Masteroppgave

NTNU
Norges teknisk-naturvitenskapelige universitet
Fakultet for økonomi
NTNU Handelshøyskolen

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# Can Norwegian medium-sized firms make a business case of corporate social responsibility?

## An empirical study of the relationship between CSR and financial performance in Norwegian SMEs.

Masteroppgave i regnskap og revisjon
Veileder: Seyed Mahmoud Hosseinniakani
Medveileder: Per Ståle Knardal
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# Preface

This master thesis was prepared in the last semester of our accounting and auditing master's degree program at the Norwegian University of Science and Technology (NTNU).

The process has been challenging, demanding and instructive. The work with this study gave us a deeper understanding of the complex corporate social responsibility construct, and its relationship with firm performance. We believe this work has given us a highly relevant experience to bring into our working carriers.

We would like to thank our supervisors Seyed Mahmoud Hosseinniakani and Per Ståle Knardal for helpful feedback, support and guidance through the process of writing the master thesis.

Innholdet i denne oppgaven står for forfatterens regning

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# Abstract

Most of the academics and business leaders agree that implementing sustainability in business practices is necessary. Despite inconclusive results, a large number of studies provide evidence supporting that businesses can do good while doing well. However, questions still remain whether such business case of corporate social responsibility (CSR) is applicable to SMEs. From the perspective of stakeholder theory and resource-based theory this study examines the relationship between CSR and corporate financial performance (CFP) in medium size, private companies in Norway. Using ordinary least squared regression analyses, we find no significant results using ESG survey data and ROA, ROE and ROS as financial measures. Our interesting results are elaborated throughout the paper, and we consider several implications for practitioners and policymakers.

## Sammendrag

De fleste akademikere og bedriftsledere er enige om at implementering av bærekraft i forretningspraksis er nødvendig. Til tross for inkonsitente resultater, finner et stort antall studier bevis for at bedrifter kan forbedre bunnlinjen gjennom bærekraftige aktiviteter. Det gjenstår imidlertid fortsatt spørsmål om et slikt forretningstilfelle av samfunnsansvar gjelder for små og mellomstore bedrifter. Fra perspektivet til interessentteorien og ressursbasert teori undersøker denne studien forholdet mellom graden av sammfunnsansvar og finansielle resultater i mellomstore, private selskaper i Norge. Ved hjelp av minste kvadrat regresjonsanalyser finner vi ingen signifikante resultater ved bruk av ESG-undersøkelsesdata og ROA, ROE og ROS som finansielle variabler. Våre interessante resultater gir nyttig informasjon til både bedriftsledere og beslutningstakere hos myndigheter og organisasjoner som arbeider med å øke bærekraftsfokuset til private bedrifter.

# Table of Contents

# 1. Introduction

Over the last few decades, society has put pressure on companies to enhance their sustainable engagement and expect social and environmental responsibility beyond legal requirements. In addition, activists inform us about the fact that companies are extensively using limited resources, polluting the air, and neglecting human rights to improve financial performance and maximize shareholder value. This study examines whether corporate social responsibility (CSR) has a positive impact on corporate financial performance (CFP), thus justifying such responsibility on economic grounds. In the literature, a positive link between the two is often referred to as making a *business case* of CSR.

Milton Friedmans (1970) statement that "a corporation's social responsibility is to make profit" (as cited by Griffin & Mahon, 1997, p. 5) fired up a long-standing debate among scholars, whether it exists a trade-off between social responsibility and profitability, or if it pays to be good. To justify CSR on economic grounds, researchers have been searching for an empirical link between Corporate Social Performance (CSP) and CFP (Mackey et al., 2007). If only doing good could be related to doing well, then companies should be motivated to act more conscientiously (Margolis et al., 2009). Thereby, a better understanding of this relationship would be invaluable to managers, stockholders, and all the stakeholders of a corporation (Simpson & Kohers, 2002).

International organisations like EU and UN attach great significance to sustainability issues, creating long-term strategies, setting various objectives and goals. These measures aim to guide businesses and investors into making sustainable responsible investments (SRI). Recently, in 2021, EU proposed Corporate Sustainability Reporting Directive (CSRD), which imposes stricter reporting requirements, and increases the number of companies that must report on sustainability. Furthermore, Norway is expected to adjust national regulations consecutively after CSRD is implemented in EU. This advocates the fact that businesses play an important role in sustainable development.

Small and medium-sized enterprises (SMEs) are commonly acknowledged to be a driver of economic growth, and their CSR policies have potential to generate great competitive advantages (Gallardo-Vázquez et al., 2019). SMEs play an important role in communities, where they employ most of the workforce and account for an extensive value creation. In

addition, many SMEs are a vital part of the larger companies' supply chain, and increased focus on measuring and reporting sustainability among large corporations is likely to influence smaller companies (Jenkins, 2009). Jenkins (2004) suggests that most SME managers will only go beyond compliance in CSR activities, if they can see a business case for doing so. Furthermore, European Commission (2004, p. 8) advocates the business case as the most important criteria for SMEs to engage in CSR activities, since it "*encapsulates the idea of mutual benefit or win-win situation*", adding value to both the business and society.

Present study builds on prior research that presents inconsistent empirical results surrounding the relation between CSP and CFP. Research has focused mostly on large, listed companies. As for the SME sector, the CSR-research is insignificant, and the evidence on the relation between CSP and CFP has been scarce. Based on these arguments, and the fact that sustainable development, and specifically climate change, is getting more attention than ever before, we argue that further investigation of the business case of CSR is needed, and that the SME sector deserves increased attention of the matter in question. Drawing on stakeholder and resource-based theory (Barney, 1991; Jones, 1995), our study focuses on the link between sustainability performance and financial performance in medium-sized companies in Norway, assuming a positive relationship. Reflecting this, we ask the following research question: can medium-sized firms make a business case of corporate social responsibility?

Previous literature exploring the link between CSP and CFP in SMEs have mostly, used surveys collecting self-reported subjective data on both CSP and CFP measures, drawing results based on structural equation model method (SEM) (e.g., Arend, 2014; Gallardo-Vázquez et al., 2019; Torugsa et al., 2013). Moreover, the data samples in the SME studies, testing the relationship in question, have been small. As Arend (2014) propose for objectively quantified measures of the financial variables in future research, we aim to fill this gap, using a larger sample, testing the correlation between self-reported CSR data and publicly available financial figures. This makes it possible to explore the relationship between CSP and CFP in SMEs in a way that is comparable with research previously conducted on large companies. Following previous research (Amel-Zadeh & Serafeim, 2018; Torugsa et al., 2013), self-reported CSR data is collected using survey. Our data sample consists of 338 observations and is analysed using OLS regression.

Our results indicate no relationship between CSP and CFP, thus it is suggested that SMEs don't have the capabilities needed to make CSR profitable, nor being penalized for such activities. This paper contributes to the literature by refining the understanding of SMEs position within the nature of corporate social responsibility.

The following section places this research within the institutional setting, discussing CSR in small and large firms as well as current regulation (the role of the NFRD and 3-3c). In the third section the relevant theory and CSR literature is reviewed, and hypothesis are developed. The fourth section outlines the research methodology, the data collection process and development of variables, before continuing with the analysis of the data in the fifth section. Lastly, we discuss our results, outline implications of the study and suggestions for future research.

# 2. Institutional background

## 2.1 CSR in SMEs

The discussion of SMEs in this study will be based on the European Commission's definition, in which SMEs are defined as having fewer than 250 employees, a turnover of <€50 million and a balance sheet total of <€43 million (European Commission, 2003). In 2015, this category made up 99% of all businesses in EU, Norway, and Switzerland, nearly 70 percent of the workforce and 56 percent of total turnover (Eurostat, 2018).

These statistics highlight SMEs' crucial contribution to the economy and explain researchers growing interest for SMEs engagement with CSR. One way to engage SMEs more effectively in CSR is to demonstrate for managers and owners how they can achieve added value, making a business case of CSR, through realising and maximising the opportunities presented by CSR (Jenkins, 2009), thus extended research investigating the CSP-CFP link within SMEs is needed.

Conventional approaches to CSR assume that large companies are the norm and that the CSR construct have been predominantly developed in and for large corporations (Jenkins 2004). Another assumption is that SMEs are "*little big companies*", and the CSR construct can simply be scaled down to 'fit' SMEs (Jenkins, 2009, p. 22). There exist several reasons why those assumptions might be problematic. SMEs differ extensively in the characteristics compared to large companies. The defining characteristics explaining SME behaviour is often size and the psychological characteristics of the entrepreneur or owner-manager (Jenkins, 2009). This

means that the companies` approach to CSR is likely to depend on the owner or managers individual personality and motivation for doing good while doing business. Further, SMEs often highlight cost, lack of time and resources, as the main barriers to engage in CSR activities (Bergmann & Posch, 2018). In contrast, SMEs also have characteristics that favours engagement in CSR, for example flexibility and innovation. SMEs tend to be flexible and adaptable, meaning they can respond quickly to changing conditions, and innovate products and services that incorporates social and/or environmental benefits in smaller niche markets, too specialised to attract large, global companies (Jenkins, 2009).

