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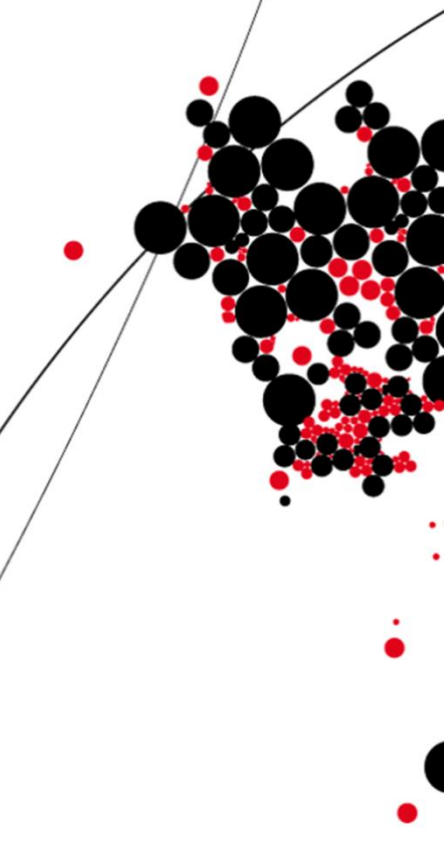
Faculty of Behavioural, Management and Social sciences

The moderating role of ownership and board structure in the effect of corporate social responsibility on firm performance



Master Thesis

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Abstract

Engaging in corporate social responsibility (CSR) activities can be a costly investment for firms and it is not guaranteed that it leads to a better firm performance. Several researchers indicate that there are missing elements that have a mediating or moderating role in this relationship. This study investigates the moderating role of ownership and board structure in the effect of CSR on firm performance. In more detail, three ownership structures (ownership concentration, managerial ownership and institutional ownership) and two board structures (board size and board independence) are examined. An ordinary least squares (OLS) regression analysis is conducted analyzing a sample of Dutch listed firms. Results find no consistent evidence that CSR activities lead to a better firm performance, neither that ownership or board structures moderate this relationship. However, other interesting results emerged which need further research to assess the validity and consistency of these results. This study mainly contributes to the scarce research that has been conducted in the Dutch context on this topic and the moderating role of corporate governance in the effect of CSR on firm performance.

Keywords: corporate social responsibility (CSR), firm performance, corporate governance, ownership structure, board structure, The Netherlands.

Table of contents

1. Introduction

1.1 Background information

Over the past decades corporate social responsibility (CSR) has witnessed increased attention from customers, employees, investors, suppliers and governments across the world. Recent public scandals like the dangerous labor conditions for clothing workers of H&M and Walmart in Bangladesh (2013), Volkswagen's emission cheating scandal (2015) and the fipronil egg scandal in The Netherlands (2016) have brought this topic back to light. Society not only expects that firms are doing well for their own business, but also carry a social responsibility towards the community and the environment they operate in. Customers' decisions are based on a larger extent on social grounds, such as choosing to work for or buy from firms that positively impact the society. As a result of this, many firms these days include CSR statements in their annual reports or website, mention CSR in their marketing strategy, or even consider CSR when setting their strategic goals.

CSR has a longstanding history which goes back into the 1950s where economist Howard Bowen formulated the first definition of the concept. In his book *Social Responsibilities of the Businessmen*, Bowen (1953) states that corporate social responsibilities are *''the obligations of businessmen to pursue those policies, to make those decision, or to follow those lines of actions which are desirable in terms of the objectives and values of our society''* (p. 6). His ideas focus on the managers (businessmen) within a firm to perform actions which are desirable for society. In 1979 business scholar Archie Carroll developed one of the most popular definitions of CSR, describing it following four responsibility categories: economic, legal, ethical and philanthropic. In more recent literature McWilliams and Siegel (2001) state that CSR is related to the multiple stakeholders that have an influence on the decision of managers to devote resources to CSR. They define CSR as actions that appear to further some social good, beyond the interest of a firm and that which is required by law. Up to today, there still exists no universal definition of CSR among scholars and academics. Although there is still no consensus about the definition of CSR, it generally refers to organizations serving people, communities, and the environment in ways that go beyond what is legally required (Jo & Harjoto, 2012). Examples of this may be the use of environmentally friendly materials, working closely with community organizations or donating to charities.

Since CSR has received increased attention it is important to look at the question whether CSR can enhance firm value, or whether it only satisfies stakeholders at the expense of long-term wealth creation (Ding, Ferreira & Wongchoti, 2016). This longstanding question in business research still remains unclear. Many scholars have tried to examine this link and seem to be divided on the relationship between CSR and firm performance, although a positive link with firm performance or value receives more support (Orlitzky, Schmidt & Rynes, 2003; Margolis, Elfenbein & Walsh, 2009). Other researches in the topic of CSR found that CSR enhances the reputation of a firm, reduces firm risk and enhances revenue (Ding et al., 2016).

1.2 Research proposition

Engaging in CSR activities can be a costly investment for firms and, as mentioned before, it is not guaranteed that it will lead to a better firm performance. Although a large number of studies have investigated the relationship between CSR and firm performance, the mechanisms underlying the effects of this relationship have not been examined much. Margolis and Walsh (2003) indicate that

differences in the results on the relationship between CSR and firm performance may be due to missing elements that have a mediating or moderating role on the relationship.

Based on this, Surroca, Tribó and Waddock (2010) state that previous empirical finding of positive relationships between social activities and firm performance may be spurious. They find that intangible resources mediate this relationship. In addition to this, Aguinis and Glavas (2012) state that there seems to be a lack of understanding about the underlying mechanisms linking CSR with its outcomes. They argue that the literature extensively focuses on why organizations engage in CSR, what the results are and under which conditions the results are likely to happen. However, research needs to be conducted to help us understand the process and underlying mechanisms in the relationship between CSR and its outcomes. Saeidi, Sofian, Saeidi, Saeidi and Saaeidi (2015) also agree that the direct relationship between CSR and firm performance seems to be spurious and imprecise because of many factors influencing this relation. They find evidence that the relationship is fully mediated by a company's reputation and competitive advantage.

One of the mechanisms that is not extensively examined in the relationship between CSR and firm performance is the effect of corporate governance. Corporate governance focuses on the relationships between the organization and their stakeholders, or between the organization and society (Liu & Zhang, 2017). It also relates to how an organization is directed and controlled. When an organization incorporates high levels of corporate governance then it could safeguard stakeholders' rights and ensure social responsibility. Good corporate governance could prevent the organization from unlawful acts or short-term behavior and firms would be more likely to disclose social responsibility information to the public, disclosing corporate achievements and attracting more investors (Khan, Muttakin & Siddiqui, 2013). Therefore, effective corporate governance mechanisms could ensure that organizations undertake CSR actions.

Despite the important roles that CSR, corporate governance and firm performance play in financial research, the relationship among them is still unclear (Harjoto & Jo, 2011). Khan et al. (2013) agree with this as they state that corporate governance and CSR are well-researched areas, however less attention has been given to the link between the two. Some studies have tried to find a relationship between corporate governance, CSR and firm performance, for example in the U.S. (Harjoto & Jo, 2012), Bangladesh (Khan et al., 2013) and China (Lau, Lu & Liang, 2016; Liu & Zhang, 2017). However, these studies didn't examine corporate governance as a moderating factor that is influencing the effect of CSR on firm performance. Prior studies that examine moderating factors find that ownership concentration (Peng & Yang, 2014), gender diversity of the board (Isidro & Sobral, 2015), foreign ownership, board size and board independence (Kabir & Thai, 2017) influence the effect of CSR on firm performance. However, more research needs to be conducted in different contexts to further understand the role of corporate governance in this relationship.

Within corporate governance there are many factors that can influence how an organization is directed and controlled. This study examines the factors ownership structure and board structure of corporate governance. Firstly, the reason to include ownership structure as corporate governance mechanism is because the nature of corporate governance problems importantly varies by ownership structure (Claessens & Yurtoglu, 2013). The owners (shareholders) have voting right, which enables them to vote on corporate issues and therefore ultimately control the firm. Different ownership structures result in agency problems between shareholders and managers. For example,

managers may act in self-interest which goes at the cost of value-enhancing activities for shareholders. Secondly, the reason to include board structure as corporate governance mechanism is because different board structures can ensure knowledge, personal ties and legitimacy. Board members can provide critical resources which can be vital for the firm's survival or growth. The board, consisting of a supervisory and a management board, appoint executive managers, decide upon the firm's strategy and run the day-to-day operations of the firm (Kabir, Cantrijn & Jeunink, 1997). Therefore, they play an important role in the business.

Based on the above, there are two main reasons for this study. First, the direct relationship between CSR and firm performance is imprecise due to underlying mechanisms that influence this relationship (e.g. Aguinis & Glavas, 2012; Margolis & Walsh, 2003; Saeidi et al., 2015; Surroca et al., 2010). Second, the relationship among CSR, corporate governance and firm performance remains unclear (Harjoto & Jo, 2011; Khan et al., 2013). Therefore this study intends to examine whether corporate governance has a moderating role in the effect of CSR on firm performance. This leads to the following research question:

''*Is there a moderating role of ownership structure and board structure in the effect of corporate social responsibility on firm performance for Dutch listed firms?*''

This study mainly contributes to the literature in two ways. The first contribution comes from the finding that although a large number of studies have examined the relationship between CSR and firm performance, less attention has been given to the role of corporate governance mechanisms. Good corporate governance could prevent managers to engage in unlawful acts or short-term behavior and firms would be more likely to undertake CSR actions that can increase their firm performance (Khan et al., 2013). This study examines whether ownership and board structures can facilitate managers to invest in CSR activities that increase firm performance. In more detail, the ownership structures that are examined are ownership concentration, managerial ownership and institutional ownership; whereas the board structures that are examined focus on board size and board independence. Prior studies have not examined these structures or examined the structures in other contexts than the Dutch. The second contribution of this study is that it brings evidence for the Dutch context. To the best of my knowledge, only scarce research has been conducted to examine the moderating role of ownership and board structure in the effect of CSR on firm performance for Dutch firms. A similar study has been conducted for Vietnamese firms and therefore this study can assess whether these results hold for a developed country like The Netherlands.

1.3 Study structure

The structure of this study is as follows, chapter 2 contains a literature review to get a better understanding of the concepts that are examined in this study. Chapter 3 describes how the hypotheses are developed which are being tested and chapter 4 explains the research methodology that is used for this study. After that, chapter 5 states the sample and how the data is collected, whereas chapter 6 discusses the results of the study. Finally, chapter 7 gives conclusions of the study.

2. Literature review

This chapter reviews the main subject of this study to get a better understanding of the concepts. First of all, different definitions of corporate social responsibility (CSR) are discussed which have emerged over the years. After that, the main theories regarding CSR are described, and subsequently to that, the determinants and outcomes of CSR are analyzed. Finally, a conclusion and overview of the literature is stated at the end of this chapter.

2.1 Definition of CSR

Since CSR is the main topic in this study it is important to fully understand the concept and definition of it. Despite its long history no consensus about the meaning of CSR has been reached among academics or other interested parties. In the literature many scholars have been trying to define CSR (e.g. Carroll, 1979; Matten & Moon, 2008; Murphy & Schlegelmilch, 2013), but have failed to come to a universal definition.

As stated before, Bowen (1953) made the first real definition of CSR and is therefore seen as a pioneering advocate of CSR. He believes that CSR refers to ''*the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society*'' (p. 6). Many years later, in 1973, Davis came up with a case about reasons both for and against CSR. He states that CSR is not easily defined and refers to the firm's consideration of issues beyond the narrow economic, technical and legal requirements of the firm. Rather than focusing on businessmen (Bowen, 1953), this definition laid the emphasis much more on firms. Davis (1973) also suggests that social responsibility begins where the law ends and that a firm is not being socially responsibly when it only meets the minimum requirements of the law, because this is what every good citizen does. Going beyond the law is found to be returning in many more recent definitions of CSR.

One of the most longstanding and popular definitions of CSR comes from business scholar Archie Carroll. Carroll (1979) defines CSR by describing the following four responsibilities categories: economic, legal, ethical and philanthropic. The first category (economic) refers to the responsibility to produce goods and to be profitable. The second category (legal) refers to the responsibility to abide by law. The third category (ethical) refers to the responsibility to do what is right and fair beyond what is required by law. And finally, the fourth category (philanthropic) refers to the voluntary responsibility to contribute to social purposes through things as philanthropy. Based on Carroll (1979), an organization is social responsible when it takes responsibilities on the four categories. However, criticism on these ideas find that the economic and legal aspects are minimal controversial, but the ethical and philanthropic aspects have set off researches which led to a new definition of CSR as ''beyond compliance'' (McWilliams & Siegel, 2001). This ''beyond compliance'' definition is quite problematic as a minimal step beyond compliance would mean that an organization meets the technical definitional requirements, and thus is considered as socially responsible. For example, a firm that makes a minimal donation meets the ethical and philanthropic category and can therefore be seen as socially responsible.

Since Carroll's original article there have been a number of attempts to define and refine the term, however few have significantly changed the basic understanding (Sheehy, 2015). Rather than finding a totally new definition, three scholarships find new ways of looking at CSR. The first significant contribution is Freeman's idea of the stakeholder theory (Freeman, 1984). The stakeholder theory

broadened the concept of traditional strategic management by defining stakeholders as any group or individual who is affected by or can affect the achievement of an organization's objective. With this theory there came much more attention for stakeholders other than the shareholders, for example customers, employees or society. The second significant contribution is Elkington's (1998) triple bottom line idea of economic prosperity, social justice and environmental quality. Economic prosperity refers to the value that is created by the organization by producing goods or delivering services. Social justice refers to the focus on people in the organization, such as employees, but also people outside the organization who get affected by the activities of the organization. Environmental quality refers to the focus on the environment. This triple bottom line suggests that organizations should assess their performance in a broader perspective to create value. This refinement was a revolution in business scholarship as it was seen as an innovative articulation of CSR using accounting terms. The third significant contribution is from Wood (1991) as she produced a three principle model (institutional, organizational and individual). Institutional relates to the expectations that are placed on organizations because of their role as economic institutions. Organizational relates to the expectations placed on organizations as to what they are and what they do, and individual relates to the expectations placed on managers (and others) as moral actors in the organization. These three principles explain the longstanding debate on CSR and motivate humans and organizations in their behavior.

In more recent literature McWilliams and Siegel (2001) define CSR as *''actions that further some social good, beyond the interest of a firm and that which is required by law''* (p. 117). This definition indicates that CSR goes beyond the interest of a firm, but this does not have to be the case. For example, firms can work closely with community organizations to improve their corporate image and ultimately firm value. Matten and Moon (2008) state that the core idea of CSR is that it reflects social imperatives and social consequences of business success. This means that CSR consists out of clearly articulated policies and practices that reflect the organization's responsibility for some of the wider societal good. Murphy and Schlegelmilch (2013) define a broad definition of CSR indicating that it emphasizes larger corporate and institutional practices, rather than the decision making of individual managers.

On the other hand of finding it difficult to come to a clear definition for CSR, some even find it desirable that there exists a lack of consensus about the definition. Sheehy (2015) argues that a lack of consensus will put ideas to use by various parties from non-government organizations to marketing departments. However, this also gives space for organizations to engage in greenwash accusations or a failure to discharge legal obligations associated with CSR. Another argument against defining CSR is based on differences. Matten and Moon (2008) define discrete types of CSR depending upon the region in which the organization is operating. As there are significant differences in institutional configurations, it may be impossible to draw the approaches into a single definition. However, since large amounts of resources are invested in CSR, both private and public sector find it important to have a clear definition of the subject (Sheehy, 2015).

Although there is no consensus about the definition of CSR, it generally refers to how organizations manage their business processes to produce a positive impact on society and how it is serving people, communities, and the environment in ways that go beyond what is legally and financially required. Examples of this may be the use of environmentally friendly materials, working closely with community organizations or donating to charities.

2.2 Theories of CSR

There are different theories that explain what drives organizations to engage in CSR activities and what the outcomes of such activities are. These theories have mostly been emerging in business research, like the agency or stakeholder theory. Mellahi, Frynas, Sun and Siegel (2016) reviewed the literature of 2000 till 2014 to examine which theories have been used in the nonmarket strategy literature. Nonmarket strategy refers to the firm's actions to improve the performance by managing the institutional or societal context of economic competition and mainly focuses on CSR or corporate political activity (CPA) (Mellahi et al., 2016). Evidence finds that scholars have primarily draw upon five theories that drive the link between nonmarket strategy and organizational performance. These five theories can explain the determinants and outcomes of CSR activities and distinguishes external or internal theories. The external theories are based on the stakeholder theory, institutional theory and resource dependence theory whereas the internal theories are based on the resource based theory and the agency theory. Frynas and Yamahaki (2016) and Mellahi et al. (2016) find that these are the most dominant theories in the CSR literature and therefore this literature review is based on those theories to explain the drivers and outcomes of organizations to engage in CSR activities. Besides this, scholars also stress that future research can benefit from the use of multi-theoretical frameworks as it provides a convenient starting point (Aguinis & Glavas, 2012; Frynas & Yamahaki, 2016; Mellahi et al., 2016).

2.2.1 External theories

As mentioned before, the external theories of CSR activities are based on the stakeholder theory, institutional theory and resource dependence theory. External theories of CSR focus on the relationship that the organization has with society, where CSR is seen as outcome of social relationships and societal norms. These outside-in theories assume that the main role of managers is to align CSR activities with the expectations, interests and beliefs of the society. Although there are differences in the three theories, they also share some similarities or even overlap. All of the three theories emphasize that societal legitimacy is important, meaning that external actors (e.g. institutional norms) influence the accepted ideas of an organization's managerial practices (Frynas & Yamahaki, 2016). Both Frynas and Yamahaki (2016) and Mellahi et al. (2016) find that theories of CSR are dominated by the external theories, in particular by the institutional and stakeholder theory.

2.2.1.1 Stakeholder theory

The stakeholder theory was developed by Freeman in 1984 and outlines how management can satisfy the interests of stakeholders in a business. This theory contradicts the traditional view of a company, also called the shareholder approach. The shareholder approach argues that a company should focus on maximizing profits and return a portion to their shareholders rewarding the risk they took investing in the firm (Friedman, 1970). Instead, Freeman (1984) states that the corporate actions are affected by the pressures of the different stakeholders and defined stakeholders as '' *any group or individual who is affected by or can affect the achievement of an organization's objectives*'' (p. 53). The stakeholder theory encompasses that managers must formulate and implement processes that satisfy all and only those who have a stake in the firm. These can be internal stakeholders (e.g. employees, managers, owners) or external stakeholders (e.g. customers, suppliers, society, government, creditors, shareholders).

The impact and expectations of every stakeholder is not the same and therefore it is difficult for managers to decide for which stakeholders they should pay (most) attention. Mitchell, Agle and

Wood (1997) propose a typology which can identify different classes of stakeholders to help managers prioritize their stakeholders. This stakeholder salience model is based on three attributes, namely: power, legitimacy and urgency. Power relates to the ability of the stakeholder to carry out its own will despite resistance. Legitimacy relates to the mandate of stakeholders and the right to use power regarding a claim upon the firm, and urgency refers to the degree to which the stakeholder's claim leads to immediate attention. This three-dimensional view can help managers to identify the critical stakeholders in their organization.

Many scholars try to find interpretations and classifications of the stakeholder theory, but arguably the most well-known distinction is between descriptive and normative perspectives (Frynas & Yamahaki, 2016). The normative approach sees stakeholders as a moral or ethical issue. This is based on the belief that each stakeholder group has intrinsic value and that one group is no more important than another group. Organizations should care about stakeholders because it is legitimate and fair. The descriptive approach assumes that the stakeholder model describes what the corporation is, which is according to Donaldson and Preston (1995) ''*a constellation of co-operative and competitive interests*'' (p. 66). It also describes how the corporation manages its stakeholder relationships. Hereby one stakeholder group can be more important than another and stakeholder salience is relevant. However, the normative perspective of the stakeholder theory has little to no descriptive or explanatory power in the CSR context (Frynas & Yamahaki, 2016). Therefore, in line with Frynas and Yamahaki (2016) and Mellahi et al. (2016), the descriptive perspective will be used to explain drivers, processes and outcomes of CSR.

Empirical research based on the stakeholder theory show the impact of different stakeholder attributes on CSR strategies and how stakeholder pressures affect CSR activities. For example, Brammer and Millington (2004) compare two time periods (1989/1990 and 1998/1999) and find that in the latter time period stakeholder groups became increasingly significant in explaining charitable contributions. In this period firm size, leverage and environmental and social concerns become significant. From a stakeholder point of view, larger firms are more visible and therefore more subject to scrutiny by the public which leads to higher stakeholder pressure. Higher levels of debt may indicate higher stakeholder pressure from creditors, as there is an increased risk of bankruptcy. As a result of these higher stakeholder pressures, firms engage in CSR activities as charitable contributions increase. Another example shows that CSR can play a role in reshaping a firm's strategy to manage stakeholder's uncertainty and win their trust (Lamberti & Lettieri, 2009). This is based on a longitudinal case of an Italian food manufacturer who introduced CSR activities to be seen as socially and environmentally responsible by stakeholders. Surroca, Tribó and Zahra (2013) even find that stakeholder pressures in a multinational enterprises' home country lead to the transfer of socially irresponsible activities from the multinational's headquarters to overseas subsidiaries. These examples all indicate that stakeholder pressures can affect the CSR strategies and activities of organizations.

As stakeholder pressures affect the CSR strategies and activities of organizations, it is important to assess the relationship between CSR and the firm performance. Some empirical studies find a mixed, inconclusive or even negative relationship between CSR and firm performance through the lenses of the stakeholder theory (Frynas & Yamahaki, 2016). For example, Moore (2001) find that firm performance is deteriorating as social performance improves in a sample containing U.K. supermarkets. Jia and Zhang (2014) find an inconclusive result as a U-shaped relationship existed

between ex-ante corporate social performance (CSP) and ex-post stock returns for Chinese entrepreneurial firms. However, the majority of the studies find evidence for a positive relationship between CSR and firm performance (Frynas & Yamahaki, 2016). For example, Ruf, Muralidhar, Brown, Janney and Paul (2001) find that firms who improve their CSP realize higher firm performance as measured by growth in sales, return on equity and return on sales. Wang and Choi (2013) also find a positive relationship between CSP and CFP (corporate financial performance), however they also stress for consistency in the social performance as this moderates the relationship.

Altogether, the stakeholder theory is a longstanding theory that intends to satisfy the interests of all stakeholders, and not just the shareholders as in profit maximization. It is a complex theory as there are many different stakeholders who all have their own claim or interest in the firm. As a result of this, stakeholders can pressurize firms to engage in certain CSR strategies or activities, which ultimately can affect the firm performance.

2.2.1.2 Institutional theory

According to the institutional theory, institutions work as forces upon organizations by creating social pressures, restrictions and setting boundaries for what is accepted and what not. This suggests that firms need to behave according to social norms and rules in their environment as they cannot survive without the external social approval (Frynas & Yamahaki, 2016). In this process, structures like schemes, rules, norms and routines are guidelines for an organization's social behavior. In most of the times, firms incorporate these practices and procedures not because they are obligated to by external actors, but because they are taken for granted as ''the way we do things''. The institutional theory drives organizations to engage in CSR activities as organizations want to meet demands coming from accepted norms in the industry. If the organization does not conform to the accepted norms then their legitimacy or even survival could be at stake. Normally the organization accepts the features and practices that are institutionalized or seen as accepted norms to be a social unit that operates in an industry (Scott, 2008). Therefore, the institutional theory deals with the pressures from the industry or competitive environment on organizations and how these pressures change organizational activities. This is in line with Brammer, Jackson and Matten (2012) who find that corporate activities are shaped by the dominant organization within the field it operates.

In the institutional theory there are three mechanisms (coercive, mimetic and normative) that force organizations to change, the so called institutional isomorphism (DiMaggio & Powell, 1983). Isomorphism is the similarity of processes or structures from one organization to another, as a result of independent development under similar constraints. Coercive mechanism refers to pressures from external constituents on which the organization depends or cultural expectations from the society, which forces the organization to change. Mimetic mechanism refers to the imitation of other organizations in times of uncertainty about their own activities as it is believed that these organizations are successful. Normative mechanism refers to changes that are driven by pressures based on professions. The main difference between the three mechanisms is that normative and coercive isomorphism is driven by external factors, whereas mimetic isomorphism is driven by uncertainty. This isomorphism leads to similar CSR practices across countries, through regulative, normative and cognitive processes (Matten & Moon, 2008).

There are a number of studies who investigate which institutional factors influence CSR activities. Campbell (2007) states that the degree to which corporations act in socially responsible behavior is

mediated by a variety of institutional factors in the form of economic conditions (e.g. economic environment and degree of competition) and institutional conditions (e.g. state regulations, industrial self-regulation, monitoring institutions, normative calls for social behavior in education and institutionalized dialogue with unions, employees, community groups, investors and other stakeholders). Matten and Moon (2008) find that the degree of CSR differs between countries and that U.S. corporations employ 'explicit' CSR, whereas European corporations employ 'implicit' CSR. Explicit CSR is seen as a voluntary and deliberate corporate decision, whereas implicit CSR is seen as reaction to the institutional environment. Implicit CSR occurs in coordinated market economies where the national institutions encourage collectivism, solidarity and policies providing obligations. Explicit CSR occurs in liberal market economies where national institutions encourage individualism, liberalism and policies providing discretion. An empirical test by Jackson and Apostolakou (2010) find support for the study of Matten and Moon (2008) that CSR is an implicit practice in coordinated market economies and an explicit practice in liberal market economies. CSR is more widely adopted in the Anglo-American liberal market economies as a substitute mechanism for weak institutions as opposed to the coordinated market economies in Continental Europe.

Concluding to this, the institutional theory explains that organizations must follow rules and norms set by their institutional environment which enables them to gain support from institutions and be seen as legitimate. The coercive, mimetic and normative pressure leads to isomorphism which results that organizations in similar countries adopt similar CSR practices.

2.2.1.3 Resource dependence theory

The resource dependence theory is based on the work of Pfeffer and Salancik (1978) suggesting that the external resources of an organization affect the behavior of the organization. Organizations depend on their surroundings to guarantee the flow of critical resources for their survival (Frynas & Yamahaki, 2016). Similar to this, Mellahi et al. (2016) state that the growth and survival of an organization depends on its ability to acquire resources from, and manage uncertainties caused by, external constituents. As resources are critical for the survival of the organization, strategies must be implemented to have access to those resources. The resource dependence theory was initially formulated to explain the relationships between units within organizations, but is now widely used to explain relationships between firms and different types of institutions and actors (Frynas & Yamahaki, 2016).

As organizations have to deal with different actors who can put different social demands on firms, it is impossible to satisfy all those demands (Frooman, 1999). Therefore, the resource dependence theory suggests that organizations will try to meet the demand of actors that can influence the most critical resources for an organization. An example which illustrates this is the study by Ingram and Simons (1995), who find that organizations that have a higher proportion of female managers have significant higher work-family programs. From a resource dependence theory this indicates that organizations that are much more dependent on female managers will change their strategy by including more work-family programs. Another example is that natural resource firms, like oil and gas companies, are pressurized by community groups to provide local assistance with education and health care in developing countries (Hess & Warren, 2008). Firms can be harmed by those community groups if they do not give into these demands. Therefore, their dependence on the local community pushes them into socially responsible behavior to ensure that the needs of those community groups are satisfied. In this way the resource dependence theory drives CSR.

