on the topic can be traced back to as far as 1970s (Friede et al. 2015). Since then, the stream of academic studies has been ample, and several different lines of research have emerged. Many scholars have sought evidence for the existence of CSR-CFP relationship (e.g. McGuire et al. 1988). Others have gone deeper into the details and investigated the financial performance impact of different aspects or dimensions of CSR (e.g. Bauer et al. 2004; Lee et al. 2016). A related field of study has focused on socially responsible investing (SRI) and its impact on portfolio returns (e.g. Mollet & Ziegler 2014). Gradually the focus has been increasingly shifting from what to how and why, as the academics have tried to understand the mechanisms behind the CSR-CFP relationship and developed

theories and frameworks to explain why CSR and CFP should be related, and how socially responsible behavior translates into financial performance (e.g. Perrini et al. 2011).

While majority of the research on the topic confirms the existence of CSR-CFP linkage and a non-negative relationship is empirically relatively well established, the CSR-CFP nexus is still deemed inconclusive. The empirical results seem to vary depending on the context of research. Studies focusing on a certain geographical area, industry sector, economic situation or competitive landscape have ended up with different conclusions what it comes to the existence and magnitude of CSR-CFP relationship. In terms of financial performance, CSR seems to matter more in certain countries, industries or time periods than in some others. One possible explanation for the regional differences might be the varying levels of advancement in CSR between different parts of the world. In countries where the overall progression in CSR is relatively low, a company that has integrated CSR as a part of its business operations probably stands out from the others. In the other hand, in the most advanced countries in terms of CSR adoption, the companies that stand out are more likely the ones where CSR matters have not been properly addressed. This study focuses on the latter case and aims to find out whether companies truly benefit from CSR in countries where socially responsible behavior is an expectation rather than an exception.

1.2 Purpose of the study

Nordic countries are broadly recognized not only as the most advanced welfare states in the world, but also as the global leaders in terms of sustainability and social responsibility. According to Midttun et al. (2015), companies from Nordic countries are overrepresented in global CSR initiatives, and Nordic governments are heavily engaged in various national CSR motions. Furthermore, Nordic countries typically claim top positions in various sustainability rankings. For example, in the Global Sustainability Competitiveness Index (GSCI) 2021, Sweden ranks first, Finland second, Denmark fourth, and Norway fifth (Solability 2021). The Nordic dominance is even more overwhelming in the Country

Sustainability Ranking 2021, where the first four positions are occupied by Sweden, Finland, Norway and Denmark, respectively (Robeco 2021).

Superiority of the four Nordic countries in CSR is of course relative and not absolute – being the best is not the same as being perfect. Nonetheless, having a group of neighboring countries where CSR has come further than anywhere else in the world opens a fascinating question for exploration: Does being more socially responsible pay off in a setting where everyone is, and is expected to be, socially responsible? More specifically, does the non-negative relationship between CSR and CFP that has been empirically observed in numerous studies all over the globe disappear when the phenomenon is investigated in the most socially responsible part of the world, or does the relationship become even more pronounced?

This study aims at answering the above question by extending the research methodology previously adopted in numerous academic publications to publicly listed companies in Nordic countries, namely Sweden, Finland, Norway and Denmark, with the most recent available data. More specifically, the purpose of the study is to investigate whether socially responsible behavior of a company has led to an enhanced financial performance in Nordic countries during the period of last eleven years from 2010 to 2020. Following the line of previous academic research on the topic, ESG scoring across the three main pillars of corporate social responsibility – environmental, social and governance – is used to measure companies' CSR performance. Financial performance is measured from both accounting and market perspective, using return on assets (ROA) as a proxy for the former and Tobin's Q as a proxy for the latter. Both CSR and financial data used in the study is retrieved from Refinitiv's database with the frequency of one year, so that for each variable there is one data point per firm-year observation.

To accomplish its purpose, this study seeks to answer the following research questions:

1. Does corporate social responsibility enhance the financial performance of Nordic firms?
2. Are all three dimensions of the ESG framework equally important for the financial performance of Nordic firms?

The first research question considers corporate social responsibility in a broad sense. To answer the question, this study examines the relationship between companies' overall ESG score and financial performance. The second question breaks down corporate social responsibility into three dimensions according to the ESG framework, with the purpose of finding out how each dimension individually contributes to firms' financial performance. To answer this question, the CSR-CFP relationship is investigated for each ESG dimension separately.

This study contributes to the academic research on the relationship between corporate social responsibility and financial performance by extending the established research methodology into a previously unexplored geographical context that provides a unique setting where the bar of corporate social responsibility is higher than anywhere else in the world. The study sheds new light on whether the positive impact of socially responsible behavior on financial performance observed in previous empirical studies sustains in countries where corporate social responsibility has been widely adopted by companies as a part of doing business. Furthermore, this study provides an up-to-date view on the topic as it is conducted with most recent available data, covering the last ten years up until 2020. From practical point of view, the study offers new information for the executives of Nordic firms on whether further investments on corporate social responsibility still pay off in the form of enhanced financial performance, or whether CSR has become a commodity for which firms do not get rewarded financially.

1.3 Structure of the study

Rest of this study is structured as follows. Second chapter introduces the theoretical background of corporate social responsibility and its relationship with corporate

financial performance. The chapter outlines the theoretical framework for why and how corporate social responsibility is presumed to affect companies' financial performance. Chapter three provides an overview on the existing academic literature on CSR-CFP relationship and summarizes the key findings from previous studies. Chapter four describes the research methodology, regression models and data used in this study. Chapter five presents the empirical results of the research. In chapter six, key conclusions are drawn, and the research and its limitations are critically evaluated. Finally, the study is concluded by identifying possible areas for future research on the topic.

2 Theoretical background

Subject of this thesis is composed around two key concepts: corporate social responsibility and corporate financial performance. This chapter introduces these concepts, outlining the theoretical framework for the thesis. The chapter begins with a brief discussion on stakeholder theory, a concept closely related to that of CSR with which it shares many similar ideas. After that the next sub-chapter focuses on CSR, addressing the evolution of the term as well as some criticism posed against it. The last part of this chapter explains the concept of corporate financial performance as it is used in this thesis. In the end, the section ties the two main concepts – CSR and CFP – together, establishing the theoretical basis for the empirical part of the study.

2.1 Stakeholder theory

One of the well-known debates in the history of academic business literature is that of shareholder theory by Milton Friedman versus stakeholder theory by R. Edward Freeman. As a strong advocate of free markets, Friedman (1970) suggests that corporate social responsibility is in essence an immoral idea, arguing that using corporate resources for non-business issues is effectively the same as stealing from the company's shareholders. According to Friedman, a company is not responsible to anyone or anything except for its shareholders. The most remarkable objection to this idea saw light when Freeman published his book *Strategic Management: A Stakeholder Approach* (1984) that has later been widely recognized as the fundament of stakeholder theory. In the book, Freeman defines a stakeholder as "any group or individual who can affect or is affected by the achievement of the organization's objectives". Primary idea of the stakeholder theory is that, on the contrary to Friedman's thesis, shareholders are just another group of stakeholders. Freeman suggests replacing "the notion that managers have a duty to stockholders with the concept that managers bear a fiduciary relationship to stakeholders". (Freeman 2002, p. 39). Hence, a company should create value for every group of its stakeholders, not only for its shareholders.

In their later work on stakeholder management, Freeman et al. (2007) illustrate the variety of a company's stakeholders with a two-tier stakeholder map (figure 1), where they divide stakeholders into two different groups: primary and secondary stakeholders. The former group consists of employees, suppliers, financiers, communities and customers. Forming the inner circle in the framework, these stakeholders are close to the firm and their interests largely explain whether the firm can achieve and sustain an extraordinary performance. The latter group on the outer circle, namely competitors, consumer advocate groups, special interest groups, media and the government, also play a key role by influencing the relationship of the firm with its primary stakeholders (Freeman et al. 2007).

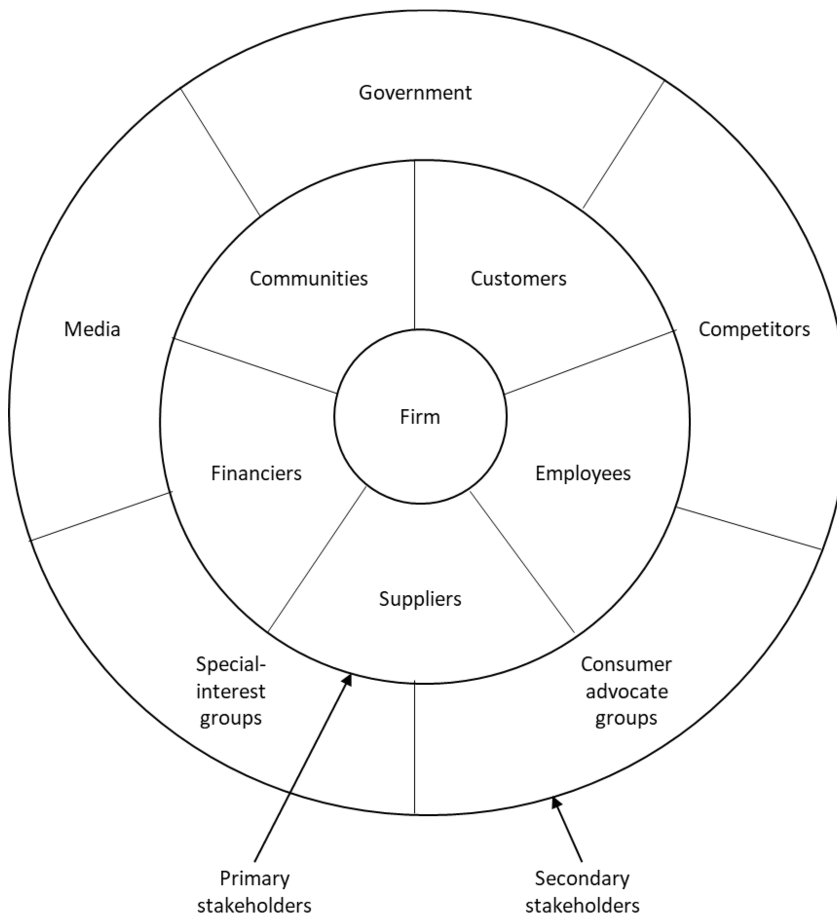

Figure 1. Two-tier stakeholder map (Freeman et al. 2007).

The scope and complexity of a company's stakeholder network is well depicted by the number of different attributes a stakeholder relationship may possess. According to Miles (2017), stakeholder relationships can be, for instance, direct or indirect, internal or external, proximal or distal, primary or secondary, formal or informal, perfect or imperfect, implicit or explicit, social or moral, market or non-market, and legal, economical or operational. Moreover, a relationship may or may not be mutually acknowledged, and it may arise from a past, present or future interest, which can be based on power, legitimacy or urgency (Miles 2017). In an attempt to create a comprehensive and multi-dimensional classification model for the stakeholder theory, Miles proposes four hyponyms of stakeholders. According to her, *influencer* is a stakeholder that has the capacity and an active strategy to influence a firm's actions; *claimant* has a claim in a firm, as well as an active strategy to pursue that claim, but lacks the power to ensure that the management attends the claim; *collaborator* co-operates with a firm but lacks an active strategy for influencing it, and finally, *recipient* is affected by the actions of a firm but does not actively pursue any claims on the firm (Miles 2017).

Freeman et al. (2007) identify four megatrends that, according to them, have a profound impact on businesses by adding a layer of intensity and complexity to managing stakeholder relationships. The first three trends suggested by them include liberalization of markets, liberalization of political institutions, and increasing environmental awareness. Reduced state control and increased public awareness are both pushing companies to pay more attention to different societal issues. These three trends are, according to Freeman et al., further intensified by the fourth one: advances in information technology. In the information society of present day where the whole world is connected and where communication is faster and easier than ever, there are few secrets. Today's executives "live in a fishbowl", and to succeed in managing their stakeholder relationships, they need to adopt the stakeholder mindset while efficiently integrating all the changes faced by them (Freeman et al. 2007). For the purposes of this thesis, it is not necessary to discover the full range of different means that firms can use to address their stakeholders' interest and to create value for them. However, it is useful to recognize the four high-

level strategies a firm may adopt. In order to create stakeholder value, a firm can either try to change the rules, take offensive actions, take defensive actions, or adopt a holding strategy – or in other words, maintain the current behavior (Freeman et al. 2007).

2.2 Corporate social responsibility

This chapter outlines the theoretical basis of corporate social responsibility, starting from the origins of the concept and its evolution to how it is understood today. Next, the chapter addresses some of the criticism that has been presented to contest the basic idea of CSR, after which it discusses the relationship between CSR and the closely related concept of stakeholder theory. The chapter is concluded with a brief overview on CSR in Scandinavian context.

2.2.1 Evolution of CSR

The concept of corporate social responsibility has come a long way since its early appearance in 1930's in the academic debate between professors Berle and Dodd on whether businesses should be seen solely as profit-seeking corporations or economic institutions having a duty for social service (Dodd 1932). The argumentation remained unsettled until 1954 when Berle admitted his defeat to Dodd in the favor of latter contention (Cochran 2007). During 1960's, along with the rise of different activist groups, the notion of corporate responsibility sparked new interest. First attempts by academics to define CSR saw light as the need for governing the relationship between corporations and the society as well as the existence of managerial issues beyond a firm's direct economic interests were gradually recognized (Carroll 1991).