Nonetheless, SMEs may be obliged to address CSR due to the increasing take-up of ethical codes of practice by their large customers, which create pressure for demonstrably responsible behaviour within the supply chain. Regulators will force large firms to properly account for their supply chain, which in turn will involve SMEs as suppliers and subcontractors in the reporting process. If small firms fail to comply, it could possibly lead to their exclusion from the supply chain, hence demanding SMEs to measure and report will continue to grow (Bergmann & Posch, 2018). In next subsection, we discuss the CSR reporting practises in EU and Norway.

## 2.2 CSR requirement in the EU and Norway

Among the jurisdictions moving towards mandatory non-financial reporting, EU has been at the forefront, with its Non-Financial Reporting Directive (Directive 2014/95/EU), entered into force in October 2014. NFRD requires listed companies, banks, insurance companies and other public-interest entities with more than 500 employees, to provide certain CSR information[1] (European Commission, 2020). The intention was twofold, (i) improvement of the quality of the information, and (ii) improvement of social and environmental impact of corporate activity (Antonini et al., 2022). In addition, EU have published guidelines for how to disclose environmental and social information and climate-related information (European Commission, 2020). Transposition of the Directive involved significant country-level amendments, and by 2017, all member states had implemented NFRD into national legislation (Antonini et al., 2022).

[1] Information to be disclosed: environmental matters, social matters and treatment of employees, respect for human rights, anti-corruption and bribery and diversity on company boards (in terms of age, gender, educational and professional background) (European Commission, 2020).

Norwegian authorities chose not to carry out a national transposition of NFRD, thereby Norwegian policymakers are currently falling behind in this important issue (Brandsås, 2019). Norwegian listed companies have voluntary been disclosing non-financial information, often in compliance with non-financial reporting standards. The Financial Supervisory Authority of Norway (2020) reports that the most commonly reporting standard[2] used by companies on Oslo Stock Exchange was Global Reporting Initiative (GRI) (39%), and surprisingly enough, 23 % are not reporting about CSR activities at all.

While small companies are exempted, medium and large companies in Norway are required to report about their social responsibility in line with the standardized requirements in Norwegian Accounting Act § 3-3c. To satisfy the requirements of § 3-3c, small effort is needed, resulting in a standardized and less informative report (Brandsås, 2019). Adjustments in § 3-3c was made with effect from 1. July 2021, making NFRD fully incorporated into Norwegian law (KPMG, 2022).

Expanding the mandatory regime, European Commission in April 2021, adopted a proposal for Corporate Sustainability Reporting Directive (CSRD), amending existing requirements and extending the scope of mandatory reporting. Important changes, among others, is that CSRD requires (i) all large companies and all listed companies to disclose non-financial information (ii) according to a common EU sustainability reporting standard, (iii) and assured by an audit firm. This new EU sustainability reporting standard will be developed by European Financial Reporting Advisory Group (EFRAG) and is planned to be adopted by October 2022 (European Commission, 2020). SMEs are included in the development of the new reporting standard. EFRAG recommends voluntary use for SMEs, tailored for different size in terms of resources and governance (Kristiansen, 2021). The Norwegian Ministry of Finance informed in proposition (Prop. 66 LS 2020–2021) that further adjustments in line with CSRD to be expected without delay after implementation in EU.

[2] Numerous independent organisations have developed reporting standards (Christensen et al, 2021). Examples of influential initiatives are Sustainability Accounting Standards Board (SASB), UNs Global Compact, Global Reporting Initiative (GRI), and Task Force on Climate-related Financial Disclosures (TCFD). Other players are International Integrated Reporting Council (IIRC), The Carbon Disclosure Project (CDP) and IFRS Foundation.
Especially TCFD and its framework suited for reporting on companies' climate risk has been given significant attention, developed for users, by users. The British Government expect all listed corporations to report on their climate risk in line with TCFD standard by 2022 (Brandsås, 2019).

# 3. Theory, Literature review and Hypotheses

## 3.1 CSR

The CSR concept first appeared in the 1950s, and Bowen (1953), considered as the founder, argued that large companies are a kind of power centres whose decisions and activities affect people's lives in different ways. He further argued that the expectation that corporate managers of these companies should assume responsibility on the matter, seems to be reasonable. This view is supported by The World Banks` definition of CSR as *"the commitment of businesses to behave ethically and to contribute to sustainable economic development by working with all relevant stakeholders to improve their lives in ways that are good for business, the sustainable development agenda, and society at large"* (as cited by Kitzmueller & Shimshack, 2012, p. 52).

Other definitions of CSR (e.g., European Commission, 2002; McWilliams & Siegel, 2001) include terms like "*voluntary behaviour*" and "*beyond compliance*" (Kitzmueller & Shimshack, 2012), pointing to the voluntary nature of the complex CSR construct. From a more economic perspective, Benabou and Tirole, 2010 as cited by Liang and Renneboog (2017, p. 854) defines CSR as "*firm activities that improve social welfare but not necessarily at the expense of profits (or shareholder value)"*. The latter, a definition which can be understood as going along with the neutral view of the CSP-CFP link, discussed later in this section.

In terms of CFP, most of the early studies used only one measuring variable for financial performance, but several researchers argue that multiple variables should be used (Griffin & Mahon, 1997; Margolis et al., 2009). At the same time, it is recommended to use accounting figures rather than market-based numbers, because the latter may reflect other dimensions than only CFP (Griffin & Mahon, 1997). According to Peloza (2009), possible effects of CSP on CFP measures is likely to disappear in capital market noise using market-based values. Furthermore, accounting figures tend to show stronger correlation to CSP than market derived figures (Margolis et al., 2009; Orlitzky et al., 2003; Peloza, 2009).

The key figures to be used in measuring CFP depend on the industry being investigated. Return on total assets (ROA), return on equity (ROE) and return on sales (ROS) is assumed to be the most recognized accounting variables used in the CSP-CFP research field (Peloza, 2009). These values are often combined with other industry specific values. For example, in a study from the banking industry, Simpson and Kohers (2002) applied ROA and losses on loans over total loans.

Pioneering academics exploring the CSP-CFP link often used single dimensions of CSP e.g., reputation, charitable giving, and illegal acts (e.g., Frooman, 1997; Herremans et al., 1993). Furthermore, major weaknesses observed from the early research is the lack of controlling for contextual factors like firm size, firm risk, and industry, possibly affecting the relationship. Although the CSR literature shows that theoretical models have had an extensive development over the years, researchers have faced major challenges in operationalizing CSR in a measurement context (Margolis et al., 2009). This has resulted in a wide range of studies using a specter of different CSP measures, from studies that capture specific individual dimensions to a multidimensional approach (Margolis et al., 2009). Different industries have their own unique CSP characteristics. For example, firms in the energy industry might focus on pollution and carbon trading, while clothing manufacturers see human rights and water consumption as their biggest issues (Peloza, 2009). This can lead to problems measuring CSR, as data is collected from several different industries (Simpson & Kohers, 2002). We sought to overcome this problem by using a standardized ESG framework, which has been used in resent papers (e.g., Flammer, 2015) exploring the CSP-CFP link over multiple industries.

Over the years, the methodology for measuring CSP has improved, and researchers often apply multidimensional CSP measures (Cornett et al., 2016; Waddock & Graves, 1997)[3]. While social and environmental dimensions were commonly used as CSP measures for decades, corporate governance dimension was introduced in later research. Corporate governance, which comprises for example managerial decisions, and corporate behaviours, constitutes one of the three pillars in the ESG framework (Waddock & Graves, 1997). ESG framework is used in this study and will be discussed further in the next section.

## 3.2 ESG

The term ESG combines the three dimensions environment, social, and governance into a broad CSP metric that makes non-financial information transparent and comparable for investors (Kell, 2018). The Morgan Stanley Capital International (MSCI)[4], a non-governmental organization providing ESG index, defines ESG investing as "*the consideration of environmental, social and governance factors alongside financial factors in the investment*

[3] Waddock & Graves (1997) used CSP data from KLD, covering a range of dimensions related to stakeholders' concerns. Cornett et al. used Environmental, Social, and Governance (ESG) ratings data from MSCI ESG STATS database (formerly KLD).
[4] KLD Research and Analytics was acquired by RiskMetrics Group in 2009, and RiskMetrics Group was later acquired by MSCI in 2010 (Cornett et al, 2016).

