Master thesis

The determinants of corporate social responsibility: empirical evidence from the Netherlands

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Abstract

Corporate social responsibility (CSR) is a topic that has gained much attention lately. This attention however, is mainly focused on the consequences and benefits that are associated with CSR activities. This study contributes the extensive academic literature by finding determinants of CSR. It will do so by using the five most explanatory theories of the last decade. Using this multi-theoretical framework, this study empirically tests if leverage, profitability, board diversity, ownership concentration and R&D are potential determinants of CSR. This study is structured in such way that each determinant comes from one of the five explanatory theories. Using a sample of 68 Dutch listed firms the determinants are tested using Ordinary Least Squares (OLS) regression analysis. CSR ratings are constructed by conducting a content analysis of the annual reports of the firms of the year 2015 using keywords obtained form the GRI G4 reporting initiative. Besides also the CSR ratings from the Transparency Benchmark are used. Secondary data obtained from the ORBIS database by Bureau van Dijk has been used to measure the data of the determinants. Results of this study indicate that ownership concentration is a significant determinant of CSR. However, leverage, profitability, board diversity and R&D are found not to be significant determinants of CSR.

Keywords: Corporate social responsibility (CSR), determinants, stakeholder theory, legitimacy theory, resource dependence theory, agency theory, resource-based view, leverage, profitability, board diversity, ownership concentration, R&D, Netherlands.

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List of abbreviations

AEX	Amsterdam Exchange Index
AMX	Amsterdam Mid Cap Index
AScX	Amsterdam Small Cap Index
CFP	Corporate Financial Performance
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
EBIT	Earnings Before Interests and Taxes
GRI	Global Reporting Initiative
KLD	Kinder, Lydenberg and Domini
MNEs	Multinational enterprises
NGOs	Non-governmental Organizations
OCI	Ownership Concentration Index
OLS	Ordinary Least Squares
PRESOR	Perceived Role of Ethics and Social Responsibility
RBV	Resource-based View
RDT	Resource Dependency Theory
ROE	Return on Equity
ROA	Return on Assets
R&D	Research and Development
SEM	Structural Equation Model
SRCs	Self-regulating Codes
TRI	Toxic Release Inventory
VIF	Variance Inflation Factor
VRIN	Valuable, Rare, Inimitable and Non-substitutional

1. Introduction

Over the last few decades there has been a growing public awareness of the role of corporations in society. Is profit the only concern of corporations? Or do other social and environmental concerns play a role as well? Not only these questions became commonplace at the business table and business press, but also vast body of academic literature emerged around these questions (Margolis & Walsh, 2003). Corporate social responsibility (CSR) refers to the concept whereby companies integrate such social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis (Reverte, 2009).

In recent years managers have increased their interest in CSR, which is shown by the increased attention and resources for responsible activities (UN Global Compact-Accenture, 2010). This increased attention is likely because of the interest different stakeholders are paying to a corporations' behavior in today's society and to the fact that corporations want to create and maintain a good reputation by the public. A number of scandals related to global firms have indicated that irresponsible behavior can have massive consequences for a firm's reputation. However, recent examples of responsible behavior have shown that doing good actually can in fact bring benefits for corporations as well.

The attention that has been paid to the topic of CSR is mainly focused on the consequences that are associated with CSR activities. Especially the consequence on financial performance has gained much attention the last couple of years. However, despite the extensive amount of research done to this consequence, results of this work are still contradictory and ambiguous (Mellahi et al., 2016). And so we could ask ourselves, if engaging in CSR activities does not lead to improved financial performances per se, what are the antecedents of CSR that drives corporations to engage in CSR activities? Finding determinants of engaging in CSR activities will contribute towards our understanding of why firms have different attitudes towards engaging in CSR activities.

This study will focus on the determinants of engaging in CSR activities. It will do so by analyzing whether a number of firm and industry characteristics, are potential determinants of CSR by Dutch listed firms. CSR ratings are constructed on the basis of a content analysis and will be validated by the ratings from the Dutch Ministry of Economic affairs and the Transparency Benchmark. By using both, content analysis and the CSR ratings of the Dutch Ministry of Economic affairs, the CSR ratings will be more objective and robust. Furthermore, this study is focused on the Dutch setting for two reasons. First, most of the existing literature is based on the US and UK setting and evidence from other institutional context should be added. Second, not much research is done on CSR determinants of Dutch companies. Thereby, this study contributes to current CSR literature by identifying multiple determinants of CSR activities. This leads us to the research question of this study, which is stated as:

"What are the determinants of corporate social responsibility for Dutch listed firms?"

As said before, most of the academic literature has been focused on the consequence of CSR on financial performance. This study adds to the existing literature by delivering insights on several drivers of CSR engagement. Furthermore this study provides a better and deeper understanding on why corporations have different attitudes towards engaging in CSR initiatives. Managers and practitioners can use this study in order to develop a clear vision for their CSR activities and also use this study's knowledge for their decision making process.

This study is structured as follows, in the following sections; we discuss the concept of CSR, several explanations of why companies engage in CSR, the antecedents of CSR as well as the effects of CSR. Then, we develop our hypotheses and research model. Subsequently, we detail this study's methodology and results. Finally, we conclude with a discussion of the results and some limitations of this study are presented.

2. Literature review

In the first part of this chapter the concept of CSR will be discussed and the definition used in this study will be presented. The second part outlines several theories of why corporations engage in CSR activities and answers the question of to whom the firm holds its responsibilities. In this part a distinction is made according to internal and external existing theories. Subsequently several drivers that influence the decision to engage in CSR activities are discussed according to existing theories in literature. In the last part of this chapter, the effects of CSR activities are discussed in order to gain a better understanding of the consequences that CSR has on a firm and its environment.

2.1 The concept of CSR

Defining CSR is not as straightforward as it looks like beforehand, this is due to the fact that socially responsible behavior may mean different things in different places to different people and at different times (Campbell, 2007; Frynas & Stephens, 2015). And because of this, the increasing body of literature related to CSR is facing a problem of definition. However multiple definitions have been provided, finding one universal definition is considered difficult (Davis, 1973; Campbell, 2007; Matten & Moon, 2008; Aguinis & Glavas, 2012; Frynas & Stephens, 2015).

According to Davis (1973), CSR refers to the firm's consideration of, and response to, issues beyond the narrow economic, technical, and legal requirements of the firm. Davis (1973) argues that it is the firm's obligation to evaluate its decision-making process in such way that the effects of its decisions on the external social system will accomplish social benefits along with the traditional economic gains which the firm seeks. Furthermore, he argues that social responsibility begins where the law ends. A firm is not being socially responsible if it merely complies with the minimum requirements of the law, because this is what any good citizen would do.

Another and a more specific definitions of CSR is one made by Carrol (Crane, Matten, & Spence, 2008). Carrol (1979) explains business practice as a pyramid of responsibilities with economic responsibilities at the bottom, followed by legal, then ethical, and with philanthropic responsibilities at the top. Carrol (1979) argues that CSR is about taking responsibility for the pyramid's top parts, as well as the economics and legal responsibilities of the firm. Carrol (1979) significantly points out that CSR includes philanthropic contributions, however is not limited to it. Carrol (1999) developed this reasoning and explains that these responsibilities are less important than the other three categories. This is because firms are not seen as irresponsible if they do not fulfill these responsibilities. To fulfill all responsibilities firms should be profitable, while operating within the boundaries of the law, be ethical, and be a good corporate citizen (Carrol, 1979).

Another very popular definition often used in CSR research is a definition that includes a voluntary aspect (Amaeshi & Adi, 2007). McWilliams & Siegel (2001) describe CSR as 'actions that

appear to further some social good, beyond the interests of the firm and that which is required by law'. Despite the fact that this definition is often used in CSR literature, this definition has its drawbacks since it suggests that CSR actions should go beyond the interest of the firm. It implicitly suggests that actions could not be in the interest of the firm and the social good at the same time.

A different approach when defining CSR is Campbell's approach, since he focuses on a minimum level of behavioral standard. Campbell (2007) argues that, corporations act in a social responsible way if they do two things. First, they must not knowingly do anything that could harm their stakeholders, notably, their investors, employees, customers, suppliers, or the local community within which they operate. Second, if corporations do cause harm to their stakeholders, they must then rectify it whenever the harm is discovered and brought to their attention (Campbell, 2007). However this definition has a different approach than other and focuses on a minimum level of responsible behavior, it also implies that there are no benefits for firms that engage social responsible behavior. Campbell (2007) argues that firms are considered to be social responsible as long as they do no harm to the world. Therefore this approach might be not fully comprehensive.

As the field of CSR has evolved, the term CSR has sometimes been supplemented or supplanted by other terms (for a review, see Amaeshi & Adi, 2007), including corporate social performance (CSP) and more recently, organizational responsibility (Wood, 1991; Aguinis, 2011). Although theorists attempt to distinguish CSP from CSR, sometimes subsuming CSP under the umbrella of CSR and sometimes the reverse, the terms CSR and CSP are often used interchangeably in empirical studies (Margolis et al., 2007). According to Wood (1991), who elaborates on the definition of Wartick and Cochran (1985), CSP can be defined as an organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships. In other words CSP can be seen as a multidimensional construct, which includes the firms' activities to meet the firm's economic, legal, ethical and philanthropic responsibilities (Wood, 1991; Carrol, 1999).

Another and a more recently developed term is organizational responsibility (Aguinis, 2011). Organizational responsibility refers to "context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance". It specifically uses the term *organizational* instead of the narrower term *corporate* to emphasize that responsibility refers to any type of organization and not only large corporations. According to Enderle (2004) organizational responsibility is not only possible but also necessary for startups, small, and medium-sized organizations if they want to be successful in today's globalized and hypercompetitive economy. Furthermore the broader term *responsibility* instead of the narrower phrase *social responsibility* is used to highlight that responsibility refers to several types of stakeholders, including employees and suppliers, and issues that subsume but also go beyond topics defined as being in the social realm (Aguinis, 2011).

After this brief discussion of the concept, it has become clear that CSR means different things in different places to different people and at different times (Campbell, 2007; Frynas & Stephens, 2015). Therefore, it is appropriate to define CSR as an umbrella term for a variety of concepts and practices, all of which recognize that companies have a responsibility for their impact on society and the natural environment, often beyond legal compliance and the liability of individuals (Frynas & Stephens, 2015). However, the lack of a widely accepted CSR definition remains a significant challenge for theorizing CSR. To avoid confusion given the different conceptualizations available (Davis, 1973; Carrol, 1999; Mcwilliams & Siegel, 2001; Campbell, 2007; Wood, 1991, Aguinis, 2011) and to define CSR as an umbrella term, this study adopts the more broader definition of Aguinis (2011) and defines CSR as "context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance".

2.2 Why do firms engage in CSR?

In the past couple of decades plenty of academics have sought out to explain the reasons for why companies choose, or should choose to, engage in CSR activities. In order to explain these reasons, different theories have been utilized in recent years. While early work on this subject draws on single theoretical perspectives (Freeman, 1984; Friedman, 1980) more recent work seems to be explaining CSR behavior using multiple theories (Mellahi et al., 2016). Over the last two and a half decades, the theories that have become the most prominent in the literature that explains CSR behavior are: *stakeholder theory*, *legitimacy theory*, *resource-based view (RBV)*, *agency theory* and *resource dependency theory (RDT)* (Mellahi et al, 2016; Frynas & Yamahaki, 2016).

According to Mellahi et al. (2016) these different theories can be classified as either related to explaining external drivers of CSR or related to internal drivers of CSR (see Figure 1). *Stakeholder theory*, *legitimacy theory* and *RDT* are considered as theories that explain external drivers of CSR since these theories focus on the nature of relations between the firm and the environment. *RBV* and *agency theory* are considered theories that explain internal drivers of CSR since these theories focus on the internal dynamics in addressing social and environmental concerns (Frynas & Yamahaki, 2016; Mellahi et al., 2016).