In the resource dependence theory, the role of the board of directors is highlighted as this is often seen as a critical resource for organizations. The board of directors can ensure knowledge, personal ties and legitimacy which can be critical for the firm's survival or growth (Certo, 2003). Several studies investigate the role of the board of directors on CSR activities through the lenses of the resource dependence theory. First of all, De Villiers, Naiker and Van Staden (2011) investigate the relationship between environmental performance and board characteristics for approximately 1,216 U.S. publicly traded firms in 2003 and 2004. In line with the resource dependence theory, they find that firms with a larger board size and the presence of directors on the board who are active as CEOs or as law experts have a significant positive effect on the firm's environmental performance. Reasons for this are that firms with larger sized boards have more expertise to enhance environmental performance. Subsequently, the presence of directors on the board who are CEOs suggests that they have significant current business expertise in the field of environmental practices. Similar to this, law experts as director on the board are more likely to understand, monitor and pursue issues relating to the environment (De Villiers et al., 2011). Ortiz-de-Mandojana, Aragón-Correa, Delgado-Ceballos and Ferrón-Vílchez (2012) investigate the relationship between director interlocks and the firm's adoption of proactive environmental strategies for 102 investor-owned U.S. electric utilities. They find that director interlocks with knowledge-intensive business services have a positive effect on the adoption of proactive environmental strategies. Reason for this, which is in line with the resource dependence theory, is that those directors can provide the firm with updated information and skills for new business opportunities in the renewables area (Ortiz-de-Mandojana et al., 2012). Hafsi and Turgut (2013) examine the relationship between board diversity and CSP for 100 listed companies in the S&P500 index in 2005. They find that diversity 'in' the board is a determinant for CSP, whereas diversity 'of' the board moderates this relationship. Diversity of the board is related to the structure of a board compared to others (e.g. board size, director independence, board duality), whereas diversity in the board is related to the demographic background of board members (e.g. director gender, age, experience, tenure). In more detail, Hafsi and Turgut (2013) find that gender (positive) and age (negative) have a significant effect on CSP. A positive effect of gender implies that women think more favorably of ethical matters and are more sensitive to CSP, whereas a negative effect of age suggests that age diversity leads to polarization or generation conflicts.

Other studies that have been based on the resource dependence theory have find that external groups can help to improve a firm's environmental performance. For instance, Kassinis and Vafeas (2006) investigate whether two critical stakeholder groups (community stakeholder and regulatory stakeholders) could positively influence the environmental performance measured by toxic emission levels. In their sample of 5,033 chemicals plants, they find evidence that community groups could positively influence the environmental performance. In more detail, they find that communities with higher income, stronger environmental preferences and higher population density lead to lower toxic emissions. This is in line with the resource dependence theory, as wealthier communities have the ability and power to pressurize firms. Since firms are dependent on those wealthier communities, they are likely to give into those demands and improve their environmental performance. Similar to this, when stronger environmental preferences are present in a community, there is more capacity to pressure firms into a higher environmental performance. Moreover, high population density leads to stronger pressures on firms from communities to reduce their emissions as there is a higher risk status for those communities. This all indicates, in accordance with the resource dependence theory, that communities have the ability and power to affect resource flows to a firm, and thus tilt the

resource dependence balance in their favor (Kassinis & Vafeas, 2006). Furthermore, Ramanathan, Poomkaew and Nath (2014) examine the impact of organizational pressures on environmental performance in a sample of manufacturing firms in the United Kingdom. They find that internal stakeholders have the highest influence on environmental performance, followed by economic pressures and environmental regulations. From a resource dependence theory point of view, firms are dependent on those organizational pressures. For example, firms are dependent on the government for a variety of measures needed for their survival, and therefore meeting expectations of the government in the form of environmental regulations is important.

Based on the above, we could state that the resource dependence theory is linked to the stakeholder or institutional theory as pressures from stakeholders or institutions lead to CSR behavior. However, the crucial difference is that the resource dependence theory explicitly allows for strategic decision making (Frynas & Yamahaki, 2016). Managers make their own strategic decisions to acquire the resources on which they depend.

2.2.2 Internal theories

The internal theories of CSR activities are based on the resource based theory and the agency theory. These inside-out theories focus on the internal processes of an organization, where CSR is the outcome of managerial decisions, economic calculation, ethical values or judgments. Managers make decisions to engage in CSR activities to create value or to align CSR activities with their own individual beliefs and interests (Frynas & Yamahaki, 2016). This is contrary to the external theories, where organizations are mostly influenced by expectations, interests and beliefs of the society.

2.2.2.1 Resource based theory

The resource based theory is a theory that believes that the resources of a firm are crucial to the firm's performance. It emerged in the 1980s by the work of Wernerfelt (1984) and supporters of this theory find that, rather than looking at the competitive environment, organizations should look inside the organization to find resources that can lead to sustainable competitive advantage. The resource based theory deals with the resources and capabilities within firms, whereas comparing to other theories, the institutional theory focuses on the interaction of firms with broad/national institutional contexts and the stakeholder theory and resource dependence theory focus on stakeholders within or across contexts (Mellahi et al., 2016).

The resource based theory is based on two assumptions in analyzing sources of competitive advantage (Barney, 1991). The first assumption is that the resources that firms control are heterogeneous strategic resources. This means that every firm within an industry possesses different skills, capabilities and other resources. By deploying a different mix of resources, competitive advantage can be achieved. If firms would have the same mix of resources, they would not be able to outcompete each other. Firms would simply follow each other's ideas and no competitive advantage is possible. The second assumption is that resources are immobile, meaning that the resources do not move from one firm to another. This makes it unable for firms to replicate the resources of a competitor and implement the same strategy. Examples of these resources are intangible resources like goodwill, processes, knowledge or intellectual property.

Accepting that certain resources can lead to sustainable competitive advantage, the main question that remains in the resource based theory is how firms can acquire those resources. Barney (1991) finds that there are four empirical factors that indicate if the resources have the potential to

generate sustainable competitive advantage, namely: valuable, rareness, inimitable and non-substitutable. Valuable suggests that the resource should increase the value offered to customers. Rareness suggests that the valuable resources should only be possessed by a small number of firms. When a large number of firms own the valuable resources, it cannot lead to competitive advantage. Inimitable suggests that the valuable and rare resources cannot be obtained by other firms. If the valuable and rare resources can be easily obtained by other firms, they would acquire those resources leading to no competitive advantage. And finally, non-substitutable suggests that there are no strategically equivalent valuable resources that, when implemented together, lead to the same strategy. Other firms would then be able to implement the same strategy by using alternative resources which leads to no competitive advantage. A resource can achieve sustainable competitive advantage for a firm when it meets the above mentioned factors.

CSR related studies based on the resource based theory show that specialized skills or capabilities related to investments in CSR can lead to economic benefits for firms. For example, Russo and Fouts (1997) argue that environmental policies can lead to competitive advantage in the field of physical assets and technologies, human resources and organizational capabilities and/or intangible resources. McWilliams and Siegel (2011) state that firms can capture value of their CSR activities through their firm's reputation. A better reputation can be a strategic resource as it can increase revenue by premium pricing or customer loyalty. It can also decrease capital costs as the firm's risk profile is lower. McWilliams and Siegel (2011) also consider human capital as important resource because employees of one firm can be more productive than employees of other firms. CSR practices within a firm can lead to the hiring of better or more motivated employees leading to economic benefits. In short, CSR can be seen as investments in capabilities that differentiate a firm from other firms which leads to increased organizational performance.

Empirical studies on CSR through the lenses of the resource based theory test the relationship between social/environmental performance and economic returns. For example, Waddock and Graves (1997) find that there is a virtuous circle between CSP and the financial performance, meaning that higher financial performance leads to higher CSP and vice versa. Surroca et al. (2010) support this virtuous circle, but find that the relationship is mediated by a firm's intangible resources, such as innovation, human resources, corporate reputation and organizational culture. Similar to this, Russo and Fouts (1997) find a positive relationship between the environmental performance and the financial performance, whereas Menguc, Auh & Ozanne (2010) find that a proactive environmental strategy had a positive link with sales and profit growth. This gives some evidence that, from a resource based theory, companies who own more strategic resources (e.g. intangible or financial resources) can allocate more to CSR activities.

However, resource based theory studies are ambiguous about whether investments in CSR can lead to abnormal returns and competitive advantage for firms (Frynas & Yamahaki, 2016). On the one hand, resource based theory studies found evidence that CSR-related capabilities lead to competitive advantage. For example, Chen, Lai and Wen (2006) find a positive correlation between green innovations and corporate competitive advantage. Also, Lourenco, Callen, Branco and Curto (2014) find that committing to sustainability increases a firm's reputation. This increased reputation is an intangible resource that leads to a higher value of future cash flow and lower cash flow variability, hence a competitive advantage. One the other hand, resource based theory studies point out that CSR activities do not lead to sustainable competitive advantage. McWilliams and Siegel (2001)

conclude that CSR can lead to commercial advantages (e.g. product differentiation and barrier to entry), but that it has a neutral effect on profits, leading to no abnormal returns or sustainable competitive advantage. Another study by McWilliams and Siegel (2011) state that CSR activities are highly transparent which makes it unable for sustainable competitive advantage as competitors can imitate those CSR activities. Furthermore, the sustainable competitive advantage through CSR activities can evaporate quickly when the architect of the CSR strategy leaves the company (Frynas, 2015).

Concluding to this, the resource based theory argues that certain internal resources can lead to sustainable competitive advantage which results in higher firm performance. Those resources should be valuable, rare, inimitable and sustainable. The resource based theory can drive firms into CSR, as CSR activities can lead to those resources. CSR activities can, for example, lead to a higher firm reputation which has a positive influence on the firm performance.

2.2.2.2 Agency theory

The agency theory explains the relationship between 'principals' and 'agents' in a business (Frynas & Yamahaki, 2016). The agency theory encompasses that one party (principal) delegates work to another party (agent), who performs that work. The most common agency relationship in finance refers to the relationship between shareholders (principals) and managers (agents). Mainly two problems arise in the agency theory (Eisenhardt, 1989). First is that the desired goals of the principal and agent are in conflict and it is difficult or expensive for the principal to look after the agent. For example, managers may behave in their own personal interests instead of those of the shareholders. Second is that the principal and agent have different attitudes towards risk. Managers are usually more risk averse as their job is at stake, whereas the shareholders may want to take on more risk to increase value.

Friedman (1970) was one of the first to criticize CSR activities with regards to the agency theory as he believes that managers who pursuit environmental and social objectives would hurt the shareholders by generating a lower profit. Early support for this argument was raised by Atkinson and Galaskiewicz (1988) who find evidence that companies gave less money to charity if the CEO or some other individual owned a significant percentage of the company's shares. More recent studies also give support for Friedman's argument. For example, Barnea and Rubin (2010) argue that insiders (managers, directors and large block holders) overinvest in CSR for their private benefit and own reputation as good citizen. They find a negative association between inside ownership and CSR ratings, giving support for the hypothesis that insiders encourage firms to over-invest in CSR when they bear little of the cost. Similar to this, Petrenko, Aime, Ridge and Hill (2016) argue that CEOs invest in CSR activities because of personal needs for attention and image reinforcement (narcissism). They find evidence for this relationship and also find that the effect of CSR on firm performance is weaker for firms with a more narcissistic CEO.

Contrary to this, CSR studies based on the agency theory find positive effects to financial and non-firm performance. For example, Berrone and Gomez-Mejia (2009) argue that CEOs of firms in polluting industries would be rewarded when their firms operate in environment friendly ways as this would enhance the social legitimacy and organizational survival capabilities of the firm. Their results support this as a positive link between CEO pay and environmental performance was found, suggesting that environmental strategies may provide non-financial benefits (e.g. social legitimacy,

corporate reputation, stakeholder satisfaction). In addition, Bear, Rahman and Post (2010) find that the presence of women on the board is positively related to a firm's reputation and that this link is mediated by a firm's CSR rating. This implies that the positive impact of women on the board can increase CSR ratings which lead to higher corporate reputation and, ultimately, better firm performance. Finally, Oh, Chang and Martynov (2011) find that institutional and foreign ownership had a positive relationship with CSR ratings. They argue that institutional shareholders and foreign investors rather invest in CSR responsible firms as these are long-term oriented and bear less financial risk. Irresponsible firms are seen as more risky as a result of regulatory action, legal punishment, or consumer activism.

While most studies have focused on firm-level data, there have also been micro-level studies regarding the agency theory. The reason for this is because board members and CEOs play a key role as agent in an organization and this role can be studied on a micro-level. Some scholars have investigated the relationship between CEO compensation and CSR performance. For example, McGuire, Dow and Argheyd (2003) find that high levels of salary and long-term incentives are associated with poor social performance. High compensations are thus indicating a less responsible orientation and encourage managers to engage in more risky behavior. Contrary to this, Berrone and Gomez-Mejia (2009) find that CEO pay of firms in polluting industries is positively related to environmental performance. Other micro-level studies through the lenses of the agency theory examined how characteristics of CEOs and board members are related to CSR activities. Bear et al. (2010) find that the background of board members (board resource diversity) had no effect on CSR ratings, whereas the number of women on the board had a positive significant effect. CSR also played a mediating role in the relationship between women on the board and corporate reputation. In addition to this, Chin, Hambrick and Trevino (2013) examined the effect of the political ideologies of CEOs on their CSR behavior. They measured their ideology by coding their political donations over the ten years prior to becoming CEOs. Results indicate that firms with liberal CEOs had significant higher CSR ratings compared to conservative CEOs. Furthermore, this effect on CSR is strengthened when the liberal CEO has more power, and when the firm's performance drops the liberal CEO is more inclined to keep behaving in CSR ways compared to his conservative counterpart. These examples give some evidence that within the agency theory micro-level data also drives CSR activities.

One key limitation with regards to the agency theory is that it cannot fully explain the reasons to engage in CSR activities and its outcomes. Eisenhardt (1989) states that the agency theory can only partially explain a view of the world, although it may be valid, it does not account for the whole complexity of organizations. Therefore it is suggested that the agency theory should be complemented with other theories to fully understand the behavior of organizations. This study accounts for this problem as the stakeholder theory, institutional theory, resource dependence theory and the resource based theory are also incorporated.

2.3 Determinants of CSR

Since this study intends to examine the effect of CSR on firm performance, it will not extensively discuss all the determinants of CSR that have been found in the literature. Instead, it will limit the firm characteristic determinants to the three most common determinants (firm size, industry sector and firm performance). Furthermore, it will discuss determinants of CSR regarding corporate

governance mechanisms and some determinants of CSR regarding political, social and cultural factors.

2.3.1 Firm characteristics

As argued above, this section will only limit to the firm characteristic determinants firm size, industry sector and firm performance. Scholars find significant positive relationships between firm size and CSR disclosures (e.g. Brammer & Pavelin, 2008; Chih, Chih & Chen, 2010; Reverte, 2009). Based on the stakeholder theory, a possible reason for this is that larger firms have a greater economic significance, tend to be more visible to the public and attract greater pressure from external parties. As a result, they will engage in legitimating behavior (Reverte, 2009) and be more driven to address environmental issues (Brammer & Pavelin, 2008), thus engage in CSR activities. Similar to this, Chih et al. (2010) argue that larger firms are subject to closer scrutiny by the public, therefore increasing the likelihood of such firms engaging in more socially responsible ways. Thus, similar to the stakeholder theory, organizations engage in CSR activities as a result of pressures of the public, internal parties or external parties as these organizations grow larger.

Similar to firm size, studies find a positive significant relationship between industry sector and CSR disclosure (e.g. Brammer & Pavelin, 2008; Cormier, Magnan & Velthoven, 2005; Reverte, 2009; Tagesson, Blank, Broberg & Collin, 2009). This implies that firms operating in sectors closely related to environmental concerns, like the mine, oil and energy industry, have a greater tendency to engage in CSR activities. Based on the stakeholder theory, a reason for this is that firms in industries with a high environmental impact are subjected to intensive scrutiny from environmental stakeholders, which stimulate their environmental disclosure activism (Brammer & Pavelin, 2008). Reverte (2009) and Tagesson et al. (2009) agree with this as they state that firms from industries whose manufacturing process has a negative influence on the environment disclose more information than firms from other industries. Thus, firms in environmental unfriendly industries are subjected to more scrutiny from stakeholder pushing them into CSR behavior. This aligns with the stakeholder theory.

Although this study intends to examine the effect of CSR on firm performance, firm performance itself is also a determinant for CSR. Some studies find positive relationships with firm performance causing CSR (Cormier & Magnan, 1999; Tagesson et al., 2009), whereas others find insignificant relationships (Chih et al., 2010; Cormier et al., 2005; Hackston & Milne, 1996; Reverte, 2009). There can be several reasons to explain a positive relationship between firm performance and CSR disclosure. Firstly based on the resource dependency theory, Belkaoui and Karpik (1989) argue that the underlying cause is management's knowledge. When a management has the knowledge to manage a profitable firm, then it should also be able to understand social responsibility, which leads to more social and environmental disclosures. Secondly, in the context of agency theory, Inchausti (1997) points out that management in profitable firms provide more detailed information to support their own position and compensation. Thirdly, Ng and Koh (1994) state that profitable firms are highly exposed to political pressure and public scrutiny. Thus, to avoid regulation it uses more self-regulating mechanisms, such as voluntary disclosure. However the most obvious explanation for a positive relationship between firm performance and CSR disclosure is that firms with fewer economic resources will focus on activities that have a direct effect on the firm's earnings, therefore focusing less on social and environmental disclosures (Roberts, 1992; Ullmann, 1985). Since this study focuses on the effect that CSR has on firm performance, it will not further examine firm performance as a determinant of CSR. However, it is important to note that firm performance is also a determinant for

CSR based on the arguments above. Therefore, a reverse causality problem may exist which needs to be addressed in the methodology of this study.

2.3.2 Corporate governance mechanisms

In addition to firm characteristics, studies have shown that corporate governance mechanisms are determinants for CSR disclosure. Jo and Harjoto (2012) find that corporate governance structures influence CSR activities and that it is a determinant for organizations to engage in CSR.

2.3.2.1 Ownership structure

Research shows that ownership structure is a determinant for CSR disclosure. First of all, institutional ownership positively influences the CSR disclosure (e.g. Oh et al., 2001; Toms, 2002). Larger institutional controlled firms might face greater scrutiny from analysts and therefore disclose more information (Toms, 2002). Oh et al. (2011) argue that institutional owners usually own a significant percentage of the shares and therefore cannot easily sell their shares. Based on the agency theory, this makes them more attentive towards strategic decisions. Since the firm's performance can be enhanced by good management practices, the institutional shareholders are more likely to support CSR activities.

In the same line, foreign ownership also has a positive relation with CSR disclosures (e.g. Khan et al., 2013; Oh et al., 2011). This is mainly based on evidence in Asian countries where Western-style management practices pressure firms into a higher level of social engagement (Oh et al., 2011). Similar to this, Khan et al. (2013) state that foreign investors have different values and knowledge because of their foreign market exposure and therefore those firms are expected to disclose more social and environmental information. Based on the resource based theory, we can state that foreign ownership can bring resources (e.g. knowledge) into the organization that can increase CSR activities.

Another positive relationship in terms of ownership structure is found between CSR and state ownership (e.g. Lau et al., 2016; Liu & Zhang, 2017; Xu, Liu & Huang, 2015). One of the reasons for this could be that a firm, which has higher government ownership, would find it necessary to engage in CSR activities as these 'state' firms should be a role model for its counterparts (Lau et al., 2016). Next to this, it is also the government's objective not to only acquire profits, but also satisfy demands of employees, provide public services and maintain social stability in their country. Therefore, state owned enterprises are more likely invest in CSR activities to meet those demands. However, Dam and Scholtens (2012) find no relationship between state ownership and CSR. This may indicate that, in the European context, non-state owned firms are already more likely to engage in CSR activities as a result of stakeholder pressures.

Contrary to institutional, foreign and state ownership, a negative relationship is found between managerial ownership and CSR disclosures (e.g. Khan et al., 2013; Oh et al., 2011). It is believed that investing in CSR might be profitable in the long run, but in the short run it leads to high expenses that reduce current profits (Oh et al., 2011). Regarding the agency theory, managers who have a stake in the firm might choose not to engage in CSR activities to increase the short-term profits. Based on the stakeholder theory, managerial ownership leads to a lower level of public interest and therefore less investment in CSR activities may be beneficial, because the costs may outweigh the profits of those investments (Khan et al., 2013).

Also ownership concentration is found to be a determinant to engage in CSR activities. Gamerschlag, Möller and Verbeeten (2011) find evidence that a more dispersed ownership leads to higher CSR disclosure. However, the agency theory argues that minority shareholders are hardly protected and unable to control management, whereas large shareholders can effectively monitor the firm and affect their operations and strategy (Dam & Scholtens, 2013). Firms with high ownership concentration will not be able to function well because the dominant shareholder may influence the firm's decisions based on short-term financial performance (Lau et al., 2016).

2.3.2.2 Board structure

Next to ownership structure, evidence is found that board structure is a determinant for CSR disclosure. First of all, empirical evidence is found for a positive relationship between board size and CSR (e.g. Bartkus, Morris & Seifert, 2002; De Villiers et al., 2011; Jizi, Salama, Dixon & Stratling, 2014). Based on the resource dependency theory, the board of directors can ensure a critical resource for the firm, as larger board size can include more prestigious directors (Certo, 2003). Given that larger boards can acquire more prestigious directors, the experience and knowledge on the board may increase which leads to a better advice of the board (Dalton, Daily, Johnson and Ellstrand, 1999). Furthermore, larger boards are more likely to include experts on specific issues such as environmental performance (De Villiers et al., 2011). These directors may have been previously exposed to challenges and opportunities related to CSR and are therefore better able to provide access to the relevant knowledge and resources (De Villiers et al., 2011).

Secondly, board independence is found to positively influence CSR activities (e.g. Harjoto & Jo, 2011; Jizi et al., 2014; Johnson & Greening, 1999). Since outside directors are unrestrained in their decision making, it is believed that they can increase the reputation and credibility of a firm and are more likely to make long-term investments. They are also less focused on the short-term financial performance and therefore more interested in long-term sustainability, which would lead to engaging in CSR activities (De Villiers et al., 2011; Jizi et al., 2014). Another argument is that outside directors represent different constituents and are more inclined to comply with penalties, fines and negative media exposure to avoid a loss in reputation (Johnson & Greening, 1999). Since CSR activities can avoid those penalties, fines and negative media exposure, outside directors are more inclined to engage in CSR.

Furthermore, researchers examined the effect of board diversity as a determinant for CSR. Hafsi and Turgut (2013) find that diversity 'in' the board is a determinant for CSP, whereas diversity 'of' the board moderates this relationship. Diversity of the board is related to the structure of a board compared to others (e.g. board size, director independence, board duality), whereas diversity in the board is related to the demographic background of board members (e.g. director gender, age, experience, tenure). In more detail, Hafsi and Turgut (2013) find that gender (positive) and age (negative) have a significant effect on CSP. This positive impact of gender on CSR was supported by other studies (Bear et al., 2010; Post, Rahman & Rubow., 2011). Reasons for this can be that female directors have different educational backgrounds than men and may be more democratic in their decision making. It can also be a sign to stakeholders that the firm is well aware of women and minorities, and thus reflects socially responsible practices towards them. Another study by Khan (2010) finds that the representation of foreign nationals on the board was positively related to the CSR reporting. This indicates that foreign members on the board can bring experiences, ideas and innovations to a company that can play a key role in supporting CSR strategies.

Moreover, CEO duality is also examined as a determinant for CSR. CEO duality occurs when the CEO of the company is also chairman of the board. On the one hand, it is argued that CEO duality leads to powerful CEOs and a weakened ability of the board to exercise control. These powerful CEOs can pursue their private benefits instead of those of the firm's stakeholders. This may result in giving less attention to the involvement in social or environmental activities and thus, less CSR (Khan et al., 2013; Said, Zainuddin & Haron, 2009). On the other hand, Jizi et al. (2014) find evidence for a positive relationship between CEO duality and CSR. One possible explanation for this positive relationship is that powerful CEOs are to a higher extent subjected to market pressures and public scrutiny. This can be a reason for those CEOs to meet their stakeholders' demands and engage in social responsible activities as means of allaying fears that they might exploit their position (Jizi et al., 2014).

Finally, director interlocks are also found to be a determinant for CSR. Director interlocks occur when a member of the board holds a different position in another company. For example, De Villiers et al. (2011) find that directors on the board who are CEO in another company have significant current business expertise in the field of environmental practices. They are therefore more inclined to engage in CSR activities. Similar to this, law experts as director on the board are more likely to understand, monitor and pursue issues relating to the environment. In line with this research, Ortiz-de-Mandojana et al. (2012) find that director interlocks with knowledge-intensive business services had a positive effect on the adoption of proactive environmental strategies. Thus, based on the resource dependence theory, director interlocks can ensure knowledge and expertise in different fields and therefore be beneficial for CSR.

2.3.2.3 Executive compensation

Another corporate governance mechanism that is examined as determinant for CSR is executive compensation. Shareholders can align their interest with those of the management of a firm when they incorporate executive compensation. This could safeguard that managers act in the best interest of their shareholders, instead of their own interest as they get compensated for doing so. Mixed results are found as to whether executive compensation would increase or decrease a firm's CSR activities. McGuire et al. (2003) find that high levels of salary and long-term incentives are associated with poor social performance. High compensation could result to a less responsible orientation and encourage managers to engage in more risky behavior. More risky behavior could indicate investments which are more likely to pay off in the short-term, instead of CSR investment. Contrary to this, Berrone and Gomez-Mejia (2009) find that CEO pay of firms in polluting industries is positively related to environmental performance. They argue that firms within polluting industries may achieve legitimacy by adopting environmental friendly programs, and reward their CEOs according to this. Another study by Liu and Zhang (2017) find no significant relationship between social responsibility information disclosure and the remuneration of the managerial staff, whereas management equity level is significant positively related. Compared with remuneration, higher management equity levels (such as stock options) are long-term incentives and can diminish short-term behavior of managers. In that case it is more likely that they invest in CSR activities.

2.3.3 Political, social and cultural factors

Other determinants for CSR disclosure are a firm's visibility or media exposure (Brammer & Millington, 2006; Gamerschlag et al., 2011; Nikolaeva & Bicho, 2011; Reverte, 2009). Firms which are highly visible to the public and have a high media exposure, disclose more CSR information to reduce

the potential political costs (Gamerschlag et al., 2011). This can be related to the stakeholder theory as the objective of the CSR activities is to satisfy those who have a stake in the firm.

Studies have also identified that corporate reputation is a determinant for CSR disclosure (Momin & Parker, 2013; Surroca et al., 2010; Zeng, Xu, Yin & Tam, 2012). As the corporate reputation is rising, multinationals feel like it is their duty to inform the community about their CSR activities. In that way, people understand that multinationals go beyond profit, and also care about social aspects (Momin & Parker, 2013). This can be related to the resource based theory as a better reputation can be a strategic resource of a firm.

Finally there is found evidence that international experience is a determinant for CSR (Branco & Rodrigues, 2008; Mahoney & Roberts, 2007). When a company is actively abroad, it would be affected by a higher number of stakeholders and international community scrutiny (Branco & Rodrigues, 2008). Based on the stakeholder theory, this would lead to more social initiatives.

2.4 Outcomes of CSR

Outcomes are the results from CSR initiatives. The outcomes are divided in to outcomes regarding the firm performance, organizational level and individual level. Although firm performance belongs to the organizational level outcomes, a separate paragraph has been included for firm performance as this study intends to examine the effect of CSR on firm performance.

2.4.1 Firm performance

The outcome of CSR on firm performance is the most researched outcome as business scholars are highly interested in effects on firm performance. Findings about a positive or negative outcome of CSR to firm performance are mixed.