*decision-making process*" (MSCI, 2022). Also, the boundaries between the ESG dimensions are not always clear-cut (European Commission, 2004). CSR encompass a broad range of ESG topics, activities, and policies, and differ substantially across firms, industries, and countries. Below we present a brief overview of each dimension.

Environmental dimension aims to minimize a company's ecological impact along the entire product life cycle (Torugsa et al., 2013). The main environmentally concerns in the ESG framework is climate change, greenhouse gas emissions, eco-efficiency, resource depletion, waste and pollution, biodiversity and loss of nature and circular economy (PwC, 2020). Because of high legal standards in many EU countries, main drivers for the SMEs engagement in environmental issues are regulation and supply chain pressure (European Commission, 2004).

The social dimension of CSR actively recognizes how firms approach issues like safety, health and well-being of employees, training and development opportunities for employees, equal opportunities without any type of discrimination, diversity in the workforce, labour rights, and integration with the local community (PwC, 2020). Further, this CSR dimension involves developing a social dialogue that considers social and ethical questions in the interest for all stakeholders in the management's decision making, thus mutually benefits can result for the company and its stakeholders (Bansal, 2005 cited by Torugsa et al., 2013).

Corporate governance aims to support economic growth and prosperity, thus the governance dimension prompts CSR issues like customer satisfaction, supply chain management, internal control, diversity on the board, corruption, anti-money laundering, tax, and privacy policy (PwC, 2020; Torugsa et al., 2013).
In addition to the aforementioned issues, compliance with legislative framework, quality standards (e.g., ISO standards), and legal risk was explored in our study, in line with the BCG (2013) survey (Kiron et al., 2013).

## 3.3 Theory

The link between CSP and CFP has been alternatively hypothesized to be positive, negative, and neutral, explained with appropriate theories. Contradictory, mixed, or ambiguous findings are notions often related to the CSP-CFP debate (Busch & Friede, 2018), and these results may

not be so surprising, considering that the motive for CSR activities embraces so broadly (Christensen et al., 2021). Since CSR by nature is based on voluntary activities that go beyond mandatory requirements, as outlined in the definition above, selection problems make it difficult to isolate effects that different CSR activities have on CFP (Christensen et al., 2021). This is supported by Margolis and Walsh (2003), saying that most of the confusion in the CSR-literature is due to absence of clarity about definitions and assumptions within the CSR-construct. Thereby, it has been challenging for researchers to operationalize CSR into quantifiable and valid measures on CFP. Below, we lay out and discuss the three different views on the economic effect of CSR.

The negative view state that companies that perform responsibly sustain a competitive disadvantage due to incurring costs that should be borne by others than the company, e.g., individuals or government, hence these costs should be avoided (Waddock & Graves, 1997). Academics who believe in a negative relationship between CSP and CFP (e.g., Preston & O'Bannon, 1997) draw their assumptions from Milton Friedmans (1970) shareholder maximization principle, a *neoclassical economic theory*, and stresses that these incurred costs would fall directly to the bottom line, reducing profits and thus shareholders wealth (Waddock & Graves, 1997). On the other hand, CSR activities like investments in eco-friendly technologies that save costs, avoid fines, and allow firms to set higher prices in the marketplace, are compatible with this view, as they present positive NPV (obviously maximizing shareholder value), and are not different to "*regular*" investments with positive NPV (Christensen et al., 2021).

The neutral view is explained by the thesis that the general situation of the company and society is too complex for being explained by a simple and direct relationship between CSP and CFP (Simpson & Kohers, 2002). Proponents of this line of thinking argue that there exist many intervening variables, that interfere in the CSP-CFP relationship, so one can simply not expect a relation to exist (Waddock & Graves, 1997). Further, this non-existent relationship is explained with a *supply and demand theory* argue that companies produce at a profit-maximizing level, including CSP production (Mackey et al., 2007). Thereby, each company supplies a different amount of CSP, to meet the unique demand it experiences (Simpson & Kohers, 2002). In other words, firms produce different amount of CSP, but as under profit-maximising condition, their profitability level is the same.

The positive view states that companies engaging in CSR activities increase profitability and create value for shareholders, pointing to positive and significant correlation between CSP and CFP in their analyses. This view builds on *instrumental stakeholder theory*, suggesting that satisfaction of various stakeholder groups is instrumental for corporations' financial performance (Jones, 1995; Jones & Wicks, 1999). Previous research shows that stakeholder theory is a key component of how SMEs frame their understanding of CSR (Jenkins, 2006).
This thinking suggests that companies view their stakeholders as playing an important role to assure revenue and profits (Wang et al., 2016). Engagement in CSR activities can enhance the financial benefits because CSP cultivates more cooperative, favourable, and lasting relationships with stakeholders (Zhao & Murrell, 2021). Satisfaction of stakeholders demands, including the resolution of ethical dilemmas (Jenkins, 2004), can help companies mitigate risks, enhance employee satisfaction, and corporate reputation (Orlitzky et al., 2003). It is, however, not well specified in the theory about how to make necessary trade-offs among the competing interests of different stakeholder. (Donaldson & Preston, 1995). SMEs and larger companies have different types of primary stakeholders. Dominant stakeholder for SMEs is normally a large customer company, which SME is financially tied to (Jenkins, 2004).

The perspective discussed above has also been identified as the *good management theory,* arguing that "*there is a high correlation between good management practice and CSP, simply because such domains improve relationships with key stakeholder groups, resulting in better overall firm performance*" (Waddock & Graves, 1997, p. 305). Employees are a key stakeholder group in terms of SMEs engagement into CSR activities, and specifically, enhanced employee relation is repeatedly emphasised in the literature (e.g., Jenkins, 2004) as an important part of the managements CSP engagement. Employees as a stakeholder group will be further discussed in the review section.

In addition to stakeholder and good management theory, *resource-based view* (RBV) is a theory often used to explain the level of firm engagement in CSR activities.
RBV was developed by researchers to explain what impact CSR can contribute to creating sustainable competitive advantage (Barney, 1991). RBV argues that companies possessing valuable resources such as for example human capital, cannot easily be duplicated or substitute for, hence they will outperform competitors lacking such resources, thus explains performance differences (Crook et al., 2011). Further, the RBV argue that firms gain competitive advantage by implementing value creating strategies derived from both, the acquisition of these valuable

resources, and their ability to integrate and deploy those resources as the basis for core organizational capabilities (Torugsa et al., 2013).

As stated earlier, most of the research on the link between CSP and CFP has been done in the context of large companies. SMEs possess several inherent characteristics, which may affect the way they approach CSR differently than larger firms, and whether CSR activities may give SMEs financial gains.

First, primary business strategy for SMEs is to allocate finite resources in a way that ensures short-term economic gain (Torugsa et al., 2013). Hence, SMEs have limited ability to engage in sustainability activities, that may pay off in the long run, even if such activities not necessarily add to the costs and fall directly on the bottom line. As this study investigates medium size companies, we emphasize that medium size differs extensively to smaller firms as well. Medium size firms will likely have characteristics far more suited for CSR engagement than smaller firms. One must remember the fact that medium size companies are the next ones to potentially be publicly listed. Hence, CSP is expected to have an impact on firm performance in medium-sized firms.

Second, managers characteristics play an important role in SME's approach to CSR. Owners of SME often have two roles, both self-owner and manager, which leads to one person having control over firm's resources and make decisions on how to allocate them. In addition, a high degree of responsibility for running daily operations and keeping business afloat, may leave less room for sustainability concerns than larger firms (Jenkins, 2006). It is managers personality that often determine if a firm is engaging in CSR, thus the firm's inherent features play a secondary role.

Stakeholder theory and resource-based theory can be used together, as resource-based theory also highlights the link between the orientation towards stakeholders and financial performance. Next, we give a review of prior findings in the literature and present the hypotheses accordingly.

## 3.4 Hypothesis development

Since Bragdon and Marlin (1972), acknowledged among researchers as the first study in the field, an enormous amount of CSR-literature has emerged. After decades of studying the relationship between CSP and CFP, empirical evidence is still undoubtedly inconclusive.

A number of studies have found evidence for a positive correlation between CSP and CFP (e.g., Cornett et al., 2016; Flammer, 2015; Herremans et al., 1993; Simpson & Kohers, 2002). Cornett et al. (2016) using ESG scores and accounting figures, find that in general, banks pursuing social reasonability activities appear to be rewarded for being socially responsible as ROE is positively and significantly related to CSR. Flammer (2015) find that passing of close call CSR proposals has a positive impact on operating performance[5], labour productivity and sales growth, arguing that that CSR proposals improve employee satisfaction and help companies cater to customers that are sensitive to sustainability activities. Furthermore, Orlitzky et al. (2003) find in a meta-analysis positive correlation between CSP and CFP, and Frooman (1997) collected 27 event studies and found negative reactions on stock market prices after illegalities, demonstrating a positive relationship between CSP and CFP.