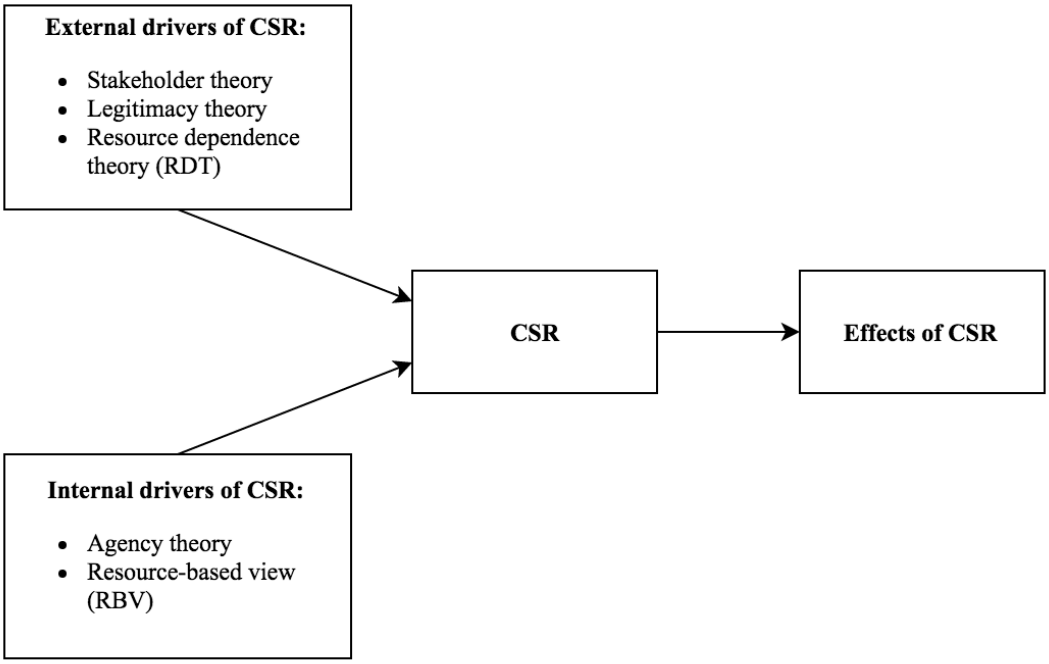

Figure 1: Theoretical framework by Mellahi et al. (2016)

2.2.1 External drivers of CSR

The theories that dominate the theorizing of external drivers of CSR over the last two and a half decade are *stakeholder theory*, *legitimacy theory*, and *resource dependency theory (RDT)*(Frynas & Stephens, 2015; Frynas & Yamahaki, 2016; Mellahi et al., 2016). In this section each of the three theories will be described, its implication within the CSR context will be explained, and empirical findings supporting each theory will be presented.

2.2.1.1 Stakeholder theory

Within the topic of CSR, stakeholder theory asserts that companies have social responsibilities that require them to consider the interests of all parties affected by their actions. In contrast to the traditional or shareholder view of a company, which argues that only the owners' or shareholders' interests are important, stakeholder theory argues that management should not only consider the interests of its shareholders in the decision making process, but also the interests of other stakeholders (Freeman, 1984). A firm's stakeholders include for example, employees, suppliers, customers, investors and governments, but can be defined broadly as 'any group or individual who can affect or is affected by the achievement of the firm's objectives (Freeman, 1984). According to Clarkson (1995), and Helmig et al., (2016) stakeholders can be classified into *primary* and *secondary* stakeholder groups. Where *primary* stakeholders (shareholders and investors, employees, customers, government) have a direct influence on the company and are essential for the survival of the company, *secondary* stakeholders (media, competition, trade associations) have an indirect influence on the company and are not essential for the survival of the company (Clarkson, 1995; Helmig et al., 2016).

Should a company choose to invest in a CSR activity that benefits the local community or should it use these resources to pay of their debts? In other words, should a company prioritize its local community stakeholder or its creditor stakeholder? Organizations often find themselves constrained by limited resources and bounded rationality, and thus tend to prioritize their stakeholders according to instrumental and/or normative considerations (Jamali, 2008). Over the years, it has been revealed that *power* (relates to the ability of the stakeholder to impose its will on others despite resistance to do something they would not ordinarily do), *legitimacy* (relates to the mandate of the stakeholder and the rights to use power with regard to a claim made upon the firm), and *urgency* (the degree to which 'stakeholder claims call for immediate attention') are three attributes that play a prominent role determining stakeholder salience and thus in determining which stakeholder groups are more important to the firm (Mitchell et al., 1997; Helmig et al., 2016).

Over the years scholars have advanced stakeholder theory and argued if stakeholder salience is relevant or not. This resulted in two main perspectives within the stakeholder theory, that is: the *normative* and *descriptive perspectives* (Frynas & Stephens, 2015). While the *normative perspective* assumes that the legitimate interests of all stakeholders should be taken into account by organizations and thus stakeholder salience is less relevant, the *descriptive perspective* assumes that organizations identify which stakeholder interests are important, and thus stakeholder salience is directly relevant (Frynas & Stephens, 2015; Frynas & Yamahaki, 2016). In line with the extant CSR literature, this study follows the descriptive perspective of stakeholder theory since the normative perspective has little descriptive or explanatory power in a CSR context. The descriptive perspective in turn can be used in order to explain the drivers, processes and outcomes of CSR (Frynas & Stephens, 2015; Frynas & Yamahaki, 2016; Mellahi et al., 2016).

Empirical findings supporting stakeholder theory

Empirical studies have provided rich evidence of the relative impact that different stakeholders have on CSR strategies and how stakeholder pressures impact CSR-related activities and decisions. Thijssens et al. (2015) investigated the extent to which environmental stakeholders' power, urgency, and legitimacy, influence the level of management response to the demand for environmental information. Using a sample of 199 large companies, they found that differences in environmental disclosures between companies are mainly associated with differences between their environmental stakeholders' legitimacy. The effects of power and urgency are of an indirect nature, as they are mediated by legitimacy. Their work provides empirical evidence that not only primary stakeholders, but also secondary stakeholders (environmental stakeholders) are influential with regards to management decision-making (Thijssens et al., 2015). Ehrgott et al. (2011) conducted a study on how pressures from customers, the government, and employees as primary constituencies of the firm determine the extent to which firms consider social aspects in the selection of emerging economy suppliers. They found that, using a sample of 244 U.S. and German firms, middle-level supply

managers as internal stakeholders play a major driving role for firms' socially sustainable supplier selection. Also Surroca et al. (2013) found how stakeholder pressures impact CSR-related activities and decisions. They propose that mounting stakeholder pressure in a multinational enterprises' (MNEs) home country, leads to the transfer of socially irresponsible practices from its headquarters to its overseas subsidiaries. In their work, using a sample of 110 MNEs from 22 countries, they found that MNEs often do not conform to their stakeholders' expectations. They argue that some MNEs have reacted to mounting stakeholder pressure by shifting their socially irresponsible practices to subsidiaries located in countries with lax stakeholder pressure (Surrouca et al., 2013).

An important part of stakeholder theory scholarship has been concerned with the relationship between CSR and corporate financial performance (CFP). However, as said before, results of this work are still contradictory and ambiguous (Jia & Zhang, 2014; Mellahi et al., 2016). While some studies have found a neutral or even negative relationship between CSR and CFP (Jia & Zhang, 2014; Hoepner et al., 2014), the majority of stakeholder theory studies point to a positive relationship between CSR and CFP (Whang & Choi, 2013; Mellahi et al., 2016). In this regard it is assumed that investors, customers, and other key stakeholders reward firms that do engage in CSR activities.

2.2.1.2 Legitimacy theory

Legitimacy theory relies on the notion that there is a 'social contract' between a company and the society in which it operates (Deegan, 2002). It is derived from the concept of organizational legitimacy, which has been first defined by Dowling and Pfeffer (1975) as a condition or status, which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy. Legitimacy theory posits that organizations continually seek to ensure that they operate within the bounds and norms of their respective societies (Dowling & Pfeffer, 1975; Deegan, 2002; and Frynas & Yamahaki, 2016).

Within the legitimacy theory there are two main perspectives, which are: *strategic* and *institutional* (Suchman, 1995; Chan et al., 2014; Panwar et al., 2014; and Frynas & Yamahaki, 2016). Strategic legitimacy assumes a degree of managerial control over the legitimation process (Suchman, 1995). It is assumed that managers can adopt strategies to demonstrate to society that the organization is attempting to comply with society's expectations. Under this perspective, legitimacy is considered a resource that is conferred by groups outside the organization (Chan et al., 2014; Panwar et al., 2014). In contrast to the strategic perspective, the institutional perspective assumes that legitimacy is acquired by factors other than a company's qualities or actions (Chan et al., 2014). Under this perspective, organizations have a limited potential to really manage legitimacy, since legitimacy judgments also come from culture and the ideology of evaluators (Chan et al., 2014).

This study adopts the strategic perspective since it seeks to find determinants of CSR and rates the level of CSR of a company by conducting a content analysis of a company's annual report.

The annual report of a company is considered a way in which a company can demonstrate to society that it is attempting to comply with society's expectations and thus that managers do have a certain amount of control over the legitimation process (Deegan, 2002; Chan et al., 2014).

Empirical evidence regarding legitimacy theory

The strategic approach of legitimacy theory has been most widely used to investigate corporate social disclosures in order to close gaps between societal expectations and business practices (Campbell et al. 2003; Shabana & Ravlin, 2016; Frynas & Yamahaki, 2016). Studies from the legitimacy theory perspective demonstrate that companies use various means such as corporate philanthropy and, most notably, social disclosure as tools of legitimation (Deegan, 2002; Lanis & Richardson, 2012). Lanis and Richardson (2012) found support for legitimacy theory as they compared CSR disclosures of 20 'tax aggressive' companies with 20 matched, assumed 'non-tax aggressive' companies. They found that tax aggressive companies disclose significantly more CSR information than others. The authors suggest that the public considers a high degree of tax aggressiveness as a socially irresponsible or illegitimate activity. They argue that CSR disclosures are used strategically to repair corporate legitimacy. Also Zheng et al. (2015) found support for legitimacy theory as they also argue that firms can use CSR as a tool to gain legitimacy. Using a sample of 288 firms from China, they found that firms adopt philanthropy and sustainability practices in order to gain legitimacy, but emphasize philanthropy practices when seeking legitimacy with outsider stakeholders and sustainability practices with insider stakeholders (Zheng et al., 2015). Bachmann and Ingenhoff (2016) argued that CSR on the one hand, could strengthen legitimacy but on the other hand, it could also weaken a companies' legitimacy due to skepticism and distrust. However they found support for legitimacy theory as they conducted an experimental study testing this dilemma with a model that assumed that CSR disclosures both directly increase and indirectly decrease a company's legitimacy. Using a sample of 233 commodity-trading companies from Switzerland, their structural equation model (SEM) reveals that the extent of communicated CSR has a positive effect on corporate legitimacy despite a high degree of stakeholder skepticism. This suggests that companies can (re)gain legitimacy through extensive CSR disclosures, even though stakeholders are highly skeptical in terms of perceived persuasion intent and psychological reactance. The advantage of enhanced legitimacy through discretionary CSR disclosures thus outweighs the disadvantages around stakeholder skepticism (Bachmann & Ingenhoff, 2016).

Other empirical research has discussed the way in which companies apply self-regulating mechanisms in order to gain legitimacy. Many companies have chosen to go beyond the minimum regulations expressed through laws and regulations and have acceded to stricter environmental and social rules through self-regulatory institutions (Berchicci & King, 2007). The stricter environmental and social rules also referred to as self-regulatory codes (SRCs), have become an important way through which firms demonstrate their commitment to a more sustainable future. According to Perez-

Batres et al. (2012), SRC selection depends on the resources at hand. Using a sample of 1145 large publicly traded American firms, they found that firm-slack resources (cash flow levels) are highly associated with a firm's decision to join a SRC (Perez-Batres et al., 2012).

2.2.1.3 Resource dependency theory

Resource dependence theory (RDT), originated from the work of Pfeffer and Salancik (1978), suggests that access and control over external resources are essential elements to organizational success, and therefore, firms must carefully implement strategies to maintain access to these resources. Key stakeholders, such as shareholders, employees, customers, suppliers, and the community, have control over these resources, and could influence management decisions and gain control over the firm (Harjoto & Laksmana, 2016). As organizations depend on many different actors who can put conflicting social demands on the firm (Oliver, 1991) and a firm cannot satisfy all demands, RDT predicts that a firm will pay more attention to social actors who control critical resources (Salancik & Pfeffer 1978; Frynas & Yamahaki, 2016).

The RDT is in line with the stakeholder theory since RDT proposes that stakeholders ultimately control a firm's access to external resources and firms must manage their relationship with primary and secondary stakeholders to ensure that such access to resources is maintained (Roberts, 1992; Helmig et al., 2016). The main difference between the two theories lies in the assumption and prescription of the theories. While stakeholder theory prescribes that the firm needs to work with the firm's constituencies on a basis to improve both firm and stakeholder performance, the RDT, on the other hand, takes a rather more self-interested position. These assumptions suggest that managers will treat outside constituencies more self-interestedly (Bear et al., 2010).

Adopting a RDT view, it is argued that CSR can help firms to secure the flow of critical resources controlled by various stakeholders. For example, if a firm is highly dependent on rural local communities in developing countries, the firm can invest in local development initiatives in health and education in order to secure the local communities as a critical resource (Kassinis and Vafeas, 2006; Hess & Warren, 2008; Frynas & Yamahaki, 2016). Access and control over external resources can be a driver, which thus can explain why companies engage in CSR activities.