2.4.1.1 Positive relationship between CSR and firm performance

A positive association between CSR and firm performance has been the most dominant in many studies universally (Saeidi et al., 2015). For example, Orlitzky et al. (2003) conducted a meta-analysis of 52 studies which contained 33,878 observations and find a positive association between CSP and CFP across industries and across studies. Their results indicate that social responsibility, and to a lesser extent environmental responsibility, are likely to pay off. Margolis and Walsh (2003) find that between 1972 and 2002 there were 109 studies that treated CSP as independent variable and financial performance as dependent variable. Results show that almost half (54) of the studies find a positive relationship, 28 studies find a non-significant relation, 20 studies find mixed relations and only 7 studies find a negative relationship between CSP and financial performance. Another literature review on the relationship between CSR and financial performance by Van Beurden and Gössling (2008) find similar results, with 68% of the studies showing a positive relationship, 26% showing no significant relationship and only 6% showing a negative relationship between CSP and CFP.

Waddock and Graves (1997) find that CSP and CFP can both be the predictor and the outcome. They found significant relationships where CSP is the independent variable and CFP the dependent variable, and vice versa. These results indicate that the stakeholder theory and the resource based theory are both true. The stakeholder theory suggests that increased CSP may satisfy stakeholders of an organization and lead to a higher CFP, whereas the resource based theory suggests that increased CFP leads to more financial resources, which can be allocated to increase the CSP. Oeyono, Samy and Bampton (2011) also find a positive relationship between CSR and profitability in a sample including

the top 50 corporations in Indonesia from 2003 to 2007. They measured profitability by the earnings before interest, taxes, depreciation and amortization (EBITDA) and earnings per shares (EPS).

Few studies have based their estimations on firm value, but recent studies that did also find that CSR indicators positively influence firm value (Gregory, Tharyan & Whittaker, 2014). For example, Harjoto and Jo (2011) find a significant positive relationship between CSR and firm value as measured by the Tobin's Q in their sample including 12,527 firm-year observations (2,952 firms from Russell 2000, S&P500 and Domini 400 indices) during the period 1993-2004. Similar to this, Kim and Statman (2012) find evidence that companies that increase their environmental responsibility also increase their firm value in subsequent three to five year period, compared to companies that did not change their environmental responsibility. They came to this conclusion after examining the changes in Tobin's Q between companies that increase or decrease their corporate environmental responsibility. Gregory and Whittaker (2013) used a different model of testing the relationship between CSR indicators and firm value, which offers a more theoretically robust manner than the employment of Tobin's Q. They also find that changes in CSP lead to subsequent changes in firm value and that firms act in the best interest of their shareholders when it comes to investing in CSR.

2.4.1.2 Negative relationship between CSR and firm performance

Negative outcomes have also been evident in the CSR literature. Brammer, Brooks and Pavelin (2006) find that their composite social performance score (consisting out of environment, employment and community activities) was significant negatively related to stock returns for UK quoted companies. Their main result is that higher social performance firms tend to achieve lower stock returns, while firms with the lowest social performance outperformed the market. When disaggregating the social performance scores, the poor financial rewards were mainly attributable to the employment and environmental aspects of CSR. A similar result is found by Makni, Fancoeur and Bellavance (2009) in the Canadian setting as a composite measure of CSP did not have a statistically significant relation with firm performance measures. However, disaggregated CSP scores give evidence for negative outcomes. The employee aspect of CSP scores in 2004 had a significant negative association with market returns of 2005 and the environmental aspect of the CSP scores in 2004 had a significant negative association with the market returns and return on assets (ROA) of 2005. In addition, Liu and Zhang (2017) find a significant negative relation between CSR disclosure and enterprise value in heavy pollution industries in China during 2008-2014. They argue that it is costly for enterprises in heavy pollution industries to undertake social responsible actions, which can only bring positive effects after a certain period. Based on the above, there can be concluded that the outcome of CSR to firm performance is mixed and complex.

2.4.1.3 Curvilinear relationship between CSR and firm performance

Other studies also find curvilinear or U-shaped relationships between CSR and firm performance. Barnett and Salomon (2006) find a curvilinear relationship between the financial returns of mutual funds and their socially responsible investing. The mutual funds that were screened the most intensely (thus with the highest social performance), and the mutual funds that were screened the least intensely (thus with the lowest social performance), showed the best financial performances. Those that had average screening showed the worst financial performances. Furthermore, they find that community relations screening increased financial performance, whereas environmental and labor relation screening decreased financial performance. Similar to this, Brammer and Millington (2008) test the relationship between CSP (measured by corporate charitable giving) and CFP by

dividing their sample in three groups: poor social performers, normal social performers and high social performers. Their results conclude that high social performers and low social performers have higher financial performance compared to other firms. They also test this relationship for different time horizons and find that poor social performers have the best financial performance in the short run and good social performers have the best financial performance in the long run. In a more recent study, Barnett and Salomon (2012) hypothesize that it is costly to engage in socially responsible practices and that the costs can outweigh the benefits of improved relations with stakeholders. Consistent with their underlying theory, they find a curvilinear relationship between CSP and CFP. Firms with the greatest CSP have the capacity to transform social investments into positive financial returns.

2.4.1.4 Reasons for mixed findings

Scholars find that there are various reasons for the mixed findings. Waddock and Graves (1997) state that mixed findings could be down to measurement problems regarding CSR. They believe that CSR is a multidimensional construct with a variety of inputs (e.g. investment in pollution control, environmental strategies), internal behaviors or processes (e.g. treatment of women and minorities, nature of products, relations with customers) and outputs (e.g. community relations, philanthropic programs). Moreover, CSR occurs over a wide range of industries with different characteristics, histories and performance in CSR dimensions. This all leads to different CSR measures and no universal multidimensional measure, which can be applied over a wide range of industries and a larger sample of companies. Margolis and Walsh (2003) agree with this as they state that the studies are subject to various imperfections, such as measurement problems related to CSP or financial performance, omitted variables and a lack of methodological consistency. Similar to this, Huang and Watson (2015) state that the conclusions of past literature should be taken with caution, because the studies may vary on key factors, such as time period, measures of CSR and financial performance and research design.

2.4.2 Organizational level outcomes

Next to firm performance, others organizational level outcomes are with regards to reputation, reduced firm risk, access to capital, attractiveness to investors and competitive advantage.

2.4.2.1 Firm reputation

A consistent finding of CSR initiatives is the improvement in a firm's reputation. Turban and Greening (1997) find evidence that higher CSP leads to a more positive organizational reputation in a sample of 161 firms. Thus, organizational leaders may not only want to invest in their social performance because of ethical or environmental reasons, but also because organizational reputation can lead to competitive advantage. Williams and Barrett (2000) find a similar effect as philanthropy was positively related to reputation. In addition, they show that the effect is even stronger when the firm frequently violated health, safety or environmental regulations. Brammer and Pavelin (2006) state that a high degree of social responsibility requires a diverse range of activities, such as philanthropic activities, reduction of environmental impacts and empowering practices for employees, which ultimately impact a firm's reputation. They examine the relationship between corporate reputation and social performance in a sample of UK companies and find that different types of social performance lead to different reputational impacts and that these impacts depend on which industry the firm operates in. For example, firms in the engineering and finance industry have a higher

reputation when engaging in community activities, whereas firms in the chemicals and transportation industry have a better reputation when engaging in environmental activities.

2.4.2.2 Reduced firm risk

Next to outcomes related to a firm's reputation, evidence is found that CSR can lead to reduced firm risk. McGuire, Sundgren and Schneeweis (1988) find that measures of risk explain a significant portion of the variability in CSR. They argue that not engaging in CSR activities may lead to additional risks from lawsuits and fines which reduce a firm's strategic options. Bansal and Clelland (2004) find similar results as corporate environmental legitimacy had a significant negative effect on the unsystematic risk for firms within heavily polluting industrial sectors. Their findings provide evidence that managers should manage their environmental performance, so that the media will release positive information. This in turn leads to less unsystematic risk perceived by investors. Godfrey, Merrill and Hansen (2009) test if CSR activities of firms can have 'insurance-like' benefits when firms suffer a negative event. They hypothesize that CSR activities can positively influence stakeholders' attributions as they temper negative judgments and sanctions towards firms who actively engage in CSR activities. Their event study based on 178 negative legal actions against firms from 1993 to 2003 finds evidence that institutional CSR activities, rather than technical CSR activities, provides 'insurance-like' benefits. Hereby institutional CSR activities refer to CSR activities aimed at secondary stakeholders or society at large and technical CSR activities refer to CSR activities aimed at firm's trading partners. Confirming to all this, Orlitzky and Benjamin (2001) conducted a meta-analysis considering the CSP and risk relationship. They find reciprocal causality as prior CSP is negatively related to subsequent financial risk and prior financial risk is negative related to subsequent CSP.

2.4.2.3 Access to capital

Furthermore, evidence is found that CSR leads to improved access to capital. In their study examining a broad sample of firms from 49 countries, Cheng, Ioannou and Serafeim (2014) find that firms with better CSR performance have significantly lower capital constraints. They argue that CSR oriented firms have better stakeholder engagement, limiting short-term opportunistic behavior and reducing overall contracting costs. Moreover, CSR oriented firms signal their long-term perspective to differentiate themselves by disclosing their CSR activities to the market. Furthermore, Goss and Roberts (2011) examine the link between CSR and bank debt. In their sample they find that the firms with the worst CSR scores pay up to 20 basis points more on their bank debt compared to firms with higher CSR scores. Focusing on the cost of equity, Dhaliwal, Li, Tsang and Yang (2011) find evidence that firms with a superior CSR score, as compared to their industry peers, achieve a significant reduction in their cost of equity. Those firms also attract significantly more dedicated institutional investors and analyst coverage, whereas these analysts have less absolute forecast errors and dispersion. This is in line with El Ghoul, Guedhami, Kwok and Mishra (2011) who find that high CSR firms have lower cost of equity compared to low CSR firms, as a result of a reduced investor base and higher perceived risk. However, this result only holds for three aspects of the CSR score (employee relations, environmental policies and product strategies), whereas the other three aspects (community relations, diversity and human rights) did not significantly reduce the cost of equity.

2.4.2.4 Attractiveness to investors and competitive advantage

Other outcomes of CSR at the organizational level are related to improved attractiveness to institutional investors and competitive advantage. Graves and Waddock (1994) find a significant positive relation between the number of institutions owning shares and the one-year lagged CSP.

This indicates that institutional investors take into account the CSP and that a high CSP leads to an increase in the number of institutions owning a stock. Furthermore, Greening and Turban (2000) find that firms with higher CSP are perceived as more attractive by employees and therefore a positive CSP lead to potential competitive advantage. Other studies find a positive link between green innovations (Chen et al., 2006) or committing to sustainability (Lourenco et al., 2014) and corporate competitive advantage.

2.4.3 Individual level outcomes

The outcomes of CSR at the individual level show positive effects regarding consumers, customers and employees.

2.4.3.1 Consumer choice, favorable evaluations and customer loyalty

First of all evidence is found that CSR affects the consumer choice of a company or product. This can be explained by the next example: embedded premium (EP) is a premium to the price of a product or service because of a social cause. Arora and Henderson (2007) found that EP is a strategy that works as it can increase sales, but also change the perceptions of consumers towards a brand. Similar to this, Sen and Bhattacharya (2001) conclude that CSR activities can decrease the consumers' intention to buy a company's product under certain circumstances. Other studies find that favorable evaluations of the company and its products are outcomes of CSR. They find a positive relationship between CSR actions and the consumers' attitude towards a company and its product (Brown & Dacin, 1997; Sen & Bhattacharya, 2001). For example, Brown and Decin (1997) find that negative CSR associations can have a harmful effect on product evaluations, whereas positive CSR associations can enhance product evaluations. Finally, it is also investigated that customer loyalty is an outcome of CSR activities. Maignan, Ferrell and Hult (1999) find a significant relationship between corporate citizenship and customer loyalty, indicating that customers support proactive corporate citizens as they benefit from these attitudes and share common values with them. By buying from those proactive corporate citizens, individuals express their appreciation for organizations that care for communities and continue buying their products.

2.4.3.2 Employee identification

Next to outcomes regarding customers and consumers, CSR activities can also positively influence employees. First of all, CSR activities can lead to improved employee identification with the organization. Carmeli, Gilat and Waldman (2007) find that, rather than the prestige in terms of market and firm performance; the prestige in terms of CSR performance was significant positively related with employee's identification with his or her organization. This result suggests that employees are more concerned about their organization's social responsibility performance than about their firm performance. Based on attitudinal data from an in-depth study of two Chilean construction firms, Rodrigo and Arenas (2008) find that CSR programs increase employees' degree of identification with the organization and improve their working performance. In addition, Kim, Lee, Lee and Kim (2010) find that CSR participation is significant positively related to the employee-company identification. Thus, employees who execute or decide upon CSR activities find it easier to identify themselves with the company.

2.4.3.3 Employee commitment

Evidence is also found that CSR leads to more employee commitment in the organization. Maignan et al. (1999) and Peterson (2004) find that corporate citizenship was positively associated with

employee commitment. This suggests that employees who work for firms that have proactive CSR strategies feel bound to the organization and are supportive of its objectives. Expanding on this, Ali, Rehman, Ali, Yousaf and Zia (2010) find a highly significant positive relationship between CSR and organizational commitment, CSR and organizational performance and organizational commitment and organizational performance. This result indicates that a company can increase its employee's organizational commitment by engaging in CSR activities, which ultimately lead to an enhanced organizational performance. Brammer, Millington and Rayton (2007) also find a positive significant relationship between CSR and commitment and concluded that this positive effect is at least as great as job satisfaction. In addition, they find that gender played a role in the commitment of CSR activities. Women were more committed to firms with higher scores on the aspects procedural justice and external CSR, while men were more committed to firms with higher scores on the provision of training.

2.4.3.4 Employee attractiveness and recruitment

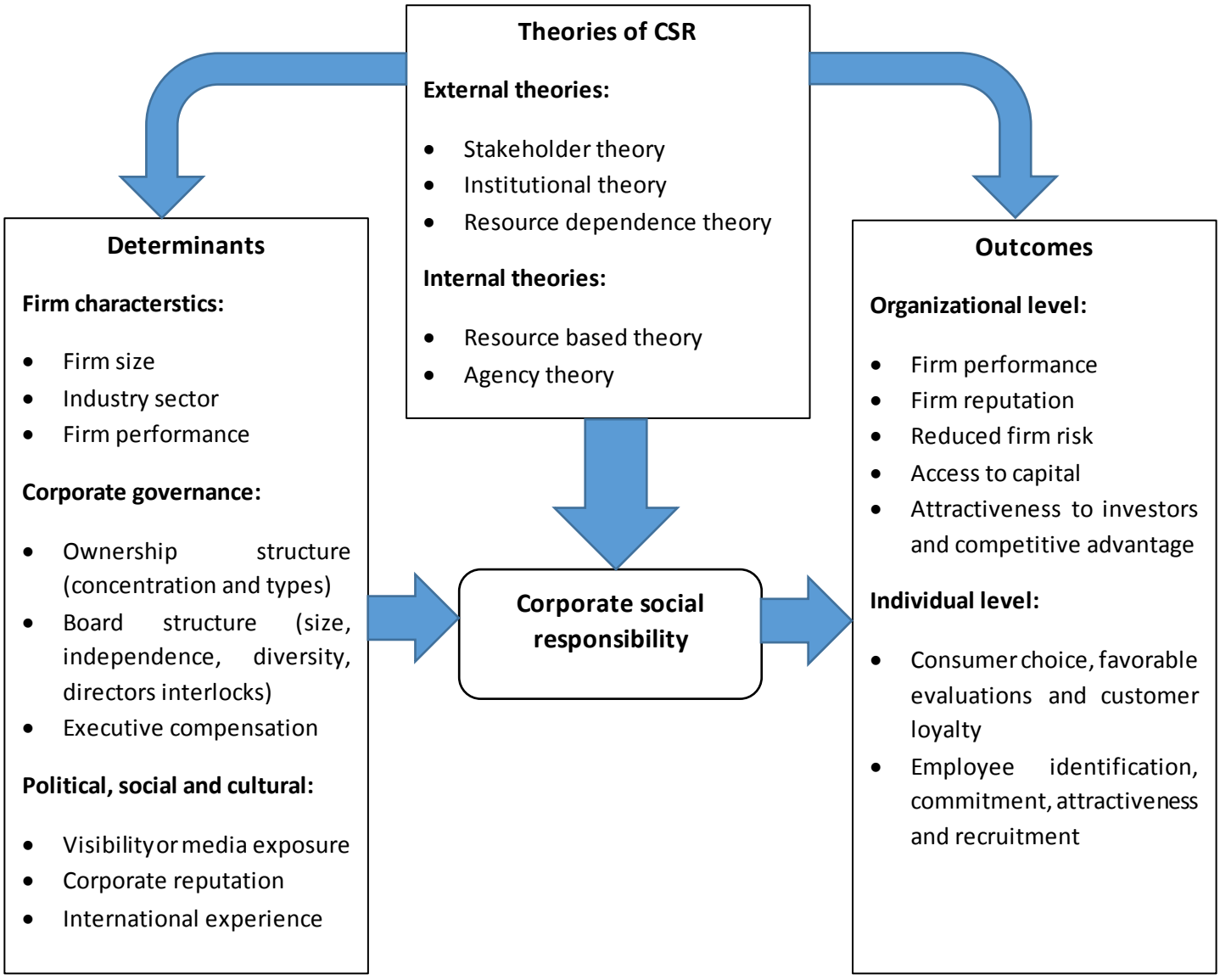
Next to that CSR actions lead to identification and commitment with the organization for existing employees, it also has positive outcomes on the attractiveness and recruitment of new employees. Results of the study by Turban and Greening (1997) support the hypothesis that firms with higher CSP are perceived as more attractive to employees, than firms with lower CSP. Product quality and employee relations as part of the CSP score even explained unique variance in employee attractiveness. Similar to this, Greening and Turban (2000) conduct another study on this topic and found that prospective job applicants' job pursuit, probability to interview and probability to accept a job offer were positively related to a firm's CSP score. Building on the research of Turban and Greening (1997), Albinger and Freeman (2000) examine the relationship between a firm's CSP and the attractiveness to employees among different job-seeking groups. Results of their study indicate that job-seeking groups with high job-choice are more attractive to firms with higher CSP scores. This implies that investing in CSR becomes increasingly important for firms who want to attract highly skilled and educated applicants. These results suggest that organizations invest in social actions not only for moral or ethical reasons, but also to gain a competitive advantage as they are more attractive to employees.

2.5 Conclusion

Despite the long history on the topic of CSR, academics and other interested parties still have not come to a universal definition. Although there is no consensus about the definition of CSR, it generally refers to how organizations manage their business processes to produce a positive impact on society and how it is serving people, communities and the environment in ways that go beyond what is legally and financially required. Certain theories emerging out of the business research can explain what drives firms to engage in CSR activities, and what the outcomes of those activities are. On the one side, external theories (stakeholder, institutional and resource dependence theory) assume that managers align CSR activities with the expectations, interests and beliefs of society. On the other side, internal theories (resource based theory and agency theory) assume that managers make decisions to align CSR activities with their own individual beliefs and interests. Researchers have extensively studied the determinants of CSR and find that certain firm characteristics (firm size, industry sector and firm performance), corporate governance mechanisms (ownership structure, board structure, executive compensation and director interlocks) and political, social and cultural factors (media exposure, reputation and international experience) are determinants for firms in their

CSR disclosure. The outcomes of CSR activities are extensive, e.g. better firm reputation, increased customer loyalty, reduced firm risk, improved access to capital and employee benefits. However, the most examined outcome of CSR activities is related to its effect on the firm performance. Although a positive relationship between CSR and firm performance is the most dominant, scholars have also find negative, insignificant and curvilinear relationships between CSR and firm performance. The next figure shows an overview of the subjects discussed in this literature review.

Figure 2.1: Literature overview



3. Hypothesis development

This chapter outlines the hypotheses that are tested in this study. The first hypothesis is related to the effect of CSR on firm performance, whereas the second and third hypotheses investigate the moderating effect of ownership structure and board structure.

3.1 CSR and firm performance

First of all this study examines the relationship between CSR and the firm performance. Engaging in CSR activities can be a costly investment for firms as it involves the spending of scarce financial resources. Both theoretical and empirical studies find conflicting reasons for a positive or negative relationship between CSR and firm performance. For example, Friedman (1970) believes that firms should focus on maximizing profits and return a portion of that profit to their shareholders rewarding their risk for investing in the firm. Therefore, he was one of the first to criticize CSR activities based on the agency theory as he finds that managers who pursuit environmental and social objectives would hurt the shareholder by generating a lower profit. However, as mentioned before, although mixed findings are found in the relationship between CSR and firm performance, a positive association between the two is the most dominant in the literature (Margolis & Walsh, 2003; Orlitzky et al., 2003; Van Beurden & Gössling, 2008). The reason for this positive relationship can be explained on the basis of the stakeholder theory and resource based theory.

Based on the stakeholder theory, it is argued that managers must implement processes that satisfy all and only those who have a stake in the firm. Reason for this is that stakeholders can affect the firm performance, which is illustrated by the following example. As a firm has many implicit claims from stock- and bondholders, it also has many explicit claims from other stakeholders. These explicit claims can for example be wage contracts and others whom the firm has made implicit contracts with, such as quality service and social responsibility. When the firm does not meet those implicit contracts, parties can transform the implicit contracts into explicit agreements that will be more costly for the firm. For example, when a firm does not meet its promises towards the government in regard to environmental regulations (dumping, etc.), the government may find it necessary to pass more stringent regulations to force the firm to act in socially responsible ways. These stringent regulations may lead to additional costs for firms which lower their profits. Thus, firms with a better CSR have less implicit claims leading to less (potential) costs and a higher firm performance (McGuire et al., 1988). CSR activities may also positively influence a firm's revenue since there is a growing awareness among customers about social and environmental issues. Customers demand CSR related products and are willing to pay a price premium for such products (Arora & Henderson, 2007). CSR actions also lead to a higher consumers' attitude towards a company and its product (Brown & Dacin, 1997; Sen & Bhattacharya, 2001). Since those customers favor products of companies who engage in CSR activities, it may ultimately lead to a higher firm performance.

Based on the resource based theory it is argued that certain resources can lead to competitive advantage, which in turn can improve a firm's performance. Examples of those resources are firm reputation or human capital. Russo and Fouts (1997) argue that environmental policies can lead to competitive advantage, whereas McWilliams and Siegel (2011) state that firms can capture value of their CSR activities because those activities lead to better firm reputation. Similar to this, Surroca et al. (2010) find evidence that CSR activities had a positive effect on intangible resources (innovation, human resources, corporate reputation and organizational culture), which resulted in a higher financial performance. For example, CSR activities can improve a firm's reputation which, in turn, can

lead to a higher financial performance. Human capital is considered as another important resource as employees of one firm can be more productive than those of other firms. CSR practices within a firm can lead to the hiring of better and more motivated employees (Greening & Turban, 2000), which has a positive effect on the firm performance. In short, these arguments give evidence that investments in CSR can lead to competitive advantage as firms differentiate themselves from other firms, which ultimately leads to a better firm performance.

Empirical studies find positive, negative and curvilinear relationships between CSR and firm performance. A negative relationship is found by Brammer et al. (2006), who find that their composite social performance score (consisting out of environment, employment and community activities) was significant negatively related to stock returns for UK quoted companies. Similar to this, Liu and Zhang (2017) find a significant negative relation between CSR disclosure and enterprise value in heavy pollution industries in China during 2008-2014. Curvilinear relationships between CSR and firm performance was find in empirical studies, concluding that low CSR performers and high CSR performers both have higher firm performance compared to other mid CSR performers (Brammer & Millington, 2008; Barnett and Salomon, 2012). However, the most empirical studies find a positive relationship between CSR and firm performance. Different meta-analyses find that a positive association between CSR and firm performance is the most dominant (Orlitzky et al., 2003; Margolis & Walsh, 2003; Van Beurden & Gössling, 2008).

Therefore, the following hypothesis is formulated:

H1: CSR activities lead to a higher firm performance.

3.2 The moderating role of corporate governance

Furthermore, this study intends to examine the moderating role of corporate governance in the effect of CSR on firm performance. Corporate governance focuses on the extensive relationships between the organization and their stakeholders, or between the organization and society (Liu & Zhang, 2017). It is also related to how an organization is directed and controlled. When an organization incorporates high levels of corporate governance then it could safeguard stakeholders' rights and ensure social responsibility. Good corporate governance could prevent the organization from unlawful acts or short-term behavior and firms would be more likely to undertake CSR actions (Khan et al., 2013). In addition to this, effective corporate governance mechanisms can also reduce costs, such as agency costs. Managers are prevented from spending scarce resources on CSR actions that only benefit their own interest and therefore it could positively influence the firm performance.

Within corporate governance there are many factors that can influence how an organization is directed and controlled. The factors of corporate governance that are included in this study are ownership and board structure. Firstly, the reason to examine ownership structure as corporate governance mechanism is because the nature of corporate governance problems importantly varies by ownership structure (Claessens & Yurtoglu, 2013). The owners (shareholders) have voting rights, decide upon a firm's future and therefore ultimately control the firm. The main problem hereby refers to the principal-agent issues, discussed in the agency theory. Different ownership structures result in agency problems between shareholders and managers. For example, managers may act in self-interest which goes at the cost of value-enhancing activities for shareholders. Ownership structures in The Netherlands are characterized by a network-oriented system (Kabir et al., 1997). This system features closely held or concentrated ownerships and substantial involvement of banks

in corporate finance and control. Secondly, the reason to examine board structure as corporate governance mechanism is because different board structures can ensure knowledge, personal ties and legitimacy. Closely related to the resource dependency theory, board members can provide critical resources which can be vital for the firm's survival or growth. Findings also suggest that firms with a higher fraction of independent directors on the board have higher valuation (Claessens & Yurtoglu, 2013). The board structure for listed companies in The Netherlands is characterized by a traditional dualistic governance model (two-tier governance). Companies with a two-tier governance model have a distinction between the management (management board) and their supervision (supervisory board). The supervisory board should be independent from the management board and serve the interest of the shareholders (Monitoring Committee, 2016). The supervisory board (thus, not the shareholders) appoint the management board, which run the day-to-day operations of the firm (Kabir et al., 1997). This structure leads to a clear distinction between dependent (management board) and independent directors (supervisory board) on the board. Since the board appoints executive managers, decide upon the firm's strategy and run the day-to-day operations of the firm, they play an important role in the business. Based on the arguments above it is interesting to examine which effect different ownership and board structures have on the relationship between CSR and firm performance.

3.2.1 Ownership structure

The agency theory is much related to the ownership structure of a firm as its shareholders (principal) delegate work to the management (agent) who perform that work. Different ownership structures can lead to different opinions about the decision to invest in CSR activities (Dam & Scholtens, 2013).

3.2.1.1 Ownership concentration

Starting with ownership concentration, there are conflicting arguments based on the agency theory for a positive or negative impact of CSR on firm performance. On the one hand, it is assumed that in concentrated ownership structures the minority of shareholders are hardly protected and unable to control management, whereas large shareholders can effectively monitor the firm and affect their operations and strategy (Dam & Scholtens, 2013). Since the large shareholders have a high stake in the firm, they will actively take part in the decision making of the firm to ensure that the firm undertakes value-enhancing activities. CSR can be one of those value-enhancing activities as it can improve firm reputation, employee attractiveness and customer awareness. On the other hand, it is assumed that firms with high ownership concentration will not be able to function well, because the dominant shareholder may influence the firm's decisions based on the short-term financial performance (Lau et al., 2016). In this case, CSR activities are seen as costly investments which may not be seen as beneficial to the large shareholders. Dam and Scholtens (2013) agree with this, as they state that the benefits of CSR do not outweigh the costs for large shareholders. Thus, CSR activities are seen as costly investment by large shareholders as they can negatively affect the firm performance.