Contradictory to the latter, Kitzmueller and Shimshack (2012) in a review article, refer to a number of studies finding no strong evidence that CSR has a positive impact on profitability. They are pointing to, among others, Margolis et al. (2009) who conducted a meta-analysis of 251 studies, finding a positive correlation between CSR performance and financial performance, but it is small in economic magnitude (as cited by Christensen et al., 2021, p. 1197).

Other studies find neutral CSR-CFP relationship (Lee et al., 2018; McWilliams & Siegel, 2001; Surroca et al., 2010; Zhao & Murrell, 2016). Surroca et al. (2010) argue that there is no direct relationship between the CSP and CFP, and the positive relationship between the two can be explained by mediating factors, such as intangible resources company acquires.

As noted earlier, omission of variables (Griffin & Mahon, 1997), measurement issues (McWilliams & Siegel, 2001) and bidirectional causality (Margolis et al., 2009; Waddock & Graves, 1997) are circumstances frequently highlighted as possible explanations for mixed and ambiguous results. For example, McWilliams and Siegel (2001) find no relation between CSP and CFP after adding R&D intensity variable to the equation. Despite mixed results, the majority of prior studies uncovered a positive association between CSP and CFP.

Derived from the stakeholder and resource-based theory (positive view), and findings in prior literature, we formulate the following hypothesis:

*H1: Sustainability activities measured with a total ESG-index have a positive effect on CFP.*

[5] Financial measures in terms of return on assets, net profit margin, and return on equity were used.

The mixed and ambiguous results discussed above can also reflect that the CSP-CFP relation differs across the dimensions of CSR (Atz et al., 2021). As we build our study on ESG-framework, it is necessary to investigate how each dimension affects financial performance.

*Green-based* competitive advantage is realized when a firm discovers (innovate) and then exploits Green activities that reduce costs, make processes more efficient, differentiate products, reduce waste, and eliminate regulatory violations (Arend, 2014).
However, implementing sophisticated management expertise and integration of supply chain activities often requires substantial resources. Hence, SMEs face more difficulties than larger enterprises in shaping environmental behavior beyond compliance (Arend, 2014). This argument is supported by NyAnalyse (2021), a survey conducted on behalf of the Norwegian Ministry of Climate and Environment, where barriers and possibilities for making the *Green Change* profitable were identified among SMEs. Lack of both financial and time resources and scarcity of competence are among the barriers found in the survey, that make the Green Change highly challenging for SMEs (NyAnalyse, 2021).

Orlitzky et al. (2003) finds a lower correlation between environmental indicators and CFP than social indicators do. However, one should be cautious to interpret too much from these findings, since Olitzky's meta-analysis was conducted 20 years ago, and that environmental issues, specifically in the wake of The Paris Agreement from 2015, have gained much more attention and concern than before. Contradictory to Orlitzky, Aragón-Correa et al. (2008) find a positive relation between corporate environmental performance (CEP) and CFP investigating Spanish SMEs.
In a large review paper, Friede et al. (2015)[6] show that a large majority of studies reports positive relationship between ESG overall and CFP, and highlight some meta-analyses (e.g., Albertini, 2013; Dixon-Fowler et al., 2013) finding significant positive relations for environmental dimension and CFP. Also Supporting positive results in a more recent study, investigating a large panel of Chinese listed firms in the period from 2010 to 2015, Hu et al. (2018) find that environmental CSR has a significant and positive effect on financial performance. These results support the next hypothesis of the study:

*H2a: Environmental activities have a positive effect on CFP.*

[6] Friede et al. (2015) combines more than 2200 studies in what they argue is by far the most exhaustive overview of academic research on this topic.

Studies find that employees show greater commitment to a company that has good reputation for supplying human capital, and such companies are often perceived by job seekers as an attractive employer (Wang et al., 2016). Thus, good employee relation, in for example emphasising the need of diversity in the workforce (e.g., women and minorities), might be expected to enhance morale, productivity, satisfaction, attitudes, and loyalty (Surroca et al., 2010; Waddock & Graves, 1997), which in turn should lead to lower turnover and absence due to sickness (Zhao & Murrell, 2021). Other tangible employee investments can be provision of childcare, flexible work hours and job sharing (Jenkins, 2004).

In line with the negative view, Brammer and Millington (2006), argue for evidence that SMEs face substantial difficulties in developing proactive social-related CSR due to lack of financial and human resources, hence SMEs may only be able to engage actively in a limited program of social-related CSR activities, or partly conduct such activities in short term, day to day operation (as cited by Torugsa et al., 2013). On the other hand, recent studies, Reverte et al. (2016) and Halme et al. (2020) show that social (and environmental) dimension have the greatest influence on financial performance. This is supported by Friede et al. (2015) pointing to human capital-focused meta-analyses (Combs et al., 2006; Crook et al., 2011) that find highly significant positive correlations between social-related CSR and CFP. Hammann et al. (2009) investigate in what way managers of German SMEs express CSR in day-to-day management practice towards selected stakeholder groups. They find that practices towards employees and customers, and to a less extent society, have positive impact on CFP. Based on the discussion above, we propose the third hypothesis:

*H2b: Social activities have a positive effect on CFP*

How companies integrate actions on economic responsibility concerns into its core business activities and decision-making processes is perceived by customers, suppliers, and other stakeholders as an indicator for ethical governance behaviour (Torugsa et al., 2013). The aim of such integration is perceived as going beyond legal requirements and short-term profit maximising to emphasise long-term economic performance issues, and the effective exploitation of market opportunities, as well as contribute to the society in respect of improvement of the standard of living (Reverte et al., 2016). Interestingly, Cornett et al. (2016) exclude corporate governance in their study investigating US banks around the years before

and after the financial crisis, pointing to other authors arguing it is different from CSR, as it deals mostly with shareholders, nor social objectives and other stakeholders.

Torugsa et al. (2013) found that economic-related (governance) CSR have a significant positive association with financial performance in SMEs, while social and environmental dimensions did not. Supporting this, Friede et al. (2015) find that of all governance-related studies, 62,3 percent have positive results, higher than environmental- and social-related studies with 58,7 and 55,1 percent. Drawing on these findings, the last hypothesis is:

*H2c: Governance activities have a positive effect on CFP.*

# 4. Methodology and Data

## 4.1 Survey

The article uses survey to capture companies' corporate social performance. In the survey managers of Norwegian SMEs were asked to state companies' engagement level in different ESG activities. Davidson et al. (2018) find that CEO fixed effects explain 59% of the variation in CSR scores, whereas firm fixed effects only explain 23%, thus, managerial characteristics play an important role in firms' CSR activities and reporting, hence strengthening the validity of our CSR data (cited by Christensen et al., 2021 p 1192).

Survey is the most common instrument to collect data from SMEs used in previous studies (e.g., Aragón-Correa et al., 2008; Brulhart et al., 2019; Gallardo-Vázquez et al., 2019; Torugsa et al., 2013). Survey is a data method which is optimal for approaching complex constructs such as CSP, where there is room for subjective interpretations. To avoid that managers misunderstand the essence of CSR, survey provides additional details, such as clear definitions and examples. (Arend, 2014). Our survey sets the concept of CSR in a context by explaining and defining it using ESG framework.

Survey questions are based on a Boston Consulting Group (BCG) survey (Kiron et al., 2013). The questionnaire is further tailored to fit non-listed companies, building on a survey by NyAnalyse (2021). CSR is defined in compliance with ESG framework, using social, environmental and governance dimensions. ESG is assessed with matrix questions, where respondents are asked to rate each aspect of the three ESG-dimensions using five-point Likert

scale, where 1 is "*not important*" and 5 is "*very important*". Likert scale is the most common method to formulate assessment type questions (Ringdal, 2018, p. 200).

First draft was sent to a test group consisting of two fellow students, supervisors of this thesis and a construction company. The feedback optimized the wording and tone of the questions, increasing validity of the survey. As recommended by Ringdal (2018), the survey was made more precise and shortened, to ensure that respondents completed the questionnaire.
An internet-based survey instrument[7] was used to construct the questionnaire in a digital format. It was then distributed by mail to companies in the sample. Five reminders to participate in the survey were sent to achieve a higher response rate, see table 1 below.