Early 1970's was marked by the establishment of various governmental bodies intended to watch after the interests of the public. The ascent of social legislation manifested the role of consumers, employees and the environment as legitimate stakeholders of corporations, and forced the executives for the first time to truly consider the legal and ethical rights of these stakeholder groups alongside with their responsibility to the shareholders

(Carroll 1991). Later in the decade the focus of the debate shifted from social responsibility to social responsiveness, reflecting the necessity to move on from the semantics of business ethics to taking actions to respond to intensifying social pressures (Carroll 1991; Cochran 2007). The evolution of the concept towards a more practical stance brought to life what was called corporate social performance, where the basic idea was to recognize that firms do have social obligations, and that they must develop pragmatic responses to various pressures from the society (Cochran 2007).

After the recognition of firms' ethical obligations along with the need for practical responses, a natural next step was a conceptual consolidation of the economic and social orientations of a firm. Corporate social responsibility had to be framed in such a manner that addresses the full spectrum of business responsibilities and obligations. Attempting to satisfy this need, Carroll (1991) developed the pyramid of corporate social responsibility (figure 2), which became one of the cornerstones in the academic work in the field of CSR.

Figure 2. The pyramid of corporate social responsibility (Carroll 1991).

Carroll's (1991) pyramid reconciles the four building blocks of CSR as they were understood at the time: economic, legal, ethical and philanthropic responsibilities. At the bottom of Carroll's pyramid lays the block that serves as the foundation for the other three – a firm's economic responsibility to be profitable. While performing economically, a firm is expected to comply with the law, because the law is, according to Carroll, the line between what is acceptable and what is not. The next building block beyond the law is a firm's obligation to do what is right and fair, as well as to avoid causing harm. Finally, the top of the pyramid suggests that a firm is expected to be a good citizen by contributing some of its resources to the community and trying to improve the quality of life for the surrounding society. (Carroll 1991).

While academics had earlier brought the economic perspective conceptually together with the social aspects of corporate responsibility under the same CSR umbrella, Porter and Kramer (2002) were among the first ones recognizing the interconnectedness of a firm's social and economic goals. While not talking about CSR as such but more specifically about corporate philanthropy, their principle is that an investment made by a firm for economic purposes often have positive social outcomes, and philanthropic activities may as well bring about positive economic returns for a firm. Years later Porter and Kramer (2006) extended their work on the linkage between corporate philanthropy and competitive advantage to entail CSR in a broader sense and developed a concept that they called "creating shared value (CSV)". The underlying idea of CSV is that corporate success and social welfare is not a zero-sum game, but by adopting a strategic CSR approach a firm can both create a significant social impact and capture great business benefits. (Porter & Kramer 2006)

The unfolding of the conception that CSR is not just an ethical obligation a firm has towards the society but something that both the society and firms themselves can benefit from finally gave way for CSR to extensively enter the agendas of companies and organizations. One of the key landmarks in the history of CSR was the introduction of the term ESG by the United Nations Global Compact initiative in 2004 (IFC 2004), which laid the

foundations for responsible investing where environmental, social and corporate governance matters are considered. According to Kell (2018), while socially responsible investing (SRI) had been around for quite some time already, the idea of SRI was mainly to adopt an investment strategy where certain industries and companies were excluded based on ethical and moral criteria. The rise of ESG investing marked the outset of a wide acceptance of the assumption that environmental, social and governance factors indeed have financial relevance for the firms and, consequently, for their investors (Kell 2018).

For companies the broad adoption of ESG criteria in the investment process and decision-making of major investors all over the world at the latest implicated that corporate social responsibility was no longer only about fulfilling social and ethical obligations and reacting to the social pressures coming from their surrounding society. Instead, CSR was about to become something that is at the very core of a company's strategy and purpose. Whereas the early definitions and conceptualizations of CSR aimed to capture the entirety of the concept in a definite number of components that constitute a firm's responsibilities beyond securing economic performance, in the new era CSR is understood to comprise all kinds of effects a firm may have on the society. The new, more holistic and abstract conception is well reflected in the European Commission's (2011) definition of CSR as "the responsibility of enterprises for their impacts on society"; the definition does not specify different types of responsibilities nor intends to categorize what constitutes a society. The role of CSR as an integral part of a business is apparent in the Commission's further notion that for companies to fully meet their social responsibilities, they "should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy" (European Commission 2011).

2.2.2 Criticism towards CSR

Throughout the inevitable evolution of CSR from a social duty to an integral part of companies' strategy and purpose, the concept of CSR has been a subject for an ideological controversy. Freeman and Dmytriyev (2017) discuss the contestability of CSR and group

the most common criticism into three different categories based on the line of argumentation. The three categories include violating obligation to shareholders, covering wrongdoing, and creating false dichotomies.

According to Freeman and Dmytriyev (2017), the first line of argumentation is based on an opinion that CSR violates the obligations a company towards its shareholders. Following the ideology of Friedman doctrine, the advocates of this point of view claim that corporate executives are not entitled to use their firms' resources to solve non-business issues (Freeman & Dmytriyev 2017). Instead, if executives desire to contribute to the common good, they should do so privately.

The second group of critical arguments as suggested by Freeman and Dmytriyev (2017) points to companies using CSR to cover their wrongdoing. According to the authors, in the most savage form of this stance, corporations are regarded as a necessary evil for the society, and corporate executives are believed to be cold-blooded maximizers of their own benefit. CSR is hence seen solely as an endeavor of executives and companies to retain their reputation by doing something good. Another form of covering wrongdoing as identified by Freeman and Dmytriyev is called moral licensing, which refers to doing good for one group of stakeholders to become excused for mistreating another. Third and perhaps the most sophisticated form of covering wrongdoing is so called window-dressing, which means using CSR to give a positive impression towards authorities with an intention to pre-empt them from imposing stricter regulations (Freeman & Dmytriyev 2017). In an environmental context, according to De Vries et al. (2015) corporate responsibility policies and activities with suspicious motives are often called greenwashing. The main idea of greenwashing is that firms deliberately frame themselves as 'green' to make their business look environmentally friendly (De Vries et al. 2015).

Third category of criticism is that of accusing CSR for creating false dichotomies, such as economic versus social and business versus ethics (Freeman & Dmytriyev 2017). In this line of argumentation, CSR is believed to create unnecessary either-or oppositions where

one's gain is another's loss, and where economic success and social contribution is a zero-sum game. Examples of such false dichotomies presented by Freeman & Dmytriyev include concluding that shareholders receive lower returns on their investment if companies contribute part of their resources to helping communities, or that providing a good compensation to the employees leaves other stakeholders with lower created value.

Freeman and Dmytriyev (2017) claim that the criticism of CSR as a violation of the shareholders' rights has been undoubtedly proved to be false both by academics and lawyers. What it comes to covering wrongdoing and creating false dichotomies, they admit that these two arguments indeed imply a remarkable challenge to the concept of CSR. However, they suggest that it is the interconnection of CSR and stakeholder theory that can help companies to overcome such criticism.

2.2.3 CSR and stakeholder theory

While the concepts of CSR and stakeholder theory have been around for decades, both stressing the importance of integrating the interests of the society in companies' business operations, relatively little attention has been paid to whether and how these two concepts are intertwined. It has been suggested that CSR and stakeholder theory are complementary to each other (e.g. Russo & Perrini 2010), competing views to dealing with same issue (e.g. Schwartz & Carroll 2008), or that one concept is included in the other (e.g. Garriga & Melé 2004). Freeman and Dmytriyev (2017) propose that CSR and stakeholder theory should be seen as detached concepts that are partially overlapping. What the two concepts share with each other is the idea that companies can't be separated from the society surrounding them, and that companies have a responsibility towards societal interests. However, the concepts differ in that they look at companies from a different perspective.

Simply put, Freeman and Dmytriyev (2017) argue that while stakeholder theory primarily looks at a company from the company's own perspective, CSR does the same from the

society's point of view. The concept of stakeholder theory is narrower in a sense that it focuses on a company's immediate stakeholders that impact or are impacted by the company rather directly, whereas CSR extends the social considerations much further into the society at large. In the other hand, CSR is the narrower one of the two concepts in that it addresses the social aspects specifically and hence prioritizes one subset of responsibilities a company has over the others, while stakeholder theory suggests that a company must address the interests of all its stakeholders without making any trade-offs between them. Therefore, while stakeholder theory is about a company's responsibilities to its stakeholders in general, CSR focuses on a company's social responsibilities in particular (Freeman & Dmytriyev 2017). The relationship between the concepts is illustrated in figure 3.

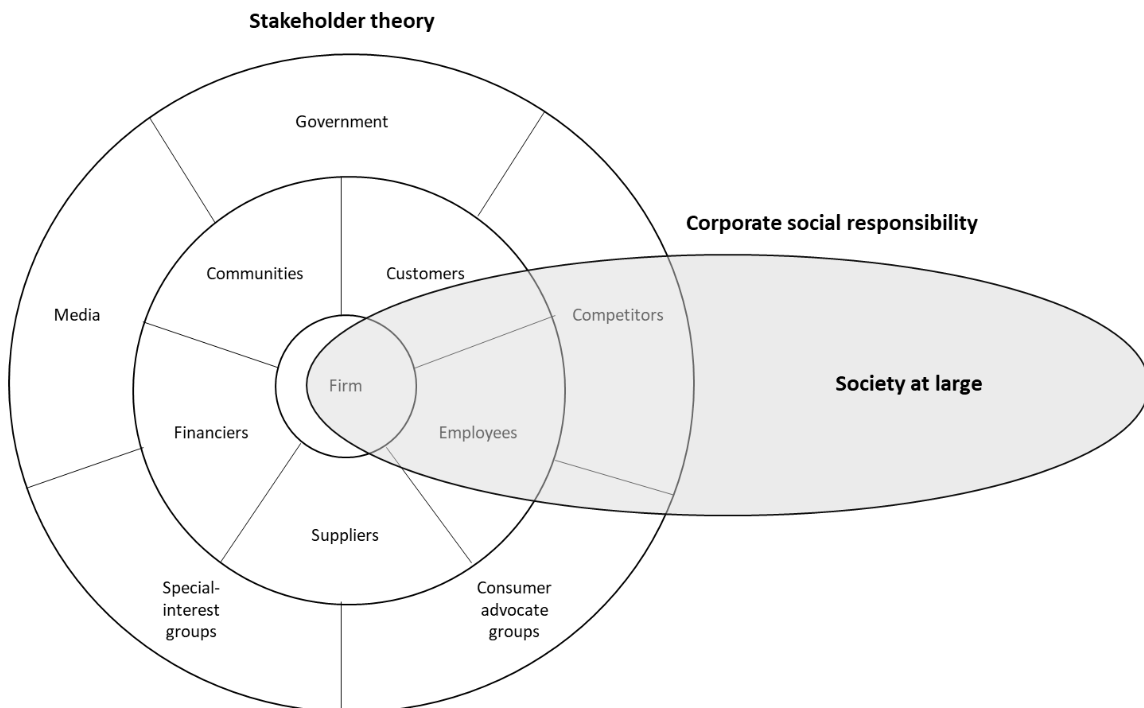

Figure 3. The relationship of stakeholder theory and corporate social responsibility (Freeman & Dmytriyev 2017).

To overcome the deficiencies in CSR put forward by the critics of the concept, Freeman and Dmytriyev (2017) suggest aligning CSR with the latest findings within stakeholder theory. They propose three key elements that unify the two concepts: firstly, a company

should be driven by a purpose that lies within moral domain; secondly, to make the purpose materialize in practice, a company should create value to all its stakeholders; and finally, stakeholders should be regarded as interdependent, in that creating value for one stakeholder makes the others better off as well. Adopting these principles defends a company against the common challenges in CSR and reduces tension between the interests of the society and other stakeholders (Freeman & Dmytriyev 2017).

2.2.4 CSR in the Nordics

The Nordic region comprises a setup of particular interest for the academic discussion on corporate social responsibility, because by more or less any standard, Sweden, Finland, Norway and Denmark are leading the world in the strength of CSR and responsibility performance. Strand et al. (2015) establish this statement by conducting a comprehensive review of a variety of CSR performance measures, arriving in a conclusion that Scandinavian and Nordic firms tend to be disproportionately well represented in different sustainability rankings. Further, they explore a variety of factors potentially contributing to the extraordinarily strong CSR performance, with the purpose of depicting the state of the art in the Scandinavian CSR. Since Finland is not geographically part of Scandinavia, the authors frequently use terms *Scandinavia* and *Nordics* side by side to include Finnish companies in the consideration.

Firstly, Strand et al. (2015) consider the deep-rooted traditions of stakeholder engagement as plausible explanans for the high adoption of CSR in Scandinavia. Democracy has according to them traditionally been highly revered in the Nordics, and efforts have been made early on to integrate democratic principles in the industrial setting as well, giving rise to the appearance of the term “stakeholder” in the context of business management literature for the first time in the world back in 1960s. They suggest that the long history of stakeholder engagement in the Nordics, which has been partially driven by the governments’ involvement as well as by societal expectations, is labeled with a way of thinking in which the needs of businesses and the society are constantly elevated side by side. Already in the earliest Scandinavian management literature, businesses and their

stakeholders were depicted to share a jointness of interests (Strand et al. 2015). Hence, stakeholder engagement is in fact essentially a concept with Scandinavian origins.