Empirical studies also find evidence for a negative relationship between ownership concentration and CSR (Brammer & Pavelin, 2006; Dam & Scholtens, 2013; Lau et al., 2016; Li & Zhang, 2010; Liu & Zhang, 2017). For example, Lau et al. (2016) and Liu and Zhang (2017) find that higher ownership concentration results in lower CSR performance for Chinese listed firms. Dam and Scholtens (2013) investigated European multinational enterprises from fifteen different countries and 35 industries.

They find that more concentrated ownership levels are associated with a stronger negative relationship with CSR policies.

Therefore, the following hypothesis is formulated:

H2a: Ownership concentration weakens the effect of CSR on firm performance.

3.2.1.2 Managerial ownership

The agency theory argues that managers have the power to allocate the resources among the stakeholders in ways that are beneficial for them. It is assumed that when managers own equity in a firm, they are more likely to allocate resources in ways that will maximize shareholders' value. Since there was hypothesized that CSR has a positive influence on firm performance, it is expected that managers would engage in CSR to enhance the firm performance. This might be true in the long run, however, in the short run investments in CSR will lead to high expenses and reduce current profits (Oh et al., 2011). Therefore, managers might be less interested in investing in CSR. Similar to this, Barnea and Rubin (2010) state that when insiders own a larger ownership, they also have to bear more of the costs associated with non-value maximizing activities, such as CSR. This implies that managerial owners are less inclined to engage in CSR activities as it may reduce their current profits. This gives reason that managerial ownership is negatively related to CSR and since CSR is a value-increasing investment, it weakens the effect of CSR on firm performance.

Empirical studies find evidence for a negative relationship between managerial ownership and CSR (Barnea & Rubin; 2010; Dam & Scholtens, 2012; Khan et al., 2013; Oh et al., 2011). For example, Khan et al. (2013) examined a sample of 135 Bangladesh manufacturing firms and find a negative relationship between the percentage of shares owned by the directors and CSR disclosure score. Oh et al. (2011) find a negative relationship between top management team ownership and CSR rating, whereas outside director ownership was insignificant in the Korean context.

Therefore, the following hypothesis is formulated:

H2b: Managerial ownership weakens the effect of CSR on firm performance.

3.2.1.3 Institutional ownership

Scholars suggest that institutional ownership has a significant influence on organizational decisions (Oh et al., 2011). Institutional investors usually have substantial voting power and an informational advantage over other shareholders. Based on the agency theory, they are more likely to actively monitor the firm's strategic decisions, opposed to other shareholders, because they hold significant percentages of a firm's stock. Since it is believed that CSR activities are good management practices that should enhance the firm's long term performance (Graves and Waddock, 1994), it is expected that institutional investors would be more likely to invest in CSR as a strategic decision. Furthermore, based on the institutional theory, institutions can pressurize firms into CSR activities as organizations want to meet demands coming from accepted norms in the industry. Another argument why institutional investors would engage in CSR was presented by Siegel and Vitaliano (2007). They argued that institutional investors invest in socially responsible businesses to signal their (potential) clients that they are reliable and responsible. Based on this, it is expected that there exists a positive relationship between institutional ownership and CSR and that institutional ownership strengthens the effect of CSR on firm performance.

Empirical studies also find evidence for a positive relationship between institutional ownership and CSR (Barnea & Rubin, 2010; Graves & Waddock, 1994; Harjoto & Jo, 2011; Johnson & Greening, 1999; Oh et al., 2011). For example, Johnson and Greening (1999) find that the percentage of equity ownership by public pension funds was positively related to the CSP dimensions people and product quality. Similar to this, Harjoto and Jo (2011) find that the percentage of institutional ownership is positively related to CSR choice.

Therefore, the following hypothesis is formulated:

H2c: Institutional ownership strengthens the effect of CSR on firm performance.

3.2.2 Board structure

The resource dependence theory can be used to explain the relationship between board structure and CSR engagement. The resource dependence theory suggests that external resources of an organization affect the behavior of the organization. Organizations depend on their surroundings to guarantee the flow of critical resources for their survival and growth. In the resource dependence theory, the role of board of directors is often highlighted as this is seen as a critical resource for organizations. The board of directors can ensure knowledge, personal ties and legitimacy which can be critical for the firm's survival or growth. The board structure will be analyzed by board size and board independence.

3.2.2.1 Board size

As the board of directors can ensure a critical resource for the firm, a larger board size can include more prestigious directors (Certo, 2003). Given that larger board can acquire more prestigious directors, the experience and knowledge on the board may increase which leads to a better advice of the board (Dalton et al., 1999). Also, larger boards are more likely to include experts on specific issues such as environmental performance (De Villiers et al., 2011). Thus, larger boards are more likely to contain experienced and knowledgeable directors, who possess better expertise on CSR. These directors may have been previously exposed to challenges and opportunities related to CSR and are therefore better able decide upon them (De Villiers et al., 2011). As they are better able decide upon CSR activities, it is also expected that this will lead to value-enhancing CSR investments. Based on this there exists a positive relationship between board size and CSR, and that a larger board size strengthens the effect of CSR on firm performance.

Empirical studies find evidence for a positive relationship between board size and CSR (Bartkus et al., 2002; De Villiers et al., 2011; Jizi et al., 2014). For example, De Villiers et al. (2011) find that the environmental performance is higher in firms that have larger boards. This indicates that larger boards are likely to have diversity and richness of expertise to enhance their environmental performance. Bartkus et al. (2002) find a positive relationship between board size and corporate philanthropy, whereas Jizi et al. (2014) find a positive relationship between board size and the CSR disclosure of annual reports in the U.S. banking sector.

Therefore, the following hypothesis is formulated:

H3a: A larger board size strengthens the effect of CSR on firm performance.

3.2.2.2 Board independence

The effect of board independence on CSR engagement can be explained by the resource dependence theory. Since outside directors are unrestrained in their decision making, it is assumed that they can increase the reputation and credibility of a firm and are more likely to make long-term investments (De Villiers et al., 2011). Jizi et al. (2014) agree and state that outside directors are less focused on short-term financial goals and are more interested in long-term sustainability which would lead to engaging in CSR activities. Also, outside directors representing many different constituents are more knowledgeable in facing critical contingencies and are more inclined to comply with penalties, fines and negative media exposure to avoid a loss in reputation (Johnson & Greening, 1999). Since outside directors are interested in long-term sustainability and unrestrained in their decisions, it is expected that their companies engage in CSR activities that are value-enhancing. Therefore, it is expected that there exists a positive relationship between the proportion of outside directors and CSR, and that higher board independence strengthens the effect of CSR on firm performance.

Empirical evidence for this positive relationship is found in several studies (Chang, Oh, Park & Jang, 2015; Harjoto & Jo, 2011; Jizi et al., 2014; Johnson & Greening, 1999; Post et al., 2011). For example, Johnson and Greening (1999) find that the number of outside directors was positively related to the CSP dimensions people and product quality in a sample containing large firms from the KLD database. They conclude that outside directors may encourage investments in quality products and services to act in the long-term interest of shareholders. Similar to this, Chang et al. (2015) find a positive relationship between the proportion of outside directors and CSR ratings among large publicly traded Korean firms.

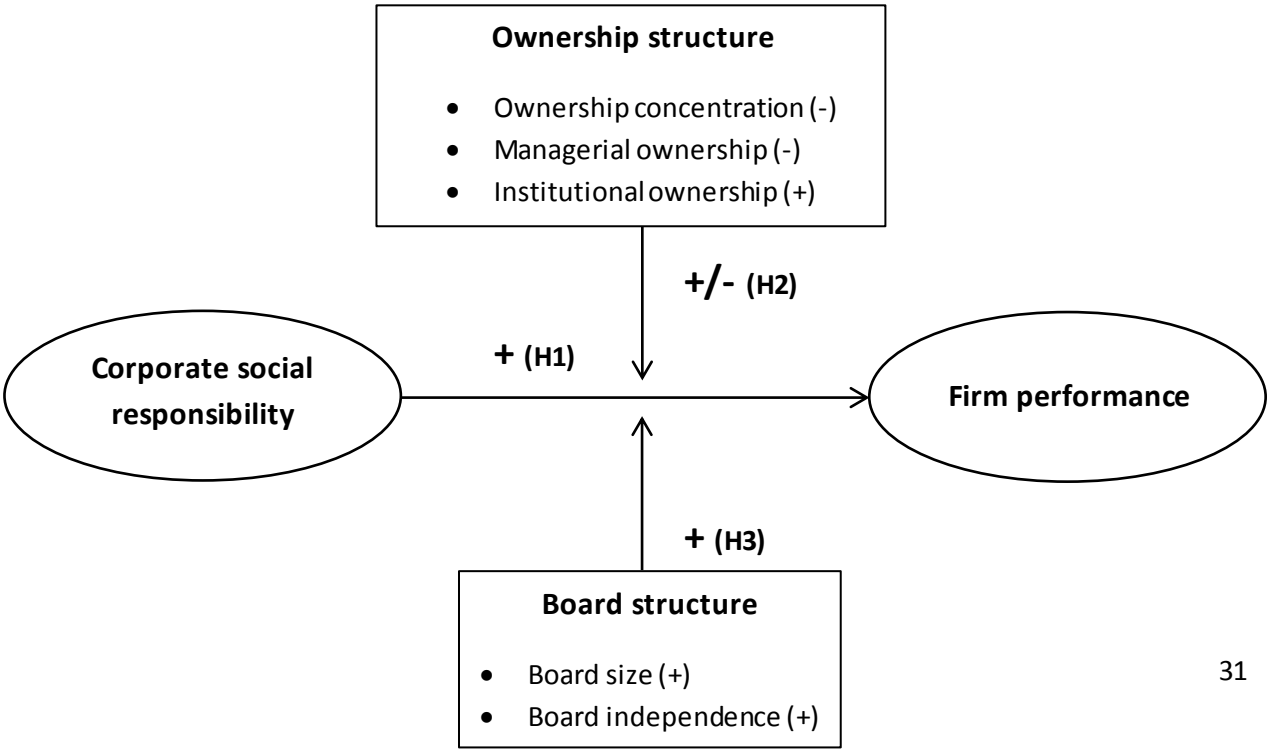
Therefore, the following hypothesis is formulated:

H3b: Higher board independence strengthens the effect of CSR on firm performance.

3.3 Hypothesized model

Based on the hypotheses above, the following relations will be tested:

Figure 3.1: Hypothesized relations



4. Research method

In this chapter the research method of the study is discussed. First, the research methodology and the different models are explained. After that, the measurements of the variables that are included in this study are described.

4.1 Methodology

4.1.1 Prior studies

Prior studies in the topic of corporate social responsibility (CSR) used different kind of research methods. However, when looking across studies which examine a moderating role in the relationship between CSR and performance, there are mainly two research methods which are used, namely regression analysis and structural equation modeling (SEM). Regression analysis is used in the study of Peng and Yang (2014), who examine a moderating role of ownership concentration in the relationship between corporate social performance (CSP) and financial performance. Similar to this, Kabir and Thai (2017) used regression analysis in their study examining the moderating role of ownership identity and board structure in the relationship between CSR and financial performance. Finally, Russo and Fouts (1997) find that industry growth is a moderator in the relationship between environmental performance and economic performance, also using regression analysis. Next to regression analysis, the study of Isidro and Sobral (2015) examined the relationship between women on corporate boards and firm value, financial performance and ethical and social compliance by the use of a SEM. The reason for scholars to use SEM instead of regression analysis is because they find that SEM is more appropriate than traditional regression in CSR research. SEM is a second generation statistical technique which simultaneously tests the causal relationship between multiple dependent variables and independent variables. First generation techniques like factor analysis, discriminate analysis and multiple regression are not able to do this. In addition to this, it is also claimed that SEM can reduce bias by taking measurement errors into account (Saeidi et al., 2015).

However, in the context of CSR and its effect on firm performance, regression analysis is by far the most dominant one. For example, Waddock and Graves (1997) find that there is a virtuous circle between CSP and financial performance using regression analysis. Regression analysis is also used to find a curvilinear relationship between CSR and financial performance (Barnett & Salomon, 2012; Brammer & Millington, 2008). Studies that have related corporate governance mechanisms to CSR also used regression analysis. Khan et al. (2013) and Lau et al. (2016) tested several models to identify the relationship between corporate governance factors and CSR disclosure. On top of that, the studies that tried to examine moderating mechanisms in the effect of CSR on firm performance have used regression analysis (Russo & Fouts, 1997; Peng & Yang, 2014; Kabir & Thai, 2017). In order to be consistent with prior studies, regression analysis seems the most appropriate method for this study.

4.1.2 Regression analysis

Regression analysis is a dependence technique where a single dependent variable is predicted by one (simple regression) or more (multiple regression) independent variables. Regression analysis is by far the most widely used and versatile dependence technique, applicable in every facet of business decision making (Hair, Black, Babin & Anderson, 2013). The object of the method is to find out whether the independent variable(s) can predict the dependent variable. In business research, regression analysis is the foundation to test forecasting models, ranging from econometric models

that predict the national economy based on certain inputs (income levels, business investments, etc.), to model a firm's performance in a market when a specific strategy is followed (Hair et al., 2013). Thus, regression analysis can be used in a wide range of studies making it a powerful tool to examine all kind of dependence relationships.

Within regression analysis there are different forms of regression that can be used to find out which independent variable(s) predict the dependent variable. Starting with logistic regression, this model can be used when the dependent variable can take up to two values. Various CSR studies have used this form of regression to determine if a firm undertakes CSR activities or not. For example, firms will be assigned a ''1'' if they provide a CSR report and a ''0'' if they do not. However, this form of regression is less appropriate for this study as it examines the effect of CSR on firm performance, where the dependent variable is a metric variable.

Next to logistic regression, linear regression is another form of regression analysis. In linear regression, the independent variables are predicted from the data using linear predictor functions. Within linear regressions there are different estimation techniques which can be used to predict the independent variable(s). The simplest and thus most common used estimator of linear regression is the ordinary least squares (OLS) estimation. It is suitable when the dependent variable is metric and recorded on an interval or ratio scale. Since the dependent variable in this study is a metric variable, OLS regression seems to be an appropriate method. Previous studies that examine moderating roles in the relationship between CSR and firm performance have also used OLS regression (Kabir & Thai, 2017; Peng & Yang, 2014; Russo & Fouts, 1997). OLS regression uses t-test statistics to determine the impact of each independent variable on the dependent variable and whether it is significant or not. However, the big disadvantage of OLS regression is that it does not address endogeneity problems, which is a key issue in studies examining the effect of CSR on firm performance. Paragraph 4.1.3 discusses how to address this endogeneity problem.

Other studies have also made use of fixed effects or random effects models (e.g. Barnett & Salomon, 2006; Cheng et al., 2014; Surroca et al., 2010). When the data contains a panel component, several problems can occur with regard to cross-sectional features (e.g. heteroscedasticity), time-series characteristics (e.g. autocorrelation) and omitted variables (Kabir & Thai, 2017). Fixed effects model and random effects model can be used to address these problems. The decision to use a fixed effects model or random effects model depends on whether the data is balanced and has enough observations per firm. When the data is unbalanced and short panel with only a few observations per firm, fixed effects model is less appropriate. The Hausman test can be performed to decide between fixed effects model and random effects model. However, since this study only examines a one-year period, the problems that occur with panel component data are not problematic. Therefore, fixed effects or random effects models are not appropriate for this study.

4.1.3 Endogeneity problem

One key issue that needs to be addressed when examining the effect of CSR on firm performance is that an endogeneity problem may exist. It could be that firms who are engaging in CSR simply perform better than firm who do not engage in CSR. As a result of this there is correlation among the independent variables and the error term. To account for this problem, Harjoto & Jo (2011) make use of a two-stage least squares regression analysis. The two-stage least squares regression can correct for this bias by including an instrumental variable, also called the instrumental variable approach. In

this approach a variable has to be identified that influences the CSR choice, but does not influence the dependent variable. Harjoto & Jo (2011) applied this method and used firm age as their instrumental variable as it was highly correlated with CSR engagement, but uncorrelated with Tobin's Q or return on assets (ROA). Kabir and Thai (2017) also mentioned this problem as they state that reverse causality is a concern and that there exists a possibility that the errors terms are correlated within firms across time. Similar to Barnett and Salomon (2012) and Isidro and Sobral (2015), they use a dynamic model by including a one year lag of the independent variables. Lagging the independent variables one year can be a solution to address the endogeneity problem. In this study reverse causality and the possibility that error terms are correlated within firms across time are also problems that need to be addressed. Therefore, and similar to other studies (Barnett & Salomon, 2012; Isidro & Sobral, 2015; Kabir & Thai, 2017), the independent variable(s) will be lagged one year.

4.1.4 Method applied in this study

The method that is applied in this study is OLS regression with a one year lag of the independent variable(s). The reason for this is that OLS regression is suitable when the dependent variable is metric and recorded on an interval or ratio scale. Also, fixed effects or random effects models are not appropriate since this study examines one year data and does not contain panel data. Furthermore, the independent variable(s) are lagged one year to address the endogeneity problem.

4.2 Model

4.2.1 Model hypothesis 1

In order to test the first hypothesis an OLS regression is conducted that regresses the firm performance in terms of the one year lagged CSR and control variables. This OLS regression is similar to other studies examining the effect of CSR on the firm performance (e.g. Kabir & Thai, 2017; Russo & Fouts, 1997). The regression model is written as follow:

$$FP_{i,t} = \alpha_0 + \alpha_1 CSR_{i,t-1} + \alpha_x Controls_{i,t} + \varepsilon_{i,t}$$

Where:

$FP_{i,t}$ = Firm performance of firm i in year t;

$CSR_{i,t-1}$ = CSR performance of firm i in year t-1;

$Controls_{i,t}$ = Firm size, leverage and industry effects of firm i in year t; and

$\varepsilon_{i,t}$ = Firm-specific errors of firm i in year t.

As mentioned before, reverse causality and the possibility that the error terms are correlated within firms across time is a problem that needs to be addressed. Therefore the model uses the one year lag of the independent variable (CSR). Furthermore, the model incorporates different control variables. The control variables included are firm-level control variables, like firm size and leverage, but also fixed effects for industry.

4.2.2 Model hypothesis 2 and 3

In order to test the second and third hypotheses, the moderating effects of the corporate governance variables are involved. Again, to avoid reverse causality and the possibility that error terms are correlated within firms across time, a one year lag of the independent variable has been

incorporated. This leads to the following regression model, which is in line with the studies of Kabir and Thai (2017) and Peng and Yang (2014):

$$FP_{i,t} = \alpha_0 + \alpha_1 CSR_{i,t-1} + \alpha_2 CG_{i,t-1} + \alpha_3 CSR_{i,t-1} CG_{i,t-1} + \alpha_x Controls_{i,t} + \varepsilon_{i,t}$$

Where:

$FP_{i,t}$ = Firm performance of firm i in year t;

$CSR_{i,t-1}$ = CSR performance of firm i in year t-1;

$CG_{i,t-1}$ = Corporate governance variables of firm i in year t-1;

$CSR_{i,t-1} CG_{i,t-1}$ = Moderating effect of CSR and corporate governance variables of firm i in year t-1;

$Controls_{i,t}$ = Firm size, leverage, and industry effects of firm i in year t; and

$\varepsilon_{i,t}$ = Firm-specific errors of firm i in year t.

4.2.3 Robustness tests

Next to the regression models that are conducted to test the hypotheses, several robustness tests are performed to examine whether the results hold under different settings. At first, a subsample analysis is conducted where the manufacturing industry is analyzed separately. This is done as the manufacturing industry is the largest industry in the sample, and it is argued that firms operating in sectors closely related to environmental concerns (like manufacturing firms) have a greater tendency to engage in CSR activities. The second robustness test splits the CSR scores into environmental and social CSR. Both dimensions of CSR can have a different impact on firm performance and therefore this is examined. The third robustness test includes alternative measures of variables. Among others, this robustness test includes a contemporaneous regression with firm performance data of year t-1. This is done as there exists a possibility that the one year lag of the indepdent variables is an invalid assumption.

4.3 Measurement of variables

4.3.1 Corporate social responsibility

The measurement of CSR in prior studies can be roughly divided into measurement by a reputation index or by content analysis. Both methods are discussed and afterwards a motivation will be given for the method that is used to measure CSR in this study.

Reputation index

A reputation index measures the CSR performance of firms by rating them on various CSR aspects. This measurement is done by independent firms to insure the reliability and consistency of the ratings. The most common reputation index for CSR is the Kinder, Lydenberg and Domini (KLD) index, which is the largest multidimensional CSP database who rates firms based on their environmental, social and corporate governance performance (Barnett & Salomon, 2012). It is the most comprehensive and widely used data on CSR research and includes social ratings for more than 3000 companies (Harjoto & Jo, 2011). The KLD index provides a score reflecting a firm's CSR engagement

based on seven dimensions, which include community, corporate governance, diversity, employee relations, environment, human rights and products. The number of strengths and concerns on every dimension will be assessed and a firm's final score can be calculated by subtracting the total number of strengths by the total number of concerns. This index is used in many studies involving CSR (Barnett & Salomon, 2012; Harjoto & Jo, 2011; Surroca et al., 2010; Waddock & Graves, 1997). Other reputation indices are national, such as the RKS providing CSR scores for China (Lau et al., 2016; McGuinness, Vieito & Wang, 2017) and the KEJI index for Korean entities (Oh et al., 2011).

For a large number of Dutch firms there exists a reputation index called the Transparency Benchmark (TB). This reputation index is an annual research on the content and quality of CSR disclosure of Dutch companies. The TB was introduced in 2004 by the Ministry of Economic Affairs with the objective to assess to which extent Dutch firms are actively engaging in CSR activities[1]. The rating is performed by the independent agency Ernst & Young with a number of activities outsourced to MVO Nederland. The TB is performed for a yearly determined group including the largest companies in the Netherlands. Every company will be assessed on 40 criteria, which can lead to a maximum score of 200 points (TB, 2017). 100 points can be acquired by 21 criteria on the content-oriented framework of standards and include subjects about the business model, social policy and management approach. Another 100 points can be acquired by the 19 criteria on the quality-oriented framework of standards and include subjects about relevance, clearness, reliability, responsiveness and coherence. When a company does not publicly disclose their annual report it will be awarded a ''0'' score, which should not mean that the company does not engage in any CSR activities at all. After the rating, scores will be set and firms who disagree with their score can comment on this. Ernst & Young hands over the corrected scores to the Ministry of Economic Affairs who determines the final scores. A panel of experts assesses the twenty highest scoring firms to determine who wins the Crystal Prize, the prize for the firm with the best TB score. In 2016, Alliander won the Crystal Prize with a total of 199 points, whereas Schiphol Group finished second with 198 points and NS finished third with 197 points[2]. A few reasons for this were that Alliander regularly discussed social policy and dilemmas in their board meetings, questioned the focus on increasing capacity and set goals to being carbon neutral in 2023.

Although the TB at first sight looks like an appropriate measure for CSR, it is less appropriate in the context of this study. This is because the TB involves rating firms on various aspects such as company and business model, social policy and management approach. However, management approach includes practices that are similar to the included corporate governance variable, such as governance, steering and control. When the TB would be used to measure CSR in this study, then an overlap will exist in the CSR score with the corporate governance variables. The following example will illustrate this problem. The TB assigns a higher score to companies who actively report which members are on their management and supervisory board with an explanation of their background. When this would be used as measurement for CSR then the effect of the variable board independence is already included in the CSR score. This will lead to an overlap in the CSR score and therefore this measurement of CSR is less appropriate in this study. However, the TB scores can still be used as an alternative measure for CSR (*CSR_TB*).

[1] https://www.transparantiebenchmark.nl/en/about-transparency-benchmark
[2] https://www.transparantiebenchmark.nl/en/crystal-prize/winner-2016

Content analysis

Since the TB is less appropriate for this study, a content analysis is conducted to assess the firms' CSR scores. Content analysis is a common measurement method used in the CSR context and includes codifying text or content of a piece of writing into categories depending on the selected criteria. An essential element in content analysis is that different categories are being selected into which content units can be classified (Haniffa & Cooke, 2005). This measurement method is most common in studies examining corporate social reporting and CSR disclosure (e.g. Haniffa & Cooke, 2005; Khan et al., 2013; Liu & Zhang, 2017). For example, Haniffa and Cooke (2005) and Khan et al. (2013) used similar methods for content analysis to assess the extent of CSR in the annual reports of their sample. They followed a checklist containing five different categories (community involvement, environmental, employee information, product or service information and value-added information) to assess the extent of CSR, whereby a company was awarded ''1'' if an item was included and ''0'' if not. The final CSR score is computed by the actual score divided by the maximum possible score. Tagesson et al. (2009) also used content analysis, although they examined social disclosures on corporate websites with a checklist consisting out of three categories (environmental disclosures, ethics disclosures and human resource disclosures). Their checklist contained 22 issues and to get to the final score the dummy variables was recalculated into a percentage. However, this way of measuring CSR is criticized because it does not take into account the extensiveness of reporting the issues (Hackston & Milne, 1996). For example, a particular issue that has only been mentioned once will weight equal to the same issue that has been mentioned 50 times. The use of word count overcomes this problem as this take into account the number of times an issue has been mentioned.

One of the key issues in content analysis is to decide the unit of analysis. A unit is an identifiable component of communication through which variables are measured (Gamerschlag et al., 2011). There are several ways to conduct content analysis based on the unit of analysis, for example counting words, sentences, sections or reading whole texts. In this study words will be used as the unit of analysis. The reason for this is that with words as unit of analysis, the coder is not required to provide subjective judgment. For example, the coder does not have to decide whether an issue is considered as CSR or not. Furthermore, this type of content analysis is regarded as most reliable as it will give the same results when repeated and it is easy to replicate for other studies (Gamerschlag et al., 2011).

Another key issue in content analysis is the identification of keywords. Along with other studies (Gamerschlag et al., 2011; Guthrie, Cuganesan & Ward, 2008), the keywords that are used for the content analysis are derived from the Global Reporting Initiative (GRI). The reason for this is that the GRI is regarded as the most relevant institution concerning CSR and is often used as a global standard (Gamerschlag et al., 2011). GRI is an international independent organization that helps businesses, governments and other organizations to understand and communicate their impact on critical sustainability issues, such as climate change, human rights, corruption and others[3]. The GRI publishes GRI Sustainability Reporting Standards to create a common language for organizations and stakeholders, with which the economic, environmental, and social impacts of organizations can be communicated and understood (GRI, 2016). The keywords that are used for the content analysis in this study are based on the GRI Sustainability Reporting and additional words regarding CSR. The GRI Sustainability Reporting is divided into three topic-specific standards, namely economic,

[3] https://www.globalreporting.org/Information/about-gri/Pages/default.aspx

environmental and social. The economic keywords will be excluded from the content analysis as it contains words like ''*Economic performance*'' and ''*Market presence*'' which do not relate to CSR as outlined in the literature review. Along with Gamerschlag et al. (2011), both the singular and plural forms of words (e.g. equal opportunity/equal opportunities) as well as British and American English words (e.g. labour/labor) are being counted. An overview of the keywords can be found in Appendix A. Since some firms only publish their annual report in Dutch, a list of keywords in Dutch is also drawn up which can be found in Appendix B.

One important note to the content analysis is that keywords were not only counted, but also analyzed if it actually presents CSR behavior. For example, the keyword ''*Emission*'' was only counted as CSR score when it was mentioned in the context of ''*we have reduced our CO2 emissions by 50%*'' and not when it was mentioned in the context of ''*our CO2 emission in 2015 was 10 million tons*''. The latter does not represent CSR behavior, whereas the first does. Another example of this is the keyword ''*Climate*''. Some firms mentioned climate in terms of the political or economic climate, while only CSR scores were awarded to firms who mentioned climate in terms of the environmental climate. This was done to improve the quality of the content analysis.