## 4.2 Data collection

We extract a sample of companies from Orbis database. As we are interested in examining CSR in SMEs in a Norwegian setting, criteria for our search are active private limited companies located in Norway. In addition, company's age is set to be minimum five years, to ensure that companies are relatively well established and have real growth in their accounts.
Norwegian Accounting Act's § 1-6 classifies as medium-sized companies that satisfy minimum two of the following three criteria: turnover of 70 million NOK or more, balance sheet total of 35 million NOK or more, and staff headcount of minimum 50 (Regnskapsloven, 1998). In terms of classification, the definition is harmonised with the EU directive, where a medium-sized company is defined as one with staff headcount between 50 and 250, and have either minimum €50 million in turnover, or a minimum balance sheet total of €43 million (European Commission, 2003). In our research we determine companies that meet two of the three definition criteria are medium-sized. By excluding the smaller companies and focusing on medium size we enhance heterogeneity in the sample. This allows us to draw our assumptions from stakeholder and resource-based theories, commonly used in the CSR-literature as reflecting a positive view on the relationship between CSP and CFP.

After applying these search filters, a sample of about 4681 companies is obtained. After removing companies with no e-mail address, and those with unavailable financial data, 2766 companies remained in the sample.

[7] This study used Nettskjema from UIO (University in Oslo) as it is a well-documented provider of email surveys in Norway.

Sample size decreased further, after survey was sent to a total of 2766 companies, and 358 of these have proceeded with the survey, giving response rate of 12.9%. This response rate is slightly below the average range of 15-20 percent, suggested by Menon et al. (1996). It is however, in line with range common in previous studies that conducted internet-based survey (Amel-Zadeh & Serafeim, 2018; Brulhart et al., 2019). Further, firms that provided missing responses were removed from the data set, together with firms that had extreme values in their financials. Additionally, we omitted observations of companies in bank and insurance industries, as they follow peculiar accounting policies. Final sample consisted of 336 companies, with a corresponding response rate of 12.2%.

**Table 1. Data collection process**

| **Invitations sent** | **Firms participated** |
|---|---|
| First invitation | 136 |
| Reminder 1 | 71 |
| Reminder 2 | 58 |
| Reminder 3 | 52 |
| Reminder 4 | 26 |
| Reminder 5 | 15 |
| **Total number of answers received** | **358** |

We test our hypotheses by estimating the following regression models:

$$Financial\_performance_i = \alpha_0 + \alpha_1 ESG_i + \alpha_2 Size_i + \alpha_3 Risk_i + \alpha_4 iGISC_i + \varepsilon_i$$

$$Financial\_performance_i = \alpha_0 + \alpha_1 SOC_i + \alpha_2 Size_i + \alpha_3 Risk_i + \alpha_4 iGISC_i + \varepsilon_i$$

$$Financial\_performance_i = \alpha_0 + \alpha_1 ENV_i + \alpha_2 Size_i + \alpha_3 Risk_i + \alpha_4 Industry_i + \varepsilon_i$$

$$Financial\_performance_i = \alpha_0 + \alpha_1 GOV_i + \alpha_2 Size_i + \alpha_3 Risk_i + \alpha_4 iGISC_i + \varepsilon_i$$

*where:*

$$Financial\_performance_i = ROA, ROE \text{ or } ROS$$

Answer alternatives in the survey are formulated and grouped in accordance with ESG framework. Anchoring the questions in a well adopted framework ensures validity of the survey (Aupperle et al., 1985). Classification and subcategories of the E, S, and G pillars may vary, as there are many different reporting standards and rating services[8]. In our survey, five

[8] See footnote 1 and 3 for a brief overview of independent rating services and reporting standards for non-financial information respectively.

aspects of each ESG dimension are drawn from classifications provided by MSCI (2020), and are repeatedly used in previous literature.

Three matrix questions (E, S and G) are developed, where each dimension (environmental, social and governance) is defined by five different concerns. Respondents rates each part using Likert scale. Average score of each E, S and G is calculated and encoded as independent index-variables *ENV, SOC, GOV* in the regression equation.

ESG variable is a total ESG index, that represents firms' overall sustainability engagement. The index is constructed by combining the three variables *ENV, SOC, GOV*, which represent different sustainability dimensions in the ESG framework.

Aacademics emphasize the importance of using multiple CFP variables in the analysis (Margolis et al., 2009), and argue that accounting figures are preferred over market derived figures, as the latter may reflect several dimensions than only FP (Griffin & Mahon, 1997). In our analysis, following Waddock and Graves (1997), we use the following financial measures: Return on Assets (ROA), Return on Equity (ROE), and Return on Sales (ROS). Due to recent covid-19 pandemic, possibly affecting the 2020 numbers, we chose to use average numbers over a 3-year period (2018 - 2020).
We choose to rely on accounting measures instead of using survey to obtain self-reported financial data, due to possible bias. Extracting financial data from a database allow us to obtain objective financial measures for several years. ROA is expressed as net income over total assets. ROE is a ratio between total net income and average total equity. Return on sales equals to EBIT over total sales. Following Zhao and Murrell (2016) and Grewal et al. (2021) we use Winsorize method to remove outliers at 1 and 99 percentiles. This study explores the relationship between CSP and CFP, where the financial performance variables are dependent variables in regression equations.

Mediating factors that are proven by various studies to influence the relationship between CSR and CFP include firm size, industry, type of marketing strategy, existence of research and development activity (Margolis et al., 2009). In this article size, industry, and risk are used as control variables, as there is extensive evidence in prior literature that there is a relationship between those factors and firm's CSP activities (Herremans et al., 1993; Waddock & Graves, 1997).

Firm size is defined as a natural logarithm of total assets. It is established by previous studies that larger firms are more socially responsible than smaller ones (Brammer & Millington, 2008; Waddock & Graves, 1997). Although our sample includes just the medium-sized companies, where size differences are not as prominent as when comparing listed and non-listed companies, we still expect difference in size to be influential on companies' CSP.

To control for firm risk, we use leverage, which is a debt to assets ratio, averaged for three years (2018 - 2020). Prior research (e.g., Peloza, 2009) underlines the importance of controlling for firm risk as it can influence the degree of CSP engagement. Many studies suggest a negative relationship between firm risk and CSP (Orlitzky & Benjamin, 2001; Zhao & Murrell, 2021).

Industry classification variable is used, as prior studies emphasise the importance of controlling for contextual factors. We control for industry-level factors, as industries differ in their profitability due to factors such as scale economy or competitiveness (McWilliams, 2001). Moreover, industries differ in their environmental impact. Belkhir et al. (2017) discuss environmental aspect of ESG within different industries, and explores whether GRI reporting leads to reduction in carbon emissions, thereby improving companies' sustainability performance. Belkhir et al. (2017) use GISC industry classification, developed by Standard & Poor's Financial Services LLC and MSCI (S&P Global, 2018). Following Belkhir et al. (2017), we use GISC industry classification and introduce *i.GISC* variable when controlling for industry fixed effects.

Belkhir et al. (2017) further identify four industries that have the largest volumes of carbon emissions, these are: materials, utilities, energy, industrials. Following the study, we create a dummy variable *Industry*, which takes a value of one if a firm belongs to industries with large carbon footprint, and a value of zero otherwise. The dummy is used in regressions that explored relationship between environmental dimension and financial performance. All the other regression models include control for industry fixed effects using GISC industry classification (*i.GISC* variable).

We emphasize that, GISC classification seems to divide industries based on the final consumer of the product, rather than underlying environmental impact. For example, construction is divided by residential and non-residential construction, when the environmental impact of building activity is arguably the same. This paper focuses on sustainability activities, and

therefore doesn't differentiate between types of construction. Another adjustment to the original GISC classification is that administrative and consulting services are excluded from industry category, as their environmental impact differs from heavy industries.

Table 2 in appendix provides a summary and explanation of all variables used in regression models.

## 5. Analysis and Results

Table 3 presents descriptive statistics for all variables. According to the index, the largest possible ESG score is 15, and the largest possible score for each of E, S, and G dimensions is 5. Some companies assigned the highest score for both the total ESG, and each of the three dimensions.

Firms showed lowest engagement in governance dimension with minimum value of 0.8, and the next lowest for environmental with 1.2, while minimum value assigned to social dimension was 6. Mean value shows that firms on average assigned the most importance to social dimension with 4.18, and environmental dimension was almost as important with 4.11. Governance has an average of 3.94. Total ESG score has a relatively high mean 12.23. Overall, judging by mean values, there is not a great difference in how much importance managers assign to each ESG dimension.

**Table 3. Descriptive statistics**

| Variable | n | Mean | Median | Std. Dev. | Min | Max |
|---|---|---|---|---|---|---|
| ROA | 336 | 7.247 | 6.508 | 7.322 | -11.970 | 26.827 |
| ROE | 336 | 21.254 | 17.227 | 34.017 | -126.733 | 132.588 |
| ROS | 336 | 0.088 | 0.050 | 0.139 | -0.127 | 0.843 |
| ESG | 336 | 12.237 | 12.4 | 1.589 | 6 | 15 |
| SOC | 336 | 4.182 | 4.2 | 0.513 | 2 | 5 |
| ENV | 336 | 4.111 | 4.225 | 0.768 | 1.2 | 5 |
| GOV | 336 | 3.943 | 4 | 0.710 | 0.8 | 5 |
| Size | 336 | 12.006 | 11.733 | 1.264 | 9.963 | 18.100 |
| Risk | 336 | 0.556 | 0.565 | 0.201 | 0.064 | 0.978 |
| GISC | 336 | 9.104 | 10 | 3.155 | 1 | 14 |
| Industry | 336 | 0.642 | 1 | 0.479 | 0 | 1 |

Table 4 presents Pearson correlations between all variables. Financial performance variables *ROA* and *ROE* have a strong positive correlation (with a value of 0.77). Financial performance variables are used as dependent variables in three separate regression models, and multicollinearity problem is therefore not relevant for these variables.