Another potential driver behind the broad adoption of CSR in Scandinavia is the influence of institutional structures. Social democratic parties have historically possessed a strong position in the Nordic societies, and their ideals of a Scandinavian welfare state may have played an important role in shaping the social and environmental regulations that are among the strictest in the world (Strand et al. 2015). These regulatory mechanisms in their part have been a major driving force of the superiority of Nordic-based companies in terms of CSR performance. However, Strand et al. note that more recently the Scandinavian governments have gradually withdrawn from certain areas of the society which have previously been regarded as belonging to the responsibility of the public. They believe that this ongoing change points to an inevitable transition from the Scandinavian implicit CSR towards the US-based explicit CSR, i.e. from corporate policies driven by values, norms and rules to socially responsible activities based on voluntary programs and strategies. Depending on how well Scandinavian firms are able translate the implicit CSR traditions into explicit CSR strategies, the transition can be regarded both as an opportunity and a challenge for the future of Scandinavian CSR (Strand et al. 2015).

Finally, Strand et al. (2015) address the possible influence of the Scandinavian culture on CSR. Knowingly engaging in stereotyping, they describe Scandinavian management style as being inclined towards building consensus, sharing power, encouraging cooperation, considering the wellbeing of stakeholders, being humble and demonstrating trustworthiness. Further, they suggest that Scandinavian managers tend to disapprove making an effusive effort to avoid looking bad, which points towards a greater willingness to get involved in in CSR related issues even if they might turn out to be messy. Scandinavian countries also have the most feminine cultures in the world, which is found to be positively associated with stronger CSR performance (Strand et al. 2015). All in all, while there appears to be no single factor predominantly explaining the superiority of Scandinavia in terms of CSR, Strand et al. conclude that the Nordic countries can effectively be

regarded as an inspiration for CSR across the world, yet they recognize the risk of erosion of the superior performance over time due to the ongoing withdrawal of the governments from the fields of environmental and social concern.

2.3 Financial performance

While it has been a subject of debate in the field of CSR and stakeholder theory for several decades whether companies have social obligations to the society, few have questioned companies' economic responsibility to their shareholders. In fact, in some countries a company's purpose to generate profits for the shareholders is written in law (e.g. (Limited Liability Companies Act 21.7.2006/624, chapter 1, 5 §). Shareholders' profits are a result of the firm's financial performance, which in turn results from efficient value creation. To understand the role of CSR in the equation, it is of importance to be aware of the mechanisms through which companies create value to make financial gains. This section provides an overview on value creation, different measures of financial performance and, finally, how CSR is assumed to contribute to a firm's financial performance.

2.3.1 Value creation

Value creation is the process where a firm performs a set of activities to make use of its resources to create added value for its customers. Porter (1985, p. 37) approaches value creation by describing the full range of activities performed by a company as a value chain consisting of all the steps needed to bring a product or service from conception to distribution. Porter's value chain framework is illustrated in figure 4.

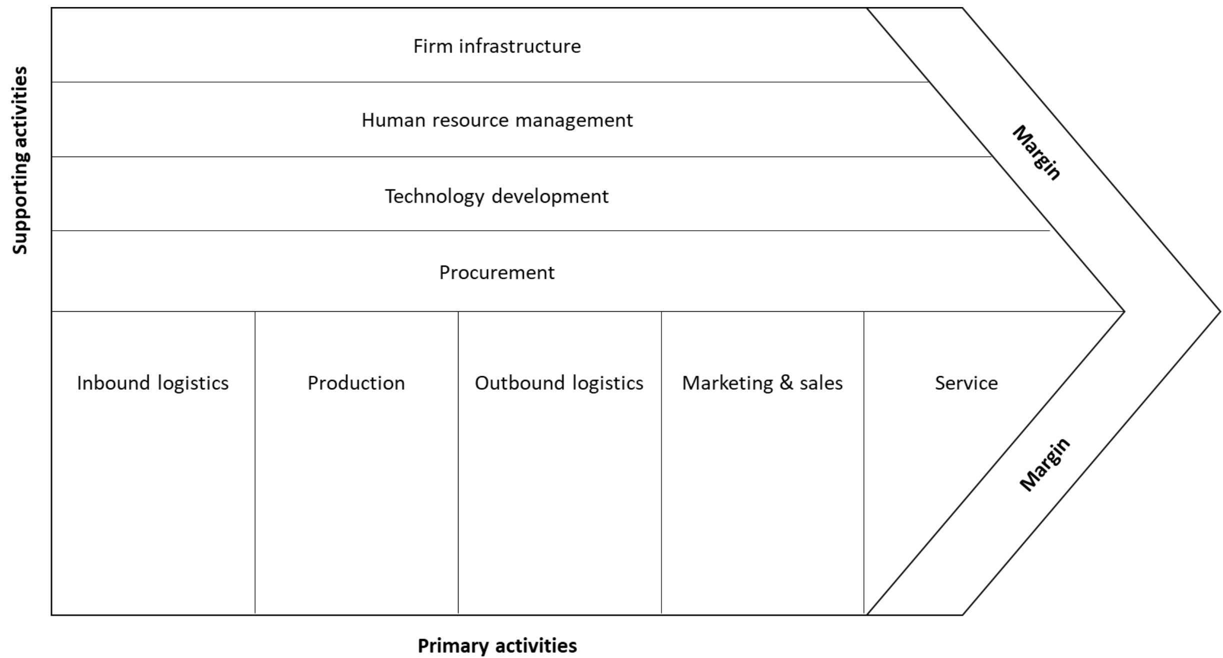

Figure 4. A company's value chain (Porter 1985, p. 37).

Porter (1985) divides value chain activities into primary activities having an immediate impact on a company's value creation, and support activities that are undertaken to make primary activities more efficient. Primary activities include inbound logistics, production, outbound logistics, marketing, sales and service. Supporting activities consist of firm infrastructure, human resources management, technology development and procurement. Porter's value chain analysis has been widely adopted in business management as a tool for increasing efficiency to deliver highest possible value for lowest possible cost. How well a company performs the value chain activities largely constitutes the value add that customers essentially pay for, and how efficiently a company performs the activities determines how much it costs for the company to create the added value. Hence, profitability of a company is ultimately driven by its value chain performance.

2.3.2 Measuring financial performance

Financial performance of a company depends on its ability to make profits. Profitability in turn is determined by the company's ability create value through its business operations. Value creation takes place as the company performs activities on the inputs

acquired by it to transform them into outputs for which customers are willing to pay more than the costs incurred by the company in the process (Porter 1985). In order to perform activities that add value for which customers are willing to pay, a company needs assets – resources having economic value in a sense that they are expected to provide benefits to the company in the future.

Profitability of a company can be measured in numerous ways, each having their own pros and cons. Appropriateness of each measure depends on the purpose context of measurement (McGowan et al. 2015). For the sake of comparability, it is usually reasonable to relate a company's profits to some other metric instead of looking at the profits in absolute terms. Oftentimes profits are compared to revenue to calculate a company's profit margin, which is a useful ratio to measure how much money a company makes from its sales (McGowan et al. 2015). Another commonly used ratio to measure profitability is return on assets (ROA), where a company's profits are compared to the resources the company used to earn them (McGowan et al. 2015). ROA measures a company's asset efficiency; the higher a company's ROA is, the more efficiently it uses its resources to generate profits. In essence, companies can improve their asset efficiency in two ways: by making more profits with their existing assets, or by reducing their assets while keeping profits unchanged.

While return on assets is a useful metric for a firm's asset efficiency, one of its deficiencies is that, similarly with many other profitability ratios, it is largely dependent on the industry and can vary somewhat significantly between different companies. For firms operating in asset-heavy industries like manufacturing, return on assets is often relatively low compared to businesses that mainly rely on human capital and that hence have little fixed assets in their balance sheet. Moreover, return on assets addresses just one aspect of a company's financial performance. As a ratio consisting of two components – profits and book value of total assets – both of which are accounting-based figures, it only provides an accounting perspective to financial performance (Guenster et al. 2011).

Especially for publicly listed companies as well as their existing and potential investors, the value of the company in capital markets and different performance indicators derived from it are of great interest. Market value of a company is a key determinant of the wealth of the company's shareholders, and thereby according to Goel (2015) closely connected with companies' purpose to generate returns for their investors. While ROA looks backwards in a sense that it compares the profits a company has made in the past to book value of the assets it owned while making those profits, market valuation is largely determined by the market's expectations for the returns a company will generate in the future (Goel 2015). Unlike past profits reported in financial statements, future profits are not yet known but they are associated with some degree of uncertainty. The uncertainty of future returns impacts the market value of a company in that highly certain future return is more valuable today than an equal return with low certainty. In the other hand, the more an investor pays for certainty today, the lower is the rate of future returns. This so-called risk-return tradeoff is a fundamental concept in investment theory (Fabozzi et al. 2011): to reduce risk an investor must settle for lower expected returns, and to increase expected returns, an investor must accept higher risk.

Market capitalization alone doesn't say much about a company as an investment nor its financial performance. It only describes the capital market's opinion on the value of a company's assets and the returns they are expected to generate in the future. Therefore, it is useful to relate market capitalization to other financial items to understand how the prospects of a company are perceived by the market. A commonly used method is to compare the market capitalization of a firm with the replacement cost of its assets (Chung & Pruitt 1994). This ratio is known as Tobin's Q, and it expresses the relationship between a firm's market value and intrinsic value. In equilibrium the market value of the company equals the replacement cost of its assets. In essence, whereas the value of Tobin's Q falling below one means that the market value is lower than the replacement cost, indicating that the company is undervalued, a value greater than one implies that

the company is overvalued, as the market value exceeds the replacement cost (Muhammad et al. 2015).

In theoretical terms, undervaluation of a company in terms of Tobin’s Q makes it an attractive target for acquisition, as it would cost less for investors to purchase the company than to create a new similar company from scratch. Increased interest among investors towards the company should increase its stock price and market capitalization, pushing Tobin’s Q up towards one. In the other hand, overvaluation of a company in terms of Tobin’s Q suggests that the business is worth more than what it costs to acquire the assets needed to run it. This should encourage new entrants to join the market by creating similar businesses, thereby increasing competition, reducing market share, lowering market capitalization and pushing Tobin’s Q down towards one. Another way to look at the ratio is that a company with high Tobin’s Q is making good use of its assets to generate excessive returns, indicating a superior performance compared to companies with low Tobin’s Q.

2.3.3 CSR and financial performance

Building on Porter’s (1985) idea of value chain activities, Porter and Kramer (2006) extend the use of value chain framework to the field of CSR by proposing it as a tool for companies to map the social implications of their activities, thereby creating an inventory of social problems and opportunities to be addressed. They divide corporate involvement in society into responsive CSR and strategic CSR and suggest that adoption of the value chain approach can be useful in addressing both. Responsive approach to social impacts of value chain consists of mitigating the existing or expected negative impacts of a company’s value chain activities. According to Porter and Kramer (2006), this is mainly an operational challenge where companies can come quite far only by identifying and adopting the best practices for dealing with each value chain impact. They state that as in many operational improvements, any advantage achieved is likely to be rather temporary. Gaining a sustainable advantage from CSR is a strategic question that goes beyond best practices, and this is where the strategic approach to CSR comes into

play. From the value chain point of view, the strategic approach entails transforming a company's value chain activities in a way that reinforces the company's strategy while creating benefits for the society (Porter & Kramer 2006).

While looking at the social impacts of a company's value chain activities provides an inside-out view to the company's relationship with the society, in order to fully unlock the potential of creating shared value, the inside-out view must be integrated with outside-in linkages between a company and the society (Porter & Kramer 2006). The outside-in view entails addressing the social dimensions of a company's competitive context in such a way that success of the company and benefits to the society become mutually reinforcing. Full integration of a company's value chain practices and investments in the social aspects of competitive context leads to a situation where CSR becomes indistinguishable from the daily business, and the social impact of a company become likewise inseparable from its competitive strategy (Porter & Kramer 2006). Companies that succeed in this integration do not create value *while* being socially responsible, but they create value *by* being socially responsible.

Conceptualizations of the positive relationship between CSR and CFP often draw from stakeholder theory in that enhanced financial performance is presumed to be driven by favorable responses of different stakeholder groups to CSR activities performed by the company (Tang et al. 2012). For a company, stakeholders are often providers of important resources. Instrumental stakeholder theory by Jones (1995) suggests that applying ethical standards such as trustworthiness and cooperation plays an essential role in creating, developing and maintaining stakeholder relationships that secure an access for the company to these resources, thereby creating a competitive advantage over those who build their stakeholder relationships on opportunism. For instance, according to Brammer and Millington (2008), the government is a stakeholder that provides the regulatory environment in which the company operates, and by efficiently managing this stakeholder relationship the company can reduce costs by mitigating the likelihood of unfavorable legislation. In case of employees, they note that the favorable response to

CSR may mean attracting, retaining and motivating workforce, thereby enhancing the company's productivity and profitability. Further on, Brammer and Millington suggest that using social responsibility as a differentiating factor can make the firm's products or services more attractive to socially conscious consumers and thus increase revenues. By being socially responsible the company may also get an access to the financial resources of socially oriented investors that otherwise would be out of its reach (Brammer & Millington 2008). What is common in all these examples is that stakeholders' favorable response to CSR is the channel through which socially responsible behavior translates into enhanced financial performance.