Empirical evidence regarding RDT

Several studies have provided empirical evidence that support the RDT theory (Mallin et al., 2013; Hafsi & Turgut, 2013; Shaukat et al., 2015). An important part of this work focuses on the role of the board of directors in ensuring the flow of critical resources to the firm in terms of knowledge, skills, experience, expertise, and ties (Mallin et al., 2013; Shaukat et al., 2015). This RDT scholarship argues that these board resources offer the corporation support in understanding and responding to its environment that can help it better manage CSR issues (Bear et al., 2010). According to Hafsi and Turgut (2013) the diversity of the board has a positive effect on firm's social performance. They argue

that board diversity is a desirable aspect since it will improve the ability of a firm to relate to a broader customer base and helps compete more effectively in the highly diverse global marketplace. Furthermore, it is argued that diversity breeds innovation, and boardroom diversity generates new and different ideas, which are expected to boost corporate performance (Hafsi & Turgut, 2013). They used a random sample of 100 companies listed in the S&P500 Index and found that in particular, gender, and age of the board have a significant effect on corporate social performance. Also Shaukat et al. (2015) found support for the RDT theory. They found that, using a sample of 2028 UK listed companies, firms with more CSR-oriented boards (those with more independent directors, women directors as well as directors possessing financial expertise sitting on the audit committee) are more likely to develop a proactive and comprehensive board CSR strategy (one which combines internal organizational competencies with external reputation building measures). They argue that such firms in turn are more likely to achieve superior environmental and social performance. Moreover, their study provides evidence that the link between CSR-orientated boards and CSR performance tends to be endogenous and self-reinforcing, with firms having superior environmental and social performance, further strengthening their board level CSR orientation (Shaukat et al., 2015). Abebe and Cha (2016), who conducted a study on corporate philanthropy and organizational outcomes using a sample of 104 US firms, found that the extent that firms build relationship with certain stakeholders is closely tied to the personal and social background of board members, in turn influencing the allocation of resources to corporate philanthropy. They found support for a positive relationship between the number of female board directors and the level of corporate philanthropy (Abebe & Cha, 2016).

Other studies found support for RDT theory as they found that interactions with important external groups help to improve a firm's environmental performance (Kassinis & Vafeas, 2006; Ramanathan et al., 2014). Kassinis and Vafeas (2006) found that firms with greater dependence on their local community exhibit better environmental performance in that community. Ramanathan et al. (2014) discussed how pressures from internal and external stakeholders of a firm, economic pressures, environmental regulations, and pressures of environmental compliance have affected environmental performance of firms. Using a sample of 169 UK manufacturing firms, they found that internal stakeholders provide the greatest impact in shaping environmental performance of firms, closely followed by economic pressures, environmental regulations, and external stakeholders in that order (Ramanathan et al., 2014).

2.2.2 Internal drivers of CSR

The theories that theorize the internal drivers of CSR are *agency theory*, and *the resource-based view (RBV)*(Frynas & Stephens, 2015; Frynas & Yamahaki, 2016; Mellahi et al., 2016). In this section each theory will be discussed as well as empirical findings supporting each theory.

2.2.2.1 Agency theory

The agency theory is directed at the agency relationship, in which one party (the principal) delegates work to another party (the agent) (Eisenhardt, 1989). In a business, the principals are considered to be the shareholders, which are the owners of the firm. The managers from the firm are considered to be the agents, which are supposed to act in accordance to the principals' goals. The agency theory is concerned with the fact that agents may behave and act in accordance with their own personal goals rather than with those of the principal (Oh et al., 2011; Hamidu et al., 2015). This theory is concerned with two problems that often occur in the agency relation. The first is the agency problem that arises when the desires or goals of the principal and agent conflict with each other. The second problem is that it can be difficult or expensive for the principal to verify of what the agent is actually doing (Eisenhardt, 1989).

With reference to CSR, Friedman (1970) was one of the first who argued that engaging in CSR activities is self-serving behavior of managers (agents) whose pursuit of social and environmental objectives ultimately hurts shareholders (principals) by generating lower profits. He argued that firms should have just one responsibility, which is profit maximization. Firms should only use resources and engage in activities to increase profits, while operating within the boundaries of law and regulation (Friedman, 1970).

While many studies have continued on this reasoning and investigated CSR as a threat that raises potential conflicts of interest (Barnea & Rubin, 2010; Faleye & Trahan, 2011), other agency studies viewed CSR as beneficial to financial and non-financial performance (Bear et al., 2010; Oh et al., 2011). Either way, agency theory seems to provide an explanation of why companies engage in CSR activities, while others do not.

Empirical evidence regarding agency theory

Much of the empirical agency literature focuses on the conflict of interest between owners and managers with relation to pursuing CSR objectives (Barnea & Rubin, 2010; Faleye & Trahan, 2011). Barnea & Rubin (2010) found support for agency theory as they argue that managers by themselves do have an interest in over-investing in CSR in order to obtain private benefits of building reputation as good citizens, possibly at a cost to shareholders. This idea is in line with the assumption of the agency theory that agents may behave and act in accordance with their own personal goals rather than with those of the principals. In their study they found that managerial ownership was

negatively related to CSR. That is, insiders induce firms to over-invest in CSR when they bear little of the cost of doing so. Also Oh et al. (2011) found support agency theory as they found a relationship between ownership structure and a firm's CSR engagement. They argue that different owners have different impacts on a firm's CSR engagement. Using a sample of 118 Korean firms, they found a positive relationship between CSR ratings and ownership by institutions and foreign investors, while managerial ownership was found negatively related to CSR.

While these authors found that different groups of owners have different impacts on CSR, Gamerschlag et al. (2011) found support for agency theory as they found a positive relationship between the shareholders structure and CSR. Using the percentage of free float shares as a measure for the companies' dispersion regarding its share ownership structure, they found that companies with a big group of small shareholders provide more CSR-related information in their reports than companies with a small group of big shareholders. In other words, in widely held companies, transparent and honest behavior is more likely to occur than in privately held firms (Gamerschlag et al., 2011).

In contrast to the other theories outlined in this chapter, agency theory is often used in order to explain certain aspects of CSR at the individual level of analysis (Mellahi et al., 2016). Given the role of CEOs, board members, directors, and managers as agents, many agency studies specifically investigate the role of individuals in setting CSR strategies (Bear et al., 2010; Petrenko et al., 2016). Petrenko et al. (2016) found support for agency theory as they used a sample of 911 CEOs and found that CSR can be a response to leaders' personal needs for attention and image reinforcement. They found that CEO narcissism has positive effects on levels and profile of organizational CSR. On the other hand they found that CEO narcissism reduces the effect of CSR on performance (Petrenko et al., 2016).

2.2.2.2 Resource-based view

The resource-based view (RBV), as introduced by Wernerfelt (1984) and refined by Barney (1991), presumes that firms are bundles of heterogeneous resources and capabilities that are imperfectly mobile across firms. Barney (1991) argues that resources should have the so-called VRIN characteristics. That is resources should be *valuable*, *rare*, *inimitable* and *non-substitutable*, in order to form a potential source for sustainable competitive advantage (Barney, 1991; Huang et al., 2015). In other words, unique resources are said to lead to firm heterogeneity, and firm heterogeneity can then lead to sustained competitive advantage. Firms that ultimately possess a sustainable competitive advantage should be able to outperform other firms and will in return earn superior returns (McWilliams & Siegel, 2010).

Engaging in CSR activities can help firms to create VRIN resources in order to provide internal and external benefits (McWilliams & Siegel, 2010; Frynas & Stephens, 2015; Mellahi et al., 2016). Investments in socially responsible activities may have internal benefits by helping a firm to develop new resources and capabilities which are related namely to know-how and corporate culture.

In effect, investing in social responsibility activities has important consequences on the creation or depletion of fundamental intangible resources, namely those associated with employees (Branco & Rodrigues, 2006). The external benefits of CSR are related to its effect on corporate reputation. Corporate reputation can be understood as a fundamental intangible resource, which can be created or depleted as a consequence of the decisions to engage or not in social responsibility activities. Firms with good social responsibility reputation may improve relations with external actors (Chen et al. 2006; Lourenço et al. 2014). They may also attract better employees or increase current employees' motivation, morale, commitment and loyalty to the firm (Branco & Rodrigues, 2006). These internal and external benefits will help firms to differentiate themselves from its competitors and ultimately will help firms to create a sustainable competitive advantage over their competitors. It is argued that achieving a sustainable competitive advantage could be a factor that drives corporations to engage in CSR activities.

Empirical evidence regarding RBV

CSR-related studies from the RBV perspective posit that specialized skills or capabilities related to investment in CSR can lead to firm-specific economic benefits for firms (McWilliams &Siegel, 2011). Various studies have applied the RBV to CSR empirically, and found evidence that CSR can generate abnormal returns and lead to sustainable competitive advantage (Chen et al., 2006; Padgett & Galan, 2010; Lourenço et al. 2014; Frynas & Yamahaki, 2016; Mellahi et al., 2016). Some studies have found support for the RBV as these studies argued that CSR could lead to sustainable competitive advantage trough the investments in innovation or R&D (Padgett & Galan, 2010; Chen et al., 2006; Frynas, 2015). According to Padgett and Galan (2010), investments in R&D and CSR are positively correlated because both are associated with product and process differentiation (Padgett & Galan, 2010). CSR can be viewed as a type of investment used as a mechanism for product differentiation, where CSR can be positioned in the context of 'resources', in which CSR policies would help to improve processes for developing products and services, and of 'outputs', where CSR policies and attributes would have a direct impact on a firm's product. For example, firms can maintain a level of CSR by having products with CSR attributes (such as pesticide-free fruit) or by using CSR-related resources in their production processes (such as naturally occurring insect inhibitors and organic fertilizers) (McWilliams & Siegel, 2001). Also Bocquet et al. (2013) found support for the RBV as they found that firms with strategic CSR profiles are more likely to innovate in both products and processes.

Other studies have investigated the influence of CSR on corporate reputation as a resource that could bring sustainable competitive advantages to the firm (Lourenço et al. 2014). Lourenço et al. (2014) investigated whether the market valuation (book value of equity and net income), is higher for firms with reputation for sustainability leadership, when compared to firms that do not enjoy such reputation. They found that the net income of firms with good sustainability reputation has a higher

valuation by the market, when compared to their counterparts (Lourenço et al., 2014). Also Sirsly and Lvina (2016) found support for the fact that CSR can enhance corporate reputation. In their study, using a sample of 285 major U.S. companies during a 5-year period, they found a "Red Queen" effect that supports reputation as a dynamic construct where the change in CSR does predict a change in corporate reputation. This relationship across time indicates that continuously investing in doing good, will create sustainable competitive advantages in time.

Another part of the RBV scholarship in the field of CSR has focused on the relationship between CSR and employee attraction and retention. Following the RBV, employees are considered intangible resources that could help the firm to create a sustainable competitive advantage (Turban & Greening, 2000; Farndale & Atli, 2016). According to Turban & Greening (2000), firms with high CSR ratings are perceived as more attractive employers than firms with low ratings and that prospective applicant's probability to interview and probability to accept a job offer are positively associated with CSR rating. Also Meister (2012) found that CSR is increasingly becoming the main way organizations attract and retain new hires. She found that 80% of a sample of 1800 13-25 year olds wanted to work for a company that cares about how it impacts and contributes to society and more than half of the sample said they would refuse to work for an irresponsible corporation (Meister, 2012).

2.3 Determinants of CSR

The empirical evidence regarding each theory in the previous section outlined and explained several factors that could drive CSR. The agency theory for example, argues that ownership is a factor that influences CSR. These factors, which decisively affect the nature or outcome of CSR, are known as determinants of CSR (Reverte, 2009). Multiple studies have investigated various determinants of CSR and provided evidence that CSR is a multi-dimensional construct with determinants that have different characteristics (Gamerschlag et al., 2010; Reverte, 2009; Padgett & Galan, 2010; Artiach et al., 2010). Over the years, it has become clear that determinants of CSR either have certain *firm characteristics*, *corporate governance characteristics* or *institutional or industry characteristics*. This section discusses these three kinds of determinants and gives several examples of determinants found in previous studies.

2.3.1 Firm characteristics

Following internal or external theoretical perspectives or both, multiple studies have investigated several firm characteristics as determinants of CSR (Gamerschlag et al., 2010; Reverte, 2009; Padgett & Galan, 2010; Artiach et al., 2010). In this work, scholars and practitioners investigate if certain firm characteristics as size, profitability, capital structure, or investments in R&D affect the firm's level of CSR engagement.

According to multiple studies, a determinant that seems to have a significant affect on a firm's level of CSR engagement is a firms' size (Waddock & Graves, 1997; Reverte, 2009; Padgett & Galan, 2010; Artiach et al., 2010; Marano & Kostova, 2016). Over the years, multiple studies have investigated the affect that size has on CSR and came to the conclusion that company size is closely related to a company's engagement in CSR activities. Following legitimacy theory, it is argued that larger corporations are more likely to invest in CSR initiatives because of the greater public scrutiny over their behavior (Brammer & Millington, 2008; Dam & Scholtens, 2013; Marano & Kostova, 2016). The larger the company seems to be, the more it engages in CSR activities to ensure that the public sees the organization as legitimate (Waddock & Graves, 1997; Reverte, 2009; Padgett & Galan, 2010; Artiach et al., 2010).