Variables related to ESG dimensions, *SOC, ENV, GOV* have strong positive correlations (with values over 0.74) with the total ESG score. The *SOC*, *ENV* and *GOV* variables are moderately positively correlated with each other (with values between 0.41 and 0.48). As each of the variables that represent sustainability is used in separate regression equations, there is no concern about multicollinearity issues.

Control variable *Size* has a moderate positive correlation with *ROS* (0.47), and weak positive correlation with *ROA*, while correlation with *ROE* is not significant. Leverage ratio (*Risk*) has weak positive correlation with *ROE*, and moderate negative correlation with ROS, with values 0.16 and - 0.30. Control variables related to industry classification have no significant correlation coefficients with other dependent or independent variables.

When it comes to median values used in the additional analysis, *ENV_median* and *GOV_median* variables have moderate positive correlation with *ESG_median* variable. As mentioned earlier, all ESG-related variables are used in separate equations, and there is no multicollinearity issue.

There is somewhat high negative correlation between control variables *Size* and *Risk* (value of -0.30). This may indicate that when company size increases, leverage ratio decreases, causing a multicollinearity problem. Variance Inflation Factors (VIF) are used in all the 24 regression models to test for multicollinearity. When VIF values are over 5, it is a sign of multicollinearity (Hammervold, 2020, p. 116). All the VIF values are under 5 in our dataset, which means there is no multicollinearity problem.

**Table 4. Correlation matrix**

| Variables | (1) | (2) | (3) | (4) | (5 | (6) | (7) | (8) | (9) | (10) | (11) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) ROA | 1.000 | | | | | | | | | | |
| (2) ROE | 0.7709* | 1.000 | | | | | | | | | |
| (3) ROS | 0.3505* | 0.253* | 1.000 | | | | | | | | |
| (4) ESG | -0.062 | -0.038 | 0.055 | 1.000 | | | | | | | |
| (5) SOC | 0.016 | -0.012 | 0.070 | 0.739* | 1.000 | | | | | | |
| (6) ENV | -0.080 | -0.043 | 0.001 | 0.838* | 0.479* | 1.000 | | | | | |
| (7) GOV | -0.064 | -0.029 | 0.071 | 0.796* | 0.412* | 0.447* | 1.000 | | | | |
| (8) Size | -0.122* | -0.064 | 0.475* | 0.177* | 0.120* | 0.105* | 0.195* | 1.000 | | | |
| (9) Risk | -0.074 | 0.165* | -0.305* | -0.063 | -0.056 | -0.033 | -0.064 | -0.304* | 1.000 | | |
| (10) GISC | -0.058 | -0.062 | 0.091* | 0.040 | 0.109* | 0.036 | -0.028 | 0.201* | -0.044 | 1.0000 | |
| (11) Industry | -0.058 | -0.072 | -0.098* | -0.022 | 0.040 | 0.053 | -0.137* | 0.040 | 0.043 | 0.687* | 1.000 |

**Pearson correlation coefficients that are significant on at least 10% level*

## 5.2 Regression results

The study uses OLS regressions with industry fixed effects to test the relationship between financial performance and firms ESG activities. Recalling the discussion from the literature on the CSP-CFP link, arguments could provide support for either positive, neutral, or negative relationship. Our empirical analysis suggests a neutral relationship between sustainability activities and firm performance after controlling for size, industry, and risk.

Table 5 presents results from testing hypothesis 1. Dependent variables *ROA, ROE, ROS* represent firms' financial performance. Independent variable (*ESG*) is ESG-index, that represents the overall self-reported level of sustainability activities. *ESG* has negative, but insignificant effect on all three financial performance variables, with corresponding coefficients -0.13, -0.25, and -0.002, for *ROA, ROE*, and *ROS* accordingly.

As for control variable coefficients, each of financial performance variable has a different result. Variable *Size* is significantly and negatively associated with ROA, and significantly, but positively associated with ROS. When *Size* increases with one unit, *ROA* drops with 0.74, while *ROS* increases with 0.03. *Risk* has significant negative relationship with ROA and ROS, but significantly positive association with *ROE*. In the regression model with dependent variable *ROE*, coefficient for *Risk* is quite high (26.78). This can be due to a strong underlying relationship between companies' debt and *ROE*. Companies with more stable performance allow for more debt, and that enhances *ROE* (Herremans et al., 1993).
The results in table 5 indicate that hypothesis 1 should be rejected, as there is no significant relationship between either of the financial variables and the ESG variables.

**Table 5. The effect of ESG-index on financial performance (H1)**

| | ROA | ROE | ROS |
|---|---|---|---|
| ESG | -0.135 | -0.258 | -0.002 |
| *Control variables:* | | | |
| Size | -0.741* | -0.226 | 0.031*** |
| Risk | -5.068** | 26.78*** | -0.118*** |
| i.GISC | Yes | Yes | Yes |
| $R^2$ | 0.104 | 0.086 | 0.351 |
| n | 366 | 366 | 366 |

**Significant on 0.1, **significant on 0.05, ***significant on 0.01*

Table 6 presents results for several regressions, where influence of each ESG dimension on financial performance is predicted. The results show that there is no significant relationship between E, S, and G, and firms' financial performance. Environmental dimension of ESG (*ENV*) has a moderate negative relationship with ROA and ROE, with corresponding values of -0,63 and -1,45, and a weak negative relationship with ROS, with a value of -0,008. When *SOC* increases with 1, ROA and ROE increase with 0,39 and 0,35 accordingly, while ROS has a small increase of 0,01. Governance index has a negative association with firms' financial performance. One point increase in *GOV*, leads to 0,61 reduction in ROA, and 2,45 reduction in ROE, while ROS decreases insignificantly with 0,004.

Variable *size*, showing firms size as log of total assets, has a different association with financial performance, depending on financial performance measure. *Size* has a negative significant relationship with *ROA* in regressions with both *ENV*, *SOC*, and *GOV* as independent variables. Companies with greater amount of assets, seem to have lower *ROA*. On the other hand, size has a positive significant relationship with *ROS*, indicating that larger companies have better returns on sales. *Risk*, represented by leverage ratio, has a significant negative relationship with *ROA* and *ROS* in all the regression models. Firms that carry higher risk have lower *ROA* and *ROS* ratios, than their lower risk peers.

In the regression model exploring the effect of environmental aspect on financial performance, an industry dummy variable is used. Industry has a negative, significant association with *ROS*, with a coefficient of -0.03. This indicates that firms that operate in industries with high CO2 levels have -0.03 lower turnover (ROS) than firms with lower CO2 emissions.

**Table 6. ESG dimension's effect on financial performance (H2a, H2b, H2c)**

| | ROA | ROE | ROS |
|---|---|---|---|
| *Independent variable:* ENV | -0.636 | -1.451 | -0.008 |
| *Control variables:* | | | |
| Size | -0.868** | -0.213 | 0.047*** |
| Risk | -4.399* | 27.913** | -0.118*** |
| Industry | -0.660 | -5.500 | -0.030** |
| $R^2$ | 0.035 | 0.034 | 0.268 |

| | | | |
|---|---|---|---|
| *Independent variable:* SOC | 0.394 | 0.349 | 0.004 |
| *Control variables:* | | | |
| Size | -0.783* | -0.295 | 0.030*** |
| Risk | -5.056** | 26.798** | -0.118*** |
| GISC | Yes | Yes | Yes |
| $R^2$ | 0.104 | 0.086 | 0.350 |
| *Independent variable:* GOV | -0.614 | -2.455 | -0.011 |
| *Control variables:* | | | |
| Size | -0.700* | 0.001 | 0.0317*** |
| Risk | -5.007** | 27.04** | -0.117*** |
| GISC | Yes | Yes | Yes |
| $R^2$ | 0.106 | 0.088 | 0.353 |
| n | 366 | 366 | 366 |

**Significant on 0.1, **significant on 0.05, ***significant on 0.01*

## 5.3 Additional analyses

As mentioned earlier, the relationship between financial performance and sustainability could be influenced by a causality problem. Previous studies (e.g., Surroca et al., 2010; Waddock & Graves, 1997) present extensive evidence that CSP – CFP relationship is based on voluntary choices and is not of a causal nature, hence superior financial performance can lead to enhanced CSR engagement. In other words, it is challenging to prove that being sustainable leads to financial gains for, and not the other way around.