Stakeholder-oriented approach to CSR-CFP relationship is also adopted by Perrini et al. (2011) who attempt to capture the underlying mechanisms by which CSR enhances the financial performance. Building on an extensive literature review, they propose a stakeholder-based framework for systematizing the performance impacts of different CSR activities. The framework explains the CSR-CFP relationship as a continuum in which specific CSR efforts are translated into financial outcomes through stakeholder-related performance drivers (Perrini et al. 2011). Figure 5 illustrates the framework by providing examples of the efforts, drivers and outcomes across different management domains.

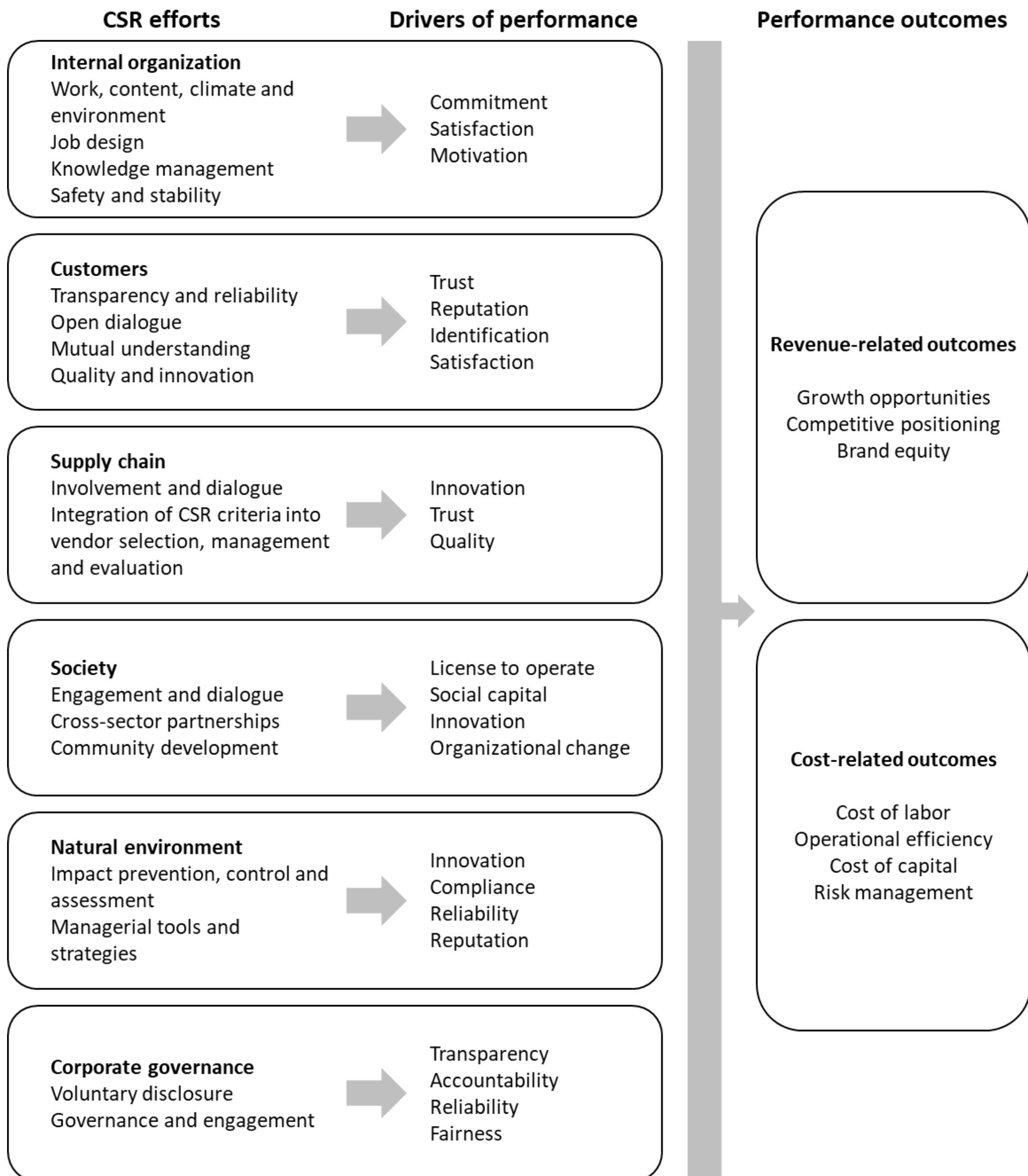

Figure 5. CSR-CFP framework: efforts, drivers and outcomes (Perrini et al. 2011).

The framework emphasizes the role of intangible resources as key drivers of companies' ability to benefit from CSR. To explain the CSR-CFP relationship, Perrini et al. (2011) suggest that CSR can support companies in the process of accumulating intangible assets, thereby strengthening their ability to identify, acquire and protect resources that are difficult for competitors to match. These inimitable assets may include for instance skills

and competences, innovations, know-how, trust, legitimacy or reputation (Perrini et al. 2011). Such intangibles are deeply connected to a company's unique network of stakeholders and can therefore be a source of sustainable competitive advantage.

3 Literature review

Along with the conception of the role of CSR in companies as a part of doing business rather than a sole moral or ethical obligation, the topic has become commonplace in the academic research on business management and finance. Extensive body of existing academic literature explores the relationship between CSR and firm performance. Margolis et al. (2009) suggest that the rise of CSR-CFP linkage may be partially driven by an intensifying thirst for meaning; efforts to find a relationship between the two can be at least partially seen as an effort to legitimize CSR and to establish that business is not just about doing well, but it can also be about doing good.

While the research methodology has become increasingly established, the studies on CSR-CFP relationship often differ from each other in terms of selections made on the empirical context and measures used. Some authors have limited their research to specific geographies, industries, economic circumstances or competitive situations. Others have chosen to focus on certain aspects of corporate social responsibility. Moreover, alternative measures for performance have been used in studies with an intention to better understand the mechanisms through which CSR affects the performance.

In one of the earliest academic studies on CSR-CFP relationship, Waddock and Graves (1997) explore the two-way linkage between corporate social and financial performance using corporate social performance both as dependent and independent variable. They find that CSR is positively associated with both prior and future financial performance of a firm. Their findings suggest that corporate social performance depends on the past financial performance, potentially because firms performing well financially may have available slack resources that they choose to allocate to CSR in the spirit of “doing good by doing well”. Future financial performance is in turn dependent on corporate social performance, for which the authors propose a plausible explanation that performing well socially is associated with good managerial practice, in that well-managed firms choose to “do well by doing good” (Waddock & Graves 1997). Hence, causality direction

of CSR-CFP relationship, which has been one of the key subjects of debate in the academic discussion, can and does work in both ways at the same time.

Empirical results in the existing academic research on CSR-CFP relationship have been somewhat inconsistent, in that different studies have reported CSR to have positive, neutral of negative impact on CFP. McWilliams and Siegel (2000) attempt to address the inconsistency by demonstrating the lack of R&D investment variable as a particular flaw in the econometric models adopted in existing studies. The authors argue that R&D investment is an important determinant of firm profitability, and that R&D investment and CSR are highly correlated variables since both are associated with product and process related innovation. Their empirical results suggest that R&D investment and CSR performance indeed are highly correlated, and that after controlling for R&D investment, regressing firm performance on CSR generates neutral results. They conclude that the observed misspecification leads to upwardly biased results on CSR-CFP relationship (McWilliams & Siegel 2000). The study is among the first ones to recognize the important role of R&D and innovation in CSR-CFP relationship, which has since then been investigated further by many scholars.

Hillman and Keim (2001) take a step from CSR towards stakeholder theory in their study that examines the impact of stakeholder management and social issue participation on shareholder value. They hypothesize that building better relationships with primary stakeholders creates shareholder value, while participation in social issues not directly related to primary stakeholders is negatively associated with shareholder value. To test the hypotheses, they regress these two independent variables on the dependent variable of Market Value-Added, while conducting additional analyses with more commonplace financial performance measures: ROA, ROE and Q ratio. Their empirical results support the initial hypotheses in that MVA has a positive relationship with stakeholder management and negative relationship with social issue participation. Causality direction is confirmed by the authors to be from stakeholder management and social issue participation to MVA and not vice versa. Interestingly, the authors don’t find the

independent variables to have statistically significant relationship with ROA, ROE and Q ratio. They claim that that this finding results from the problems related to the operationalization of the three additional dependent variables rather than from the robustness of their findings (Hillman & Keim 2001). Strength of the observed CSR-CFP relationship is essentially dependent on how one measures financial performance.

Many studies examining CSR-CFP relationship focus solely on some certain dimension of CSR. Corporate governance aspect of CSR is addressed in the study of Bauer et al. (2004) which investigates its relationship with stock returns, firm value and operational performance in Europe. The authors find that good corporate governance positively impacts stock returns and firm value. Quite surprisingly, the relationship between corporate governance and profitability measured as net profit margin (NPM) and return on equity (ROE) is found to be negative (Bauer et al. 2004). As plausible explanations for the negative relationship that is contrary to expectations, the authors propose that NPM and ROE might be biased measures of financial performance, as they are based on reported accounting earnings. The negative correlation implies that badly governed companies may report less-conservative earnings than well governed firms (Bauer et al. 2004).

To account for the possibility that CSR doesn't impact CFP immediately but rather gradually, Brammer and Millington (2008) consider different time horizons over which the CSR-CFP relationship may arise and conduct a longitudinal analysis for over 500 large UK-based firms. While focusing exclusively on charitable giving as a measure for social responsibility, they find that there are significant longitudinal aspects in the CSR-CFP linkage. Their findings suggest that firms with exceptionally high and low social performance have better financial performance than other companies. Furthermore, unusually bad social performers tend to do financially best in short run, while unusually good socially performers do best in long run (Brammer & Millington 2008). The authors note that the absence of longitudinal aspect may have created ambiguous results in previous studies, which often are cross-sectional.

Another line of research on CSR-CFP relationships investigate how CSR performance affects a firm's financing costs. Sharfman and Fernando (2008) focus on the environmental aspect of CSR by investigating the relationship between environmental risk management and cost of capital. They find that improved environmental performance lowers the cost of capital for a firm. The authors conclude that the benefits of enhanced environmental risk management for a firm are three-fold; first, improved environmental performance leads to better utilization of resources; second, reduced risks decrease the volatility of the firm's stock and lowers the cost of equity capital; third, enhanced environmental risk management allows a firm to add leverage by shifting from equity to debt financing, which in turn leads to higher tax benefits (Sharfman & Fernando 2008).

Hull and Rothenberg (2008) examine the role of interaction of CSR with innovation and industry differentiation in the CSR-CFP linkage. Similarly to Surroca et al. (2010) they find no significant direct relationship between CSR and CFP, but the relationship becomes positive and significant after including the interactions of CSR with innovation and differentiation. Negative coefficients of the interaction variables observed by them indicate that CSR has a more positive impact on financial performance in companies operating in undifferentiated industries as well as in companies with low innovation. The study concludes that CSR can be an effective means to differentiate and improve financial performance for companies that don't or can't differentiate through innovation (Hull & Rothenberg 2008). Conversely, the value of CSR may be lower for firms that are able to differentiate themselves by some other means.

Makni et al. (2009) examine the causality between corporate social performance and financial performance in a Canadian setting, using return on assets, return on equity and market returns as proxies for financial performance. They find that the composite measure of CFP is positively related only to market returns, but with ROA and ROE there is no significant relationship. However, they find a significant negative causal relationship between the environmental dimension of CSP and all three measures of financial performance. The authors argue that the negative relationship is consistent with the trade-off

hypothesis in that firms’ environmental initiatives are too costly and are not perceived by the market as sound investments. It is also noted that while environmental programs appear to lead to poor financial performance in short run, the negative impact may be compensated in long run for instance through better access to certain markets, opportunities to differentiate products as well as reductions of costs related to regulation, labor, materials and capital (Makni et al. 2009).

In the same spirit with McWilliams and Siegel (2000), Surroca et al. (2010) investigate the mediating effect of a firm’s intangible resources in CSR-CFP relationship, hypothesizing that the empirical findings of previous studies may be spurious due to missing out this mediating effect. Their evidence gathered from 599 companies in 28 countries indicate that, on the contrary to results achieved in many other studies, there is no direct relationship between corporate responsibility and financial performance. However, they find that there is an indirect effect mediated by a firm’s intangible resources. The results support the existence of bi-directional causal chain between corporate social and financial performance, in that improvement in one leads to an improvement in the other, but only if new intangible resources are developed in the process (Surroca et al. 2010). A plausible conclusion is that CSR as such is not an important determinant of financial performance, but rather an enabler of developing resources that enhance financial performance.

Similarly to Sharfman and Fernando (2008), El Ghoul et al. (2011) investigate the impact of CSR on the cost of equity capital for US-based companies between years 1992 and 2007. They find that firms with high CSR score enjoy significantly lower cost of equity than those with low CSR score, arguing that the effect is associated with larger investor base and lower perceived risk of socially responsible companies. However, they also find that all the dimensions of social performance do not contribute to cost of equity: the positive impact is driven by CSR actions related to employee relations, environmental policies and product strategies but not by those related to community relations, diversity and human rights. Furthermore, companies engaged in so-called sin-industries, namely

tobacco and nuclear power, face higher cost of equity capital (El Ghoul et al. 2011). The study implies that certain type of CSR efforts matter more than others in terms of financial performance.