Other firm characteristics often used in empirical studies that investigated CSR determinants are financial characteristics such as profitability, leverage and investments in research and development (R&D) for example (Gamerschlag et al., 2010; Reverte, 2009; Padgett & Galan, 2010; Artiach et al., 2010). According to Ng and Koh (1994) more profitable firms use more self-regulating mechanisms to ensure to the public that the organization is legitimate. Following this reasoning profitability is considered a determinant of CSR. Others suggested that leverage is a potential determinant of CSR (Reverte, 2009; Purushothaman et al., 2000). Following a stakeholder theoretical perspective it is argued that the level of debt in the firm's capital structure influences the importance of this creditor stakeholder group, and as a result, management is more likely to address their financial claims than the claims of other stakeholder groups for instance stakeholder groups that want the firm to engage more in CSR activities. Therefore leverage is seen as a possible determinant that affects a company's level of CSR engagement. Another possible determinant often investigated in recent years is the investment in R&D (Padgett & Galan, 2010; Hull & Rothenberg, 2008). Multiple studies investigated R&D expenditure levels of firms as a determinant of CSR, since they believed firms that want to differentiate themselves by investing in R&D, can do this by applying CSR aspects into their products or into their processes or both. As a result, firms that invest in R&D will also engage more in CSR activities trough innovative processes or products (Padgett & Galan, 2010; Hull & Rothenberg, 2008).

2.3.2 Corporate governance characteristics

Another stream within the scholarship of finding CSR determinants focuses on corporate governance. In this work scholars and practitioners focus on aspects such as ownership and board members for example as possible determinants of CSR. According to Gamerschlag et al. (2010) ownership concentration is an important determinant of CSR. They found evidence that ownership concentration influences a firms CSR engagement. Companies with more large shareholders (shareholders that hold a significant percentage of the shares) tend to engage more in CSR activities than firms with their shares more dispersed (Gamerschlag et al., 2010). Other scholars focused on the

type of ownership as a potential determinant of CSR (Oh et al., 2011). Oh et al. (2011) made a distinction between institutional, managerial and foreign ownership and found evidence that different owners have different impacts on a firm's CSR engagement. Harfsi and Turgut (2013) took a different approach and argued that board diversity is a determinant of CSR and found that the diversity of the board has a positive effect on firm's social performance. They argue that board diversity is a desirable aspect since it will improve the ability of a firm to relate to a broader customer base and helps compete more effectively in the highly diverse global marketplace (Harfsi & Turgut, 2013). Board diversity however is a broadly defined aspect that consists out of multiple other aspects such as board member gender, age, ethnicity and experience (Harjoto & Laksama, 2016; Harfsi & Turgut, 2013). Harfsi and Turgut (2013) however found that especially gender, and age of the board has a significant effect on CSP. This stream within the scholarship of finding CSR determinants is however a very large one and a topic worth investigating on itself.

2.3.3 Industry or institutional characteristics

Besides firm characteristics and corporate governance characteristics, also industry and institutional aspects have been investigated as determinants of CSR. It has become clear that the industry, in which a company is active, seems to have a significant effect on a corporation's level of CSR engagement (Reverte, 2009; Gamerschlag et al., 2011; Marano & Kostova, 2016). That is, firms that are active in more environmentally sensitive industries, such as the mining, oil and energy generation industries, tend to engage more in CSR activities than firms that are not active in environmental sensitive industries.

Reverte (2009) argues that the media can play an important role in mobilizing social movements such as environmental interest groups and in doing so, it becomes part of the institution-building process, shaping the norms of acceptable and legitimate CSR practices. Reverte (2009) found evidence that media exposure (the amount of publications about a certain firm) is a determinant of CSR. Higher levels of media exposure lead to higher levels of CSR engagement (Reverte, 2009).

Marano and Kostava (2016) have suggested other institutional determinants of CSR such as a firm's economic dependence on a particular country, and exposure to leading countries with more stringent CSR templates. They investigated MNEs and their subsidiaries that operate in complex transnational organizational fields with multiple, diverse, and possibly conflicting institutional forces and examined how such complex environments affect a firm's adoption of CSR practices. They found evidence that the strength of CSR institutional forces is positively related to CSR adoption as well as exposure to leading countries with more stringent CSR templates (Marano & Kostova, 2016).

Park and Ghauri (2015) argued that besides primary stakeholders such as employees, suppliers and customers, also secondary stakeholders influences a firm's decision to engage in CSR activities. They found evidence that especially the firms' competitors and non-governmental organizations

(NGOs), such as Greenpeace and Oxfam, have a significant influence on CSR in emerging economies (Park & Ghauri, 2015).

2.4 Effects of CSR

In order to identify what drives firms to engage in CSR and to find the determinants of CSR, it is important to discuss the effects of CSR. This will lead to a better understanding of why firms engage in CSR. Within the last couple of years, interest for the consequences of engaging in CSR initiatives has been growing (McWilliams et al, 2006). Much of the research done in this area of CSR is concerned with the effects of CSR on financial performance (McWilliams & Siegel, 2001). However, despite that the effects of CSR on financial performance are investigated numerous times, results of this work are, as said before, contradictory and ambiguous (Mellahi et al., 2016). It is still not clear if CSR will lead to a direct and immediate increase of financial performance (Mellahi et al., 2016). While the majority of literature points in favor of a positive relationship between CSR and financial performance in a indirect and larger time horizon, the mechanisms through which those rewards materialize are not well understood (Doh et al, 2009). In this section these mechanisms are being analyzed in finer detail. Scholars have suggested several mechanisms through which the engagement of CSR activities materializes, such as: the recruitment, motivation, and retention of a talented workforce; decreasing a firm's risk; enhanced firm's reputation; and providing access to capital (see Figure 2)(Turban & Greening, 2000; Mory et al., 2016; Story et al., 2016; Lin-Hi & Blumberg, 2016; Saeidi et al., 2015; Horjoto & Laksama, 2016; Diemont et al., 2016; Cheng et al., 2014).

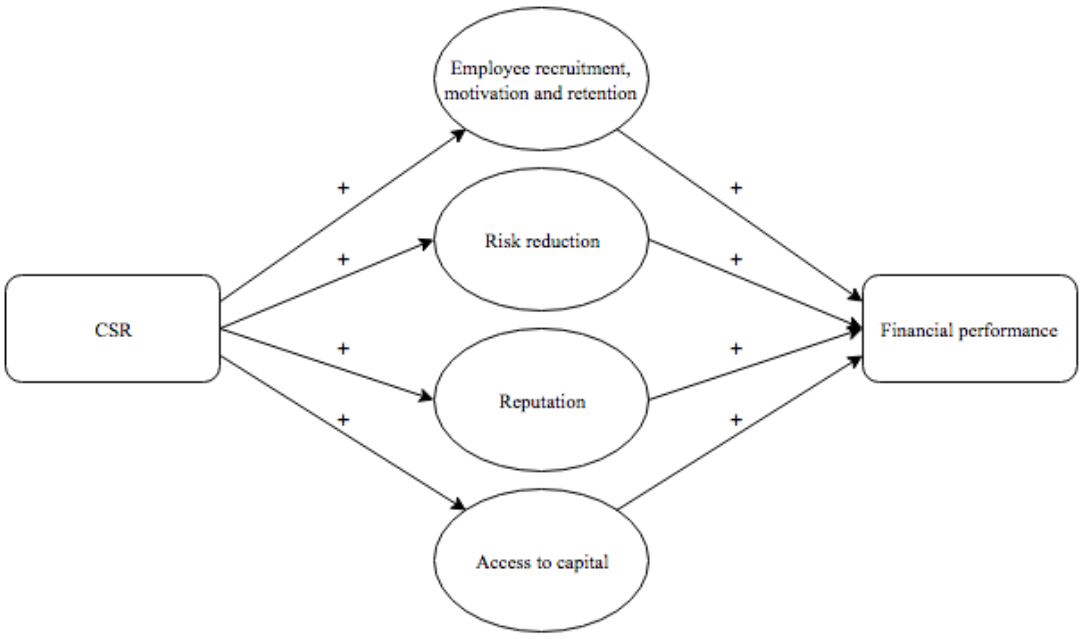

Figure 2: Effect mechanisms of CSR

2.4.1 Employee recruitment, motivation and retention

Consistent with the resource-based view of the firm, which suggests that sustained competitive advantage is based on the attraction, accumulation and retention of resources, which are difficult to substitute, and hard to imitate (Hamel and Prahalad, 1990), employees are acknowledged as a vital asset in any company (Mory et al., 2016; Story et al., 2016). So it is crucial to recruit and retain the right talented people. According to Turban and Greening (2000) and Story et al. (2016), firms with high CSR ratings are perceived as more attractive employers than firms with low ratings and that prospective applicant's probability to interview and probability to accept a job offer are positively associated with CSR rating. Turban and Greening (2000) noted that CSR could be particularly helpful in recruiting high quality employees who have a high degree of employment choice. Companies with a bad reputation as a corporate citizen can face significant recruitment problems. The reason behind this lies in both, signalling theory and identity theory (Greening and Turban, 2000). Signalling theory argues that employees require complete and accurate information about a potential employer before accepting an employment contract, in the absence of the availability of this information, employees look to the characteristics of the firms to signal the type of organization (Backhaus et al, 2002). CSR attributes could thus act as a signal to potential employees about the norms and values of an organization. Identity theory proposes that an individual's sense of who they are depends on the groups to which they belong, which includes the company they work for. It is argued that individuals attempt to establish a positive self-image by comparing themselves and the group to which they belong. So individuals are more willing to work for a company that has a positive reputation since they associate themselves with that reputation (Backhaus et al, 2002).

The effects of CSR are not restricted to recruitment only. It has been argued that CSR can affect a firm's ability to retain, develop and motivate employees also (Mory et al., 2016; Hopkins, 2003; Bode et al., 2015). According to Mory et al. (2016), CSR has a strong effect on affective organizational commitment (the extent of employees' emotional bond with their employers) and a low effect on normative commitment (the binding of employees to the organization on the basis of norms and obligations). According to Hopkins (2003) one of the most evident intangible benefits of engaging in CSR is increased employee morale, loyalty and satisfaction. Bode et al. (2015) showed a positive retention effect associated with employee participation in a corporate initiative with explicit social impact goals. By retaining a workforce, the knowledge of that workforce is also retained within the organization. It is the knowledge of a company's workforce that should be seen a vital asset. A loss of that knowledge can have negative effects on a company's profit (Tryon, 2012).

2.4.2 Risk

Following a stakeholder and RBV perspective, several scholars have suggested that CSR can help firms to reduce its risks (Godfrey et al., 2009; Diemont et al., 2016; Harjoto & Laksama, 2016). According to Godfrey et al. (2009), engaging in CSR activities can result into moral capital to its

stakeholders and subsequently this moral capital or goodwill will act as an insurance-like protection when negative events occur (Godfrey et al., 2009; Diemont et al., 2016). For instance, a lawsuit against the firm or the announcement of a fine received by a government entity can be regarded as a negative event for a firm. In their study, Godfrey et al. (2009) found that participation in institutional CSR activities (those aimed at a firm's secondary stakeholders or society at large) provides an insurance-like benefit, while participation in technical CSRs (those activities targeting a firm's trading partners) yields no such benefits.

The effects of CSR on firm risk may have further implications as Harjoto and Laksama (2016) examined the relation between CSR and deviations of optimal risk taking levels. In their study they found that stronger CSR performance is associated with smaller deviations from optimal risk taking levels. Furthermore they examined the mechanism through which CSR has an impact on firm value and found that CSR has an positive indirect impact on firm value through the impact of CSR on risk taking. In other words CSR performance is positively associated with firm value because CSR reduces excessive risk taking and risk avoidance (Harjoto & Laksama, 2016).

2.4.3 Reputation

The resource-based view of the firm argues that reputation is a resource leading to a competitive advantage, signalling to stakeholders about the attractiveness of the firm, who are then more willing to contract with it (Deephouse, 2002). Research has discovered a positive relationship between a company's reputation and financial performance (Brammer & Millington, 2008). According to Saeidi et al. (2015, CSR is indirectly promoting firm performance through enhancing corporate reputation. While a good reputation enhances the value of everything an organization does, a bad reputation influences firm performance in a negative way.

In a 2009 survey of Mckinsey, financial officers, investment professionals, and CSR professionals, argued that CSR influences a firm's financial performance mostly by the way in which it improved a corporations' reputation (Mckinsey Global Survey Results, 2009). Also Lin-Hi and Blumberg (2016) argue that CSR could enhance a firms' reputation. However they warn for the fact that companies must not forget the "avoiding bad" aspect of CSR since that aspect has greater influence on a firms' reputation in the long run than the "doing good" aspect of CSR has. In other words, in the long run corporate reputation is more affected by not practicing "avoiding bad" than by practicing "doing good" (Lin-Hi & Blumberg, 2016).

In line with the resource-based view, reputations are critical not just because of their potential for value creation, but also because their intangible character makes replication by competing firms considerably more difficult (Barney and Clark, 2007).

2.4.4 Access to capital

Also a firm's ability to access capital could be an effect of CSR. This is explained to refer to a company's ability to attract investments, which, in turn, provide the companies with the funds required

to operate and grow, thereby establishing its relationship to financial performance. According to Baron (2008), investors nowadays have a tendency to invest their funds in organizations that are showing high CSR ratings. Also Cheng et al. (2014) argue that firms with better CSR performance face significantly lower capital constraints. They provided evidence that both better stakeholder engagement and transparency around CSR performance are important in reducing capital constraints. Another study conducted by El Ghoul et al. (2011), found that the mean cost of equity is significantly lower for firms with high social performance. It is argued that CSR engagement is likely to benefit the firm by decreasing the cost of equity capital (El Ghoul et al, 2011).