To address the causality problem in our study, we construct a new group of variables, where each variable is yielded by splitting the initial variable into two groups, below and above its median value. Variables that are above median get a value of 1, they represent a group with high degree of sustainability activities. Variables with a value under median have a value of 0 and represent a group with a low sustainability activity. A new set of sustainability variables emerges: *ESG_median, SOC_median, ENV_median, GOV_median.*

Table 7 presents the effect that adjusted total ESG has on financial performance. *ESG_median* has insignificant, but positive effect on both ROA (with a value of 0.062) and ROE (with a value of 1.633). *ESG_median* has insignificant negative effect on ROS (with a value of -0.007). Table 8 presents regression results for relationship between adjusted E, S, and G indexes, and

financial performance. *ENV_median* has an insignificant negative relationship with financial performance variables, with -0.61 regression coefficient for ROA, -1.34 for ROE, and -0.01 for ROS. *SOC_median* has an insignificant positive relationship with ROA and ROS, with values of 0.64 and 0.001, while having insignificant negative relationship with ROE (with a value of -0.71). *GOV_median* has an insignificant negative effect on ROA (regression coefficient -1.04), ROE (coefficient -0.16), and ROS (coefficient -0.01). In all the regressions, coefficients for independent variables are not significant. Although sustainability related variables were transformed, additional analyses confirmed results of the main analysis. There is still no significant relationship between these and financial performance variables.

**Table 7. The effect adjusted ESG-index has on financial performance (H1)**

| | ROA | ROE | ROS |
|---|---|---|---|
| ESG_median | 0.062 | 1.633 | -0.007 |
| *Control variables:* | | | |
| Size | -0.775* | -0.366 | 0.030*** |
| Risk | -5.062** | 27.010** | -0.119*** |
| i.GISC | Yes | Yes | Yes |
| $R^2$ | 0.103 | 0.086 | 0.351 |
| n | 366 | 366 | 366 |

**Significant on 0.1, **significant on 0.05, ***significant on 0.01*

**Table 8. Adjusted ESG dimension's effect on financial performance**

| | ROA | ROE | ROS |
|---|---|---|---|
| *Independent variable:* ENV_median | -0.615 | -1.343 | -0.018 |
| *Control variables:* | | | |
| Size | -0.896** | -0.276 | 0.047*** |
| Risk | -4.423** | 27.861** | -0.119*** |
| Industry | -0.751 | -5.704 | -0.032* |
| $R^2$ | 0.032 | 0.034 | 0.2700 |
| *Independent variable:* SOC_median | 0.640 | -0.717 | 0.001 |
| *Control variables:* | | | |
| Size | -0.796* | -0.257 | 0.030*** |
| Risk | -4.933** | 26.630** | -0.118*** |
| GISC | Yes | Yes | Yes |
| $R^2$ | 0.105 | 0.086 | 0.350 |

| | | | |
|---|---|---|---|
| *Independent variable:* GOV_median | -1.049 | -0.168 | -0.016 |
| *Control variables:* | | | |
| Size | -0.687* | -0.271 | 0.031*** |
| Risk | -5.036** | 26.79** | -.118*** |
| GISC | Yes | Yes | Yes |
| $R^2$ | 0.107 | 0.086 | 0.356 |
| n | 366 | 366 | 366 |

**Significant on 0.1, **significant on 0.05, ***significant on 0.01*

## 6. Discussion and Conclusion

This study explored the relationship between corporate social responsibility and corporate financial performance in medium-sized, private companies in Norway. We build on stakeholder theory and resource-based theory, and existing literature in this field. Further, we argued that excluding small companies from the sample, focusing exclusively on medium size would allow us to base our reasoning on these theories and expect a positive relationship between CSP and CFP.

Our regression analyses uncover that companies with higher levels of CSR activity do not systematically outperform or underperform their peers financially. Contradictory to our hypotheses, this study shows that CSR has a neutral effect on profitability. Our findings are consistent with previous papers conducted on large companies (Aupperle et al., 1985; Lee et al., 2018; McWilliams & Siegel, 2001; Surroca et al., 2010) that found evidence for no relationship between the two. On the other hand, results from our analyses are generally not in line with previous SME studies, that mainly found a positive link between CSP and CFP, although there are some similarities in the findings.

Our results partially agree with Torugsa et al. (2013) finding no direct relationship between social and environmental dimensions of proactive CSR, and CFP. However, contrary to our study, that showed no significant relationship with the total ESG index, they find positive relationship between interaction term for all three ESG variables. It must be noted that Torugsa et al. (2013) used an economic dimension encompassing issues that differs from the governance dimension based on the ESG framework used in this study. Hence, it may be a plausible explanation for the conflicting results. Moreover, Torugsa et al. (2013) draws on RVB theory, suggesting that organisational capabilities encourages financial performance. Neutral results in

our sample may suggest that there is a potential for firms to identify unique capabilities and implement strategies that develop and take advantage of those capabilities, as RVB theory suggests, to enhance financial performance, while sustaining the same high level of CSR-engagement.

Despite showing mixed results, Arend (2014) emphasises that making a business case of CSR is possible for SMEs, showing that several CSR-related competitive advantages have a positive correlation with financial performance. Again, contradictory to our findings, Arends suggestion is supported by Brulhart et al. (2019) and Aragón-Correa et al. (2008), both find positive relationship between the environmental dimension and financial performance. A possible explanation may be that Aragón-Correa et al. (2008) conduct a single dimension study, focusing solely on environmental issues, collecting a wide range of data including 23 systematic and coordinated eco-friendly practices, while we collect more general environmental data which is suitable for constructing a total ESG index. Brulhart et al. (2019) introduce *Innovation and R&D investment* as a control variable in the model. Moreover, some subcategories used in his environmental dimension, are issues we classified in social and governance dimensions.

It must be highlighted that the SME papers discussed have all used structural equation modelling. It's not the purpose of this study to discuss the latter in detail, other than stating that SEM is a technique not proving the causality (Torugsa et al., 2013). Neutral results can further be explained by methodological issue. Previous studies that investigated CSP - CFP relationship in SMEs relied on self-reported measures of both CFP and CSP, which have a subjective character. We used objective accounting figures as CFP measures. This may explain why our results differ from SME studies relying on subjective firm performance measures collected in surveys. Further, SME's major stakeholders are often large companies, being a vital customer. Hence, in line with stakeholder theory, large firms determine the nature and extent of CRS activities smaller firms must engage in. When a large company deems the smaller firms (in their supply chain) CSR engagement as sufficient, they won't supply CSR beyond such requirements (Bergmann & Posch, 2018). This may explain why the survey showed overwhelmingly high level of CSR activities. (See table 7 in appendix, for a review of ESG scores).

To round up the discussion and conclude on our research question, **can SMEs make a business case of CSR?** The answer is no, or at least not for the moment. Our neutral results support the supply and demand theory, to the extent where we follow Jenkins (2004) thinking, that SMEs are not big little firms, reasoned by their characteristics.
With fewer resources available, they will only be able to supply the expected or required social and environmental responsibilities from a few vital stakeholders, simply to stay in business, otherwise they will be forced out of the market. Our finding is also to a certain degree consistent with the stakeholder theory, e.g., "*that it predicts that certain forms of moral behavior will not be penalized, at least in long run*" (Jones & Wicks, 1999, p. 210). This implies that SME managers or self-owners have little reasons for not engaging in CSR activities.
In addition, our empirical evidence strongly supports NyAnalyse (2021), showing that SMEs are facing big challenges and barriers, such as lack of financial resources and knowledge, striving to make the green change profitable. This is in line with common assumptions in the SME literature.

This study contributes to CSR literature in several ways. First, considering that little research has previously been exploring the relation between CSR and CFP in SMEs in Norwegian context, our data sample gives a unique insight into sustainability activities of these firms. This information may be useful for policy makers that develop sustainability reporting frameworks for private firms, but also managers and self-owners learning that our neutral results provide evidence for no tradeoff between CSR activities and financial performance. Managers should put effort in creating and implementing strategies that exploit their unique capabilities turning into a competitive advantage, possibly resulting in financial gains. Furthermore, our research also contributes to the supply and demand view by showing that this perspective may be relevant for SMEs' competitive strategies generally.

Although business case of CSR for SMEs finds different responses in academic literature, from extremely positive to negative, and depends on many factors, doing good must be a priority, and not a burden especially for small businesses. As CSR engagement do not boost financial performance, other motivations, besides owner-managers moral compass could be implemented. Authorities can create various incentives, e.g., subsidies, to cherish firms that sought to take a greater part of the sustainable development.