In order to get to the CSR score, all keywords were searched in the annual reports of the sampled firms. The number of times each single keyword was disclosed in the annual reported was summed up. Since there are differences between the extensiveness of a firm's annual report, the final CSR score is measured by dividing the number of CSR keywords by the number of pages of the annual report (*CSR_Div*). Next to this, Kabir and Thai (2017) used the natural logarithm of the total number of CSR keywords as measurement for CSR score. This measurement can be used as an alternative measure for CSR (*CSR_Log*).

4.3.2 Firm performance

In recent studies, firm performance is measured on different ways with a main distinguish between accounting-based measurements and market-based measurements.

Accounting-based measurements involve the profitability of a firm as major factor and gauge the operating and firm performance of the firm. Examples of accounting-based measures are ROA and return on equity (ROE), which are calculated by dividing a firm's profit by their total assets or equity. However, there exists criticism on this measurement method, as profit is subjective and based on historical information. Profit can be manipulated by the manager's choice of different accounting methods. For example, one accounting method may value assets differently from another accounting method leading to different profit numbers. Profit is also based on historical information of the past years and does not include future expectations. One company could have made huge losses in the past as a result of high expenditures, but those expenditures can pay off in the future leading to high profits. Market-based measurements accounts for this criticism as this method reflects expected future performance. Market-based measurements are characterized by their forward-looking aspect and reflect investors' perception of the firm's future performance. However, nobody can predict the future and therefore market-based measurements can be biased. Tobin's Q calculates the market-to-book value and is a typical example of market-based measurements.

In this study we include both accounting-based measures and market-based measures of firm performance. The accounting-based measures are ROA and ROE, whereas the market-based measures are Q-ratio and stock return (*RET*). This is in line with earlier research on the CSR topic. For

example, Barnett and Salomon (2012) and Waddock and Graves (1997) have used ROA as their measure for financial performance in their study. Surroca et al. (2010) and Liu and Zhang (2017) used Tobin's Q as a market-based measure. Finally, Harjoto and Jo (2011) used both ROA and Tobin's Q simultaneously. Including both accounting-based and market-based measurements can have beneficial effects as the advantage of one method can account for the disadvantage of the other method. For example, ROA only reflects historical information whereas Q-ratio can account for this problem as it is forward-looking.

4.3.3 Corporate governance variables

As mentioned before, the corporate governance mechanisms that are included in this study are ownership structure (ownership concentration, managerial ownership and institutional ownership) and board structure (board size and board independence).

Ownership structure

The ownership structure variables are measured as follow. Ownership concentration (*OwnCon*) is measured as the percentage of shares owned by the biggest shareholder. This is in line with previous studies who examined ownership concentration (Brammer & Pavelin, 2006; Lau et al., 2016; Li & Zhang, 2010; Liu & Zhang, 2017). An alternative measure is the block shareholdings (*OwnCon_Block*) which are measured as the sum of percentage of shares owned by share holders who hold more than 5% equity (Harjoto & Jo, 2011). Managerial ownership is measured on various ways, for example as shares held by all officers and directors (Barnea & Rubin, 2010; Oh et al., 2011) or as percentage of shares owned by directors (Khan et al., 2013). This study measures managerial ownership as the number of shares owned by management board members and CEO as percentage of the total shares (*ManOwn* and *ManOwn_CEO*). Institutional ownership (*InsOwn*) is measured as the number of shares owned by pension funds, insurance firms, financial firms and banks as percentage of the total shares. This is (partially) in line with other studies (Barnea & Rubin; 2010; Graves & Waddock, 1994; Harjoto & Jo, 2011; Johnson & Greening, 1999; Oh et al., 2011). An alternative measurement is a dummy variable (*InsOwn_Dum*), which is ''1'' if the percentage of shares owned by pension funds, insurance firms, financial firms and banks is larger than 20%.

Board structure

As mentioned before, a dualistic governance model (two-tier governance) structure is used for listed companies in The Netherlands (Monitoring Committee, 2016). Companies with a two-tier governance model have a distinction between the management (management board) and their supervision (supervisory board). The supervisory board should be independent from the management board and serve in the interest of their shareholders. The supervisory board (thus, not the shareholders) appoint the management board, which run the day-to-day operations of the firm (Kabir et al., 1997). This structure leads to a clear distinction between dependent (management board) and independent directors (supervisory board) on the board.

The board structure variables are measured as follow. Board size (*Tbsize*) is measured as the number of board members (management board and supervisory board), which is in line with the studies of Bartkus et al. (2002), De Villiers et al. (2011) and Jizi et al. (2014). The board independence (*Bind*) is measured as the number of independent directors divided by the total number of board members in previous studies (Chang et al., 2015; Harjoto & Jo., 2011; Jizi et al., 2014; Johnson & Greening, 1999; Post et al., 2011). In this study the number of independent directors is equal to the size of the

supervisory board and is divided by the sum of the size of the management board and supervisory board.

4.3.4 Control variables

Next to the variables for CSR, firm performance and corporate governance mechanisms, there are also control variables that are included. The reason for this is that there are variables that have an influence on CSR engagement and firm performance. Since these variables can explain variance in the dependent variable, there should be controlled for. The control variables that are included in this study are firm size, leverage and industry effects.

Based on previous research, firm size is an important factor because there is evidence that larger firms engage in more socially responsible behavior than smaller firms. A reason for this could is that, when firms grow larger, they attract more attention from external constituents and need to devote more resources towards their stakeholders' demand, thus engaging in CSR (Waddock & Graves, 1997). Next to firm size, there is also be controlled for the effect of leverage, as scholars point out that debt impacts the behavior of managers (Barnett & Salomon, 2012). On the one hand, debt leads to more discipline from managers and decisions that are in the best interest of the firm. On the other hand, it can limit the business opportunities for managers which can have a negative impact on profits. Furthermore, industry effect is another variable that is controlled for. It is assumed that firms that are operating in sectors that are closely related to environmental concerns, like the mine, oil and energy industry, have a greater tendency to engage in CSR activities. A reason for this is that firms in industries with a high environmental impact are subjected to intensive scrutiny from environmental stakeholders, which stimulate environmental disclosure activism (Brammer & Pavelin, 2008). Reverte (2009) and Tagesson et al. (2009) agree with this, as they state that firms from industries, whose manufacturing process has a negative influence on the environment, disclose more information than firms from other industries. These control variables are in line with other studies (Barnett & Salomon, 2012; Harjoto & Jo, 2011; Surroca et al., 2010; Waddock & Graves, 1997).

The measurement of the control variables is as follow. Firm size is most commonly measured by number of employees (Surroca et al., 2010; Barnett & Salomon, 2012), total assets (Surroca et al., 2010; Kabir & Thai, 2017) or total sales (Reverte, 2009). This study measures firm size by total assets (*Fsize*_TA) and total sales (*Fsize*_TS). Leverage is measured by a firm's total debt divided by its total assets (*Lev_TA*) or total equity (*Lev_TE*), which is in line with other studies (Barnett & Salomon, 2012; Reverte, 2009; Waddock & Graves, 1997). In order to control for the industry effects, the US SIC is used to classify the firms in different industries. Making use of the US SIC is in line with the research of Surroca et al. (2010) and Waddock and Graves (1997). The US SIC ranges from 0100 to 9999 and identifies eleven divisions to classify firms in a certain industry. However, the sample size of this study is not big enough to classify every firm into their own US SIC division. As a result of this, four industry categories are identified which will be further specified in paragraph 5.1.2.

Table 4.1 provides an overview of the measurement of variables.

Table 4.1: Overview measurement of variables

Variable	Abbreviation	Measurement	Source(s)
Corporate social responsibility (t-1)			
CSR (*t-1*)	CSR_Div	Total number of CSR keywords divided by total number of pages in annual report.	(Gamerschlag et al., 2011; Kabir & Thai, 2017; Reverte, 2009)
CSR (*t-1*)	CSR_Log	Natural logarithm total number of CSR keywords.	(Kabir & Thai, 2017)
CSR (*t-1*)	CSR_TB	Transparency Benchmark index	Provided by the Dutch Ministry of Economic Affairs.
Firm performance (t)			
Return on assets	ROA	Earnings before interest and taxes (EBIT) divided by total assets.	(Barnett & Salomon, 2012; Kabir & Thai, 2017; Peng & Yang, 2014)
Return on equity	ROE	Net income divided by total equity.	(Kabir & Thai, 2017; Peng & Yang, 2014;Waddock & Graves, 1997)
Q-ratio	Q-ratio	(Market capitalization + total liabilities and debt) divided by total assets.	(Harjoto & Jo, 2011; Kabir & Thai, 2017; Surroca et al., 2010)
Stock return	RET	(Stock price difference + dividend) divided by the stock price begin of the year.	(Kabir & Thai, 2017)
Corporate governance (t-1)			
Ownership concentration (*t-1*)	OwnCon	Percentage of shares owned by the biggest shareholder.	(Brammer & Pavelin, 2006; Lau et al., 2016; Li & Zhang, 2010; Liu & Zhang, 2017)
	OwnCon_Block	Sum of percentage of shares owned by shareholders who hold more than 5% equity.	(Harjoto & Jo, 2011)
Managerial ownership (*t-1*)	ManOwn	Percentage of shares owned by management board members.	(Barnea & Rubin, 2010; Khan et al., 2013; Oh et al., 2011)
	ManOwn_CEO	Percentage of shares owned by CEO of the company.	(Barnea & Rubin, 2010; Khan et al., 2013; Oh et al., 2011)
Institutional ownership (*t-1*)	InsOwn	Percentage of shares owned by pension funds, insurance firms, financial firms and banks.	(Barnea & Rubin, 2010; Graves & Waddock, 1994; Harjoto & Jo, 2011; Johnson & Greening, 1999; Oh et al., 2011).
	InsOwn_Dum	Dummy variable, "1" if percentage of shares owned by pension funds, insurance firms, banks and financial firms is larger than 20%.	(Dam & Scholtens, 2013)
Board size (*t-1*)	Tbsize	Total number of board members (management board + supervisory board).	(Bartkus et al., 2002; De Villiers et al., 2011; Jizi et al., 2014)
Board independence (*t-1*)	Bind	Number of supervisory board members divided by total number of board members.	(Chang et al., 2015; Harjoto & Jo., 2011; Jizi et al., 2014; Johnson & Greening, 1999; Post et al., 2011)
Control variables (t)			
Firm size	Fsize_TA	Natural logarithm of total assets.	(Harjoto & Jo, 2011; Kabir & Thai, 2017)
	Fsize_TS	Natural logarithm of total sales.	(Reverte, 2009)
Leverage	Lev_TA	Total debt divided by total assets.	(Barnett & Salomon, 2012; Waddock & Graves, 1997)
	Lev_TE	Total debt divided by total equity.	(Reverte, 2009)
Industry effects	Indu	Dummy variables.	(Surroca et al., 2010; Waddock & Graves, 1997)

5. Sample and data

This chapter explains the sample size that is used for this study, the industry classification of the sample and how the data is collected.

5.1 Sample

5.1.1 Sample size

The sample that is used for this study consists out of the Dutch publicly traded firms on the Euronext Amsterdam. The Euronext Amsterdam is part of the Euronext, which is the first pan-European stock exchange, spanning Belgium, France, the Netherlands, Portugal and the UK. The Euronext operates in four national regulated securities and derivatives markets in Amsterdam, Brussels, Lisbon and Paris, and the UK-based regulated securities market, Euronext London. The Euronext Amsterdam is formerly known as the Amsterdam Stock Exchange and is founded back in 1602 by the Dutch East India Company (*Verenigde Oostindische Compagnie*, or ''VOC'')[4]. It is considered to be the first stock market that formally started trading in securities.

As per 31 December 2016 there are 144 common stock listings on the Euronext Amsterdam. Since this study focuses on Dutch listed firms, all firms that are considered as non-Dutch are excluded from the sample. For example, Brookfield Asset Management is a company that is listed on the Euronext Amsterdam, however this is a Canadian company headquartered in Toronto and therefore excluded from the sample. Subsequent to that, investing and holding companies like Flow Traders and TIE Kinetix are excluded from the sample as these companies primarily invest in other companies. This leads to a total of 100 common stock listings on the Euronext Amsterdam. After excluding firms that are named more than once due to different share classes, 92 firms remain. Another eleven firms are excluded from the sample due to missing information. For example, seven firms went public in 2016 and thus did not publish an annual report for 2015 which is required for the content analysis and corporate governance information. Finally, outliers are deleted due to extreme values or values that are not representative for Dutch listed firms. This was done manually, by assessing the extreme values for every variable. When an observation had extreme high or low values, it is deleted from the sample. For example, the company NedSense is deleted as it has a return on assets (ROA) of 390.7% and a return on equity (ROE) of 383.6% in 2016, and the company Phelix N.V. is deleted as it has no employees according to the data, which is not representative for a sample containing publicly traded firms. After the exclusion of outliers, 75 Dutch listed firms remain. Table 5.1 summarizes the sample selection, whereas Appendix C provides a list of names of the sampled firms with their CSR score.

Table 5.1: Sample size

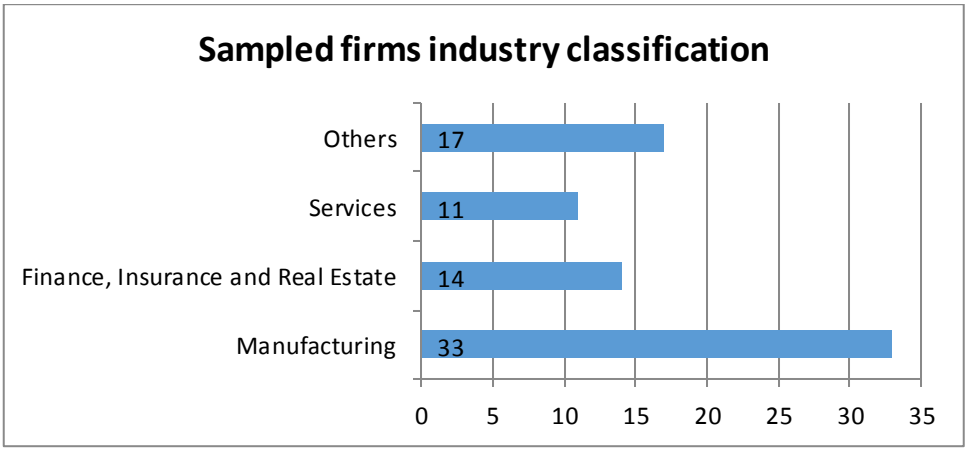
Sample size	Reason for excluding	Number of excluded firms
Initial sample	Common stock listings on Euronext Amsterdam	-
144	Excluding non-Dutch firms, investing and holding companies	44
100	Excluding firms that were named more than once due to different share classes	8
92	Excluding firms due to missing information (e.g. no annual report in 2015)	11
81	Excluding outliers	6
75	Final sample size	-

[4] https://www.aex.nl/het-financiele-adres-van-nederland

5.1.2 Industry classification

The industry classification of the sampled firms in this study is based on the US SIC. The US SIC classifies a firm to one of its eleven identified industry divisions, ranging from ''*Agriculture, Forestry and Fishing*'' to ''*Services*''. When controlling for the different industries, it is important to have substantial sample sizes in every industry category to acquire valid results. Since the sample size of this study is not large enough to classify every firm into their own industry division, four industry categories are created to control for industry effects. For example, the industry division ''*Agriculture, Forestry and Fishing*'' contains only one firm (ForFarmers N.V.), which is an agriculture company that offers feed solutions for conventional and organic livestock farming. Therefore, this industry division was pooled together with other industry divisions to create industry categories that hold substantial sample sizes. The four industry categories that are identified in this study are ''*Manufacturing*'', ''*Finance, Insurance and Real Estate*'', ''*Services*'' and ''*Others*''. The firms are divided over the industry categories based on the US SIC codes as follow: the industry category ''*Manufacturing*'' holds all firms with US SIC codes starting with 2 and 3, the industry category ''*Finance, Insurance and Real Estate*'' holds all firms with US SIC codes starting with 6, the industry category ''*Services*'' holds all firms with US SIC codes starting with 7 and 8 and the industry category ''*Others*'' holds all firms with US SIC codes starting with 0, 1, 4 and 5. Figure 5.1 shows an overview of how the sampled firms are distributed over the industry categories. As can be observed, the industry category ''*Manufacturing*'' is the largest industry category containing 33 of the 75 sampled firms. The other three categories hold sample sizes ranging from 11 to 17.

Figure 5.1: Sample industry classification



5.2 Data

For this study the year 2016 is examined, which means that for the lagged variables (CSR and corporate governance) data is collected for the year 2015. Some companies had a closing date of the financial year other than 31 December 2016. For these companies, data for year *t* was based on the 2016/2017 disclosed information, whereas data for year *t-1* was based on the 2015/2016 disclosed information. The main data sources for this study are the Orbis database and annual reports of the sampled firms.

The Orbis collects both financial (e.g. balance sheet and income statement information) and non-financial data (e.g. company information and ownership data). For some firms there was some missing information regarding the financial data. In that case the annual report of that particular firm was searched for the missing data. For example, the Orbis database did not provide the total equity

value of the firms ABN Amro, ASR Nederland and Kiadis which could be found in their annual reports. This led to less missing values. Annual reports of the sampled firms are used to collect data regarding the CSR performance. The content analysis is conducted on the annual report of the sampled firms to measure their CSR performance.

Regarding the corporate governance data, both the Orbis database and annual reports provide information concerning ownership and board structure. However, the Orbis database only provides the most recent ownership and board structure data and not data for earlier years, which makes it an inappropriate data source for this study. Furthermore, differences are observed between the ownership data provided by the Orbis database and the firm's annual report. Since Dutch listed firms are mandatory by Dutch law to disclose corporate governance information, it is a more reliable data source. Dutch listed firms are required to disclose any substantial shareholdings of higher than 3% and which members are on their management and supervisory board. Therefore, the ownership and board structure data are derived manually from the firm's annual report. In case of the institutional ownership data, all of the substantial shareholding companies are looked up to check whether they are pension funds, insurance firms, financial firms or banks. For example, the firm Koninklijke DSM N.V. was owned for 5.85% by Rabobank (bank) and for 13.35% by ASR Nederland and Delta Lloyd (insurance companies).

6. Results

This chapter contains the results of this study. First, the descriptive statistics of the variables that are included in this study are discussed. Subsequently, the correlation coefficients among the variables are examined based on the correlation matrix. After that, the regression analysis results are discussed and robustness tests are performed.

6.1 Descriptive statistics

An overview of the descriptive statistics can be found in Table 6.1. Starting with the corporate social responsibility (CSR) scores, the total number of CSR keywords (*CSR_Total*) is on average 187 for the Dutch listed firms in 2015, whereas the median was 98. This is similar to the content analysis conducted by Punte (2013) and Bruns (2017), also examining CSR in the Dutch context. Those studies find average CSR scores of 151 and 193, with medians of 132 and 150. Furthermore, the total CSR score of this study is also more in line with that of German listed firms (Gamerschlag et al., 2011) than that of Vietnamese listed firms (Kabir & Thai, 2017). The study of Gamerschlag et al. (2011) finds an average total CSR score of 129, whereas Kabir and Thai (2017) find an average (median) total CSR score of 38 (28). This gives small evidence that firms in developed countries are engaging in more CSR activities than firms in developing countries. Furthermore, the average environmental CSR score (*CSR_Env*) is 117, which is higher than the average social CSR score (*CSR_Soc*) of 70 for Dutch listed firms in 2015. This gives little evidence that Dutch listed firms give more attention to the environmental aspect of CSR. When accounting for the extensiveness of annual reports, *CSR_Div* represents the total number of keywords divided by the number of pages of the annual report. This leads to CSR scores ranging between 0.01 and 4.99, with an average of 0.99 and median of 0.66. The highest scorer of this content analysis is Royal DSM (active in the field of nutrition, health and materials), whereas the lowest scorer is Groothandelsgebouw (largest business centre in The Netherlands). The CSR scores by the Transparency Benchmark (*CSR_TB*) were only available for 63 of the 75 sampled firms. The average TB score of the sampled firms is 109 in 2015, with Akzo Nobel (global paints and coatings company and producer of specialty chemicals and essential ingredients) having the highest score of 196. Akzo Nobel is also the fourth highest scorer in the content analysis. In general, firms that score high on the content analysis also score high on the TB and vice versa. For example, of the ten firms that have the highest scores on the content analysis, seven of them have scores in the highest quartile (higher than 167) of the TB. Those seven companies are Royal DSM, Philips, Akzo Nobel, Unilever, BAM Groep, KPN Koninklijke and PostNL. Four of those seven companies are classified in the ''*Manufacturing*'' industry, whereas none of those companies are active in the ''*Services*'' or ''*Finance, Insurance and Real Estate*'' industry, giving small evidence that manufacturing companies engage in more CSR activities. A list of the 75 sampled firms with their CSR scores can be found in Appendix C.

The two accounting-based measures of firm performance incorporated in this study are ROA and ROE. In 2016, the average (median) ROA and ROE of the sampled firms is respectively 5.1% (6.3%) and 6.3% (10.1%). Again, these values are in line with the Dutch studies of Punte (2013) and Bruns (2017) who find an average ROA of 4.7 and 4.3% and an average ROE of 8.5% and 9.5%. The values of ROA and ROE are lower than those found by Kabir and Thai (2017) in a developing country, but are similar to those found by Barnett and Salomon (2012) using an US sample. The market-based measures of firm performance incorporated in this study are Q-ratio and stock return (RET). In 2016, the average Q-ratio of the sampled firms is 1.46, indicating that, on average, the market

capitalization and total value of debt is higher than the book value of total assets. This is in line with Surroca et al. (2010) who also found an average Q-ratio higher than 1. Finally, the RET was on average 6.9% in 2016, which is positive but lower than the average of 13% found by Kabir and Thai (2017) in a developing country.

The ownership data shows that, on average, ownership concentration by the largest shareholder (*OwnCon*) is 24.6% of equity for the sampled firms in 2015. The total percentage of block shareholdings of 5% or higher (*OwnCon_Block*) is on average 45.2%. This is in line with an older of study of Kabir et al. (1997), who find that block shareholdings of 5% or higher hold on average 50.9% of equity in Dutch companies, suggesting that ownership concentration of block shareholdings of 5% or higher have remained stable over time. Considering managerial ownership, the management board members of the sampled firms own on average 2.4 % of the outstanding shares (*ManOwn*), whereas the CEO alone own on average 2.2% of the outstanding shares (*ManOwn_CEO*) in 2015. Both measures of managerial ownership have similar means, standard deviations and quartiles, indicating that the CEO is by far the management board member with the most shareholdings in the Dutch context. Considering the low average and median values of both measures of managerial ownership (close to zero), it can be expected that the correlation coefficient will also be close to zero. The institutional ownership by pension funds, insurance firms, financial firms and banks (*InsOwn*) accounts on average for 24.4% for the sampled firms in 2015. This is in line with the study of Punte (2013) who finds an average of 29.7%, but different from the study of Ba (2017) who finds an average of 11%. The reason for this difference may be because Ba (2017) measures institutional ownership by the total holdings of public pension funds in a firm's equity, whereas this study, and in accordance with Punte (2013), measures institutional ownership by the percentage of shares owned by pension funds, insurance firms, financial firms and banks. Furthermore, these values indicate that institutional firms have substantial shareholding in Dutch listed firms.

Considering the board structure variables, the total board size (*Tbsize*) was on average 8.21 for the sampled firms in 2015. The management board (*Mbsize*) contained on average 2.76 members, which is less than the average members on the supervisory board (*Sbsize*) of 5.45. This indicates that supervisory boards are larger than management boards in the Dutch Context. These findings are similar to other studies examining Dutch firms (Ees, Postma & Sterken, 2003; Wissink, 2016). Furthermore, the board independence (*Bind*) is 66.1% for the sampled firms in 2015. The board independence value was not only similar to other Dutch studies, but also in line with studies in other countries. For example, Harjoto & Jo (2011) find that the average board independence was between 60% and 67% using an US sample, whereas Kabir and Thai (2017) find an average of 56% for Vietnamese listed firms.

Looking at the control variables, the average firm size measured in total assets (*Fsize_TA*) is €29,957 million, whereas the average total sales (*Fsize_TS*) is €4,565 million for the sampled firms in 2016. Both measures for firm size have a median that is much lower than the average value indicating that the data is skewed to the right. Since there is a high variance and skewness among those three variables, a natural logarithm is computed before entering these variables in the regression analyses. Finally, leverage as a percentage of total assets (*Lev_TA*) of the sampled firms is on average 59.5% in 2016, meaning that more than half of their assets are financed with debt rather than equity. This is higher than the average found in US studies where leverage is around 22% (Surroca et al., 2010; Harjoto & Jo, 2011), but similar to other studies in The Netherlands (Wissink, 2016; Bruns, 2017). One

firm (PostNL) had a leverage on total assets of higher than 1. The reason for this is that PostNL had a negative total equity of €76 million in 2016. Finally, leverage as a percentage of total equity (*Lev_TE*) is on average 3.058 in 2016, indicating that the sampled firms are financed three times more with debt than equity.

Table 6.1: Descriptive statistics

Variable	N	Mean	SD	Min.	P25	P50	P75	Max.
Corporate social responsibility (t-1)								
CSR_Total	75	187	207	1	52	98	286	1057
CSR_Env	75	117	157	1	24	48	160	867
CSR_Soc	75	70	65	0	22	47	96	313
CSR_Div	75	0.99	0.90	0.01	0.38	0.66	1.25	4.99
CSR_Log	75	4.69	1.13	0.00	3.95	4.59	5.66	6.96
CSR_TB	63	109	56	18	58	111	167	196
Firm performance (t)								
ROA	75	0.051	0.066	-0.210	0.012	0.063	0.087	0.181
ROE	73	0.063	0.199	-0.779	0.048	0.101	0.146	0.411
Q-ratio	74	1.46	0.58	0.85	1.00	1.32	1.66	3.71
RET	75	0.069	0.259	-0.431	-0.079	0.035	0.205	0.996
Corporate governance (t-1)								
OwnCon	69	0.246	0.192	0.050	0.104	0.175	0.314	0.786
OwnCon_Block	69	0.452	0.240	0.050	0.257	0.436	0.629	0.975
ManOwn	73	0.024	0.065	0.000	0.000	0.001	0.006	0.294
ManOwn_CEO	73	0.022	0.063	0.000	0.000	0.001	0.004	0.294
InsOwn	72	0.244	0.203	0.000	0.091	0.218	0.326	0.786
InsOwn_Dum	72	0.560	0.500	0.000	0.000	1.000	1.000	1.000
Tbsize	75	8.21	2.64	3.00	6.00	8.00	10.00	15.00
Mbsize	75	2.76	1.34	1.00	2.00	2.00	3.00	7.00
Sbsize	75	5.45	2.04	1.00	4.00	5.00	7.00	11.00
Bind	75	0.661	0.114	0.200	0.600	0.667	0.750	0.909
Control variables (t)								
Fsize_TA (mln €)	75	29,957	117,658	15	236	1,483	5,582	845,081
Fsize_TS (mln €)	75	4,565	9,640	7	146	922	3,333	52,713
Lev_TA	75	0.595	0.213	0.022	0.453	0.551	0.755	1.039
Lev_TE	74	3.058	4.394	0.022	0.826	1.216	3.000	19.831

Notes: The sample of this study exists out 75 Dutch publicly traded firms on the Euronext Amsterdam. CSR_Env is total number of environmental keywords in annual report, CSR_Soc is total number of social keywords in annual report, CSR_Total is total number of keywords in annual report, MBsize is number of management board members, SBsize is number of supervisory board members. Fsize_TA and Fsize_TS are in million €. Other variable definitions as described in Table 4.1.