2.5 Conclusion

In the first part of this chapter the concept of CSR has been defined. It is clear that this topic entails a problem of definition. However the definition stated by Aguinas (2011) is considered to be comprehensive and clear. In the second part of this chapter the question why corporations engage in CSR activities is discussed. It is argued that external as well as internal drivers are explaining CSR behavior. While stakeholder theory, legitimacy theory and RDT are considered the main theories theorizing the external drivers of CSR, agency theory and RBV theory are considered the main theories theorizing the internal drivers of CSR. Stakeholder theory asserts that, in contrast to the traditional shareholder view, companies have social responsibilities that require them to consider the interests of all parties affected by their actions and that corporate actions are a direct result of stakeholder pressure. It is argued that legitimacy, urgency and power are three attributes that determine stakeholder salience and thus determine which stakeholders are more important to the firm on a given point in time. Legitimacy theory argues that besides different stakeholder groups, a firm also hold responsibilities to society as a whole, and since firms want to hold their license-to-operate it must show to society that it is operating within the bounds and norms of their respective societies. RDT suggests that key stakeholders, such as shareholders, employees, customers, suppliers, and the community, have control over critical resources, and could influence management decisions since the firm is dependent on these resources. Agency theory is concerned with the fact that agents may behave and act in accordance with their own personal goals rather than with those of the principal. According to agency theory CSR is a potential concept that raises a conflict of interest between agents and principals. The RBV argues that CSR could help the firm to create VRIN resources, which in turn could lead to a sustainable competitive advantage for the firm. These five perspectives should however not be seen as competing perspectives, but rather as different ways of explaining why corporations engage in CSR activities while others do not. Subsequently several determinants following these five theories are being discussed. Over the years, internal firm characteristics as well as external industry and institutional characteristics have been investigated as potential determinants of CSR. In the last part of this chapter, the mechanisms trough, which the rewards of CSR materializes have been discussed. According to the social identity and signalling theory, engaging in CSR activities could

lead to employee attraction, motivation and retention improvements. While stakeholder theory and the RBV imply that engaging in CSR activities could lead to risk reduction, the resource-based view theory implies that engaging in CSR could lead to an improved reputation and improved access to capital. All these benefits may lead to an increase in future financial performance. While the majority of empirical studies points toward a positive relation between CSR and CFP, still no undisputed evidence exists confirming this relation. It is argued that CSR and CFP measures, the use of multiple theories, and the mediating mechanisms and moderating effects, are the reasons behind the variance in evidence that multiple empirical studies reported.

3. Hypotheses development

As mentioned before, the different perspectives should however not be seen as competing perspectives, but rather as different ways of explaining why corporations engage in CSR activities while others do not. In line with recent calls for a multi-theoretical approach where external as well as internal drivers are being included, five hypotheses about the relationship between potential determinants and CSR are formulated based on the different theories and explanations outlined in the previous section.

3.1 Hypothesis 1: leverage

The descriptive perspective of stakeholder theory asserts that stakeholder salience is relevant and thus organizations identify which stakeholder interests are important (Helmig et al., 2016). According to Jamali (2008) organizations often find themselves constrained by limited resources and bounded rationality. As a result it is argued that these limited resources will be used in order to satisfy the most important stakeholder group first. As suppliers of capital to the firm, debt holders are an important stakeholder group (Artiach et al., 2010). It is proposed that the level of debt in the firm's capital structure influences the importance of this stakeholder group, that is when the level of debt is relatively high, the importance of this stakeholder group increases and management is more likely to address their financial claims than the claims of other stakeholder groups, for instance a local community or an environmental support group who want the firm to invest more in pollution control. Debt holders are likely to see their investments in the firm materialize in forms of repayments and future interests (Barnea & Rubin, 2010). Since the amount of debt limits the amount of free cashflows available for managers to invest (Barnea & Rubin, 2010) and since there is no undisputed evidence that investing in CSR will lead to more financial success (Brammer & Pavelin, 2008; Mellahi et al., 2016), it is proposed that debt holders want the firm to invest their resources in activities other than CSR to ensure their repayments and interests. Based on previous reasoning, one could say that leverage and CSR are negatively associated.

On the other hand however, following agency theory, it is argued that more highly leveraged firms disclose more voluntary information in their annual reports in order to reduce agency costs and, as a result, cost of capital (Reverte, 2009). Following this reasoning one could say that leverage and CSR are positively associated.

It seems that leverage can be associated with CSR in both ways. Therefore, I do not make an assumption about the sign of the relationship a priori. It is hypothesized that:

H1: The amount of debt of a firm has an effect on CSR.

3.2 Hypothesis 2: profitability

According to legitimacy theory, firms operate on the basis of a social contract between the firm and society, and firms require social approval or legitimacy in order to avoid social disapproval and to ensure the firm's survival. Legitimacy theory posits that organizations continually seek to ensure that they operate within the bounds and norms of their respective societies to retain congruence between society and the organization (Dowling & Pfeffer, 1975; Deegan, 2002; and Frynas & Yamahaki, 2016).

In order to gain legitimacy, strategic legitimacy theory predicts that management has some control over the legitimation process and that managers can adopt strategies to demonstrate to society that the organization is attempting to comply with society's expectations (Suchman, 1995; Chan et al., 2014; Panwar et al., 2014). Engaging in CSR has become an important way through which firms demonstrate their commitment to a more sustainable future (Berchicci & King, 2007).

It is argued that highly profitable firms are more exposed to public scrutiny and political pressure and thus are in need of more social approval (Ng & Koh, 1994; Reverte, 2009). Therefore it is proposed that highly profitable firms engage more in CSR activities in order to make sure the public sees the organization as legitimate. Based on previous reasoning it is hypothesized that:

H2: Corporations with higher levels of profitability will undertake more CSR.

3.3 Hypothesis 3: board diversity

RDT suggests that access and control over external resources are essential elements to organizational success, and therefore, firms must carefully implement strategies to maintain access to these resources. It is argued that high levels of CSR performance help firms to secure the flow of external resources to the firm and thus enhance organizational success (Bear et al., 2010). It is argued that the board of directors plays an important role in ensuring the flow of internal resources to the firm in terms of knowledge, skills, experience, expertise, and ties (Mallin et al., 2013; Hafsi & Turgut, 2013; Shaukat et al., 2015). These board's human capital resources in turn help firms to address CSR issues and to respond to them in an appropriate way, which can lead to access and control over critical external resources (Bear et al., 2010; Frynas & Yamahaki, 2016).

According to Hafsi and Turgut (2013) the greater the diversity of board resources, the greater the potential for understanding and problem solving that can enable the board to effectively address the business environment and enhances CSR performance. Hafsi and Turgut (2013) argue that variety and distinctiveness are expected to come from diversity, improving linkages with stakeholders, and sensitivity to differences and to the wider society's concerns. Board diversity however is a broadly defined aspect that consists out of multiple other aspects such as board member gender, age, ethnicity and experience (Harjoto & Laksama, 2016; Harfsi & Turgut, 2013). Considering the extent of the topic of board diversity and the complexity that comes with it, this study will examine board diversity

only regarding the aspects that, according to Harfsi and Turgut (2013), have a significant effect on CSR, which is board member gender and age.

Researchers suggested that different genders respond to different norms, attitudes, beliefs, and perspectives (Pelled et al. 1999). Female directors add experience sets and values that are dissimilar of those of their male colleagues. Internally, they inspire female employees for upper-echelon positions. They serve as role models, suggesting that women can achieve top-notch career opportunities (Milliken and Martins 1996). Externally, they may link a firm to essential suppliers. Representation of female directors in boards may have social consequences as well, as researchers found that women think more favorably of ethical matters than men (Luthar et al. 1997), and tend to be more sensitive to CSP (Burgess & Tharenou 2002).

As of age diversity, it is argued that age reflects directors' general business experience and is evidence of their maturity in directing the business. Furthermore it has been argued that, as directors mature, their generational behavior (Harfsi & Turgut, 2013) increases and they may be more sensitive to society at large and more willing to contribute to its welfare. Younger generations of directors are often seen as more sensitive to environmental and ethical issues as a matter of logic and principle. Such sensitivity leads to socially responsible and environmentally friendly behavior (Bekiroglu et al. 2011). Based on this reasoning I assert that:

H3: Corporations with greater board diversity will undertake more CSR.

3.4 Hypothesis 4: Ownership

Following agency theory, Barnea and Rubin (2010) argue that if managers are able to gain personal benefits, possibly at the cost of shareholders, ownership structure will likely be an determining factor of a firm's conceptions towards CSR. According to Barnea and Rubin (2010) shareholders are likely to hold different preferences towards CSR based upon their personal values and backgrounds. It is argued that different shareholders may have different time horizons and thereby different preferences regarding corporate social investments, for instance minority vs. majority shareholders (Ducassy & Montandreau, 2015; Crifo et al., 2016). Blockholders, shareholders that own significant percentages of the firm's stock, are likely to have a more long-term focus since they cannot easily sell their shares, because their selling could greatly affect the stock price (Oh et al., 2011; Ducassy & Montandrau, 2015). The effects outlined in the previous chapter suggest that CSR can improve firm performance in the long run and thus it is suggested that blockholders want firms, in which they hold shares, to invest in CSR activities (Oh et al., 2011; Orlitzky et al., 2003; Crifo et al., 2016). Blockholders are likely to have direct access to management because of their large amount of shares and that allows them to verify managements' behavior in a better way, which in turn decreases agency problems (Eisenhardt, 1989). Since blockholders have direct access to management and thus

can verify behavior of management, it is likely that management will behave in accordance to the owners' desires and thus will engage in CSR activities. Therefore I assert that:

H4: Corporations with more concentrated share ownership structures will engage more in CSR.

3.5 Hypothesis 5: innovation

Following the RBV perspective, engaging in CSR activities can help firms to differentiate themselves and achieve a sustainable competitive advantage by providing several internal and external benefits. Firms can also differentiate themselves trough R&D since investing in R&D could lead to innovative products and processes (Mcwilliams & Siegel, 2001). It is argued that investments in R&D and CSR are positively correlated because both are associated with product and process differentiation (Padgett & Galan, 2010). In this regard CSR can be seen as a mechanism for product differentiation. Firms that want to differentiate themselves by investing in R&D can do this by applying CSR aspects into their products or into their processes or both. This brief discussion suggests that firms, which invest in R&D, will also engage more in CSR activities through innovative processes or products. Therefore the following hypothesis has been formulated.

H5: Corporations that invest more in R&D do engage more in CSR.

4. Research methodology

In this chapter the methodology of this study is discussed. Different research methods have been used in order to find and analyze determinants of CSR. In the first part of this chapter different methods will be discussed followed by the research method used in this study. The second part of this chapter will elaborate on the research design of this study and will outline the dependent, independent variables and control variables of this study.

4.1 Research method

There are three research methods that are the most prominent in research regarding determinants of CSR, that is: univariate analysis, bivariate analysis, and multivariate analysis (Sapkauskiene & Leitoniene, 2014). Univariate analysis is known as one of the simplest statistical analysis. It involves one variable and its major purpose is to describe the data. Bivariate analysis involves the analysis of two variables (often denoted as X, Y), for the purpose of determining the empirical relationship between them. Multivariate analysis refers to all statistical techniques that simultaneously analyze multiple measurements on individuals or objects under investigation (Hair, 2010). In other words, multivariate analysis is an analysis that examines if a dependent variable is related to multiple independent variables.

Where multivariate analysis is often used to predict the extent to which certain independent variables can predict the dependent variable, univariate and bivariate analysis are often used to check certain assumptions before employing a multivariate analysis. That is because many multivariate techniques are extensions of univariate analysis (analysis of single-variable distributions) and bivariate analysis (cross-classification, correlation, analysis of variance, and simple regression used to analyze two variables). For example, simple regression (with one predictor variable) is extended in the multivariate case to include several predictor variables (Hair, 2010).

One of the most common statistical techniques of multivariate analysis that is used in research regarding CSR determinants is multiple regressions analysis (Sapkauskiene & Leitoniene, 2014). Multiple regression analysis refers to a statistical technique that relates several factors to a specific outcome. Hence, the objective of multiple regression analysis is to predict a single dependent variable from the knowledge of two or more independent variables (Hair, 2010). Multiple regression usually seeks to ascertain the causal effect of two or more variables upon another (Sykes, 1993), the effect of a price increase and advertising upon demand, or in this regard, the effect profitability and ownership concentration upon the engagement of CSR.

Over the years, different techniques of multiple regression have been used in order to find CSR determinants. The most often used technique in finding determinants of CSR is ordinary least squares (OLS) regression (Reverte, 2009; Artiach et al., 2010; Hafsi & Turgut, 2013; Oh et al., 2011;

Padgett & Galan, 2010; Shirodkar et al., 2016; Marano & Kostova, 2016). The OLS analysis reports the T-statistic for each predictive variable. The T-statistic tests whether the impact of the predictor variable on the outcome variable is significant or not. Within the extensive literature, regression models are developed by identifying the results of each individual determinant first, followed by the model containing all determinants (Hull & Rothenberg, 2008; Padgett & Galan, 2010; Reverte, 2009). In this study, consistent with previous studies (Reverte, 2009; Artiach et al., 2010; Hafsi & Turgut, 2013; Oh et al., 2011; Padgett & Galan, 2010; Shirodkar et al., 2016; Marano & Kostova, 2016), OLS multiple regression analysis is used in order to test the hypotheses.