To examine the CSR-CFP relationship in an emerging market context, Lima Crisóstomo et al. (2011) analyze the impact of three CSR factors – internal social action, external social action and environmental action – on the firm value and performance in Brazil. They find a negative relationship between CSR and firm value, suggesting that CSR is value destroying in Brazil. In terms of accounting-based financial performance, the authors don't find CSR to have a material effect, except for internal social action which turns out to have a negative effect on financial performance (Lima Crisóstomo et al. 2011). One could conclude that in emerging markets where the general level of CSR adoption is low, stakeholders don't assign much, if any, value to companies' CSR efforts.

Similarly to Brammer and Millington (2008), Guenster et al. (2011) address the possibility of the CSR-CFP relationship being time variant. Investigating the economic value of eco-efficiency, they find a positive relationship between eco-efficiency and operating performance measured by ROA. Their findings suggest that most eco-efficient firms perform slightly better operationally than the control group, whereas the least eco-efficient companies show a notable operational underperformance. In terms of firm value, measured by Tobin's Q, they find eco-efficiency to have positive and time-varying impact. The evidence indicates that the most eco-efficient firms are initially undervalued in relation to least eco-efficient firms, but there is a strong upward correction in the firm value later (Guenster et al. 2011). The results provide additional support to the hypothesis that CSR enhances CFP gradually rather than immediately.

Lioui and Sharma (2012) attempt to tackle the misspecification claimed by McWilliams and Siegel (2000) by investigating the impact of environmental CSR strengths and concerns on CFP while accounting for the interaction between firm's environmental CSR efforts and R&D investments. They find evidence in favor of the possible existence of the

misspecification, in that direct impact of environmental CSR on profitability and firm value turns out to be negative, whereas the impact of interaction between environmental CSR and R&D affects financial performance positively. To disentangle the dynamics of direct and indirect effects, the authors explain that environmental CSR strengths and concerns damage the financial performance because they are conceived as potential costs. In the other hand, CSR activity is observed to foster R&D efforts in a firm, which creates additional value (Lioui & Sharma 2012). Hence, instead of having any intrinsic financial value, CSR seems to enhance financial performance by being an enabler of successful R&D efforts.

Fischer and Sawczyn (2013) investigate the CSR-CFP relationship in the context of large German companies. Focusing on the environmental and social aspects of CSR, they examine both the relationship and causality between CSR and financial performance, while including R&D variable in the analysis to address the misspecification problem suggested by McWilliams and Siegel (2000). Their evidence supports the positive and significant association between CSR and CFP, which they measure by ROA. In terms of innovation measured by companies' R&D expenses, the authors find that the degree of innovation significantly impacts CSR performance and conclude that omission of the R&D variable would make coefficients of CSR performance variable overestimated. Interestingly, the intensity of the CSR-CFP appears to be lower during the time of financial crisis (Fischer & Sawczyn 2013). While the relationship is still positive and statistically significant, this finding partially supports the observation of Muhammad et al. (2015). In terms of causality, the authors don't find statistically significant causal relationship running from CSR in the previous period to CFP in the subsequent period, nor from CFP in the previous period to CSR in the subsequent period (Fischer & Sawczyn 2013).

Jang et al. (2013) investigate the CSR-CFP relationship in Korean publicly listed firms during the period 1998-2005. Using ROA and Tobin's Q as dependent variables, they find that companies with higher CSR score exhibit a better financial performance both in terms of profitability and firm value. However, on the contrary to expectations and

findings from other studies, their results suggest that CSR is positively correlated with cost of capital, meaning that firms performing well in terms of CSR have higher cost of capital. To explain the unexpected finding, the authors speculate that information CSR performance may not be perceived as relevant by Korean investors, and that their use of WACC as a proxy for cost of capital may be subject for measurement error (Jang et al. 2013). The difference of results compared to those of Sharfman and Fernando (2008) and El Ghoul et al. (2011) indicate that the level of adoption CSR into investors' decision-making process differs between geographical markets.

An increasing body of academic research is focusing on whether the existence and strength of CSR-CFP relationship might be contingent upon different circumstantial factors. Muhammad et al. (2015) explore the impact of corporate environmental performance on financial performance in Australian market before and after the financial crisis of 2007. They report a strongly positive relationship between environmental and financial performance during the period of 2001-2007 preceding the financial crisis, but the positive association ceases to exist during years 2008-2010 after the beginning of the crisis. The authors propose that the contingency of the relationship relates to slack resource theory also discussed by Waddock and Graves (1997); under an exceptional economic pressure there are fewer slack resources available, and firms must focus on survival rather than on making discretionary expenditure on CSR activities (Muhammad et al. 2015). The findings indicate that CSR is still to some extent discretionary, in that it is fostered when everything is going well, but it's easily thrown out of window in the time of trouble.

Lee et al. (2016) examine the impact of the environmental aspect of corporate social responsibility on financial performance in the context of Korean firms during the period 2011-2012. By using two different research methods, they find a positive relationship between corporate environmental responsibility and financial performance, which they measure by return on assets and return on equity. Furthermore, on the contrary to previous studies, Lee et al. (2016) find that research and development expenditure doesn't

affect neither environmental responsibility nor financial performance of a company. The finding is inconsistent with e.g. McWilliams and Siegel (2000) and Lioui and Sharma (2012) who find R&D to play a key role in the CSR-CFP linkage.

Velte (2017) contributes to the academic research on CSR-CFP relationship by providing further evidence in the context of developed markets. He explores how the environmental, social and governance performance in total as well as each of the three components individually impact the financial performance of selected publicly listed companies in Germany. His results surprisingly indicate that there is no significant relationship between ESG performance and market-based financial performance, which is measured by Tobin's Q. However, he finds that the overall ESG performance as well as all three components individually are positively and significantly related to accounting-based financial performance, measured by ROA. Of the three ESG components, governance performance turns out to have the strongest impact on ROA (Velte 2017). The author suggests that this might be explained by the long tradition of corporate governance reporting in Germany, or by its increased relevance for the stakeholders. The finding contradicts with the results of Bauer et al. (2004), who find corporate governance performance to be negatively associated with firm profitability.

Atan et al. (2018) examine the impact of ESG factors individually as well as altogether on the financial performance of Malaysian publicly listed companies from 2010 to 2013 in terms of profitability, firm value and cost of capital. Their findings indicate that none of the three ESG factors has a significant impact on the financial performance. The combined ESG score either doesn't have a significant relationship with profitability and firm value (Atan et al. 2018). However, they do find a positive and statistically significant relationship between the combined ESG score and cost of capital, which is in line with the findings of Jang et al. (2013) but contradicts with those of Sharfman and Fernando (2008) and El Ghoul et al. (2011).

Kim et al. (2018) examine the role of competitive action as a potential contingency that determines how CSR activities affect firm financial performance. Analyzing the CSR-CFP relationship in US-based software firms between 2000 and 2005, they find that competitive action level appears to be an important determinant in the CSR-CFP linkage. The evidence suggests that socially responsible activities (positive CSR) enhance financial performance when competitive action is high, whereas socially irresponsible behavior (negative CSR) improve financial performance when competitive action is low. The authors note that positive and negative CSR are not direct opposites; in fact, they find a marginally significant positive correlation between the two, indicating that firms may use positive CSR to cover up their negative CSR. The study concludes that from financial performance point of view, socially irresponsible activities are not always something that firms should avoid, but in some particular circumstances they can help firms to improve their financial performance (Kim et al. 2018).

A clear conclusion one can draw from the manifoldness of empirical results achieved by different authors is that while CSR and CFP are most likely related to each other, the evidence on the nature of the relationship is somewhat far from conclusive. The existence of a positive relationship has been proved by many studies, but plentiful is also the research that criticize the econometric models used to achieve these results for being misspecified, and that provide evidence in support of the relationship being rather indirect and mediated by some other factors than CSR as such. Orlitzky et al. (2003) attempt to tackle the questions rising from this apparent inconsistency of results by conducting a meta-analysis that integrates the empirical results across 30 years of academic research on the CSR-CFP linkage. Their meta-analysis confirms that there is a positive association between CSR and CFP across industries and research contexts. They find no evidence supporting the contingency theory proposed e.g. by McWilliams and Siegel (2000) and criticize such studies for ignoring the possibility of sampling and measurement error causing the inconsistency in empirical results. Furthermore, they find that the causal effect from CFP to lagged CSP does not dominate the causal effect from CSP to lagged CFP, suggesting that both CSP and CFP mutually impact each other through a

virtuous cycle: companies performing financially well may spend more on CSR because they can afford to, but enhanced CSR may also help them be financially even more successful in the future (Orlitzky et al. 2003).

In terms of different dimensions of CSR and different measures of performance, Orlitzkly et al. (2003) find that the positive impact on financial performance is mainly driven by social performance and to a lower extent by environmental performance, yet the positive association is moderated by the operationalizations of CSR and CFP. In their results, accounting-based measures of financial performance turn out to be more highly correlated with CSR than market-based measures. Moreover, reputation-related indicators of CSR appear to correlate with CFP more than the other type of CSR indicators (Orlitzky et al 2003). Overall, the authors derive four main conclusions from the meta-analysis: 1) CSR is positively related to CFP across studies; 2) the causality appears to be simultaneous and bi-directional; 3) the relationship seems to be highly moderated by reputation; and 4) cross-study variation in CSR-CFP relationship is largely explained by stakeholder mismatching as well as sample and measurement error. Hence, the meta-analysis confirms that managerial choices with regards to CSR and CFP are not either-or trade-offs, and that the certainty associated with the existence of CSR-CFP relationship is greater than what has been assumed by many academic business scholars (Ortlitzky et al. 2003).

4 Methodology and data

This chapter introduces the research methodology and data used in the empirical part of this study. The first section describes the construction of regression models as well as dependent, independent and control variables, and is concluded with hypotheses development. The second section presents the sample data consisting of CSR and financial data, and provides descriptive statistics derived from the data set.

4.1 Research methodology

This study investigates the relationship between CSR and CFP in Nordic publicly listed firms during the time period from 2010 to 2020. As the data sample used in the study includes firms that are listed in or de-listed from the Nordic stock exchanges during the sample period as well as firms for which there is no data available for some years, the number of observations differ between the companies in scope. Hence, the data sample constitutes an unbalanced panel data.

The empirical analysis is conducted using a statistical regression model with industry and year fixed effects. Fixed effects refer to a regression model where some of the variables are constant across individuals or groups within the sample. In other words, in the case of industry fixed effects, the intercept of the regression is allowed to vary across industry groups. The purpose of applying fixed effects is to control for unobserved industry-specific characteristics that may be correlated with the independent variables. The approach where unobserved attributes are controlled at industry level has been somewhat widely adopted in previous academic studies investigating the CSR-CFP relationship (e.g. Choi & Wang 2009; Lee et al. 2016; Velte 2017). Industry categorization used in this study to account for industry fixed effects is described later in the chapter. In addition to industry fixed effects, following the approach adopted by Sassen et al. (2016), year fixed effects are used in this study to control for changes in the economic environment potentially affecting the financial performance of firms over the time period included in the data

sample. Overall, the benefit of implementing the fixed effects model is that it controls for possible omitted variable bias and addresses the potential endogeneity issue.

4.1.1 Dependent variables

As this study examines the impact of Nordic companies' CSR performance on their financial performance, the dependent variable in the empirical analysis is the financial performance of companies included in the data sample. Following the research approach adopted in the previous academic literature e.g. by Atan et al. (2018), Velte (2017) and Guenster et al. (2011), financial performance is divided further into two components: accounting-based financial performance measuring firm profitability, and market-based financial performance measuring firm value. Concerning the former, Velte (2017) notes that ROA is the most well-known accounting-based variable measuring financial performance. For the sake of consistency with the main body of existing literature, ROA is adopted as a proxy for accounting-based financial performance in this study. ROA is the ratio of the firm's profitability to its total assets, and is hence calculated as (McGowan et al. 2015)

$$Return\ on\ assets\ (ROA) = \frac{Net\ income}{Total\ assets}. \tag{1}$$

As accounting-based measures like ROA are subject to the influence of decisions made by the firm concerning earnings management, it is of interest to include in the analysis an alternative measure which is not dependent on the reported earnings and is therefore less prone to be influenced by earnings management. A widely adopted market-based measure of financial performance is Tobin's Q, which represents the ratio of the market value of assets to their replacement cost. Since the replacement cost of assets is somewhat difficult to estimate, it is a common practice in the academic literature to calculate Tobin's Q by comparing the market value of a firm's equity and liabilities to the book value of equity and liabilities (Velte 2017). An assumption often made is that the market value of a firm's liabilities equals their book value. Hence, this study uses a somewhat simplified version of Tobin's Q, calculated as

$$Tobin's\ Q = \frac{Market\ capitalization + book\ value\ of\ liabilities}{Book\ value\ of\ equity + book\ value\ of\ liabilities}. \quad (2)$$

In this study, the impact of CSR on financial performance is analyzed for accounting-based financial performance and market-based financial performance separately. Therefore, ROA is used as a dependent variable in the first set of regression models introduced later in this section. In the second set of regression models, the dependent variable is Tobin's Q, while ROA is included as an additional control variable.