6.2 Correlation matrix

Table 6.2 represents the Pearson correlations for the variables included in this study. As can be observed in the table, the CSR scores of the content analysis are highly correlated with the CSR scores by the TB (r= .525** and r= .616**). Considering firm performance variables, all of the variables are highly correlated on the 0.01 level apart from the correlation between Q-ratio and stock return (RET). The insignificant correlation between Q-ratio and RET is not in line with expectation, as these variables are both considered as market-based measurements for firm performance. Contrary to the first hypotheses, none of the CSR variables are significantly correlated with firm performance variables giving reason that there is no significant relation between CSR and firm performance.

Regarding the ownership structure variables, the two variables of ownership concentration are significantly correlated with each other at the 0.01 level (r= .724**). Ownership concentration measured by share block holdings of more than 5% (*OwnCon_Block*) is significantly negatively correlated with all three measures of CSR (r= -.319**, r= -.385** and r= -.379**). This is in line with what was expected based on hypothesis H2a, as large shareholders may see CSR as a costly investment and that the benefits of CSR activities do not outweigh the costs for large shareholders. However, the other measure of ownership concentration does not significantly correlate to measures of CSR and firm performance. Both measures of managerial ownership are highly correlated (r= .992**), which is not surprising as explained in the descriptive statistics that the mean, standard deviation and quartiles are similar and that the CEO is by far the management board member with the most shareholdings. Furthermore, the managerial ownership variables are negatively correlated with CSR scores by the TB (r= -.541** and r= -.523**), and with the firm performance variables ROA (r= -.325** and -.347**) and RET (r= -.325** and -.330**). This gives some evidence for hypothesis H2b, which states that managers will not invest in CSR activities as it reduces current profits. Again, both variables for institutional ownership are highly correlated with each other (r= .730**). However, apart from a small correlation between institutional ownership and ROA (r= .271*), no other significant correlations are found between the institutional ownership variables, CSR and firm performance variables.

Considering the board structure variables, the total board size (*Tbsize*) is significantly correlated with all three measures of CSR (r= .333**, r= .474** and r= .568**). However, no significant correlations are found between total board size and firm performance variables. This gives small evidence for hypothesis H3a as larger boards are more likely to invest in CSR activities. Furthermore, and contrary to hypothesis H3b, board independence (*Bind*) is not significantly correlated with any of the CSR or firm performance variables.

The control variables in the correlation matrix are firm size and leverage. Both variables for firm size (*LN_Fsize_TA* and *LN_Fsize_TS*) are significantly positively correlated to the three measures of CSR at the 0.01 level. This is in line with the literature which indicated that larger firms engage in more CSR activities. Leverage based on total assets (*Lev_TA*) is significantly positively correlated with one measure of CSR (r= .249*) and significantly negatively correlated with all firm performance variables (r= -.324**, r= -.250*, r= -.417**, r= -.298**), whereas leverage based on total equity (*Lev_TE*) is significantly negatively correlated with the firm performance variables ROA (r= -.352**), ROE (r= -.250*) and Q-ratio (r= -.361**). This gives evidence that these control variables are relevant in this study.

Finally, the presence of multicollinearity is being tested by calculating the variance inflation factor (VIF). Multicollinearity exists when two or more independent variables are moderately or highly correlated in a regression model. The VIF of the independent variables that will be included in the regression models is much lower than the threshold of 10. This means that multicollinearity does not appear to pose a problem in this data set. An overview of the VIF can found in Appendix D.

Table 6.2: Pearson correlations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(1) CSR_Div	1																		
(2) CSR_Log	.799**	1																	
(3) LN_CSR_TB	.525**	.616**	1																
(4) ROA	.173	.012	.174	1															
(5) ROE	.135	.018	.011	.752**	1														
(6) Q-ratio	.105	.055	.199	.453**	.317**	1													
(7) RET	.199	.079	.211	.415**	.355**	.145	1												
(8) OwnCon	-.195	-.213	-.065	.003	.109	-.113	.093	1											
(9) OwnCon_Block	-.319**	-.385**	-.379**	.094	.112	-.098	-.003	.724**	1										
(10) ManOwn	-.161	-.148	-.541**	-.325**	-.013	-.173	-.325**	.058	.289*	1									
(11) ManOwn_CEO	-.158	-.147	-.523**	-.347**	-.021	-.170	-.330**	.068	.276*	.992**	1								
(12) InsOwn	-.108	-.020	-.001	.271*	.146	.201	-.042	-.057	.111	-.068	-.115	1							
(13) InsOwn_Dum	-.175	-.077	-.055	.200	.167	.211	.051	-.314**	-.163	-.172	-.198	.730**	1						
(14) Tbsize	.333**	.474**	.568**	-.025	-.008	-.026	.000	-.196	-.346**	-.254*	-.245*	-.030	-.014	1					
(15) Bind	.110	.104	.032	.152	.071	.175	.118	-.095	-.188	-.066	-.046	.156	.166	.091	1				
(16) Lev_TA	.088	.249*	.062	-.324**	-.250*	-.417**	-.298**	-.065	-.125	.136	.149	-.082	-.143	.278*	-.091	1			
(17) Lev_TE	-.064	.194	.050	-.352**	-.250*	-.361**	-.216	-.074	-.173	-.033	-.023	-.150	-.130	.333**	-.095	.742**	1		
(18) LN_Fsize_TA	.311**	.494**	.609**	-.049	.115	-.093	-.123	-.235	-.422**	-.206	-.192	-.056	.044	.782**	.119	.368**	.475**	1	
(19) LN_Fsize_TS	.479**	.616**	.714**	.139	.221	.158	-.022	-.195	-.344**	-.200	-.189	-.009	.034	.718**	.188	.186	.145	.840**	1

*Notes: Pearson correlation coefficients are reported with their statistical significance. Variable definitions as described in Table 4.1 and sample as described in Table 6.1. LN_CSR_TB, LN_Fsize_TA and LN_Fsize_TS are log transformed variables. **. Correlation is significant at the 0.01 level. *. Correlation is significant at the 0.05 level.*

6.3 Regression results

6.3.1 Effect of CSR on firm performance

The first hypothesis states that CSR activities lead to a higher firm performance. Regression models are conducted with different measures of CSR and firm performance to test this hypothesis. The results are presented in Table 6.3. As can be observed in the table, most regression models do not find a significant positive relation between CSR and firm performance measures. Considering the accounting-based measurements of firm performance (ROA and ROE), only the CSR score by the TB is significantly positively related to ROA at the 0.10 level (b= .030*, t= 1.72). All other CSR scores are not significantly related to the accounting-based measures of firm performance. Considering the market-based measurements of firm performance (Q-ratio and RET), some CSR measures turn out to be significantly positively related. The content analysis measure of CSR (*CSR_Div*) is significantly positively related to RET at the 0.05 level (b= .079**, t= 2.13). In addition to this, the CSR scores by the TB (*LN_CSR_TB*) are significantly positively related to both Q-ratio (b= .289**, t= 2.08) and RET (b= .146**, t= 2.07) at the 0.05 level. These results give some evidence that CSR activities are more likely to increase the market-based measures of firm performance than the accounting-based measures. This can be explained by the fact that market-based measures are characterized by their forward-looking aspect and reflect investors' perception of the firm's future performance. Since CSR activities are considered to be long-term investments, the value of those CSR activities may better be reflected in Q-ratio or RET. However, in general, most CSR measures are not significantly related to firm performance measures and therefore the first hypothesis is not confirmed. [5]

[5] This result also eliminates a possible mediating role of corporate governance in the effect of CSR on firm performance. Following the procedure of Baron and Kenny (1986), the first condition on mediation is that there should be a significant relationship between the independent variable (CSR) and the dependent variable (firm performance). This condition does not hold on the basis of these results and therefore a mediating role is ruled out.

Table 6.3: OLS regression of CSR on firm performance

Panel A: CSR_Div								
Variables	**ROA**		**ROE**		**Q-ratio**		**RET**	
Intercept	.075	(1.50)	-.086	(-.56)	1.520***	(3.86)	.423**	(2.17)
CSR_Div	.012	(1.25)	.009	(.31)	-.011	(-.15)	.079**	(2.13)
LN_Fsize_TA	.002	(.48)	.024**	(1.99)	.047	(1.57)	-.014	(-.94)
Lev_TA	-.096**	(-2.38)	-.299**	(-2.34)	-.865***	(-2.74)	-.384**	(-2.46)
Fin	-.020	(-.80)	-.073	(-.95)	-.665***	(-3.32)	.039	(.39)
Serv	.003	(.13)	-.019	(-.29)	-.231	(-1.32)	-.078	(-.90)
Others	-.008	(-.40)	-.024	(-.39)	-.210	(-1.34)	-.002	(-.03)
N	75		73		74		75	
Adjusted R-square	.082		.060		.250		.088	
Panel B: CSR_Log								
Variables	**ROA**		**ROE**		**Q-ratio**		**RET**	
Intercept	.058	(1.19)	-.089	(-.60)	1.524***	(4.00)	.290	(1.52)
CSR_Log	.001	(.12)	-.019	(-.76)	.024	(.37)	.054	(1.64)
LN_Fsize_TA	.004	(.85)	.030**	(2.37)	.039	(1.20)	-.015	(-.94)
Lev_TA	-.092**	(-2.24)	-.282**	(-2.19)	-.891***	(-2.78)	-.400**	(-2.50)
Fin	-.032	(-1.26)	-.102	(-1.36)	-.629***	(-3.20)	.011	(.12)
Serv	.000	(.01)	-.021	(-.32)	-.229	(-1.32)	-.096	(-1.10)
Others	-.009	(-.46)	-.020	(-.33)	-.216	(-1.38)	-.023	(-.28)
N	75		73		74		75	
Adjusted R-square	.061		.067		.252		.064	
Panel C: LN_CSR_TB								
Variables	**ROA**		**ROE**		**Q-ratio**		**RET**	
Intercept	.023	(.36)	.084	(.43)	1.455***	(2.92)	-.006	(-.02)
LN_CSR_TB	.030*	(1.72)	-.069	(-1.25)	.289**	(2.08)	.146**	(2.07)
LN_Fsize_TA	-.005	(-.92)	.033*	(1.97)	-.040	(-0.92)	-.029	(-1.30)
Lev_TA	-.028	(-.62)	-.218	(-1.57)	-.756**	(-2.18)	-.233	(-1.32)
Fin	-.036	(-1.44)	-.146**	(-2.00)	-.553***	(-2.85)	-.006	(-.06)
Serv	-.011	(-.47)	-.091	(-1.27)	-.245	(-1.28)	-.087	(-.89)
Others	-.036*	(-1.69)	-.059	(-.92)	-.402**	(-2.36)	-.045	(-.53)
N	63		61		62		63	
Adjusted R-square	.088		.063		.360		.076	

*Notes: Table reports the unstandardized coefficients. Figures in parentheses represent the t-statistics. Variable definitions as described in Table 4.1 and sample as described in Table 6.1. Fin, Serv and Others are industry controls, whereas LN_CSR_TB and LN_Fsize_TA are log transformed variables. ***. Correlation is significant at the 0.01 level. **. Correlation is significant at the 0.05 level. *. Correlation is significant at the 0.10 level.*

6.3.2 Moderating effect of ownership structure

The second hypothesis tests the moderating role of ownership structure in the effect of CSR on firm performance. Model 1, 2 and 3 of Table 6.4 presents an overview of the ordinary least squares (OLS) regression results with variables of the moderating effect of ownership structure. To validate these results, an additional regression analysis is conducted with the CSR scores by the TB and alternative measures for the ownership structure variables. These are presented in Appendix E.

6.3.2.1 Ownership concentration

Starting with ownership concentration, hypothesis H2a states that ownership concentration weakens the effect of CSR on firm performance. Model 1 of Table 6.4 represents the results and incorporated *OwnCon_Block* variable for ownership concentration as this variable was significantly negatively related to the CSR variables in the correlation matrix. As can be observed in Table 6.4 model 1, no significant coefficients are found for the moderating effect of CSR and ownership concentration on firm performance. This result holds for both measures of firm performance (ROA and Q-ratio).

Moreover, additional tests as presented in Appendix E with CSR scores by the TB and an alternative measure for ownership concentration (*OwnCon*) result in no significant coefficients. Only leverage (*Lev_TA*) turns out to be negative significant at the 0.01 and 0.05 level in the models with Q-ratio as dependent variable. Based on these results, there is no reason to believe that firms with more concentrated ownerships will not be able to function well, because the dominant shareholder may influence the firm's decisions based on short-term financial performance. Therefore, hypothesis H2a is not confirmed. These results are not in line with Peng and Yang (2014), who find that ownership concentration negatively influences the relationship between corporate social performance (CSP) and financial performance in the short run, as well as in the long run. Reasons for these inconclusive results could be the different sample, time period or the different measures for ownership concentration and CSR.

6.3.2.2 Managerial ownership

Regarding managerial ownership, hypothesis H2b states that managerial ownership weakens the effect of CSR on firm performance. Model 2 of Table 6.4 represents the results of the OLS regression model with the moderating effect of CSR and managerial ownership included. Again, the moderating effect is tested on the dependent variables ROA and Q-ratio. As can be observed in the table, both managerial ownership (*ManOwn)* and the moderating effect of CSR and managerial ownership are significantly related to ROA. Starting with the first, managerial ownership is negatively related to ROA at the 0.01 level (b= -.758***, t= -3.33). This is not in line with the agency theory, as this theory argues that managers have the power to allocate resources in ways that are beneficial for them. In that way, one would expect managers to maximize the firm performance of their firm, and thus ROA, to maximize the value of the company. Next to this, the moderating effect of CSR and managerial ownership is positively related to ROA at the 0.05 level (b= .733**, t= 2.29). This is opposite to what was expected in hypothesis H2b, which argues that managers are less interested in investing in CSR as those investments lead to high expenses and reduce current profits. A possible explanation for this significant positive moderating effect is that managers actually do recognize the value-enhancing aspects of CSR in the Dutch setting. Therefore, higher managerial ownership leads to more investments in value-enhancing CSR activities, which results in a better firm performance. Similar results are found in Appendix E, where CSR scores by the TB and CEO ownership (*ManOwn_CEO*) variables were incorporated. However, evidence for these significant relations does not hold when Q-ratio is involved as dependent variable. Concluding to the above, hypothesis H2b is not confirmed.

6.3.2.3 Institutional ownership

Hypothesis H2c states that institutional ownership strengthens the effect of CSR on firm performance. Model 3 of Table 6.4 represents the results of the OLS regression model with the moderating effect of CSR and institutional ownership included. As can be observed in the table, no significant relationships are found between the variables CSR, institutional ownership (*InsOwn*) and its moderating effect. This implies that there is no support for the hypothesis. Additional tests with CSR scores by the TB and a dummy for institutional ownership (*InsOwn_Dum*) are conducted as presented in Appendix E model 3. In this model, both institutional ownership dummy and the moderating effect of CSR scores by the TB and institutional ownership dummy have a significant relation with ROA. Starting with the first, institutional ownership dummy has a significant positive relation to ROA at the 0.05 level (b= .216**, t= 2.03). This is in line with the agency theory, as it is suggests that institutional investors have informational advantage over other shareholders and actively monitor the firm's strategic decision. Therefore, this could have a positive effect on firm

Table 6.4: OLS regression of moderating effect of ownership and board structure

	Model 1				Model 2				Model 3			
Variables	**ROA**		**Q-ratio**		**ROA**		**Q-ratio**		**ROA**		**Q-ratio**	
Intercept	.020	(.31)	1.973***	(3.65)	.098**	(2.03)	1.600***	(3.96)	.064	(1.32)	1.404***	(3.39)
CSR_Div	.024	(1.49)	-.091	(-.70)	.005	(.55)	-.051	(-.66)	.004	(.26)	.041	(.31)
OwnCon_Block	.074	(1.30)	-.570	(-1.21)								
CSR_Div*OwnCon_Block	-.032	(-.81)	.149	(.45)								
ManOwn					-.758***	(-3.33)	-1.985	(-1.04)				
CSR_Div*ManOwn					.733**	(2.29)	.231	(.09)				
InsOwn									.051	(.88)	.555	(1.14)
CSR_Div*InsOwn									.049	(.80)	.045	(-.28)
LN_Fsize_TA	.003	(.79)	.035	(1.06)	.000	(.07)	.039	(1.26)	.001	(.32)	-.908	(1.48)
Lev_TA	-.087**	(-2.02)	-.843**	(-2.40)	-.068	(-1.65)	-.579*	(-1.67)	-.082**	(-2.10)	-.908***	(-2.73)
Fin	-.019	(-.69)	-.704***	(-3.08)	-.034	(-1.35)	-.795***	(-3.79)	-.019	(-.76)	-.590***	(-2.76)
Serv	.003	(.14)	-.191	(-1.00)	.000	(-.01)	-.222	(-1.22)	.001	(.07)	-.206	(-1.16)
Others	-.022	(-1.06)	-.191	(-1.13)	-.010	(-.53)	-.247	(-1.56)	-.023	(-1.20)	-.206	(-1.29)
N	69		69		73		72		72		72	
Adjusted R-square	.082		.230		.208		.261		.154		.247	

	Model 4				Model 5			
Variables	**ROA**		**Q-ratio**		**ROA**		**Q-ratio**	
Intercept	.062	(1.02)	1.092**	(2.38)	.091	(1.10)	1.474**	(2.25)
CSR_Div	.024	(.62)	.598**	(2.04)	-.054	(-.77)	-.273	(-.49)
Tbsize	.000	(-.04)	.050	(1.12)				
CSR_Div*Tbsize	-.001	(-.32)	-.062**	(-2.14)				
Bind					-.021	(-.20)	.105	(.12)
CSR_Div*Bind					.097	(.95)	.386	(.48)
LN_Fsize_TA	.003	(.50)	.045	(1.03)	.001	(.35)	.044	(1.42)
Lev_TA	-.095**	(-2.34)	-.879***	(-2.83)**	-.092**	(-2.27)	-.836**	(-2.60)
Fin	-.021	(-.82)	-.654***	(-3.27)	-.014	(-.54)	-.632***	(-3.07)
Serv	.004	(.16)	-.175	(-1.01)	.009	(.40)	-.199	(-1.10)
Others	-.008	(-.42)	-.217	(-1.41)	-.005	(-.27)	-.202	(-1.26)
N	75		74		75		74	
Adjusted R-square	.056		.279		.077		.237	

*Notes: Table reports the unstandardized coefficients. Figures in parentheses represent the t-statistics. Variable definitions as described in Table 4.1 and sample as described in Table 6.1. Fin, Serv and Others are industry controls, whereas LN_CSR_TB and LN_Fsize_TA are log transformed variables. ***. Correlation is significant at the 0.01 level. **. Correlation is significant at the 0.05 level. *. Correlation is significant at the 0.10 level.*

performance. However, evidence for this positive relationship does not last in other models. Next to this, the moderating effect of CSR scores by the TB and institutional ownership dummy has a significant negative relation with ROA at the 0.10 level (b= -.041*, t= -1.765). This is opposite to hypothesis H2c, as it believed that institutional investors would invest in socially responsible businesses to signal their (potential) clients that they are reliable and responsible. Since these institutional investors have informational advantage and actively monitor firm's strategic decisions, it is expected that institutional ownership strengthens the effect of CSR on firm performance. However, no evidence is found for this relationship. Concluding to the above, hypothesis H2c is not confirmed.

6.3.3 Moderating effect of board structure

The third hypothesis tests the moderating role of board structure in the effect of CSR on firm performance. Model 4 and 5 of Table 6.4 present an overview of the OLS regression results with variables representing the moderating effect of board structure. To validate these results, an additional regression analysis is conducted with the CSR scores by the TB. These are presented in Appendix E.

6.3.3.1 Board size

Considering board size, hypothesis H3a states that a larger board size strengthens the effect of CSR on firm performance. Model 4 of Table 6.4 represents the results of the OLS regression model with the moderating effect of CSR and board size included. As can be observed in the table, no significant relationships are found between board size (*Tbsize*) and the moderating effect of CSR and board size with ROA as dependent variable. However, when incorporating Q-ratio as dependent variable, the moderating effect of CSR and board size is significantly negatively related to Q-ratio at the 0.05 level (b= -.062**, t= -2.14). This is opposite to hypothesis H2c and what would be expected by the resource dependence theory, but can be explained by the so called free-rider problem (Guest, 2009). This free-rider problem suggests that small boards can operate more effectively than large boards as a result of lower coordination costs and ineffective decision making of larger boards. However, this result does not hold when conducting an additional regression analysis with CSR scores by the TB as presented in Appendix E model 4. Concluding to above, hypothesis H3a is not confirmed.

6.3.3.2 Board independence

Finally, hypothesis H3b states that higher board independence strengthens the effect of CSR on firm performance. Model 5 of Table 6.4 represents the results of the OLS regression model with the moderating effect of CSR and board independence included. As can be observed in the table, no significant relationships are found between board independence (*Bind*) and the moderating effect of CSR and board independence with both ROA and Q-ratio as dependent variable. This implies that there is no support for the hypothesis. Also, additional tests with CSR scores by the TB as presented in Appendix E model 5 do not find any evidence for hypothesis H3b. Therefore, there is no support for the arguments based on the resource dependence theory, which state that independent directors are less focused on the short-term financial performance and more interested in the long-term sustainability. This would lead to engaging in CSR activities and since these outside directors are unrestrained in their decision making, it would lead to a better firm performance. Concluding to the above, hypothesis H3b is not confirmed.

6.4 Robustness tests

In this section several robustness tests are performed to examine whether the results hold under different settings.

6.4.1 Subsample analysis

The first robustness test in this study includes a subsample analysis. In this subsample analysis the manufacturing industry is analyzed separately to see whether the results of hypothesis H1 still hold. There are two reasons why the manufacturing firms are analyzed separately. Firstly, this industry classification holds the most observations. In total, 33 of the 75 sampled firms are categorized as manufacturing firms and therefore it is the largest industry category in this study. The other three categories hold fewer observations ranging from 11 to 17. Secondly, researchers have found positive significant relationships between industry sector and CSR (e.g. Cormier et al., 2005; Brammer & Pavelin, 2008; Reverte, 2009; Tagesson et al., 2009). Scholars argue that firms that are operating in sectors closely related to environmental concerns (like manufacturing firms) have a greater tendency to engage in CSR activities. A reason for this, based on the agency theory, is that those firms are subject to intensive scrutiny from the public and therefore improve their CSR practices. Since hypothesis H1 states that CSR activities lead to a higher firm performance, there is reason to believe that the effect of CSR on firm performance is greater for manufacturing firms.

The results of the subsample analysis can be found in Table 6.5. Panel A represents the results of the manufacturing firms, whereas Panel B represents the results of the non-manufacturing firms. In both panels two measures of CSR (*CSR_Div* and *LN_CSR_TB*) are regressed on both ROA and Q-ratio. Regarding the manufacturing firms, a significant positive relationship is found between the CSR by the TB and ROA (b= .034*, t= 1.88) at the 0.10 level. However, all others models find no significant relation between CSR and firm performance for manufacturing firms. Regarding the non-manufacturing firms, no significant relationships are found between CSR and firm performance. Based on these results there is no evidence to believe that the effect of CSR on firm performance is different for manufacturing firms. In addition, the results of the robustness test are in line with earlier results, indicating that there is no evidence that CSR activities lead to a higher firm performance. Again, hypothesis H1 is not confirmed.

Table 6.5: OLS regression subsample manufacturing and non-manufacturing firms

Panel A: Manufacturing	Model 1				Model 2			
Variables	ROA		Q-ratio		ROA		Q-ratio	
Intercept	.020	(.25)	1.727**	(2.08)	-.019	(-.22)	1.555	(1.37)
CSR_Div	.007	(.67)	-.009	(-.08)				
LN_CSR_TB					.034*	(1.88)	.413	(1.71)
LN_Fsize_TA	.005	(.84)	.059	(1.02)	-.007	(-1.12)	-.057	(-.72)
Lev_TA	-.054	(-.91)	-1.556**	(-2.51)	.063	(1.12)	-1.590**	(-2.15)
N	33		33		25		25	
Adjusted R-square	.003		.133		.041		.219	
Panel B: Non-manufacturing	**Model 3**				**Model 4**			
Variables	ROA		Q-ratio		ROA		Q-ratio	
Intercept	.101	(1.65)	1.869***	(5.14)	.018	(.21)	1.475***	(3.52)
CSR_Div	.022	(1.38)	.110	(1.16)				
LN_CSR_TB					.025	(1.04)	.197	(1.64)
LN_Fsize_TA	.000	(.07)	-.024	(-.83)	-.002	(-.28)	-.057	(-1.55)
Lev_TA	-.132**	(-2.40)	-.522	(-1.61)	-.097	(-1.62)	-.416	(-1.38)
N	42		41		38		37	
Adjusted R-square	.112		.083		.039		.126	

*Notes: Table reports the unstandardized coefficients. Figures in parentheses represent the t-statistics. Variable definitions as described in Table 4.1 and sample as described in Table 6.1. LN_CSR_TB and LN_Fsize_TA are log transformed variables. ***. Correlation is significant at the 0.01 level. **. Correlation is significant at the 0.05 level. *. Correlation is significant at the 0.10 level.*

6.4.2 Environmental and social CSR

The second robustness test in this study splits the CSR scores into environmental CSR and social CSR. The content analysis that is conducted measures CSR on the environmental and social aspect. Therefore, the CSR scores can be analyzed separately to see whether the results hold for both aspects. The CSR scores by the TB are excluded from this robustness test as these only provide a total score, which cannot be separated into an environmental and social score. The reason for splitting the CSR scores in environmental and social CSR is because both dimensions can impact firm performance differently. On the one hand, environmental CSR includes costs that are related to compliance, insurance, on-site waste management, pollution control and future liability (Kabir & Thai, 2017). However, these costs can be beneficial to the firm performance as it can bring competitive advantages and enhance company image (Russo & Fouts, 1997). On the other hand, social CSR usually refers to philanthropy, donations, employee-related and product-related activities. Charitable donations can improve the company's reputation and customer satisfaction. Employee-related activities help to attract and recruit highly skilled employees, whereas product-related activities can increase the consumer's choice for a company or product. This can ultimately lead to a better firm performance.

The results of the environmental and social CSR analysis can be found in Table 6.6. Panel A represents the results of environmental CSR, whereas Panel B represents the results of social CSR. In both panels two measures of environmental and social CSR are regressed on both ROA and Q-ratio. As can be observed in the table, both environmental and social CSR do not have a significant effect on the firm performance in any of the models. Based on these results there is no reason to believe that the environmental and social dimensions of CSR impact firm performance differently as argued above.