Regression analysis further provides some options in regard of the entry of predictor variables into the model (Hair, 2010). Hierarchical regression analysis allows the entering of predictor variables in different stages. Hereby predictive variables are entered according to their influence as predicted by theory. First the known predictors should be entered into the model, followed by the predictors of which no knowledge is available yet. The stepwise entry method implies that entry is based on mathematical criterion in which software enters the variable that contains the most explained variation in the outcome. Last the forced method can be used as an entry method. The forced entry method forces all predictors into the model simultaneously; this method needs careful consideration of including certain predictors (Hair, 2010). This study uses the hierarchical entry method as the method of entry.

In this study several control variables are used in order to test the hypotheses properly. According to multiple studies, the industry in which a firm is active influences whether or not a company engages in CSR activities (Reverte 2009; Gamerschlag et al, 2011; Padgett & Galan, 2010). These industry effects will be controlled for using dummy variables. Furthermore this study controls for a company's size. Previous articles have suggested that it is closely related to CSR (McWilliams & Siegel, 2000; Dam & Scholtens, 2013; Waddock & Graves, 1997). In order to measure company size in our analysis the natural logarithm of firms' total assets and sales will be used (Padgett & Galan, 2010; Brammer & Millington, 2008).

The explanatory factors will be checked for multicollinearity using bivariate analysis. A multiple regression model with correlated predictors can indicate how well the entire bundle of predictors predicts the outcome variable, but it may not give valid results about any individual predictor, or about which predictors are redundant with respect to others. This study will identify multicollinearity by using a correlation matrix of the explanatory variables (Hair, 2010). According Hair (2010), the variance inflation factor (VIF) quantifies the severity of multicollinearity. To be sure that multicollinearity is limited, the VIF should be <10. Furthermore, the assumption of heteroscedasticity is tested by the scatterplot of the standardized residuals. This requires that the variance of error terms is similar across the independent variables. To assess the accuracy of the regression model the coefficient of determination (R^2) is used. The R^2 is calculated as the squared correlation between the actual and predicted value of the dependent variable and represents the

combined effects of the entire variable (one or more independent variables plus the intercept) in predicting the dependent variable. Where 1.0 indicates a perfect prediction 0.0 indicates no prediction (Hair, 2010). Furthermore the R^2 also represents the amount of variance in the dependent variable explained by the independent variable (Hair, 2010).

4.2 Research design

As mentioned in previous section and in line with recent literature (Reverte, 2009; Artiach et al., 2010; Hafsi & Turgut, 2013; Oh et al., 2011; Padgett & Galan, 2010; Shirodkar et al., 2016; Marano & Kostova, 2016), OLS regression is used as the research method for analyzing the relationship between CSR behavior and the various factors outlined in the previous chapter. Therefore the following equation is formulated:

$$CSR\ rating_{i,t} = \beta_0 + \beta_1 Leverage_{i,t} + \beta_2 Profitability_{i,t} + \beta_3 Board\ diversity_{i,t} + \beta_4 Ownership\ structure_{i,t} + \beta_5 R\&D_{i,t} + \beta_6 Industry_{i,t} + \beta_7 Size_{i,t} + \varepsilon_{i,t}$$

4.2.1 Dependent variable

Measuring CSR is not as straightforward as it looks like beforehand, and due to the problem of definition many academics have struggled to measure CSR (Mellahi et al., 2016; Frynas & Stephens, 2015). According to Mellahi et al. (2016) 36 different metrics have been used to assess CSR, ranging from philanthropy to ethics to safety issues to more composite measures assessed by external rating agencies such as KLD Research & Analytics, Inc. This makes it clear that CSR means different things in different places to different people and at different times (Campbell, 2007; Frynas & Stephens, 2015). It has become clear that CSR must be seen as an umbrella term that encompasses a variety of concepts and practices, but as a result, no clear and comprehensive measure of CSR has been provided yet (Frynas & Stephens, 2015).

Literature suggests that there are two main methods that are viable to measure CSR, that is: *CSR reputation indices* and *content analysis of corporate publications* (Maignan & Ferrell, 2000; Turker, 2009; De Leaniz & Del Bosque, 2013).

CSR reputation indices

The first method, CSR reputation indices, is among the most widely used methods for evaluating corporate social activities (Turker, 2009). With this method, knowledgeable observers rate firms on the basis of one or more dimensions of social performance. The Kinder, Lydenberg, and Domini (KLD) index and the Fortune's reputation index are popular examples of this method. Where KLD rates companies, traded on the US stock exchange, based on eight attributes of social activities (community relations, employee relations, environment, product, treatment of women and minorities,

military contracts, nuclear power, and South Africa), the Fortune's reputation index offers a systematic tool for evaluating socially responsible behaviors from a managerial point of view (Turker, 2009).

As the use of CSR reputation indices as indicator of social performance became more popular, also several ways in which to conduct such an index evolved. While early studies often used indices of one dimension as indicator for CSR (Bragdon & Marlin, 1979; Davidson & Worrell, 1990), for instance a pollution control index, or a corporate crime index (Bragdon & Marlin, 1979; Davidson & Worrell, 1990), more recent studies started to use CSR reputation indices of multiple dimensions and started to combine these indices (Griffin & Mahon, 1997; Turban & Greening, 2000). The most common example of this is the research of Griffin and Mahon (1997). They combined four indices of CSR: the Fortune's reputation index, the KLD index, the Toxic Release Inventory (TRI), and the rankings provided in the Directory of Corporate Philanthropy, in order to evaluate CSR behavior. Their findings however suggested that the indicators that were used might not be representative of the same underlying construct and may not be sufficient to provide an overall understanding of CSR.

Overall, the advantages of CSR reputation indices is that it first, tends to be internally consistent, because one evaluator is applying the same criteria to each firm. Second, the attributes included in the CSR ratings are weighted, which deals directly with changing social standards. Third, this method is based upon the current social standards, which makes it possible to compare firms within the same timeframe. However this method also has its limitations since the utilized aspects of these indices and databases are not based on theoretical arguments but based on experts' evaluations, which makes it rather subjective. Furthermore, the databases only consolidate information from firms in a specific market (Maignan & Ferrell, 2000; Turker, 2009; De Leaniz & Del Bosque, 2013).

In this study, the index conducted by the Transparency Benchmark is used as an indicator of a firms' social performance. The Transparency Benchmark rates Dutch firms on their economic, environmental and social performances. This leads to the following CSR rating:

a) The CSR rating of the Transparency Benchmark.

Content analysis

The second method, content analysis, is considered to be one of the most accepted and common methods to measure CSR since an increasing amount of firms increasingly disclose more information regarding CSR into their reports (Branco & Rodrigues, 2008; Sweeney & Coughlan, 2008; Turker, 2009; Reverte, 2009; Gamerschlag et al., 2011). In order to measure CSR, this research technique determines the presence of certain words and concepts in a text, for instance an annual report, and uses that to evaluate CSR behavior of a certain company. According to the nature of study the content analysis method can be divided into two groups, that is: research aimed to investigate the extent of social information disclosure; and research aimed to investigate the quality of social information disclosure.

In order to investigate the extent or quantity of social information disclosure the most commonly used research is based on counting the number of keywords in certain type of units, for instance in pages, sentences, or just the keyword by itself (Cuganesan et al., 2010; Dagiliene, 2015).

To analyze the evaluation and quality of social information disclosure, researchers used a variety of indexes, such as the principles of the UN Global Compact, and the GRI Sustainability Reporting Guidelines (Cuganesan, Guthrie and Ward, 2010). According to Hooks and van Staden (2011), the disclosure index is used to evaluate, compare and explain differences in scope and quality of disclosed information in corporate reports. The content analysis using the disclosure index usually involves highlighting of any important sentence corresponding to the specification of disclosure index, and the subsequent encoding of sentences according to the selected quality assessment scale. In this way, the descriptive text shall be divided into categories in order to be able to draw conclusions on the thematic content (Hooks, van Staden, 2011).

One of the most common ways in constructing content analysis is as Gamerschlag et al. (2011) constructed it, that is: by choosing a unit of analysis and an index to measure the quality. Gamerschlag et al. (2011) used the number of words as their unit of analysis to quantity the volume of CSR disclosure and used the GRI Sustainability Reporting Guidelines in order to identify their keywords and evaluate the quality of the social information disclosure. It is argued that the GRI guidelines cover all aspects of CSR, as they consider an economic, environmental, and a social perspective. Gamerschlag et al. (2011) derived their keywords for their analysis by defining one or more keywords for every perspective and thereby consider the singular and plural forms, as well as British and American English.

Content analysis has two significant advantages. First, once the particular variables have been chosen (a subjective process), the procedure is reasonably objective. Therefore the results are independent of the particular research. Second, because this technique is more mechanical, larger sample sizes are possible. However, content analysis also has some limitations. The choice of content might not be fully comprehensive and the analysis itself can be biased by selective inclusion or exclusion of content (Waddock & Graves, 1997). Further, it has to deal with the walk and talk problem, which implies that companies can say they do practice CSR but actually are not doing it at all (Wickert et al, 2016). At best, one certainly could postulate that firms that are aware of these issues are those that will discuss them as well as act on them. On the other hand, one could imagine that firms that are doing poorly on this front would feel an extra incentive to make themselves look good in their annual reports and will provide false information about their achievements regarding CSR. An early study conducted by Ingram and Frazier (1980) provided evidence for this as they found that poor performers provided longer environmental disclosures.

This study will measure a firms' level of CSR by conducting a content analysis. The content analysis will be based on companies' annual reports since it is argued that the annual reports of companies are considered a way in which a company can demonstrate to society that it is attempting to

comply with society's expectations (Deegan, 2002; Chan et al., 2014). Besides, a company's annual report is public information so it is easy to access, which allows easy replication of this research. CSR has been referred to as an umbrella term (Aguinis, 2011) and is considered a multi-dimensional concept. Therefore the performance indicators of CSR behavior will be focusing on different dimensions of CSR. In order to evaluate the different dimensions of CSR, performance indicators from the GRI reporting initiatives will be adopted. The GRI guidelines cover all aspects of CSR, as they consider an economic, environmental, and a social perspective and are widely used in academic research in order to conduct a company's CSR rating (McWilliams & Siegel, 2000; Gamerschlag et al., 2011; Guthrie et al., 2008). Keyword are assigned to the performance indicators as noted in Appendix A. Words are used as the unit of analysis since it allows for easy replication of this research and diminishes subjection (every time executed yields the same results). Furthermore the assigned keywords consider the singular and plural forms ("opportunity" and "opportunities"), as well as British and American English ("behavior" and "behaviour"). The CSR rating will be calculated by counting the total number of keywords divided by the total number of words of the annual report. This leads to the following CSR rating:

b) The CSR score a company gets from the content analysis. Calculated by number of keywords divided by the total number of words in the annual report of the company.

4.2.2 Independent variables

In this section measurement of the different independent variables is discussed. For each independent variable several reasons and explanations are discussed regarding the measurement of that variable.

Leverage

There are two main ways of measuring, that is: the ratio of debt to total assets and the ratio of debt to the book value of equity (Padgett & Galan, 2010; Oh et al., 2011; Reverte, 2009; Cormier et al., 2005; Habbash, 2015). In line with previous literature this study will measure leverage by these ratios.

Profitability

In CSR research many indicators have been used in order to measure profitability, such as return on assets (ROA), return on equity (ROE), and earnings before interests and taxes (EBIT) (Artiach et al., 2010; Oh et al., 2011; Brammer & Pavelin, 2008; Reverte, 2009; Doh et al., 2012). Most common indicators are either accounting or market-based measures. It is argued market-based measures are based on an investor's viewpoint, and thus neglect other stakeholder groups (Reverte, 2009). Therefore this study adopts two accounting based measures namely, return on assets (ROA) and return

on equity (ROE). The ROA is calculated by dividing the company's net income by the total assets of the firm. The ROA figure indicates the amount of profit a company generates by each euro of assets employed (Palepu, Healy & Peek, 2010). As a sensitivity check, ROA is replaced with Return on Equity (ROE), which is measured as net income before extraordinary items divided by common equity.

Board diversity

Board diversity has been measured by multiple variables, such as: director gender, age, tenure, but also board size and director independence, have been used in order to measure board diversity (Harfsi & Turgut, 2013; Carter et al., 2010; Harjoto & Laksama, 2016). According to Harfsi & Turgut (2013), there are two streams of board diversity research, that is: *diversity of boards*, which refers to board structure and *diversity within boards*, which refers to demographic characteristics of board directors. This study focuses on *diversity within boards* in order to stay with the subject of finding CSR determinants.