4.1.2 Independent variables

As the purpose of this study is to find out whether a firm's corporate social responsibility performance enhances its financial performance, in the empirical analysis companies' ESG scores are used as independent explanatory variables in the regression models. The main hypothesis introduced later in this chapter is tested by regressing the dependent financial performance variables on the overall ESG score. To further elaborate on how different dimensions of ESG affect the financial performance individually, additional regressions are run using the ESG dimension scores as main independent variables. Values given for each independent variable consist of the ESG scores retrieved from Refinitiv database for each firm-year observation without further manipulation or variable construction.

4.1.3 Control variables

To account for possible impact of other firm-specific characteristics apart from CSR performance, a set of control variables are introduced in the regression models. The control variables used in this study are selected following the approach widely established in the previous academic research on the CSR-CFP relationship. The two most commonly adopted control variables include firm size and leverage (e.g. Atan et al. 2018; Choi & Wang 2009; Guenster et al. 2011; Velte 2017; Waddock & Graves 1997).

Firm size is considered as a relevant control variable because the prior evidence indicates that smaller firms are often characterized by lower CSR activity than larger companies (Waddock & Graves 1997). Furthermore, firm size may also be related to the extent of stakeholders' interest towards the firm's CSR activities (Velte 2017). Following the approach of e.g. Guenster et al. (2011), firm size is measured in this study as the logarithm of book value of a firm's total assets, i.e.

$$Size = \log(book\ value\ of\ total\ assets). \tag{3}$$

The use of leverage as a control variable is justified by the prior evidence suggesting that firms with high leverage typically disclose more CSR related information due to the increased scrutiny from financial institutions (Atan et al. 2018). Leverage also contributes to the firm's financial performance by lowering the cost of capital. In the other hand, leverage can also be seen as a proxy for enterprise risk, which according to investment theory should be an important component affecting the market-based financial performance of a firm (Atan et al. 2018). In this study, the leverage variable is calculated as a ratio of total debt to total assets, i.e.

$$Leverage = \frac{Book\ value\ of\ total\ debt}{Book\ value\ of\ total\ assets}. \tag{4}$$

To account for the impact of industry differences and following the approach of e.g. Choi and Wang (2009), Lee et al. (2016) and Velte (2017), all the firms in the data sample are categorized into 11 different industry sectors based on Nasdaq industry classification benchmark, as described in the next section of this chapter. The effect of industry differences is incorporated in the regression models as an additional categorical variable. Finally, as firm profitability is considered as an important determinant of market capitalization, ROA is included as an additional control variable in the regression models that use Tobin's Q as a dependent variable proxying the market-based financial performance. This approach is in line with Guenster et al. (2011).

4.1.4 Regression models

The empirical part of the study is conducted by using eight different regression models to estimate the correlation coefficients of independent and control variables. In models (5) – (8) ROA is used as a proxy for firm financial performance. Therefore, dependent variable is ROA for firm i at time t. β_1 - β_4 represent the coefficients of the main independent variable as well as control variables. $ESG_{i,t}$, $ENV_{i,t}$, $SOC_{i,t}$ and $GOV_{i,t}$ denote the main independent variables ESG score, environmental score, social score and corporate governance score for firm i at time t, respectively. $Size_{i,t}$ represents the control variable firm size measured as log of total assets for firm i at time t. $Lev_{i,t}$ denotes the control variable leverage measured as the ratio of total debt to total assets for firm i at time t. IND_i represents the industry dummy for firm i. Finally, error term is denoted by $\varepsilon_{i,t}$.

$$ROA_{i,t} = \alpha + \beta_1 ESG_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 IND_i + \beta_5 YEAR_t + \varepsilon_{i,t} \qquad (5)$$

$$ROA_{i,t} = \alpha + \beta_1 ENV_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 IND_i + \beta_5 YEAR_t + \varepsilon_{i,t} \qquad (6)$$

$$ROA_{i,t} = \alpha + \beta_1 SOC_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 IND_i + \beta_5 YEAR_t + \varepsilon_{i,t} \qquad (7)$$

$$ROA_{i,t} = \alpha + \beta_1 GOV_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 IND_i + \beta_5 YEAR_t + \varepsilon_{i,t} \qquad (8)$$

Models (9) – (12) use Tobin's Q as a proxy for financial performance of firm i at time t, which are denoted by $TQ_{i,t}$. In these models, $ROA_{i,t}$ is included as an additional control variable. Other variables are the same as in models (5) – (8).

$$TQ_{i,t} = \alpha + \beta_1 ESG_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 ROA_{i,t} + \beta_5 IND_i + \beta_6 YEAR_t + \varepsilon_{i,t} \qquad (9)$$

$$TQ_{i,t} = \alpha + \beta_1 ENV_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 ROA_{i,t} + \beta_5 IND_i + \beta_6 YEAR_t + \varepsilon_{i,t} \qquad (10)$$

$$TQ_{i,t} = \alpha + \beta_1 SOC_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 ROA_{i,t} + \beta_5 IND_i + \beta_6 YEAR_t + \varepsilon_{i,t} \quad (11)$$

$$TQ_{i,t} = \alpha + \beta_1 GOV_{i,t} + \beta_2 size_{i,t} + \beta_3 lev_{i,t} + \beta_4 ROA_{i,t} + \beta_5 IND_i + \beta_6 YEAR_t + \varepsilon_{i,t} \quad (12)$$

Regression models (5) – (8) are used to investigate the impact of CSR on the internal accounting-based financial performance. Models (9) – (12) measure the impact of CSR on the external market-based financial performance.

4.1.5 Research hypotheses

The purpose of this study is to find out whether corporate social responsibility enhances the financial performance of publicly listed companies in Nordic countries, namely Sweden, Finland, Norway and Denmark. The study aims at meeting this purpose by examining the relationship between the companies' overall ESG score as well as each ESG dimension score individually and their financial performance. The non-negative relationship between CSR and CFP has been relatively well established in the previous academic research on the topic. Various theories have been proposed as plausible explanations for the enhancing impact of CSR on CFP. Porter and Kramer (2006) suggest that full integration of CSR into a firm's strategy leads to a situation where the company's performance and benefits to the society mutually reinforce each other in such a way that the company essentially creates value by being socially responsible. Other authors have put forth theories according to which intangible assets play a key role in the process through which CSR translates into improved financial performance. For instance, Perrini et al. (2011) suggest that CSR supports companies in the process of creating and accumulating intangible resources that in their uniqueness can be a source of sustainable competitive advantage.

CSR-CFP relationship has been investigated in various geographical and industrial contexts in the existing academic literature. However, few studies have solely focused on

geographical markets that are the most developed in terms of corporate social responsibility. The geographical scope of this study is limited to four Nordic countries that have been widely recognized as frontrunners in CSR (e.g. Strand et al. 2015). One could argue that in a market where the overall level of CSR is very high, it is difficult for a company to differentiate or gain a competitive advantage through corporate social responsibility, and therefore the relationship between CSR and CFP should be weaker than in less-developed markets. In the other hand, one could also argue that in the leading CSR countries different stakeholders are more concerned about companies' social responsibility and hence CSR should be even more important determinant of CFP than in other markets.

Relying on the extensive evidence provided by the previous literature in support of the positive association between CSR and CFP, for the purposes of this study it is hypothesized that CSR and CFP are positively related in the Nordic publicly listed companies as well. This presumption leads to the following main hypothesis of the study:

> H_1: *Corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

More specifically, the main hypothesis implies that a firm's overall ESG score is expected to be positively related to the firm's financial performance. To better understand the drivers of the expected positive relationship, the study also explores the association of financial performance with the three ESG dimensions individually. Hence the main hypothesis is further broken down into three sub-hypotheses as follows:

> H_{1a}: *Environmental dimension of corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

> H_{1b}: *Social dimension of corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

H_{1c}: *Governance dimension of corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

The three sub-hypotheses imply that each of the three ESG dimensions, namely environmental, social and governance, individually contribute positively to companies' financial performance.

4.2 Data

This section describes the data sample used in the empirical part of the study. The data consists of CSR data, which are used as main independent variables in the regression analysis, and financial data used construct the dependent variables as well as control variables. Both CSR and financial data are retrieved from Refinitiv database. The initial data collection includes all the publicly listed companies traded in Stockholm, Helsinki, Oslo and Copenhagen stock exchanges, for which there are observations during the sample period 2010 – 2020.

This study investigates the non-lagged relationship between CSR and CFP, meaning that all the data points used to construct the variables for each regression are from the same period. This approach imposes a requirement that for each firm-year observation all the data points needed to construct the variables must be available. To meet this practical requirement, the initial data collection is cleaned by removing all the firm-year observations for which some data points are missing. Firms are not required to stay within the data sample throughout the time period considered, meaning that a specific firm may not have firm-year observations covering the whole period of 2010 – 2020. The data collection and cleaning process produces an unbalanced panel data consisting of 1954 unique firm-year observations. In order to improve the accuracy of the results, outlier values for each quantitative variable are winsorized at 0.5% level.

4.2.1 CSR data

CSR data used in the empirical part of the study is retrieved from Refinitiv database and consists of the total ESG scores as well as individual scores for each of the three ESG dimensions. These ESG scores are used directly as main independent variables in the different regression models, proxying for the CSR performance of firms. The value scale for each score ranges from 0 to 100, where larger value corresponds to better CSR performance.

ESG scores are calculated by Refinitiv (2021) based on 178 individual indicators in total. Refinitiv groups these indicators into 10 different categories each belonging to one of the three ESG pillars. Each indicator category is given a relative weight that ultimately determines a firm's score in each ESG pillar, as well as its overall ESG score. Indicator categories of the environmental pillar include resource use, emissions and innovation. The social pillar consists of workforce, human rights, community and product responsibility. Governance pillar constitutes of management, shareholders and CSR strategy. The overall ESG structure of Refinitiv is summarized in figure 6.

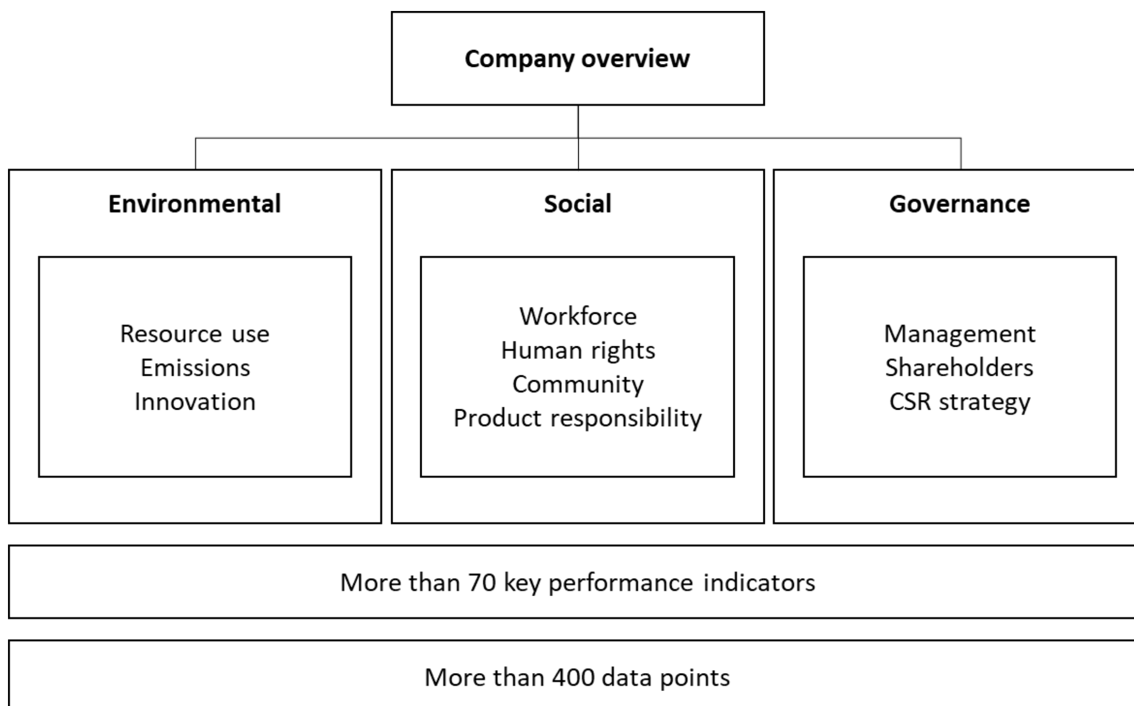

Figure 6. ESG score structure (Refinitiv 2021).

The empirical part of this study is conducted based on the firms' overall ESG scores and individual pillar scores. Therefore, for each firm-year observation there are four CSR data points, each of which is used as the main independent variable in the respective regression model. As described in the previous section, the outlier values of ESG scoring are handled by winsorizing at 0.5% level. Characteristics of the CSR part of the data sample are described in more details in the descriptive statistics section.