Table 6.6: OLS regression environmental and social CSR

Panel A: Environmental CSR	Model 1				Model 2			
Variables	ROA		Q-ratio		ROA		Q-ratio	
Intercept	.073	(1.48)	1.517***	(3.89)	.059	(1.22)	1.537***	(4.04)
CSR_Div_Env	.015	(1.32)	-.018	(-.20)				
CSR_Log_Env					.004	(.56)	.011	(.21)
LN_Fsize_TA	.002	(.56)	.048	(1.63)	.003	(.74)	.043	(1.41)
Lev_TA	-.096**	(-2.39)	-.864***	(-2.73)	-.095**	(-2.33)	-.882***	(-2.75)
Fin	-.021	(-.83)	-.669***	(-3.38)	-.029	(-1.14)	-.641***	(-3.30)
Serv	.005	(.22)	-.235	(-1.33)	.001	(.03)	-.227	(-1.31)
Others	-.007	(-.37)	-.212	(-1.35)	-.010	(-.50)	-.212	(-1.35)
N	75		74		75		74	
Adjusted R-square	.084		.251		.065		.251	
Panel B: Social CSR	**Model 3**				**Model 4**			
Variables	ROA		Q-ratio		ROA		Q-ratio	
Intercept	.066	(1.30)	1.541***	(3.92)	.054	(1.07)	1.525***	(3.86)
CSR_Div_Soc	.016	(.53)	.016	(.07)				
CSR_Log_Soc					-.001	(-.10)	.049	(.61)
LN_Fsize_TA	.003	(.75)	.045	(1.47)	.004	(1.01)	.034	(1.00)
Lev_TA	-.092**	(-2.29)	-.870***	(-2.76)	-.089**	(-2.18)	-.889***	(-2.78)
Fin	-.029	(-1.16)	-.650***	(-3.35)	-.036	(-1.44)	-.632***	(-3.21)
Serv	-.001	(-.05)	-.230	(-1.31)	.000	(.02)	-.237	(-1.35)
Others	-.009	(-.48)	-.210	(-1.34)	-.009	(-.45)	-.224	(-1.41)
N	75		74		74		73	
Adjusted R-square	.065		.250		.062		.245	

*Notes: Table reports the unstandardized coefficients. Figures in parentheses represent the t-statistics. CSR_Div_Env and CSR_Log_Env are measures for environmental CSR, whereas CSR_Div_Soc and CSR_Log_Soc are measures for social CSR. Other variable definitions as described in Table 4.1 and sample as described in Table 6.1. Fin, Serv and Others are industry controls, whereas LN_CSR_TB and LN_Fsize_TA are log transformed variables. ***. Correlation is significant at the 0.01 level. **. Correlation is significant at the 0.05 level. *. Correlation is significant at the 0.10 level.*

6.4.3 Alternative measures of variables

The third robustness test in this study includes alternative measures of the variables. In the original model firm performance data of 2016 is used, whereas this robustness test incorporates firm performance data of 2015. In addition to this, alternative measures for the control variables are included. The control variables of the original model include Fsize_TA (natural logarithm of total assets) and Lev_TA (total debt divided by total assets), whereas this robustness test includes Fsize_TS (natural logarithm of total sales) and Lev_TE (total debt divided by total equity). The robustness test will assess whether the earlier results for hypothesis 2 and 3 still hold with alternative measures. An overview of the OLS regression results with alternative measures of variables are presented in Appendix F.

When including alternative measures of variables, the results are similar to earlier findings. Ownership concentration (*OwnCon)* and its moderating effect with CSR again turn out to be non-significant with firm performance variables. Considering managerial ownership, managerial ownership (*ManOwn* and *ManOwn_CEO*) has a negative significant relationship with ROA at the 0.01 level in earlier results. When including alternative measures of variables, this relationship again turns out to be negative significant at the 0.01 level (b= -2.355***, t= -2.93). Furthermore, and in line with earlier results, the moderating effect of CSR and managerial ownership is significantly positively related to ROA (b= .555**, t= 2.40). This gives more evidence to believe that managers recognize the

value-enhancing aspects of CSR in the Dutch setting and that it can lead to a better firm performance. Moreover, in line with earlier results, institutional ownership dummy (*InsOwn_Dum*) is significantly positively related to ROA (b= .270***, t= 2.70), whereas the moderating effect of CSR and institutional ownership is significantly negatively related to ROA (b= -.054**, t= -2.47). This gives more evidence that institutional investors have informational advantage over other shareholders and actively monitor a firm's strategic decision, which leads to a better firm performance. However, and contrary to hypothesis H2c, the results indicate that institutional ownership weakens the effect of CSR on firm performance. In earlier results, the moderating effect of CSR and board size is negatively related to Q-ratio at the 0.05 level. When including alternative measures of variables, this moderating effect is negatively related at the 0.10 level (b= -.053*, t= -1.75). This gives some evidence for the free-rider problem, indicating that small boards can operate more effectively than large boards as a result of lower coordination costs and ineffective decision making of larger boards. However, this result does not hold in other models. Finally, and in line with earlier results, no significant relationships are found between board independence (*Bind*) and its moderating effect with CSR on firm performance. Concluding to this, the results are similar when including alternative measures of variables. Again, none of the hypothesized relationships occur consistently in different settings and therefore hypotheses 2 and 3 remain unconfirmed.

7. Conclusion

In this chapter a conclusion of the study is given. First, conclusions are drawn based on the results of the study. After that, limitations and recommendations of the study are discussed.

7.1 Conclusions

Over the past decades corporate social responsibility (CSR) has witnessed increased attention from customers, employees, investors, suppliers and governments. Society not only expects that firms are doing well for their own business, but also carry a social responsibility towards the community and the environment they operate in. However, engaging in CSR activities can be a costly investment for firms and it is not guaranteed that it will lead to a better firm performance. Although a large number of studies have investigated the relationship between CSR and firm performance, the link between them remains unclear. Therefore, researchers have indicated that the inconclusive results in the relationship between CSR and firm performance may be due to missing elements that mediate or moderate this relationship. One of the mechanisms that is not examined much in the relationship between CSR and firm performance is the effect of corporate governance. Good corporate governance could prevent organizations from unlawful acts or short-term behavior, encourage them to invest in value-enhancing CSR activities, and therefore positively influence firm performance. Based on this, the following research question is formulated:

''*Is there a moderating role of ownership structure and board structure in the effect of corporate social responsibility on firm performance for Dutch listed firms?*''

Based on the literature, different hypotheses are drawn up to answer this research question. The first hypothesis examines the effect of CSR on firm performance and states that CSR activities lead to a higher firm performance. Based on the stakeholder theory, it is argued that firms with better CSR have less implicit claims leading to less costs and a higher firm performance. Furthermore, CSR activities may positively influence a firm's revenue since there is a growing awareness for CSR among customers. Based on the resource based theory, it is argued that CSR activities have a positive effect on intangible resources (e.g. innovation, reputation and organizational culture), which in turn leads to a higher firm performance. Next to this, CSR practices can lead to the hiring of better or more motivated employees. The second hypothesis focuses on the moderating role of ownership structure. Firstly, there is hypothesized that ownership concentration weakens the effect of CSR on firm performance. This is based on the agency theory, which assumes that dominant shareholders may influence the firm's decisions based on short-term financial goals. CSR activities are seen as costly investments by large shareholders and they may believe that it negatively affects firm performance. Secondly, there is hypothesized that managerial ownership weakens the effect of CSR on firm performance. The agency theory argues that managers have the power to allocate resources in ways that are beneficial to them. Since CSR activities lead to high expenses, managers might be less interested in investing in CSR activities. Thirdly, there is hypothesized that institutional ownership strengthens the effect of CSR on firm performance. Institutional investors have an informational advantage over other shareholders and are more likely to actively monitor the firm's strategic decisions. Furthermore, they tend to invest in socially responsible businesses to signal their clients that they are reliable and responsible. The third hypothesis focuses on the moderating role of board structure. Firstly, there is hypothesized that a larger board strengthens the effect of CSR on firm performance. Based on the resource dependence theory, it is argued that larger boards can include more prestigious directors which have more knowledge (e.g. on social and environmental

issues) that can positively impact firm performance. Secondly, there is hypothesized that higher board independence strengthens the effect of CSR on firm performance. Outside or independent directors are unrestrained in their decision making, are less focused on short-term financial goals and more interested in long-term sustainability. This could lead to investments in value-enhancing CSR activities.

To test these hypotheses an empirical analysis is conducted using ordinary least squares (OLS) regression with firm-specific and industry controls. The sample contains a total of 75 Dutch publicly traded firms. In order to control for endogeneity, lagged variables were used for CSR and corporate governance.

The results of the OLS regression analyses find no consistent evidence to confirm any of the hypotheses. Despite that none of the hypotheses can be confirmed, some interesting findings emerged. Regarding the first hypothesis, some evidence is found that CSR is positively related to market-based measurements of firm performance. A possible explanation for this is that market-based measures are characterized by their forward-looking aspect and reflect investors' perception of the firm's future performance. Since CSR activities are considered to be long-term investments, the value of those CSR activities may better be reflected in Q-ratio or stock return (RET). Regarding the second hypothesis, evidence is found that managerial ownership negatively affects the return on assets (ROA). This is not in line with the agency theory, as this theory argues that managers have the power to allocate resources in ways that are beneficial for them. In that way, one would expect managers to maximize their firm performance. Next to this, the moderating effect of CSR and managerial ownership turns out to be positively significant in some models. This is opposite to what was hypothesized based on the agency theory. A possible explanation for this effect could be that managers actually do recognize the value-enhancing aspects of CSR in the Dutch setting. In that way, higher managerial ownership leads to more investments in value-enhancing CSR activities, which in turn results in a better firm performance. Concerning institutional ownership, the institutional ownership dummy is positively related to ROA, giving small evidence that institutional investors have informational advantage over other shareholders and actively monitor the firm's strategic decision, which leads to a better firm performance. Furthermore, the moderating effect of CSR scores by the Transparency Benchmark (TB) and institutional ownership dummy are significantly negative related with ROA. This is opposite to the expectation that institutional investors would invest in socially responsible businesses to signal their (potential) clients that they are reliable and responsible , which in turn leads to a better firm performance. Regarding the third hypothesis, small evidence is found that larger boards negatively moderate the effect of CSR on firm performance. This is opposite to what was expected, but can be explained by the free-rider problem. This free-rider problem suggests that small boards can operate more effectively than large boards as a result of lower coordination costs and ineffective decision making of larger boards.

Concluding to this and to answer the research question that was formulated, this study found no moderating role of ownership structure or board structure in the effect of CSR on firm performance. Only small evidence was found for a moderating role of managerial ownership, institutional ownership and board size. However, these findings did not occur consistently over different models. Possible reasons for this can be found in the next section where the limitations and recommendations of the study are discussed.

7.2 Limitations and recommendations

This section discusses limitations of the study and provides several recommendations for further research. The first limitation of the study is with regards to the sample and the low number of observations. After the exclusion of outliers, only 75 Dutch listed firms remained in the study. This is less than other noteworthy studies on this topic, which had observations of over 300 (e.g. Russo & Fouts 1997, Barnett & Salomon, 2012). In addition, the sample only focuses on Dutch listed firms. It may be that there are institutional effects that have an influence on the relationship between CSR and firm performance in the Dutch context. The second limitation of this study is that data was collected for only one year. There exists a possibility that this particular year was unusual to other years, which leads to unreliable data. Although there is no reason to believe that the time period was unusual, it remains a limitation to the study.

The third limitation of the study is that the measurement of CSR may be inappropriate. In this study CSR is mainly measured by conducting a content analysis searching environmental and social keywords in the annual reports of the sampled firms. The CSR score is calculated by dividing the total number of keywords by the total number of pages of the annual report. Opposed to this, other researchers have divided the total number of keywords by the total number of words of the annual report. However, this was not possible with the software used in this study. Furthermore, the content analysis did not make a distinction between responsible and irresponsible behavior. Therefore, the CSR scores are not corrected when a firm behaves in social irresponsible ways. Regarding the CSR scores by the TB, these are only available for a number of Dutch firms and therefore not applicable for studies in other countries.

Based on the results and limitations of this study, several recommendations for future research are provided. At first, it would be interesting to conduct a similar study in different countries with multiple years of study. This study examines the effect of Dutch listed firms for a one year time period. Only small evidence is found that CSR has a positive effect on market-based measures of firm performance and that there is a moderating role of corporate governance. Further research could examine these effects in different countries with multiple years to assess the validity and generalizability of these results.

The second recommendation for future research is with regards to the use of different models. This study analyzed the effect of CSR on firm performance by OLS regression. Other studies have also made use of structural equation modeling (SEM) or other forms of regression analysis like two stage least squares and fixed effects or random effects models. Different models could be tested to assess the consistency of the results.

The third and final recommendation is related to the measures of CSR and the corporate governance mechanisms. This study has measured CSR by a content analysis counting keywords, but there are different forms of content analysis. Future research could assign different scores based on the extent to which a firm behaves in social responsible or irresponsible ways. For example, strengths and concerns could be taken into account leading to negative or positive CSR scores. Next to this, the corporate governance mechanisms examined in this study are limited to ownership structure and board structure. Future research could examine the effect of other corporate governance mechanisms, such as executive compensation and board diversity.

References

Aguinis, H., & Glavas, A. (2012). What We Know and Don't Know About Corporate Social Responsibility: A Review and Research Agenda. *Journal of Management, 38*(4), 932-968.

Albinger, H., & Freeman, S. (2000). Corporate Social Performance and Attractiveness as an Employer to Different Job Seeking Populations. *Journal of Business Ethics, 28*(3), 243-253.

Ali, I., Rehman, K., Ali, S., Yousaf, J., & Zia, M. (2010). Corporate social responsibility influences, employee commitment and organizational performance. *African Journal of Business Management, 4*(12), 2796-2801.

Arora, N., & Henderson, T. (2007). Embedded Premium Promotion: Why It Works and How to Make It More Effective. *Marketing Science, 26*(4), 514-531.

Atkinson, L., & Galaskiewicz, J. (1988). Stock Ownership and Company Contributions to Charity. *Administrative Science Quarterly, 33*(1), 82-100.

Ba, M. (2017, September 23). *Corporate Social Responsibility and Financial Performane: The role of corporate governance: Evidence from The Netherlands.* Retrieved November 2, 2017, from University of Twente: http://essay.utwente.nl/73765/

Bansal, P., & Clelland, I. (2004). Talking Trash: Legitimacy, Impression Management, and Unsystematic Risk in the Context of the Natural Environment. *Academy of Management Journal, 47*(1), 93-103.

Barnea, A., & Rubin, A. (2010). Corporate Social Responsibility as a Conflict Between Shareholders. *Journal of Business Ethics, 97*(1), 71-86.

Barnett, M., & Salomon, R. (2006). Beyond Dichotomy: The Curvilinear Relationship between Social Responsibility and Financial Performance. *Strategic Management Journal, 27*(11), 1101-1122.

Barnett, M., & Salomon, R. (2012). Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. *Strategic Management Journal, 33*, 1304-1320.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management, 17*(1), 99-120.

Baron, R., & Kenny, D. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Bartkus, B., Morris, S., & Seifert, B. (2002). Governance and Corporate Philanthropy - RestrainingRobin Hood? *Business & Society, 31*(3), 319-344.

Bear, S., Rahman, N., & Post, C. (2010). The Impact of Board Diversity and Gender Composition on Corporate Social Responsibility and Firm Reputation. *Journal of Business Ethics, 97*(2), 207-221.

Belkaoui, A., & Karpik, P. (1989). Determinants of the Corporate Decision to Disclose Social Information. *Accounting, Auditing & Accountability Journal, 2*(1), 36-51.

Berrone, P., & Gomez-Mejia, L. (2009). Environmental Performance and Executive Compensation: An Integrated Agency-Institutional Perspective. *Academy of Management Journal, 52*(1), 103-126.

Bowen, H. (1953). *Social responsibilities of the businessman.* New York: Harper.

Brammer, S., & Millington, A. (2004). The Development of Corporate Charitable Contributions in the UK: A Stakeholder Analysis. *Journal of Management Studies, 41*(8), 1411-1434.

Brammer, S., & Millington, A. (2006). Firm size, organizational visibility and corporate philanthropy: an empirical analysis. *Business Ethics: A European Review, 15*(1), 6-18.

Brammer, S., & Millington, A. (2008). Does it pay to be different? An analysis of the relationship between corporate social and financial performance. *Strategic Management Journal, 29*(12), 1325-1343.

Brammer, S., & Pavelin, S. (2006). Corporate Reputation and Social Performance: The Importance of Fit. *Journal of Management Studies, 43*(3), 435-455.

Brammer, S., & Pavelin, S. (2006). Voluntary Environmental Disclosures by Large UK Companies. *Journal of Business Finance & Accounting, 33*(7-8), 1168-1188.

Brammer, S., & Pavelin, S. (2008). Factors Influencing the Quality of Corporate Environmental Disclosure. *Business Strategy and the Environment, 17*(2), 120-136.

Brammer, S., Brooks, C., & Pavelin, S. (2006). Corporate Social Performance and Stock Returns: UK Evidence from Disaggregate Measures. *Financial Management, 35*(3), 97-116.

Brammer, S., Jackson, G., & Matten, D. (2012). Corporate Social Responsibility and institutional theory: new perspectives on private governance. *Socio-Economic Review, 10*(1), 3-28.

Brammer, S., Millington, A., & Rayton, B. (2007). The contribution of corporate social responsibility to organizational commitment. *International Journal of Human Resource Management, 18*(10), 1701-1719.

Branco, M., & Rodrigues, L. (2008). Factors Influencing Social Responsibility Disclosure by Portuguese Companies. *Journal of Business Ethics, 83*(4), 685-701.

Brown, T., & Dacin, P. (1997). The Company and the Product: Corporate Associations and Consumer Product Responses. *Journal of Marketing, 61*(1), 68-84.

Bruns, A. (2017, March). *The determinants of corporate social responsibility: empirical evidence from the Netherlands.* Retrieved November 2, 2017, from University of Twente: http://essay.utwente.nl/72020/

Campbell, J. (2007). Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility. *Academy of Management Review, 32*(3), 946-967.

Carmeli, A., Gilat, G., & Waldman, D. (2007). The Role of Perceived Organizational Performance in Organizational Identification, Adjustment and Job Performance. *Journal of Management Studies, 44*(6), 972-992.

Carroll, A. (1979). A Three-Dimensional Conceptual Model of Corporate Performance. *Academy of Management Review, 4*(4), 497-505.

Certo, S. (2003). Influencing Initial Public Offering Investors with Prestige: Signaling with Board Structures. *Academy of Management Review, 28*(3), 432-446.

Chang, Y., Oh, W., Park, J., & Jang, M. (2015). Exploring the Relationship Between Board Characteristics and CSR: Empirical Evidence from Korea. *Journal of Business Ethics, 140*(2), 225-242.

Chen, Y., Lai, S., & Wen, C. (2006). The Influence of Green Innovation Performance on Corporate Advantage in Taiwan. *Journal of Business Ethics, 67*(4), 331-339.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35*(1), 1-23.

Chih, H., Chih, H., & Chen, T. (2010). On the Determinants of Corporate Social Responsibility: International Evidence on the Financial Industry. *Journal of Business Ethics, 93*(1), 115-135.

Chin, M., Hambrick, D., & Trevino, L. (2013). Political Ideologies of CEOs: The Influence of Executives' Values on Corporate Social Responsibility. *Administrative Science Quarterly, 58*(2), 197-232.

Claessens, S., & Yurtoglu, B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review, 15*, 1-33.

Cormier, D., & Magnan, M. (1999). Corporate Environmental Disclosure Strategies: Determinants, Costs and Benefits. *Journal of Accounting, Auditing & Finance, 14*(4), 429-451.

Cormier, D., Magnan, M., & Van Velthoven, B. (2005). Environmental Disclosure Quality in Large German Companies: Economic Incentives, Public Pressures or Institutional Conditions? *European Accounting Review, 14*(1), 3-39.

Dalton, D., Daily, C., Johnson, J., & Ellstrand, A. (1999). Number of Directors and Financial Performance: A Meta-Analysis. *Academy of Management Journal, 42*(6), 674-686.

Dam, L., & Scholtens, B. (2012). Does Ownership Type Matter for Corporate Social Responsibility? *Corporate Governance: An International Review, 20*(3), 233-252.

Dam, L., & Scholtens, B. (2013). Ownership Concentration and CSR Policy of European Multinational Enterprises. *Journal of Business Ethics, 118*(1), 117-126.

Davis, K. (1973). The Case for and Against Business Assumption of Social Responsibilities. *Academy of Management Journal, 16*(2), 312-322.

De Villiers, C., Naiker, V., & Van Staden, C. (2011). The Effect of Board Characteristics on Firm Environmental Performance. *Journal of Management, 37*(6), 1636-1663.

Dhaliwal, D., Li, O., Tsang, A., & Yang, Y. (2011). Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting. *The Accounting Review, 86*(1), 59-100.

DiMaggio, P., & Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review, 48*(2), 147-160.

Ding, D., Ferreira, C., & Wongchoti, U. (2016). Does it pay to be different? Relative CSR and its impact on firm value. *International Review of Financial Analysis, 47*, 86-98.

Donaldson, T., & Preston, L. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *The Academy of Management Review, 20*(1), 65-91.

Ees, H. v., Postma, T., & Sterken, E. (2003). Board characteristics and corporate performance in The Netherlands. *Eastern Economic Journal, 29*(1), 41-58.

Eisenhardt, K. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review, 14*(1), 57-74.

El Ghoul, S., Guedhami, O., Kowk, C., & Mishra, D. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance, 35*(9), 2388-2406.

Elkington, J. (1998). *Cannibals with Forks.* Padworth: New Society Publishers, Ltd.

Freeman, R. (1984). *Strategic Management: A Stakeholder Approach.* Boston: Pitman Publishing Inc.

Friedman, M. (1970, September 13). The social responsibility of business is to increase its profit. *New York Times*, pp. 122-126.

Frooman, J. (1999). Stakeholder Influence Strategies. *Academy of Management, 24*(2), 191-205.

Frynas, J. (2015). Strategic CSR, value creation and competitive advantage. In T. Lawton, & T. Rajwani, *The Routledge Companion to Non-Market Strategy* (pp. 245-262). Abingdon: Routledge.

Frynas, J., & Yamahaki, C. (2016). Corporate social responsibility: review and roadmap of theoretical perspectives. *Business Ethics: A European Review, 25*(3), 258-285.

Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science, 5*(2), 233-262.

Godfrey, P., Merrill, C., & Hansen, J. (2009). The Relationship between Corporate Social Responsibility and Shareholder Value: An Empirical Test of the Risk Management Hypothesis. *Strategic Management Journal, 30*(4), 425-445.

Goss, A., & Roberts, G. (2011). The Impact of Corporate Social Responsibility on the Cost of Bank Loans. *Journal of Banking & Finance, 35*(7), 1794-1810.

Graves, S., & Waddock, S. (1994). Insitutional Owners and Corporate Social Performance. *Academy of Management, 37*(4), 1034-1046.

Greening, D., & Turban, D. (2000). Corporate Social Performance As a Competitive Advantage in Attracting a Quality Workforce. *Business & Society, 39*(3), 254-280.

Gregory, A., & Whittaker, J. (2013). Exploring the Valuation of Corporate Social Responsibility - A Comparison of Research Methods. *Journal of Business Ethics, 116*(1), 1-20.

Gregory, A., Tharyan, R., & Whittaker, J. (2014). Corporate Social Responsibility and Firm Value: Disaggregating the Effects on Cash Flow, Risk and Growth. *Journal of Business Ethics, 124*(4), 633-657.

GRI. (2016). *Consolidated set of GRI Sustainability Reporting Standards 2016.* GRI.

Guest, P. (2009). The Impact of Board Size on Firm Performance: Evidence from the UK. *European Journal of Finance, 15*(4), 385-404.

Guthrie, J., Cuganesan, S., & Ward, L. (2008). Industry specific social and environmental reporting: The Australian Food and Beverage Industry. *Accounting Forum, 32*(1), 1-15.

Hackston, D., & Milne, M. (1996). Some determinants of social and environmental disclosure sin New Zealand companies. *Accounting, Auditing & Accountability Journal, 9*(1), 77-108.

Hafsi, T., & Turgut, G. (2013). Boardroom Diversity and its Effect on Social Performance: Conceptualization and Empirical Evidence. *Journal of Business Ethics, 112*(3), 463-479.

Hair, J., Black, W., Babin, B., & Anderson, R. (2013). *Multivariate Data Analysis* (7th ed.). Harlow: Pearson Education Limited.

Haniffa, R., & Cooke, T. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy, 24*(5), 391-430.

Harjoto, M., & Jo, H. (2011). Corporate Governance and CSR Nexus. *Journal of Business Ethics, 100*(1), 45-67.

Hess, D., & Warren, D. (2008). The Meaning and Meaningfulness of Corporate Social Initiatives. *Business and Society Review, 113*(2), 163-197.

Huang, X., & Watson, L. (2015). Corporate social responsibility research in accounting. *Journal of Accounting Literature, 34*, 1-16.

Inchausti, B. (1997). The influence of company characteristics and accounting regulation on information disclosed by Spanish firms. *European Accounting Review, 6*(1), 45-68.

Ingram, P., & Simons, T. (1995). Institutional and Resource Dependence Determinants of Responsiveness to Work-Family Issues. *Academy of Management, 38*(5), 1466-1482.

Isidro, H., & Sobral, M. (2015). The Effects of Women on Corporate Boards on Firm Value, Financial Performance, and Ethical and Social Compliance. *Journal of Business Ethics, 132*(1), 1-19.

Jackson, G., & Apostolakou, A. (2010). Corporate Social Responsibility in Western Europe: An Institutional Mirror or Substitute? *Journal of Business Ethics, 94*(3), 371-394.

Jia, M., & Zhang, Z. (2014). How Does the Stock Market Value Corporate Social Performance? When Behavioral Theories Interact with Stakeholder Theory. *Journal of Business Ethics, 125*(3), 433-465.

Jizi, M., Salama, A., Dixon, R., & Stratling, R. (2014). Corporate Governance and Corporate Social Responsibility Disclosure: Evidence from the US Banking Sector. *Journal of Business Ethics, 125*(4), 601-615.

Jo, H., & Harjoto, M. (2012). The Causal Effect of Corporate Governance on Corporate Social Responsibility. *Journal of Business Ethics, 106*(1), 53-72.

Johnson, R., & Greening, D. (1999). The Effects of Corporate Governance and Institutional Ownership Types on Corporate Social Performance. *The Academy of Management Journal, 42*(5), 564-576.

Kabir, R., & Thai, H. (2017). Does corporate governance shape the relationship between corporate social responsibility and financiel performance? *Pacific Accounting Review, 29*(2), 227-258.

Kabir, R., Cantrijn, D., & Jeunink, A. (1997). Takeover Defenses, Ownership Structure and Stock Returns in the Netherlands: An Empirical Analysis. *Strategic Management Journal, 18*(2), 97-109.

Kassinis, G., & Vafeas, N. (2006). Stakeholder Pressures and Environmental Performance. *Academy of Management Journal, 49*(1), 145-159.

Khan, A., Muttakin, M., & Siddiqui, J. (2013). Corporate Governance and Corporate Social Responsibility Disclosures: Evidence from an Emerging Economy. *Journal of Business Ethics, 114*(2), 207-223.

Khan, H. (2010). The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. *International Journal of Law and Management, 52*(2), 82-109.

Kim, H., Lee, M., Lee, H., & Kim, N. (2010). Corporate Social Responsibility and Employee–Company Identification. *Journal of Business Ethics, 95*(4), 557-569.

Kim, Y., & Statman, M. (2012). Do Corporations Invest Enough in Environmental Responsibility? *Journal of Business Ethics, 105*(1), 115-129.

Lamberti, L., & Lettieri, E. (2009). CSR Practices and Corporate Strategy: Evidence from a Longitudinal Case Study. *Journal of Business Ethics, 87*(2), 153-168.

Lau, C., Lu, Y., & Liang, Q. (2016). Corporate Social Responsibility in China: A Corporate Governance Approach. *Journal of Business Ethics, 136*(1), 73-87.

Li, W., & Zhang, R. (2010). Corporate Social Responsibility, Ownership Structure, and Political Interference: Evidence from China. *Journal of Business Ethics, 96*(4), 631-645.

Liu, X., & Zhang, C. (2017). Corporate governance, social responsibility information disclosure, and enterprise value in China. *Journal of Cleaner Production, 142*(2), 1075-1084.