Considering the extent of the topic of board diversity and the complexity that comes with it, this study will examine board diversity only regarding the aspects that, according to Harfsi and Turgut (2013), have a significant effect on CSR, which is board member gender and age. Furthermore it is argued that both variables are considered valid measures for measuring board diversity (Harfsi & Turgut, 2013; Siciliano, 1996; Harjoto & Laksama, 2016). Each variable is considered a category variable. That is: age consists out of 5 categories (Under 20, 20-35, 36-50, 51-65, above 65) and gender of two categories (female, male). To conduct a diversity measure, an index is constructed based on two diversity scales (Siciliano, 1996). These diversity scales are calculated as follows. In each category, the highest percentage of any of the subgroupings was subtracted from 100 (so that a high score would represent greater diversity) and then was multiplied by the total number of categories with any amount of representation. For example, an organization with board members in five age subgroupings, the largest proportion of which was 60% would have an age diversity score of 200 [(100 - 60) x 5]. According to this scoring, organizations with a smaller percentage in the most represented age group and with board members across a greater number of age groupings would be considered more diversified (having a higher score) than an organization with a large percentage of the members in one age group and fewer total age categories represented (Siciliano, 1996).

Ownership concentration

Reverte (2009) measured ownership concentration by using dichotomous variables. In his work, he made a distinction between companies that have a majority shareholder and companies that do not have a majority shareholder. However, by doing this Reverte (2009) only shows if a company has a majority shareholder and discards quite some information on the exact composition of ownership of the firm. Therefore this study adopts a different measure namely, the well-known Hirschman-

Herfindahl index (Dam & Scholtens, 2013). The traditional Hirschman-Herfindahl index is often used as a measure of concentration in a particular industry, using market shares. In this study the ownership concentration index (OCI) is constructed by summing the squared shareholdings of the five largest shareholders of a company. Only the five largest are used due to availability of the data on ownership. More concentrated ownership in a firm is reflected by a higher OCI value. The OCI is an accurate way to measure ownership concentration, since it, first, takes into account the shareholder information of the five largest shareholders and, second, it is a continuous measure that ranges between 0 and 100% (Dam & Scholtens, 2013). Besides this research also adopts the measurement of Gamerschlag et al. (2011), who calculated the freefloat in percentage of common outstanding shares.

R&D

In order to measure the amount of R&D, often the absolute figure of R&D investments are used. Hull and Rothenberg (2008) for example, used a three-year average of the absolute numbers, however this number is likely to be influenced by the firms' sales numbers and the size of the firm. Therefore, consistent with McWilliams and Siegel (2000) and Padgett and Galan (2010), a ratio of R&D expenditure to sales is used in order to measure R&D.

4.2.3 Control variables

As mentioned before, according to multiple studies, the industry in which a firm is active influences whether or not a company engages in certain CSR activities (Reverte 2009; Gamerschlag et al, 2010; Oh et al., 2011; Dam & Scholtens, 2013; Habbash, 2015). It is argued that different industries face different forms of public visibility and public scrutiny. In order to obtain clear results, it is important to control for these effects. Several previous studies have controlled for industry effects by simply focusing on a single industry (Paek et al., 2013) or by making only a distinction between manufacturing and non-manufacturing industries (Barnea & Rubin, 2010; Padgett & Galan, 2010). However one of the most common ways of controlling for industry effects is by using industry codes and to create dummy variables (Barnea & Rubin, 2010; Waddock & Graves, 1997). This method however requires substantial sample sizes to make sure that every industry category holds enough firms to acquire valid results. Waddock & Graves (1997) combined multiple industries into one category to make sure every category holds enough firms, thereby overcoming this difficulty. Since our sample size is not big enough to categorize every firm into their own industry (categories will be to small is sizes), this study adopts Waddock and Graves method and combines the NACE rev. 2 industry codes in order to classify industries and combines them into four industries (Benchmark is 'Services'). NACE is the European statistical classification of economic activities (rev. 2 is the second revision and is used for statistics referring economic activities). The first codes of the NACE are alphabetical characters and are called sections. A full list of all sections of the NACE rev. 2 can be found in appendix B. An overview of all industries used in this study is presented in table 4.1.

Industry dummy	NACE rev. 2 sections	Abbreviation	Quantity
Mining & Construction	A-F (without C)	MINCON	6
Manufacturing	C	MAN	25
Trade & Transportation	G-I	TT	8
Services	J-U	SERV	29

Table 4.1 List of industries incorporated in this study

Another control variable added in this research is the company's size. It is argued that size may positively impact corporate social performance, as larger companies are more likely to invest in CSR initiatives because of the greater public scrutiny over their behavior (Brammer & Millington, 2008; Dam & Scholtens, 2013; Marano & Kostova, 2016). As indicated by previous studies, firm size is often measured by the natural logarithm of firm total assets and sales (Padgett & Galan, 2010; Brammer & Millington, 2008; Artiach et al., 2010). Two indicators are often used since the amount of sales will likely increase when a firms total assets increase. Furthermore it is argued that when firms have more assets, higher sales numbers are often achieved. The natural logarithm is often used when there is a very large range of data (Hair, 2010). Thereby positive skewness of the data can be reduced (Hair, 2010). In this study the natural logarithm of a firm's total assets and sales is used to measure firm size.

Characteristic	Variable	Name	Description	Source
CSR	CSR rating according to content analysis	CSR_CONT	Number of keywords found in annual report / total number of words.	Gamerschlag et al. (2011) Reverte (2009)
	CSR rating from Transparency Benchmark	CSR_TRAN	Rating of Transparency Benchmark.	
Leverage	Debt ratio	DEBT_ASS	Total book value of debt / total book value of assets.	Padgett & Galan (2010) Oh et al. (2011) Habbash, (2015) Reverte (2009)
	Debt to equity ratio	DEBT_EQ	Company's net income / company's total assets employed.	
Profitability	Return on assets	ROA	Company's net income / company's total assets employed.	Oh et al. (2011) Brammer & Pavelin, (2008) Reverte, (2009) Perez-Batres et al. (2012)

	Return on equity	ROE	Company's net income / common equity.	Artiach et al. (2010)
Board diversity	Board diversity	B_DIV	Diversity scale score age + diversity scale score gender.	Siciliano (1996) Harfsi & Turgut (2013) Harjoto & Laksama (2016)
	Age diversity scale	AGE_DIV	(100 – top % in an age category) * number of total age categories.	Siciliano (1996)
	Gender diversity scale	GEN_DIV	(100 – top % in an gender category) * number of total gender categories.	Siciliano (1996)
Ownership	Ownership concentration index	OCI	Summed up squared shareholdings of the five largest shareholders of a company.	Dam & Scholtens (2013)
	Freefloat shares	FREEFLOAT	Number of freefloat shares / outstanding shares.	Gamerschlag et al. (2011)
Innovation	Research and development	R_D	R&D expenditure / total sales.	McWilliams & Siegel (2000) Padgett & Galan (2010)
Industry	Industries	IND	Dummy variables (Benchmark: 'Services').	Waddock & Graves (1997)
Size	Total sales	LN_SALES	Natural logarithm of a firm's total sales.	Padgett & Galan (2010) Brammer & Millington (2008)
	Total assets	LN_ASSETS	Natural logarithm of a firm's total assets.	Artiach et al. (2010)

Table 4.2 Summary of all variables included in this research

5. Data

In this chapter the sample of this study will be discussed. In a brief discussion the sample will be described as well as the selection criteria. Subsequently, the data source for the dependent as well as the independent variables will be discussed.

The sample used in this study consists of all the companies listed at the Amsterdam Exchange Index (AEX), the Amsterdam Mid Cap Index (AMX), and the Amsterdam Small Cap Index (AScX) during 2015. In total this sample exists out of the 75 largest companies of the Netherlands in terms of market capitalization. Where the AEX has the 25 largest firms in terms of market capitalization, the AMX has firm numbers 26 to 50 and the ASX has firm numbers 51 to 75. These firms are selected since listed companies are required to publish annual reports and much information is publicly available about these firms. The composition of the AEX, AMX and AScX varies due to half-year reviews. The composition of this sample is based upon the listing after the first quarterly review of March 2015. Based on this listing the initial sample exists of 75 firms. However only the firms which annual reports, data publicly available in the ORBIS database on ownership structure, profitability, leverage, size, and R&D expenses, are included in the sample. After this selection process, the sample exists of 68 firms.

Data on CSR for the content analysis comes from the annual reports of the companies included in the sample. The data is extracted from the annual reports of the year 2015. The rating is based upon the keywords obtained from the GRI G4 reporting initiative. The CSR reputation indices used come from the Dutch Ministry of Economic Affairs and The Transparency Benchmark. The Ministry of Economic Affairs yearly determines with help of the Transparency Benchmark which Dutch company is most transparent on the economic, environmental and social performances of its business. The Transparency Benchmark researches the content and quality of corporate social reporting among the 500 largest Dutch companies. This includes the firms listed at the AEX, AMX and AScX. The Transparency Benchmark is a research on the qualitative and quantitative development of corporate social reporting among the largest companies in the Netherlands. It is currently performed by EY (former Ernst & Young), and a number of activities, in particular the communication, are outsourced to MVO Nederland. Since 2004, the Ministry of Economic Affairs has organized an annual Transparency Benchmark, to assess the extent to which businesses account for their activities in CSR in their annual reports (Ministry of Economic Affairs, 2015).

The data on the independent variables comes the database ORBIS, which is published by Bureau Van Dijk. This database is available to students of the University of Twente. ORBIS contains numerical and factual data regarding more than 1 million companies in the Netherlands. In addition to that, various annual reports and specific CSR reports (if necessary) of the companies that are included in the sample will be crosschecked to validate the data of the database and/or annual report. Data on

financial performance and R&D incorporates the years 2015 and 2014 in order to distinguish a lagged variant of these variables. Data on all other variables are from the year 2015 only.

6. Results

In this chapter the results of this study will be presented. In the first section of this chapter the descriptive statistics of the variables incorporated in this research will be provided, followed by the correlation matrix, which provides correlation coefficients between the independent variables. In the second section of this chapter the results of the regression analysis will be provided.

6.1 Descriptive statistics

The descriptive statistics of the dependent and independent variables are presented in table 6.1. Outliers have been adjusted at the 2.5 level using the 25% and 75% percentiles. These points are subtracted from each other and the result is multiplied 2.5 times and subtracted and added respectively on the percentiles to come at a cutoff point for the outliers. Due to the exclusion of the outliers, there exists some variation between the numbers of observations of each variable. However, apart from R_D, all variables exist out of an amount of 60 to 68 observations. The independent variable R_D, which is the ratio between R&D expenses to sales, exists of 43 observations due to unavailable data.

Table 6.1 Descriptive statistics

Variable	**N**	**Mean**	**Median**	**SD**	**Minimum**	**Maximum**
Dependent variable						
CSR_TRAN	65	112.83	121	56.752	0.00	196
CSR_CONT	67	0.25756	0.2111	0.1558	0.046	0.6820
CSR_SCORE	66	192.80	149.5	159.42	22	636
Independent variable						
DEBT_ASS	62	0.5628	0.55	0.17858	0.06	0.97
DEBT_EQ	60	1.7031	1.16	1.68785	0.07	10.74
ROE	64	0.0947	0.0976	0.08219	-0.12	0.33
ROA	65	0.0431	0.0437	0.03871	-0.05	0.17
B_DIV	68	2.2872	2.3750	0.89912	0.00	4.63
AGE_DIV	68	1.8866	2.0000	0.77898	0.00	3.33
GEN_DIV	68	0.4006	0.4000	0.33979	0.00	1.56
FREEFLOAT	68	0.7528	0.800	0.2238	0.14	1.00
OCI	68	0.0961	0.0525	0.10318	0.00	0.41
R_D	43	0.0230	0.00	0.04330	0.00	0.18
TOT SALES	64	4,019.9	1,394.2	6,068.8	30.8	26,000.0
TOT ASSETS	66	11,543.4	2,163.5	25,171.0	46.7	162,152.0

Notes: CSR_TRAN: CSR rating from the Transparency Benchmark; CSR_CONT: CSR rating from the content analysis based on total number of words in report; CSR_SCORE: Absolute score in counted keywords; DEBT_ASS: Debtratio; DEBT_EQ: Debt to equity ratio; ROE: Return on equity; ROA: Return on assets; B_DIV: board diversity; AGE_DIV: Age

diversity of board members; GEN_DIV: Gender diversity of board members; FREEFLOAT: percentage of freefloat shares; OCI: Ownership concentration index; R_D: ratio of R&D expense to sales; TOT SALES: Total sales (in € millions); TOT ASSETS: Total assets (in € millions).

The descriptive statistics of the CSR variables indicate that at least every firm in the sample discloses some information about CSR in to their reports since the minimum scores are above 0. This shows that CSR is a topic of interest for Dutch Listed firms. The Transparency Benchmark however did not rate all firms with a minimum score above 0. Two firms in the sample got a rating of 0 by the Transparency Benchmark. The descriptive statistics on the dependent variables are in line with the study of Gamerschlag et al. (2011). Gamerschlag et al. (2011) found a mean score of 129 and a SD of 148, while this study reports a mean of 192,8 and a SD of 159,4.