4.2.2 Financial data

Financial data of the empirical part of this study is retrieved from Refinitiv database, and it is used to construct the dependent variables – ROA and Tobin's Q – and a set of control variables, including firm size and leverage. For each firm-year observation the financial data points include market capitalization, total assets, total debt, book value of equity and net income. Furthermore, to account for possible impact of differences across industries, each firm in the data sample is assigned an industry category variable based on Nasdaq industry classification benchmark, consisting of 11 industry categories: basic

materials, consumer discretionary, consumer staples, energy, financials, health care, industrials, real estate, technology, telecommunications and utilities. Construction of dependent and control variables from financial data is described in the previous chapters. Descriptive statistics in the next section provide an overview on the characteristics of financial data in the sample.

4.2.3 Descriptive statistics

This section draws an overview on the constitution of the data sample in terms of industry sector structure (table 1) and describes the quantitative characteristics of the data sample (table 2).

Table 1. Industry sector structure of the data sample.

Industry sector	Observations	Share of total
Industrials	514	26,3 %
Consumer Discretionary	271	13,9 %
Financials	265	13,6 %
Health Care	203	10,4 %
Basic Materials	176	9,0 %
Energy	142	7,3 %
Real Estate	120	6,1 %
Consumer Staples	89	4,6 %
Technology	81	4,1 %
Telecommunications	74	3,8 %
Utilities	19	1,0 %
Total	**1954**	**100,0 %**

It can be observed form table 1 that with 514 firm-year observations, industrial companies represent more than one fourth of the data sample, making it by far the largest industry sector in terms of number of firm-year observations. Industrial companies are followed by consumer discretionary, financials and health care, each of which constitute more than 10% of the observations. Smallest industry categories are utilities, telecommunications, technology and consumer staples, each with less than 5% share of observations.

Table 2. Descriptive statistics of the data sample.

	Mean	Median	Min	Max	Std. Dev.	Observations
Financial data						
ROA	4.59	4.68	-73.81	40.74	11.29	1954
Tobin's Q	2.68	1.69	0.59	20.34	2.92	1954
Size	7.26	7.25	5.33	9.74	0.82	1954
Leverage	0.26	0.25	0.00	0.87	0.17	1954
CSR data						
ESG	53.30	54.79	4.76	89.05	18.74	1954
ENV	50.83	54.41	0.00	93.91	26.99	1954
SOC	56.91	59.41	1.62	94.31	21.50	1954
GOV	49.59	49.67	4.27	93.86	22.37	1954

Table 2 shows the descriptive statistics of the data sample of each variable used in the regression models. Financial data section of the table shows that ROA appears to be somewhat highly positive during the sample period, with an average of 4.59 and median on 4.68. The mean of Tobin’s Q is 2.68, indicating a clear relative overvaluation of companies compared to the replacement cost of their assets. The mean of control variable size, which in this study is measured as log of total assets, is 7.26, while the median is 7.25. The mean leverage is 0.26, meaning that on average the companies in the data sample have had a leverage of 26% during the sample period.

CSR data section of the table shows that while on average the ESG scores across all the three dimensions are relatively high, the scores vary somewhat significantly between the firm-year observations. Minimum and maximum columns of the table show that while the best companies in terms of CSR performance have received scores above 89 in the scale ranging from 0 to 100, the worst ones have been given scores below 5. On average the best scores have been received in the social dimension of ESG where the mean is 56.91. Performance appears to be lowest in the corporate governance dimension with the mean of 49.59.

5 Empirical results

This chapter presents the results of the empirical part of the study. First sub-chapter summarizes the results of first four regression models where the dependent variable is ROA, i.e. firm profitability. Second sub-chapter describes the results of the second set of regression models where Tobin's Q, i.e. firm value is used as the dependent variable. The chapter is concluded with a brief discussion of the findings.

5.1 CSR and firm profitability

Table 3 consolidates the empirical results from the first set of regressions where the relationship between CSR and firm profitability is investigated. Regressions (5) – (8) represent the four different models used to examine the profitability impact of overall ESG score, environmental score, social score and governance score, respectively.

Table 3. Regression results of CSR-ROA relationship.

	Firm profitability (ROA)			
Variable	(5)	(6)	(7)	(8)
ESG	0.0368**			
	(2.3101)			
Environment		0.0348***		
		(3.0642)		
Social			0.0619***	
			(4.5892)	
Governance				-0.0268**
				(-2.2271)
Size	1.0203**	0.9487**	0.6622	1.7536***
	(2.4165)	(2.3116)	(1.6096)	(4.4731)
Leverage	-11.6204***	-11.8062***	-11.1746***	-11.6902***
	(-7.5430)	(-7.6718)	(-7.2647)	(-7.5895)
Intercept	0.0850	0.6079	1.8678	-0.9487
	(0.0227)	(0.1618)	(0.4964)	(-0.2544)
Year Fixed Effect	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes
R-squared	0.0801	0.0820	0.0875	0.0799
F-statistic	7.3084	7.4995	8.0496	7.2907
Number of observations	1954	1954	1954	1954

, and *** represent significance at 10%, 5% and 1% level*

From the table it can be observed in column (5) that the relationship between the total ESG score and firm profitability is positive and statistically significant and 5% level, suggesting that in overall CSR improves the accounting-based financial performance of firms. From regressions (6) and (7) it can be seen that the coefficients of environmental score and social score are also positive and statistically significant at 10% level. Quite surprisingly, the results from regression (8) indicate a negative relationship between governance score and ROA, implying that good performance in corporate governance damages firm profitability. The relationship is statistically significant at 5% level. Of the four ESG variables used in the first set of regressions, social score appears to have a coefficient furthest from zero. This finding suggests that social dimension of CSR is a more important determinant of firm profitability than environmental dimension, governance dimension and overall ESG performance.

Coefficients of the control variable size are positive across all four regression models. This finding indicates that large size enhances the accounting-based financial performance of a firm. One plausible explanation for this may be that firms benefit from large size through economies of scale. The relationship between leverage and ROA turns out to be highly negative, perhaps because poorly performing firms may be forced to rely extensively on debt financing, or because the profitability of firms heavily in debt suffers from high interest expenses.

It is worth noticing that the R-squared values of the regressions are relatively low, approximately 8% across all four regression models. Low value of R-squared implies that a relatively small share of the variability in ROA is explained by the variables included in the regression models. As R-squared values are still clearly positive, this observation doesn't necessarily weaken the credibility of the conclusions drawn from the results. However, it underlines the fact that a firm's profitability measured as ROA is affected by several different factors, all of which are not captured by the econometric model used in this study.

5.2 CSR and firm value

Empirical results from the regression analyses investigating the relationship between CSR and firm value are presented in table 4. Again, regressions (9) – (12) represent the models using overall ESG score, environmental score, social score and governance score as independent variables, respectively.

Table 4. Regression results of CSR-Tobin's Q relationship.

	Firm value (Tobin's Q)			
Variable	(9)	(10)	(11)	(12)
ESG	0.0020			
	(0.5910)			
Environment		-0.0006		
		(-0.2405)		
Social			-0.0010	
			(-0.3669)	
Governance				0.0017
				(0.6658)
Size	-0.5245***	-0.4913***	-0.4864***	-0.5174***
	(-5.9120)	(-5.6920)	(-5.6082)	(-6.2588)
Leverage	-3.5063***	-3.5062***	-3.5157***	-3.5077***
	(-10.6912)	(-10.6851)	(-10.7032)	(-10.6966)
ROA	0.0615***	0.0617***	0.0618***	0.0618***
	(12.8700)	(12.9033)	(12.8863)	(12.9363)
Intercept	6.2203***	6.1424***	6.1205***	6.1703***
	(7.8987)	(7.7824)	(7.7207)	(7.8866)
Year Fixed Effect	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes
R-squared	0.3938	0.3937	0.3937	0.3938
F-statistic	52.2061	52.1861	52.1914	52.2126
Number of observations	1954	1954	1954	1954

, and *** represent significance at 10%, 5% and 1% level*

Results summarized in table 4 differ somewhat significantly from those presented in the previous section. From column (9) it can be seen that the coefficient of overall ESG score is only slightly positive and not statistically significant. In terms of environmental and social score in columns (10) and (11), the coefficients are slightly negative and statistically insignificant. For the governance score in column (12), the coefficient is again marginally positive and statistically insignificant. Overall, the results indicate that none of the CSR aspects nor the overall CSR performance is an important determinant of firm value measured as Tobin's Q.

For the control variable size, coefficients are moderately negative in all four models. This suggests that small firms are more highly valued by the market than larger and more established ones. Leverage is negatively related to Tobin's Q across the four models,

which supports the theory that high leverage is associated with high risk, which reduces the attractiveness of the company for the investors. ROA is positively associated with Tobin's Q, indicating that firm value increases alongside with profitability, as can be reasonably expected.

R-squared values are somewhat high compared to those observed in the first set of regressions focusing on the profitability aspect of financial performance. R-squared is around 39% across the four regressions. This implies that a relatively large share of the variability in Tobin's Q is explained by the model – mainly by the control variables size, leverage and ROA.

5.3 Discussion

The empirical findings on the relationship between corporate social responsibility and financial performance in Nordic publicly listed firms presented in the previous sub-chapters are two-fold. The regression results indicate that CSR and CFP are related with each other – more so when it comes to the accounting-based profitability aspect of financial performance. Positive coefficients of the ESG variables with statistical significance presented in table 3 imply that CSR indeed enhances firm profitability, with the exception of corporate governance which appears to have a negative impact on profitability. However, coefficients of ESG variables in table 4 are only marginally different from zero and not statistically significant, suggesting that CSR doesn't have a significant impact on firm value.

The main hypothesis of the research was outlined in chapter 4 as follows:

> H_1: *Corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

In the approach selected for this study, the main hypothesis is tested by examining the relationship of companies' total ESG score with two different measures of financial

performance: ROA and Tobin's Q. While total ESG score appears to have no significant impact on Tobin's Q, the empirical results confirm a statistically significant positive relationship between total ESG score and ROA. Therefore, the null hypothesis suggesting that there is no positive relationship between CSR and CFP is rejected.

To further elaborate on the contribution of each ESG dimension on financial performance of firms, the main hypothesis was divided into three sub-hypotheses as follows:

> H_{1a}: *Environmental dimension of corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

> H_{1b}: *Social dimension of corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

> H_{1c}: *Governance dimension of corporate social responsibility positively impacts the financial performance of Nordic publicly listed firms*

Similarly to the main hypothesis, the three sub-hypotheses are empirically tested by investigating the relationship of environmental, social and governance scores with ROA and Tobin's Q. The results indicate that none of the three ESG dimensions is significantly related with Tobin's Q. However, environmental and social scores are shown to be positively and significantly related with ROA. Hence, for sub-hypotheses H_{1a} and H_{1b}, null hypotheses suggesting that a positive relationship doesn't exist are rejected. Concerning the third sub-hypothesis, the relationship between governance score and ROA is found to be negative and statistically significant, resulting in a rejection of sub-hypothesis H_{1c}. From the empirical results it can be concluded that corporate social responsibility does play a role in determining the financial performance of Nordic publicly listed firms, and the sign of the relationship is positive. The main results are in line with the prevailing view supported by the majority of previous academic literature that CSR and CFP are positively associated (e.g. Orlitzky et al. 2003). Similarly to Velte (2017), the positive

relationship is found to exist between CSR and ROA, whereas the empirical evidence doesn't support the existence of a statistically significant relationship between CSR and Tobin's Q. This finding is also consistent with Ortlizky et al. (2003), who find CSR to be more highly correlated with accounting-based financial performance than market-based financial performance.

Although the positive CSR-CFP relationship has been relatively well established in the academic research, the empirical results of the previous studies are to some extent inconsistent. The results of this study differ from those of Atan et al. (2018), Lima Crisóstomo et al. (2011) and Makni et al. (2009) who find no statistically significant relationship between CSR and firm profitability. The inconsistency of results may well be explained by geographical and temporal differences. Atan et al. (2018) and Lima Crisóstomo et al. (2011) examine the CSR-CFP relationship in the context of developing markets, namely Malaysia and Brazil, which are in many ways fundamentally different from the highly developed Nordic countries. The study of Makni et al. (2009), in turn, focuses on the Canadian market, which is more comparable with the Nordics, but uses a relatively short and old data sample consisting of years 2004-2005.

When looking at the CFP-impact of each ESG dimension individually, the empirical results imply that environmental and social dimensions of corporate responsibility enhance firm profitability. The observed positive relationship between environmental responsibility and CFP is in line with the findings of previous studies focusing specifically on the environmental aspect of CSR, such as Lee et al. (2016), Sharfman and Fernando (2008), Guenster et al. (2011), Fischer and Sawczyn (2013) and Muhammad et al. (2015). Contradicting evidence is found e.g. by Makni et al. (2009). Few studies investigating the CSR-CFP relationship address the social aspect of CSR specifically, but the positive association observed is in this study is in line with the findings of e.g. Velte (2017).

The empirical evidence in this study implies that the governance dimension of CSR is negatively associated with ROA, meaning that good performance in corporate

governance damages firm profitability in Nordic firms. Interestingly, Velte (2017), who examines the CSR-CFP relationship in the context of highly developed German market, finds that corporate governance has a stronger positive impact on financial performance than environmental and social aspects of CSR, which contradicts the results of this study. To explain this observation, Velte (2017) suggests that the importance of governance as a determinant of financial performance might be driven by the long history of corporate governance reporting in Germany, as well as by the high relevance of corporate governance information perceived by the German investors. In the other hand, the negative relationship between corporate governance and CFP observed in this study is supported by the findings of Bauer at al. (2004) who find corporate governance to be negatively related to earnings-based performance ratios. This finding is rather puzzling and imposes a question whether the reported earnings of poorly governed firms are prone to be affected by less-conservative earnings management.