Several limitations are to be addressed in this study. First, generalizing difficulties from sample to population, and to other economies must be considered. The size criteria defining SMEs in this study (Norway) and in EU and other large economies (e.g., USA) differs, thus financial resources and stakeholder groups importance most likely differs as well. Even though we addressed the causality problem in our additional analyses, such issue must be considered as limitations.

Although a sample size of 336 is sufficient regarding survey as a data collection method, it might not be representative for the whole population of SMEs in Norway. There is always a possibility that managers taking time to participate in the survey are weighing sustainability issues more important than other managers who chose not to reply, resulting in selection bias (Amel-Zadeh & Serafeim, 2018). Further, the ESG criteria used in our survey might be emphasized differently by larger companies than by SMEs, thus resulting in other ESG scores. However, we build our survey in line with previous CSR research that focused on large companies, reasoned by the fact that our sample consists of medium-sized companies, and that many of these firms, to a certain degree, have similar characteristics as large and listed companies.

As the answers to matrix questions were surprisingly concentrated around 4 and 5 (strong), a wider scale, 7 point instead of 5 point Likert scale in line with e.g., Bergmann and Posch (2018), might have given a higher spread and a true degree of SME's involvement in CSR activities. Moreover, the questionnaire could have been constructed using forced-choice design, following Aupperle et al. (1985), where survey questions were put in randomized order, and participants were forced to priorities one option over the other. This way one could achieve a better understanding of how the three dimensions of CSR are prioritised. However, a 5-point Likert scale is a well-established measuring method for survey questions. It provides nuance needed to construct an index variable, which is suitable to analyse a phenomenon like CSR.

Future research can replicate this study, exploring the development of CSR activities and relationship with financial performance. A replication would also allow researchers to control for the direction of the causality (e.g., Waddock & Graves, 1997), by using financial figures lagging after our survey data. In addition, there is a potential to collect more data from SMEs, in order to construct other control variables, representing R&D or innovation, as conducted by McWilliams and Siegel (2001) on large firms. Another interesting opportunity is to extend the time period for surveying, allowing researchers to explore differences across various industries or in-depth analysis of one single industry, e.g., construction industry. There is also a possibility

to look at the employees as an isolated stakeholder group, for example develop independent variable based on employee survey. The same could be done with other stakeholders e.g., most important customers.

Finally, we suggest future study to investigate medium-sized firms' reporting of non-financial information, and whether reporting beyond the formalized criteria in Norwegian Accounting Act's §3-3c can be related to firm performance.

# Appendix

| Table 2. Description of variables | | |
|---|---|---|
| **Variable** | **Description** | **Measurement** |
| **Dependent variables:** | | |
| ROA | Return on assets, averaged for 3 years (2020 - 2018) | Thousand NOK |
| ROE | Return on equity, averaged for 3 years (2020 - 2018) | Thousand NOK |
| ROS | Return on sales, averaged for 3 years (2020 - 2018) | Thousand NOK |
| **Independent variables:** | | |
| ESG | Predisposition of the three parts of sustainability, E, S and G. | Likert scale, where 1 – not important, 5 – very important. Average each answer, then sum to get a total ESG |
| SOC | Attitude towards the social part of sustainability (ESG), based on survey inquiry | Likert scale, where 1 – not important, 5 – very important. Answers then averaged for each company |
| ENV | Attitude towards the environmental part of sustainability (ESG), based on survey inquiry | Likert scale, where 1 – not important, 5 – very important. Answers then averaged for each company |
| GOV | Attitude towards the governance, as a part of sustainability (ESG), based on survey inquiry | Likert scale, where 1 – not important, 5 – very important. Answers then averaged for each company |
| **Control variables:** | | |
| Industry | GISC industry classification | Variable takes a value of 1 if industry has high level of CO2 emissions, and 0 otherwise. |
| Size | Natural logarithm of total assets, averaged for 3 years (2020 - 2018) | Ratio |
| Risk | Leverage = current liabilities/total assets, averaged for 3 years (2020 - 2018) | Ratio |

| Table 7. Questionnaire used in the study | | |
|---|---|---|
| | **Questions** | **Answer mean value** |
| **1** | **How important are the following environmental factors to your company?** | |
| | Energy efficiency | 4,31 |
| | Reduction of pollution | 4,32 |
| | Waste management | 4,44 |
| | Optimal water usage | 3,34 |
| | Effective and sustainable supply chain | 4,14 |
| **2** | **How important are the following social factors to your company?** | |
| | Employee health and safety | 4,90 |
| | Local community health and safety | 4,26 |
| | Charitable donations to local community | 3,20 |
| | Employee training | 3,94 |
| | Employee rights | 4,62 |
| **3** | **How important are the following factors related to governance to your company?** | |
| | Executive pay | 3,18 |
| | Prevention of corruption | 4,56 |
| | Legal regulations and risks | 3,92 |
| | Effective internal control | 4,39 |
| | Women in leadership positions | 3,67 |

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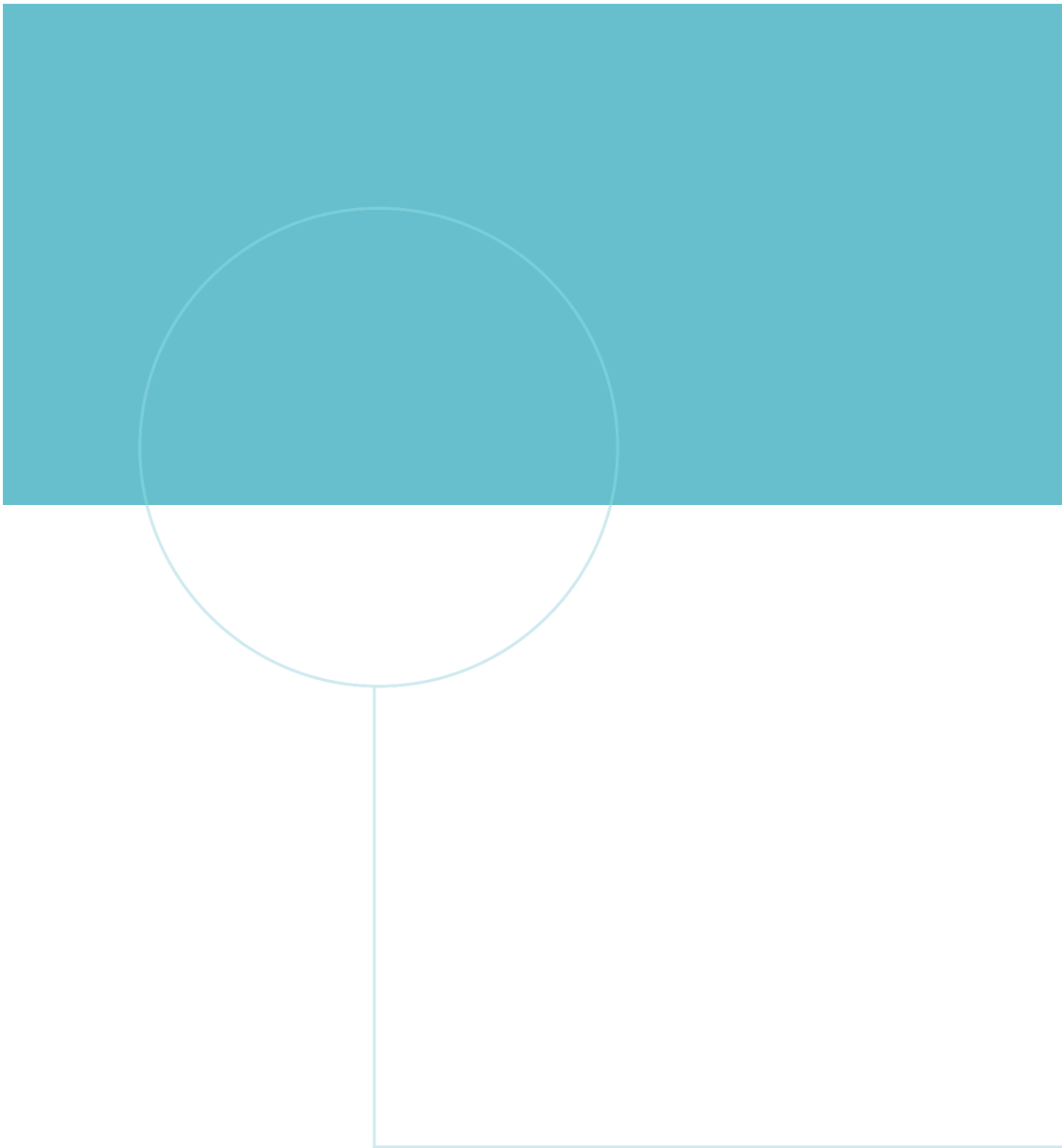

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