Lourenco, I., Callen, J., Branco, M., & Curto, J. (2014). The Value Relevance of Reputation for Sustainability Leadership. *Journal of Business Ethics, 119*(1), 17-28.

Mahoney, L., & Roberts, R. (2007). Corporate social performance, financial performance and institutional ownership in Canadian firms. *Accounting Forum, 31*(3), 233-253.

Maignan, I., Ferrell, O., & Hult, G. (1999). Corporate Citizenship: Cultural Antecedents and Business Benefits. *Journal of the Academy of Marketing Science, 227*(4), 455-469.

Makni, R., Francoeur, C., & Bellavance, F. (2009). Causality Between Corporate Social Performance and Financial Performance: Evidence from Canadian Firms. *Journal of Business Ethics, 89*, 409-422.

Margolis, J., & Walsh, J. (2003). Misery Loves Companies: Rethinking Social Initiatives by Business. *Administrative Science Quarterly, 48*(2), 268-305.

Margolis, J., Elfenbein, H., & Walsh, J. (2009). Does it Pay to Be Good...Aand Does it Matter? A Meta-Analysis of the Relationship between Corporate Social and Financial Performance. *Unpublished manuscript*.

Matten, D., & Moon, J. (2008). "Implicit" and "Explicit" CSR: A Conceptual Framework for a Comparative Understanding of Corporate Social Responsibility. *Academy of Management Review, 33*(2), 404-424.

McGuinness, P., Vieito, J., & Wang, M. (2017). The role of board gender and foreign ownership in the CSR performance of Chinese listed firms. *Journal of Corporate Finance, 42*, 75-99.

McGuire, J., Dow, S., & Argheyd, K. (2003). CEO Incentives and Corporate Social Performance. *Journal of Business Ethics, 45*(4), 341-359.

McGuire, J., Sundgren, A., & Schneeweis, T. (1988). Corporate Social Responsibility and Firm Financial Performance. *Academy of Management Journal, 31*(4), 854-872.

McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: a Theory of the Firm Perspective. *Academy of Management Review, 26*(1), 117-127.

McWilliams, A., & Siegel, D. (2011). Creating and Capturing Value: Strategic Corporate Social Responsibility, Resource-Based Theory, and Sustainable Competitive Advantage. *Journal of Management, 37*(5), 1480-1495.

Mellahi, K., Frynas, J., Sun, P., & Siegel, D. (2016). A Review of the Nonmarket Strategy Literature Toward a Multi-Theoretical Integration. *Journal of Management, 42*(1), 143-173.

Menguc, B., Auh, S., & Ozanne, L. (2010). The Interactive Effect of Internal and External Factors on a Proactive Environmental Strategy and its Influence on a Firm's Performance. *Journal of Business Ethics, 94*(2), 279-298.

Mitchell, R., Agle, R., & Wood, D. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Academy of Management, 22*(4), 853-886.

Momin, M., & Parker, L. (2013). Motivations for corporate social responsibility reporting by MNC subsidiaries in an emerging country: The case of Bangladesh. *The British Accounting Review, 45*(3), 215-228.

Monitoring Committee. (2016). *The Dutch Corporate Governance Code.* The Hague: Monitoring Committee.

Moore, G. (2001). Corporate Social and Financial Performance: An Investigation in the U.K. Supermarket Industry. *Journal of Business Ethics, 34*(3), 299-315.

Murphy, P., & Schlegelmilch, B. (2013). Corporate social responsibility and corporate social irresponsibility: Introduction to a special topic section. *Journal of Business Research, 66*(10), 1807-1813.

Ng, E., & Koh, H. (1994). An Agency Theory and Probit Analytic Approach to Corporate Non-mandatory Disclosure Compliance. *Asia-Pacific Journal of Accounting, 1*(1), 29-44.

Nikolaeva, R., & Bicho, M. (2011). The role of institutional and reputational factors in the voluntary adoption of corporate social responsibility reporting standards. *Journal of the Academy of Marketing Science, 39*(1), 136-157.

Oeyono, J., Samy, M., & Bampton, R. (2011). An examination of corporate social responsibility and financial performance. *Journal of Global Responsibility, 2*(1), 100-112.

Oh, W., Chang, Y., & Martynov, A. (2011). The Effect of Ownership Structure on Corporate Social Responsibility: Empirical Evidence from Korea. *Journal of Business Ethics, 104*(2), 283-297.

Orlitzky, M., & Benjamin, J. (2001). Corporate Social Performance and Firm Risk: A Meta-Analytic Review. *Business & Society, 40*(4), 369-396.

Orlitzky, M., Schmidt, F., & Rynes, S. (2003). Corporate Social and Financial Performance: A Meta-analysis. *Organization Studies, 24*(3), 404-441.

Ortiz-de-Mandojana, N., Aragón-Correa, J., Delgado-Ceballos, J., & Ferrón-Vílchez, V. (2012). The Effect of Director Interlocks on Firms' Adoption of Proactive Environmental Strategies. *Corporate Governance: An International Review, 20*(2), 164-178.

Peng, C., & Yang, M. (2014). The Effect of Corporate Social Performance on Financial Performance: The Moderating Effect of Ownership Concentration. *Journal of Business Ethics, 123*(1), 171-182.

Peterson, D. (2004). The Relationship between Perceptions of Corporate Citizenship and Organizational Commitment. *Business & Society, 43*(3), 296-319.

Petrenko, O., Aime, F., Ridge, J., & Hill, A. (2016). Corporate social responsibility or CEO narcissism? CSR motivations and organizational performance. *Strategic Management Journal, 37*(2), 262-279.

Pfeffer, J., & Salancik, G. (1978). *The External Control of Organizations: A Resource Dependence Perspective.* New York: Harper & Row.

Post, C., Rahman, N., & Rubow, E. (2011). Green Governance: Boards of Directors' Composition and Environmental Corporate Social Responsibility. *Business & Society, 50*(1), 189-223.

Punte, L. (2013, October). *Determinants of corporate social responsibility activities of Dutch listed companies.* Retrieved November 2, 2017, from University of Twente: http://essay.utwente.nl/63942/

Ramanathan, R., Poomkaew, B., & Nath, P. (2014). The impact of organizational pressures on environmental performance of firms. *Business Ethics: A European Review, 23*(2), 169-182.

Reverte, C. (2009). Determinants of Corporate Social Responsibility Disclosure Ratings by Spanish Listed Firms. *Journal of Business Ethics, 88*(2), 351-366.

Roberts, R. (1992). Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, Organizations and Society, 17*(6), 595-612.

Rodrigo, P., & Arenas, D. (2008). Do Employees Care About CSR Programs? A Typology of Employees According to their Attitudes. *Journal of Business Ethics, 83*(2), 265-283.

Ruf, B., Muralidhar, K., Brown, R., Janney, J., & Paul, K. (2001). An Empirical Investigation of the Relationship Between Change in Corporate Social Performance and Financial Performance: A Stakeholder Theory Perspective. *Journal of Business Ethics, 32*(2), 143-156.

Russo, M., & Fouts, P. (1997). A Resource-Based Perspective on Corporate Environmental Performance and Profitability. *Academy of Management Journal, 40*(3), 534-559.

Saeidi, S., Sofian, S., Saeidi, P., Saeidi, S., & Saaeidi, S. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation and customer satisfaction. *Journal of Business Research, 68*(2), 341-350.

Said, R., Zainuddin, Y., & Haron, H. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal, 5*(2), 212-226.

Scott, W. (2008). Approaching Adulthood: The Maturing of Institutional Theory. *Theory and Society, 37*(5), 427-442.

Sen, S., & Bhattacharya, C. (2001). Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility. *Journal of Marketing Research, 38*(2), 225-243.

Sheehy, B. (2015). Defining CSR: Problems and Solutions. *Journal of Business Ethics, 131*(3), 625-648.

Siegel, D., & Vitaliano, D. (2007). An Empirical Analysis of the Strategic Use of Corporate Social Responsibility. *Journal of Economics & Management Strategy, 16*(3), 773-792.

Surroca, J., Tribó, J., & Waddock, S. (2010). Corporate responsibility and financial performance: the role of intangible resources. *Strategic Management Journal, 31*(5), 463-490.

Surroca, J., Tribó, J., & Zahra, S. (2013). Stakeholder Pressure on MNEs and the Transfer of Socially Irresponsible Practices to Subsidiaries. *Academy of Management Journal, 56*(2), 549-572.

Tagesson, T., Blank, V., Broberg, P., & Collin, S. (2009). What Explains the Extent and Content of Social and Environmental Disclosures on Corporate Websites: A Study of Social and Environmental Reporting in Swedish Listed Corporations. *Corporate Social Responsibility and Environmental Management, 16*(6), 352-364.

TB. (2017). *Criteria Transparency Benchmark 2017.* Retrieved 6 30, 2017, from Transparency Benchmark.

Toms, J. (2002). FIRM RESOURCES, QUALITY SIGNALS AND THE DETERMINANTS OF CORPORATE ENVIRONMENTAL REPUTATION: SOME UK EVIDENCE. *The British Accounting Review, 34*(3), 257-282.

Turban, D., & Greening, D. (1997). Corporate Social Performance and Organizational Attractiveness to Prospective Employees. *Academy of Management Journal, 40*(3), 658-672.

Ullmann, A. (1985). Data in Search of a Theory: A Critical Examination of the Relationships Among Social Performance, Social Disclosure, and Economic Performance of U.S. Firms. *Academy of Management Review, 10*(3), 540-557.

Van Beurden, P., & Gössling, T. (2008). The Worth of Values – A Literature Review on the Relation Between Corporate Social and Financial Performance. *Journal of Business Ethics, 82*(2), 407-424.

Waddock, S., & Graves, S. (1997). The Corporate Social Performance-Financial Performance Link. *Strategic Management Journal, 18*(4), 303-319.

Wang, H., & Choi, J. (2013). A New Look at the Corporate Social-Financial Performance Relationship: The Moderating Roles of Temporal and Interdomain Consistency in Corporate Social Performance. *Journal of Management, 39*(2), 416-441.

Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal, 5*(2), 171-180.

Williams, R., & Barrett, J. (2000). Corporate Philanthropy, Criminal Activity, and Firm Reputation: Is There a Link? *Journal of Business Ethics, 26*(4), 341-350.

Wissink, S. (2016, November 18). *Determinants of corporate social responsibility for Dutch listed firms.* Retrieved November 2, 2017, from University of Twente: http://essay.utwente.nl/71384/

Wood, D. (1991). Corporate Social Performance Revisited. *The Academy of Management Review, 16*(4), 691-718.

Xu, S., Liu, D., & Huang, J. (2015). Corporate social responsibility, the cost of equity and ownership structure: An analysis of Chinese listed firms. *Austrial Journal of Management, 40*(2), 245-276.

Zeng, S., Xu, X., Yin, H., & Tam, C. (2012). Factors that Drive Chinese Listed Companies in Voluntary Disclosure of Environmental Information. *Journal of Business Ethics, 109*(3), 309-321.

Appendices

Appendix A: List of keywords for content analysis

Dimension	Environmental	Social
Keyword	Renewable	Employment
	Clean water	Labor relations
	Green	Training
	Bio	Education
	Energy efficiency	Diversity
	Emission	Equality
	Effluent	Discrimination
	Waste	Freedom of association
	Environmental benefit	Collective bargaining
	Environmental compliance	Child labor
	Environmental performance	Forced labor
	Supplier environmental assessment	Compulsory labor
	Reproduction	Security practices
	Sustainability	Rights of indigenous peoples
	Recycle	Human rights
	Climate	Local communities
	Global warming	Supplier social assessment
	Circular economy	Public policy
		Socioeconomic compliance
		Transparency
		Donation
		Charity
		Corruption
		Customer health
		Customer safety
		Customer privacy
		Product safety
		Product quality
		Integrity
		Well-being

Appendix B: List of keywords for content analysis (Dutch)

Dimensie	**Milieu**	**Sociaal**
Steekwoord	Hernieuwbare	Werkgelegenheid
	Schoon water	Arbeidsrelatie
	Groen	Opleiding
	Bio	Onderwijs/omscholen
	Energie efficiëntie	Diversiteit
	Emissie	Gelijkheid
	Afval	Discriminatie
	Verspilling	Vrijheid van verenging/associatie
	Milieuvoordeel	Collectief afdingen/collectieve voorwaarden
	Milieuwetgeving	Kinderarbeid
	Milieuprestatie	Dwangarbeid
	Leverancier beoordeling (milieu)	Verplichte arbeid
	Herproductie/reproductie	Veiligheidsmaatregelen
	Duurzaamheid	Rechten van inheemse mensen
	Recycle	Mensenrechten
	Klimaat	Lokale gemeenschappen/bevolkingen
	Opwarming van de aarde	Leverancier beoordeling (sociaal)
	Circulaire economie	Publiek beleid
		Sociaal-economisch nakoming (van wetten)
		Transparantie
		Donatie
		Goed doel
		Corruptie
		Gezondheid van de klant/consument
		Veiligheid van de klant/consument
		Privacy van de klant/consument
		Veiligheid van het product
		Kwaliteit van het product
		Integriteit
		Welzijn

Appendix C: List of sampled firms with CSR score

#	Company name	CSR_Total	CSR_Env	CSR_Soc	CSR_Div	CSR_Log	CSR_TB
1	AALBERTS INDUSTR	111	77	34	1.07	4.71	81
2	ABN AMRO Group	357	160	197	0.74	5.88	171
3	ACCELL GROUP	113	70	43	0.6	4.73	139
4	AEGON	83	19	64	0.22	4.42	185
5	AHOLD DEL	106	6	100	0.62	4.66	168
6	AKZO NOBEL	701	495	206	2.7	6.55	196
7	AMG	159	112	47	1.22	5.07	59
8	AMSTERDAM COMMOD.	55	30	25	0.51	4.01	55
9	AND INTERNATIONAL	10	2	8	0.17	2.3	n.a.
10	ARCADIS	429	296	133	1.73	6.06	111
11	ASM INTERNATIONAL	59	23	36	0.34	4.08	58
12	ASML HOLDING	45	14	31	0.35	3.81	153
13	ASR NEDERLAND	578	400	178	1.95	6.36	91
14	BAM GROEP KON	591	391	200	2.49	6.38	193
15	BATENBURG TECHNIEK	70	48	22	0.6	4.25	n.a.
16	BE SEMICONDUCTOR	143	67	76	1.16	4.96	92
17	BETER BED	55	29	26	0.5	4.01	116
18	BINCKBANK	91	15	76	0.33	4.51	55
19	BOSKALIS WESTMIN	50	31	19	0.33	3.91	143
20	BRILL KON	36	19	17	0.36	3.58	30
21	BRUNEL INTERNAT	98	28	70	0.5	4.58	54
22	CORBION	380	326	54	2.68	5.94	119
23	CORE LABORATORIES	63	55	8	0.86	4.14	71
24	CTAC	100	58	42	0.99	4.61	n.a.
25	DPA GROUP	91	24	67	0.72	4.51	27
26	DSM KON	1057	867	190	4.99	6.96	179
27	ESPERITE	81	71	10	0.38	4.39	18
28	EUROCOMMERCIAL	61	42	19	0.48	4.11	76
29	FORFARMERS	223	175	48	0.99	5.41	80
30	FUGRO	139	47	92	0.68	4.93	83
31	GEMALTO	147	109	38	1.14	4.99	80
32	GRANDVISION	73	21	52	0.45	4.29	n.a.
33	GROOTHANDELSGEBOUW	1	1	0	0.01	0	30
34	HEIJMANS	363	219	144	1.6	5.89	173
35	HEINEKEN	68	36	32	0.44	4.22	182
36	HOLLAND COLOURS	42	35	7	0.46	3.74	n.a.
37	HYDRATEC	39	29	10	0.93	3.66	n.a.
38	ICT GROUP	50	29	21	0.37	3.91	50
39	IMCD	72	42	30	0.5	4.28	n.a.
40	ING GROEP N.V.	543	340	203	1.24	6.3	181
41	KARDAN	134	86	48	0.5	4.9	61
42	KAS BANK	93	21	72	0.67	4.53	32

43	KENDRION	110	57	53	0.79	4.7	167
44	KPN KON	415	339	76	2.2	6.03	192
45	LUCASBOLS	36	19	17	0.26	3.58	n.a.
46	NEDAP	65	28	37	0.66	4.17	67
47	NEWAYS ELECTRONICS	41	8	33	0.29	3.71	33
48	NN GROUP	52	16	36	0.31	3.95	157
49	NSI N.V.	46	32	14	0.32	3.83	51
50	OCI	164	90	74	1.03	5.1	36
51	ORANJEWOUD	43	33	10	0.39	3.76	35
52	ORDINA	218	89	129	1.25	5.38	150
53	PHARMING GROUP	57	43	14	0.44	4.04	n.a.
54	PHILIPS KON	837	648	189	3.53	6.73	195
55	PORCELEYNE FLES	44	14	30	0.34	3.78	n.a.
56	POSTNL	403	272	131	2.06	6	177
57	RANDSTAD	427	114	313	2.37	6.06	140
58	REFRESCO GROUP	51	36	15	0.38	3.93	44
59	RELX	162	66	96	0.92	5.09	139
60	ROODMICROTEC	45	8	37	0.42	3.81	n.a.
61	SBM OFFSHORE	506	271	235	1.99	6.23	167
62	SLIGRO FOOD GROUP	237	168	69	1.45	5.47	112
63	SNOWWORLD	24	10	14	0.28	3.18	n.a.
64	STERN GROEP	129	75	54	0.9	4.86	70
65	TELEGRAAF MEDIA GR	312	191	121	1.96	5.74	153
66	TKH GROUP	321	196	125	1.69	5.77	128
67	TOMTOM	22	4	18	0.17	3.09	67
68	UNILEVER DR	404	264	140	2.53	6	194
69	V LANSCHOT KEMPEN	144	50	94	0.6	4.97	180
70	VALUE8	28	13	15	0.28	3.33	28
71	VASTNED	78	32	46	0.3	4.36	73
72	VOPAK	286	157	129	1.28	5.66	131
73	WERELDHAVE	129	95	34	0.8	4.86	105
74	WESSANEN	386	323	63	2.76	5.96	161
75	WOLTERS KLUWER	71	47	24	0.41	4.26	121

Appendix D: Variance inflation factor (VIF)

Model	Collinearity Statistics		Model	Collinearity Statistics		Model	Collinearity Statistics	
	Tolerance	VIF		Tolerance	VIF		Tolerance	VIF
(Constant)			(Constant)			(Constant)		
CSR_Div	.751	1.331	CSR_Log	.621	1.611	LN_CSR_TB	.478	2.091
LN_Fsize_TA	.637	1.570	LN_Fsize_TA	.542	1.845	LN_Fsize_TA	.398	2.512
Lev_TA	.747	1.339	Lev_TA	.730	1.370	Lev_TA	.681	1.468
Fin	.547	1.829	Fin	.569	1.757	Fin	.568	1.760
Serv	.869	1.151	Serv	.877	1.141	Serv	.821	1.219
Others	.804	1.244	Others	.796	1.256	Others	.726	1.377

Model	Collinearity Statistics		Model	Collinearity Statistics	
	Tolerance	VIF		Tolerance	VIF
(Constant)			(Constant)		
CSR_Div	.642	1.559	CSR_Div	.747	1.339
OwnCon_Block	.727	1.376	Tbsize	.366	2.731
ManOwn	.756	1.322	Bind	.930	1.076
InsOwn	.924	1.083	LN_Fsize_TA	.291	3.434
LN_Fsize_TA	.615	1.627	Lev_TA	.733	1.364
Lev_TA	.589	1.698	Fin	.523	1.911
Fin	.469	2.133	Serv	.854	1.171
Serv	.858	1.166	Others	.798	1.254
Others	.780	1.282			

Model	Collinearity Statistics		Model	Collinearity Statistics	
	Tolerance	VIF		Tolerance	VIF
(Constant)			(Constant)		
LN_CSR_TB	.272	3.680	LN_CSR_TB	.473	2.116
OwnCon	.826	1.211	Tbsize	.326	3.065
ManOwn_CEO	.448	2.234	Bind	.905	1.104
InsOwn_Dum	.732	1.366	LN_Fsize_TA	.226	4.430
LN_Fsize_TA	.372	2.688	Lev_TA	.676	1.479
Lev_TA	.592	1.689	Fin	.527	1.899
Fin	.450	2.222	Serv	.773	1.293
Serv	.802	1.247	Others	.721	1.388
Others	.719	1.391			

Appendix E: Additional OLS regression moderating effect ownership and board structure

	Model 1				Model 2				Model 3			
Variables	**ROA**		**Q-ratio**		**ROA**		**Q-ratio**		**ROA**		**Q-ratio**	
Intercept	.153	(1.18)	1.191	(1.11)	.157**	(2.36)	1.668***	(2.78)	-.110	(-1.38)	1.691**	(2.53)
LN_CSR_TB	.002	(.06)	.364	(1.43)	-.014	(-.68)	.207	(1.16)	.051**	(2.58)	.221	(1.34)
OwnCon	-.634	(-1.28)	1.350	(.33)								
LN_CSR_TB*OwnCon	.119	(1.13)	-.380	(-.44)								
ManOwn_CEO					-2.566***	(-3.04)	5.533	(.73)				
LN_CSR_TB*ManOwn_CEO					.607**	(2.52)	-1.913	(-.89)				
InsOwn_Dum									.216**	(2.03)	-.658	(-.74)
LN_CSR_TB*InsOwn_Dum									-.041*	(-1.77)	.179	(.92)
LN_Fsize_TA	-.004	(-.67)	-.038	(-.81)	-.002	(-.31)	-.029	(-.62)	-.004	(-0.77)	-.042	(-.95)
Lev_TA	-.026	(-.56)	-.844**	(-2.22)	.024	(.57)	-.678*	(-1.81)	-.018	(-.42)	-.746**	(-2.08)
Fin	-.047*	(-1.73)	-.497**	(-2.22)	-.071***	(-2.88)	-.644***	(-2.93)	-.035	(-1.46)	-.512**	(-2.52)
Serv	-.008	(-.31)	-.205	(-.99)	-.023	(-1.01)	-.274	(-1.33)	-.009	(-.40)	-.225	(-1.18)
Others	-.045*	(-2.00)	-.371**	(-2.01)	-.034*	(-1.78)	-.409**	-(2.37)	-.040*	(-1.97)	-.413**	(-2.41)
N	58		58		62		61		61		61	
Adjusted R-square	.137		.325		.285		.344		.195		.361	

	Model 4				Model 5			
Variables	**ROA**		**Q-ratio**		**ROA**		**Q-ratio**	
Intercept	-.193	(-.93)	2.536	(1.54)	.649	(1.59)	1.775	(.55)
LN_CSR_TB	.072*	(1.75)	.082	(.25)	-.110	(-1.24)	.130	(.18)
Tbsize	.028	(1.13)	-.135	(-.68)				
LN_CSR_TB*Tbsize	-.006	(-1.13)	.030	(.70)				
Bind					-.938	(-1.56)	-.514	(-.11)
LN_CSR_TB*Bind					.210	(1.61)	.242	(.23)
LN_Fsize_TA	-.004	(-.47)	-.051	(-.83)	-.006	(-.99)	-.042	(-.94)
Lev_TA	-.026	(-.59)	-.768**	(-2.18)	-.017	(-.38)	-.732**	(-2.07)
Fin	-.037	(-1.47)	-.540***	(-2.67)	-.032	(-1.27)	-.514**	(-2.57)
Serv	-.011	(-.44)	-.249	(-1.28)	-.017	(-.70)	-.210	(-1.04)
Others	-.033	(-1.51)	-.421**	(-2.40)	-.036*	(-1.67)	-.390**	(-2.26)
N	63		62		63		62	
Adjusted R-square	.077		.342		.099		.347	

*Notes: Table reports the unstandardized coefficients. Figures in parentheses represent the t-statistics. Variable definitions as described in Table 4.1 and sample as described in Table 6.1. Fin, Serv and Others are industry controls, whereas LN_CSR_TB and LN_Fsize_TA are log transformed variables. ***. Correlation is significant at the 0.01 level. **. Correlation is significant at the 0.05 level. *. Correlation is significant at the 0.10 level.*

Appendix F: OLS regression alternative measures of variables

	Model 1				Model 2				Model 3			
Variables	**ROA**		**Q-ratio**		**ROA**		**Q-ratio**		**ROA**		**Q-ratio**	
Intercept	.159	(1.31)	1.125	(.99)	.138	(2.07)	1.702**	(2.60)	-.170**	(-2.23)	1.306*	(1.80)
LN_CSR_TB	-.025	(-.77)	.304	(1.02)	-.024	(-1.24)	.104	(.55)	.038**	(2.01)	.219	(1.20)
OwnCon	-.820*	(-1.74)	.474	(.11)								
LN_CSR_TB*OwnCon	.162	(1.61)	-.178	(-.19)								
ManOwn_CEO					-2.355***	(-2.93)	3.260	(.42)				
LN_CSR_TB*ManOwn_CEO					.555**	(2.40)	-1.501	(-.67)				
InsOwn_Dum									.270***	(2.70)	-.432	(-.45)
LN_CSR_TB*InsOwn_Dum									-.054**	(-2.47)	.135	(.65)
LN_Fsize_TS	.004	(.56)	-.044	(-.72)	.004	(.72)	-.020	(-.36)	.004	(.69)	-.042	(-.75)
Lev_TE	-.005**	(-2.14)	-.011	(-.50)	-.003	(-1.44)	-.007	(-.36)	-.005**	(-2.37)	-.008	(-.39)
Fin	-.020	(-.70)	-.762***	(-2.79)	-.041	(-1.61)	-.868***	(-3.51)	-.004	(-.13)	-.769***	(-2.97)
Serv	-.012	(-.52)	-.202	(-.91)	-.026	(1.17)	-.300	(-1.40)	-.015	(-.68)	-.240	(-1.17)
Others	-.050**	(-2.44)	-.522***	(-2.72)	-.034*	(-1.93)	-.512***	(-2.91)	-.043**	(-2.32)	-.524***	(-2.95)
N	57		57		61		60		60		60	
Adjusted R-square	.220		.248		.333		.301		.283		.288	

	Model 4				Model 5			
Variables	**ROA**		**Q-ratio**		**ROA**		**Q-ratio**	
Intercept	-.023	(-.39)	.557	(1.20)	-.015	(-.18)	.741	(1.10)
CSR_Div	.007	(.17)	.466	(1.49)	-.017	(-.25)	-.100	(-.17)
Tbsize	-.003	(-.54)	.029	(.63)				
CSR_Div*Tbsize	.000	(-.06)	-.053*	(-1.75)				
Bind					.017	(.16)	.376	(.43)
CSR_Div*Bind					.032	(.31)	.051	(-.06)
LN_Fsize_TS	.008	(1.49)	.070	(1.53)	.005	(1.24)	.060*	(1.76)
Lev_TE	-.006**	(-2.47)	-.024	(-1.26)	-.006**	(-2.47)	-.022	(-1.14)
Fin	.007	(.26)	-.563**	(-2.54)	.005	(.19)	-.585**	(-2.60)
Serv	.001	(.05)	-.193	(-1.06)	.006	(.24)	-.218	(-1.17)
Others	-.025	(-1.27)	-.355**	(-2.19)	-.022	(-1.09)	-.343**	(-2.05)
N	74		73		74		73	
Adjusted R-square	.089		.229		.088		.194	

*Notes: Table reports the unstandardized coefficients. Figures in parentheses represent the t-statistics. Variable definitions as described in Table 4.1 and sample as described in Table 6.1. Fin, Serv and Others are industry controls, whereas LN_CSR_TB and LN_Fsize_TS are log transformed variables. ***. Correlation is significant at the 0.01 level. **. Correlation is significant at the 0.05 level. *. Correlation is significant at the 0.10 level.*