6 Conclusions

This chapter wraps up the study with a conclusive discussion on the results and a critical evaluation of the research. The first sub-chapter summarizes the key findings from the empirical part of the study. Next, the implications of the study are discussed, focusing on its theoretical and practical contributions. Finally, the study is concluded by elaborating on some of its limitations and outlining suggestions for future research on the topic.

6.1 Summary of the findings

Corporate social responsibility has gone through a revolutionary change during the past decades. What was once barely seen as a moral obligation of companies to be good for their proximate community has now become an all-encompassing concern on the implications of a firm's actions to the surrounding world. Only a few decades ago it was a subject of debate whether firms have responsibilities beyond maximizing the wealth of their shareholders, whereas today companies across the world have integrated corporate social responsibility in the very core of their strategy and purpose. In the present day the valid question is no longer whether firms have to be socially responsible, but rather whether being socially responsible can actually pay off.

This study seeks to answer this question. The purpose of the study is to investigate whether corporate social responsibility enhances the financial performance of firms. The question has been addressed in an extensive body of academic literature in various geographical, industrial and situational settings. The empirical evidence provided by the prior research can be seen as rather scattered and to some extent inconsistent. What is missing in the existing literature specifically is evidence for the existence of CSR-CFP relationship in the context of Nordic countries. What makes the Nordic setting especially interesting is the well-established view that Nordic countries, namely Sweden, Finland, Norway and Denmark, are leading the world in the field of corporate social responsibility. This study addresses this apparent gap in the prior research by examining the CSR-CFP

relationship specifically in the beforementioned four Nordic countries with most recent available data.

The empirical results of this study confirm that CSR performance is positively related to firm profitability in Nordic publicly listed firms. However, the evidence doesn't support the existence of a relationship between CSR performance and firm value. Deeper dive into the different dimensions of CSR reveals that firm profitability is enhanced by environmental and social aspects of CSR performance, whereas governance aspect appears to affect firm profitability negatively. None of the three CSR dimensions turns out to have a significant impact on firm value.

The observed non-zero relationship between firm profitability and all the three dimensions of CSR suggests that CSR performance must affect either the top-line revenue or the bottom-line profit of Nordic firms. Concerning the positive impact of environmental and social performance, plausible explanations outlined in the previous literature suggest that environmental efforts of firms may improve the efficiency of resource utilization, and social efforts especially focusing on the workforce may enhance labor productivity, both of which should lead to higher profit margins. By exhibiting good performance in CSR matters, firms may also get an access to additional financial resources with more favorable terms and lower interest rates. In terms of top-line revenue, CSR can be seen as a means for differentiation, thus increasing sales by attracting socially conscious customers. Finally, investments made especially in the field of environmental responsibility may potentially enable new product and process innovations and thereby open up new opportunities for growth and efficiency improvements.

While the positive impact of environmental and social responsibility on firm profitability is somewhat easy to rationalize, the negative impact of corporate governance performance on firm profitability is more puzzling. Bauer et al. (2004) suggest that well governed firms may be more conservative in their earnings reporting, whereas poorly governed ones might be more inclined towards overstating their earnings. Alternatively, one

could argue that while environmental and social aspects of corporate responsibility are more directly associated with a firm's daily business operations and thereby more visible and concrete towards its stakeholders, corporate governance is more about securing corporate integrity, which may be less visible and more abstract to the stakeholders. From this point of view, one could say that by investing in good corporate governance firms incur additional costs without receiving a corresponding monetary benefit in the form of increased revenue or improved profit margin. This, however, doesn't mean that corporate governance is unimportant or waste of money. Good corporate governance may protect a firm against certain type of risks and thereby be very important for some particular stakeholder groups. In fact, in the empirical results of this study corporate governance appears to be the only one of the three CSR dimensions exhibiting a positive, yet only marginal and statistically insignificant, relationship with firm value.

Corporate social responsibility is not found to be significantly related to firm value in this study. Considering the increased general awareness around CSR and the rise of socially responsible investing, this finding is to some extent surprising, even though similar observations are made in the previous studies e.g. by Velte (2017) and Orlitzky et al. (2003). It can be argued that this has to do with the geographical scope of this study, in that the differences in CSR performance don't matter that much for the investors in the Nordic markets where the overall level of CSR is rather high, because the companies are in general perceived to be highly responsible compared to the rest of the world. An alternative explanation could be that firm value is driven by a large number of different factors, and while CSR-related factors might be among them, other factors such as firm size, profitability and leverage simply are perceived as more important.

Research questions for this study were outlined in the first chapter as follows:

1. Does corporate social responsibility enhance the financial performance of Nordic firms?

2. Are all three dimensions of the ESG framework equally important determinants of the financial performance of Nordic firms?

The empirical evidence confirms that CSR performance is positively related with ROA. Therefore, the answer to the first research question is yes, as far as financial performance is understood as firm profitability. When analyzing the profitability impact of the three CSR dimensions separately, the results are two-fold. Hence, concerning the second research question, the answer is no – environmental and social dimensions of CSR both enhance firm profitability, the latter more than the former, whereas governance dimension of CSR turns out to have a negative impact on firm profitability. It is important to notice that there are certain limitations in the empirical approach adopted in this study which can potentially be used to challenge the achieved results. These limitations are discussed later in this chapter.

6.2 Theoretical implications

This study contributes to the previous academic literature on the CSR-CFP relationship in several important ways. First of all, in overall the results of this study provide additional evidence supporting the existence of a positive relationship between corporate social responsibility and financial performance, which has been observed in the majority of previous academic studies. CSR-CFP relationship has previously been examined in various geographical settings, but not specifically in the context of Nordic countries. This study fills this gap in academic research by showing that the CSR-CFP linkage in the Nordics is not notably different from the rest of the world.

Secondly, the choice of focusing in particular on the Nordic countries in this study is knowingly made mainly because Sweden, Finland, Norway and Denmark are widely regarded as leading countries in CSR matters. Since a similar geographical focus has not been previously adopted in the academic literature, this study is the first one exploring the CSR-CFP relationship in the part of the world where the general level of CSR performance is higher than anywhere else. The new evidence suggests that CSR does play a

role in determining the financial performance of firms also in the most responsible countries in the world.

Thirdly, CSR-CFP relationship has been extensively investigated in the academic literature since late 1990s with varying data sets in terms of time period considered. This study uses the most recent data set available ranging from 2010 to 2020, and thereby it provides an up-to-date view on the CSR-CFP linkage. It is one of the first studies where the data sample reaches up until 2020s. Finally, the empirical approach applied in this study follows the methodology widely adopted in the previous literature, allowing for comparability of results with previous studies as well as future research to come.

6.3 Practical implications

From the practical business management perspective, the results of this study shed new light on what kind of role CSR plays in determining the financial performance of companies in the Nordic countries. Although Sweden, Finland, Norway and Denmark are among the top countries in the world in terms of sustainability and many Nordic companies are global industry-leaders in corporate responsibility, the results show that CSR has not become a commodity product in the Nordics. Even if the general level of CSR in companies is rather high, an incremental improvement does matter – a difference can be made by standing out from a group of best-in-class companies. Further investments in Nordic companies on improving the CSR performance to move on from being good to being great pays off in the form of enhanced profitability.

On a more precise level, the results of this study provide new information for the executives of Nordic publicly listed companies with regards to what kind of investments on CSR are most beneficial. According to the results, the positive impact of CSR on financial performance is driven by environmental and social aspects of CSR, suggesting that in order to enhance firm profitability, the executives should prioritize the investments on these areas. Corporate governance, in the other hand, seems to be negatively associated with financial performance. However, as good corporate governance may still create

other kind of benefits, the results do not necessarily mean that companies should neglect the efforts to improve their corporate governance.

The absence of evidence for the positive relationship between CSR and firm value implies that CSR as such is not an important factor determining the market-based financial performance. Hence, the executives of Nordic companies should not expect their CSR efforts to directly translate into higher market valuation. However, since firm value turns out to be positively associated with firm profitability, which in turn is partially explained by the firm's CSR performance, it can be argued that CSR performance has an indirect positive effect on firm value, mediated by firm profitability.

6.4 Limitations and future research

As in any academic research in the field of business management, there are certain limitations in the methodological approach of this study which can make the results to some extent contestable. Firstly, for each firm-year observation in the data sample, the variables used in the regression models are constructed from observed data points from the same year. In other words, in the regressions a firm's financial performance in year *t* is compared with the firm's CSR scores in the same year *t*. The shortcoming of this approach is that it doesn't account for the causality direction of the relationship between the variables. While the empirical results indicate that CSR and CFP are positively related, the possibility that the causality direction of the relationship is actually from CFP to CSR rather than from CSR to CFP can't be ruled out. The rationale behind the causality from CFP to CSR is what Waddock and Graves (1997) call a slack resources theory, according to which companies with strong financial performance in the past may have slack resources available which they might well choose to spend by investing in improving their CSR performance. In fact, Ortlizky et al. (2003) find that the causality of the CSR-CFP relationship works in both directions, and neither of the two directions dominates the other. Direction of the causality is not an either-or question – CSR performance can explain future financial performance even if CSR performance itself is explained by past financial performance.

The methodological choice to compare within-year performance indicators in the regression analysis also gives rise to the second limitation of this study. What follows from this approach is that the study doesn't consider the longitudinal aspect of CSR-CFP relationship. In other words, possible effects of CSR on CFP materializing gradually over time are not captured by the regression models used in this study. Time variability of the CSR-CFP relationship is analyzed e.g. in the studies of Brammer and Millington (2008) as well as Guenster et al. (2011), both of which find that there indeed is an important longitudinal aspect in the CSR-CFP linkage.

Third limitation of the study is that of a possible omitted variable bias. The methodology adopted in this study doesn't fully address the possibility that the regression results are affected by missing some other variable that both is a key determinant of financial performance and correlates with corporate social responsibility performance. A plausible example of such omitted variable is that of R&D and innovation activity of a firm. McWilliams and Siegel (2000) claim that econometric models regressing financial performance on corporate social performance are misspecified, leading to the estimates of the financial impact of CSR being upwardly biased. They suggest that a more appropriate approach is to use models that control for investments in R&D, which they find to be an important determinant of financial performance as well as highly correlated with CSR performance. The claimed misspecification issue is addressed in several studies with somewhat inconsistent results (e.g. Lioui & Sharma 2012; Fischer & Sawczyn 2013; Lee et al. 2016).

Finally, fourth limitation relates to the data sample selection of the study. As described in chapter four, the initial data collection includes all the publicly listed companies traded in the stock exchanges of Stockholm, Helsinki, Oslo and Copenhagen during the period 2010-2020. However, relatively poor availability of data, especially what it comes to ESG scores, small companies and the early years of the sample period, results in a large number of firm-year observations being left out from the final data sample. It can be argued

that the data sample is biased towards companies where the level of CSR performance is relatively high, because the companies with low CSR performance may not be so inclined to disclosing CSR information necessary to calculate the ESG scores. Hence, since smaller and less-responsible firms might be underrepresented in the data set, the sample may not constitute a fully accurate representation of the Nordic markets. It is also worth noticing that using the ESG scoring based on Refinitiv database is just one way to measure the CSR performance of firms. Using alternative measures or data sources might well lead to different results compared to those of this study.

The limitations and shortcomings of this study described ahead create a need for further research on the CSR-CFP linkage especially in the context of Nordic markets which have been largely neglected in the academic literature prior to this study. Furthermore, while this study can be considered as an opener for the discussion on how CSR impacts firms in Nordic countries, different approaches, methodologies and settings adopted in the previous studies covering other parts of the world open up interesting opportunities for the future research focusing on the Nordic region. Firstly, whereas this study investigates the within-year relationship between CSR and financial performance, a potential line of research for the future would be to incorporate different time horizons in the form of a longitudinal study to explore the impact of past CSR performance on the future financial performance, as well as to identify the causality dynamics of the relationship.

As this study solely focuses on analyzing the direct financial performance impact of CSR while only controlling for the most common control variables, another interesting extension to this study would be to account for some additional explanatory variables such as innovation activity and R&D expenditure, which may play an important mediating role in the CSR-CFP relationship. Concerning the CSR data used in the study, it would be of interest to see if replacing the ESG scoring by Refinitiv with some alternative measures of CSR performance would produce different results. Furthermore, while this study handles the four countries in scope as one entity representing the whole Nordic region, an intriguing extension could be looking at the four countries separately to identify possible

differences in the CSR-CFP relationship between countries. Similarly, future studies could potentially address the differences across industry sectors in more depth than just controlling for them through industry fixed effects.

Considering the variety of different approaches to the CSR-CFP linkage in the previous literature, a possible line for further research could be to explore whether CSR has an impact on some specific factors contributing to the financial performance in the Nordics, such as cost of capital. Whereas this study covers a relatively extensive period of time ranging from 2010 to 2020 while controlling for year fixed effects, it doesn't look into whether the strength of the CSR-CFP varies between different sub-sets of years within the sample period. Hence, an interesting subject for research could be examining the possible time-variability of the relationship or testing whether the CSR-CFP relationship in Nordic countries is contingent upon some macro-environmental factors such as the overall economic situation.

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