The statistics of the leverage variables are in line with the existing literature (Reverte, 2009; Padgett & Galan, 2010), although the means differ slightly, the range and standard deviations of the debt ratio and debt to equity ratio are in line with the existing literature. The descriptive statistics of the profitability variables ROA and ROE are in line with the existing literature (Oh et al., 2011; Artiach et al., 2010; Reverte, 2009). Also the variables of size are in line with recent studies with a mean of total assets higher than the mean of total sales (Padgett & Galan, 2010; Reverte, 2009). The descriptive statistics of R&D differ somewhat with the study of Padgett and Galan (2010) however this may be due to the limited amount of observations of this variable. The variables on ownership are in line with existing studies. Gamerschlag et al. (2011) found a mean of 0,65, which is 0,10 lower than the mean of freefloat shares found in this study. Besides the mean OCI of 0,09 corresponds with the one found by Dam and Scholtens (2013), which was 0,12. Lastly, the descriptive statistics on the board diversity variables correspond with the ones found by Siciliano (1996).

6.2 Correlation matrix

Table 6.2 represents the correlation matrix of the independent variables. This correlation matrix is constructed in order to check for multicollinearity. The matrix shows significant correlations for the financial performance variables (ROA and ROE) as well as the leverage variables (debt ratio and debt to equity ratio). Furthermore the variables to measure the size of the firm do show significant correlation. Also the matrix shows significant correlation between the measurements of ownership concentration. Lastly the matrix shows significant correlation between the various measurements of board diversity.

According to Hair (2010), the variance inflation factor (VIF) quantifies the severity of multicollinearity. To be sure that multicollinearity is limited, the VIF should be <10. This is in line with the study of Gamerschlag et al. (2011) which suggest that multicolinearity is not an issue if it is not greater than 10. The VIF of each independent variable is checked to be sure that the problem of multicollinearity is limited. The variables of financial performance (ROE and ROE), leverage (debt ratio and debt to equity ratio) and size (total assets and total sales) may display problems of

multicollinearity. In order to address this issue of multicollinearity, every regression model will be designed using only one of the two variables measuring leverage, size, diversity and financial performance. This will eliminate the problem of multicollinearity while still incorporating multiple measures for the independent variables. Furthermore, the VIF will be checked for each individual regression model. The VIF of the regression model and the additional analysis can be found in appendix C.

Table 6 2 Correlation matrix

	CSR_TRAN	CSR_CONT	CSR_SCORE	DEBT_ASS	DEBT_EQ	ROE	ROA	BOARD_DIV	AGE_DIV	GEN_DIV	OCI	FREEFLOAT	R_D	LN_SALES	LN_ASSETS
CSR_TRAN Pearson Correlation	1														
CSR_CONT Pearson Correlation	0.520**	1													
CSR_SCORE Pearson Correlation	0.476**	0.814**	1												
DEBT_ASS Pearson Correlation	0.259*	0.136	0.181	1											
DEBT_EQ Pearson Correlation	0.186	0.038	0.116	0.789**	1										
ROE Pearson Correlation	-0.03	-0.065	-0.065	-0.134	-0.146	1									
ROA Pearson Correlation	-0.099	-0.038	-0.053	-0.358**	-0.284*	0.793**	1								
BOARD_DIV Pearson Correlation	0.061	0.039	0.079	0.021	0.139	-0.087	-0.167	1							
AGE_DIV Pearson Correlation	0.00	0.015	0.030	-0.074	0.054	-0.125	-0.139	0.928**	1						
GEN_DIV Pearson Correlation	0.163	0.069	0.141	0.214	0.230	0.053	-0.124	0.519**	0.164	1					
OCI Pearson Correlation	0.006	-0.065	-0.088	0.143	0.001	0.078	0.095	-0.103	-0.053	-0.152	1				
FREEFLOAT Pearson Correlation	0.304*	0.220	0.318**	0.010	-0.014	0.154	0.099	0.193	0.141	0.190	-0.531**	1			
R_D Pearson Correlation	-0.051	-0.228	-0.133	-0.386**	-0.278	-0.040	0.065	0.234	0.208	0.083	-0.216	0.068	1		
LN_SALES Pearson Correlation	0.672**	0.310*	0.361**	0.381**	0.129	0.119	0.001	0.027	-0.009	0.091	0.265*	0.216	0.030	1	
LN_ASSETS Pearson Correlation	0.597**	0.130	0.304*	0.410**	0.306*	0.033	-0.187	0.096	0.044	0.154	0.068	0.271*	0.095	0.783**	1

Notes: For description of variables see table 4.2. **. Correlation is significant at the 1% level *. Correlation is significant at the 5% level

6.3 Univariate analysis

Following several previous studies (Artiach et al., 2010; Reverte, 2009), univariate analysis is performed to analyze the differences of the explanatory variables between firms with a higher CSR rating and firms with a lower CSR rating. The sample is split up into three groups based on the dependent variable. The 33.3% of the firms with the lowest CSR score are grouped into the low rated group. The 33.3% firms with the highest CSR score are grouped into the high rated group. The other 33.4% firms are grouped into the average CSR rated group. A t-test is performed in order to compare the means of the high and low groups. Furthermore three panels have been created based on the measurement of CSR. Firms are split up based on the CSR rating of the Transparency Benchmark, the total CSR score based upon the amount of keywords and the CSR rating based on the content analysis. The results of the t-tests of the means are reported in table 6.3. The results indicate that, in all three panels, firms that are larger in size tend to engage more in CSR activities than firms that are smaller in size. Size measured in sales and assets both found statistically significant. Furthermore the t-test of two panels indicates that there are significantly higher numbers of freefloat shares in the high CSR rated groups. Lastly financial leverage seems to be higher in the higher rated groups, however this was found only significant in one panel. Moreover, although higher rated firms show higher numbers of profitability, have more concentrated ownership, and generally a greater board diversity as the lower rated firms, these differences are not significantly different at the 10% level. This analysis is performed a second time using two groups based on scores above and below the median score. This analysis can be found in appendix D. Results of this analysis correspond with the results found in the analysis of low and high rated groups.

Table 6.3 Univariate analysis

Variables	**High rated group**	**Low rated group**	**Difference**	**T-Value**
Panel A: CSR_TRAN				
DEBT_ASS	0.6256	0.5246	0.101	1.663
DEBT_EQ	2.2424	1.6256	0.6168	0.903
ROE	0.0837	0.0888	-0.0051	-0.217
ROA	0.0313	0.0400	-0.0087	-0.777
B_DIV	2.4227	2.2505	0.1722	0.565
AGE_DIV	1.9423	1.8781	0.0641	0.250
GEN_DIV	0.4805	0.3719	0.1086	1.012
OCI	0.0927	0.0905	0.0022	0.073
FREEFLOAT	0.8182	0.6833	0.1349	2.053**
R_D	0.0216	0.0342	-0.0126	0.620
LN SALES	15.4865	12.758	2.7285	6.326***
LN ASSETS	16.218	13.305	2.9129	5.225***

Variables	High rated group	Low rated group	Difference	T-Value
Panel A: CSR_TRAN				
DEBT_ASS	0.5972	0.5451	0.05209	0.815
DEBT_EQ	1.7576	1.9545	-0.1969	-0.293
ROE	0.0827	0.0812	0.0015	0.062
ROA	0.0388	0.0342	0.0046	0.403
B_DIV	2.2957	2.48	-0.1843	-0.784
AGE_DIV	1.9013	2.1095	-0.2082	-1.001
GEN_DIV	0.3943	0.37	0.0243	0.286
OCI	0.1024	0.0957	0.0067	0.224
FREEFLOAT	0.8	0.7091	0.0909	1.418
R_D	0.0125	0.0485	-0.036	-1.85*
LN SALES	15.0719	13.8181	1.2538	2.344**
LN ASSETS	15.1864	14.9044	0.282	0.417
Variables	**High rated group**	**Low rated group**	**Difference**	**T-value**
Panel C: CSRSCORE				
DEBT_ASS	0.6175	0.5032	0.1143	1.986*
DEBT_EQ	1.9846	0.9371	1.0475	3.615***
ROE	0.0966	0.1004	-0.0038	-0.131
ROA	0.0401	0.0462	-0.0061	-0.477
B_DIV	2.2	2.0827	0.1173	0.439
AGE_DIV	1.7773	1.81	-0.0327	-0.131
GEN_DIV	0.4232	0.2718	0.1514	2.032**
OCI	0.0972	0.0926	0.0046	0.149
FREEFLOAT	0.85	0.7	0.15	2.466**
R_D	0.0136	0.0445	-0.0309	-1.876*
LN SALES	15.211	13.7477	1.4633	2.906***
LN ASSETS	15.5249	14.4473	1.0776	1.692*

Notes: For description of variables see table 4.2. ***. Significance at the 1% level **. Significance at the 5% level *. Significance at the 10% level.

6.4 Regression analysis

To test the hypotheses, OLS multiple regression analysis is performed. Table 6.4 presents the results on all three CSR variables in different models. The models are designed to test the hypotheses one by one. The last model contains all variables together.

Table 6.4 Regression analysis

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	CSR_TRAN	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*
Intercept	-154.411***	0.043	-290.501	-151.727***	0.056	-284.873	-150.824***	0.054	-308.382	-155.334***	0.037	-332.963	-167.001**	-0.034	-400.292	-167.043**	-0.034	-400.389
	(-3.342)	(0.28)	(-1.494)	(-3.271)	(0.367)	(-1.460)	(-3.091)	(0.335)	(-1.505)	(-3.219)	(0.235)	(-1.668)	(-2.687)	(-0.164)	(-1.542)	(-2.687)	(-0.165)	(-1.526)
MINCON	47.564**	0.186**	201.249**	45.985**	0.188***	203.121**	45.998**	0.188**	202.782**	45.902**	0.188***	202.254**	43.638*	0.174*	189.189	49.162*	0.191**	202.000*
	(2.143)	(2.538)	(2.155)	(2.149)	(2.664)	(2.257)	(2.13)	(2.640)	(2.236)	(-2.153)	(2.682)	-2.293	(1.623)	(1.964)	(1.685)	(1.791)	(2.113)	(1.743)
MAN	17.438	0.046	47.371	18.745	0.052	50.212	18.701	0.053	51.341	17.262	0.047	43.499	23.491	0.085	79.449	31.038	0.109	96.951
	(1.281)	(1.015)	(0.827)	(1.321)	(1.119)	(0.841)	(1.304)	(1.110)	(0.853)	(1.217)	(1.014)	(0.741)	(1.216)	(1.336)	(0.985)	(1.496)	(1.591)	-1.107
TT	30.332	0.095	43.038	29.739	0.101	46.598	29.905	0.101	42.263	33.037*	0.113*	59.328	30.634	0.098	45.463	37.763	0.121	61.997
	(1.524)	(1.449)	(0.514)	(1.525)	(1.577)	(0.568)	(1.507)	(1.544)	(0.507)	(1.677)	(1.741)	(0.728)	(1.231)	(1.195)	(0.438)	(1.459)	(1.411)	(0.567)
LN ASSETS	17.708***	0.011	30.525**	17.049***	0.011	30.781**	17.06***	0.011	30.483**	15.656***	0.006	22.829*	16.304***	0.01	26.568	18.735***	0.017	32.206
	(5.431)	(1.02)	(2.225)	(5.809)	(1.115)	(2.494)	(5.75)	(1.100)	(2.447)	(5.106)	(0.555)	(1.800)	(4.154)	(0.737)	(1.621)	(4.053)	(1.128)	-1.651
DEBT_ASS	-15.825	0.007	12.363													-58.239	-0.184	-135.066
	(-0.418)	(0.059)	(0.078)													(-0.996)	(-0.953)	(-0.547)
ROA (+)				-48.929	-0.230	-94.509	-50.479	-0.226	-54.175	-95.304	-0.392	-298.454	-90.372	-0.362	-269.991	-181.775	-0.650	-481.968
				(-0.299)	(0.427)	(-0.137)	(-0.303)	(-0.412)	(-0.077)	(-0.57)	(-0.714)	(-0.432)	(-0.431)	(-0.523)	(-0.308)	(-0.794)	(-0.861)	(-0.499)
B_DIV (+)							-0.442	0.001	11.498	-2.825	-0.008	-1.489	-0.29	0.008	13.138	0.507	0.01	14.986
							(-0.066)	(0.051)	(0.407)	(-0.414)	(-0.342)	(-0.053)	(-0.032)	(0.259)	(0.346)	(0.055)	(0.341)	(0.389)
FREEFLOAT (-)										43.625	0.161*	237.736**	41.042	0.145	222.831	37.863	0.135	215.458
										(1.548)	(1.738)	(2.039)	(1.157)	(1.241)	(1.504)	(1.063)	(1.149)	(1.433)
R_D (+)													-164.962	-1.003	-952.006	-283.948	-1.379*	-1,227.951
													(-0.828)	(-1.528)	(-1.145)	(-1.223)	(-1.799)	(-1.253)
Adjusted R^2	0.367	0.06	0.092	0.368	0.065	0.094	0.356	0.049	0.081	0.373	0.081	0.130	0.325	0.053	0.078	0.325	0.05	0.058
N	62	62	62	64	64	64	64	64	64	64	64	64	44	44	44	44	44	44

Notes: Table reports the unstandardized coefficients obtained from the OLS regression analysis. T-statistics are presented in the parentheses. For description of variables see tables 4.1 & 4.2. ***. Coefficient is significant at the 1% level **. Coefficient is significant at the 5% level *. Coefficient is significant at the 10% level.

6.4.1 Leverage

The various models 1 are designed to test the first hypothesis regarding the amount of leverage of the firm, as measured by the debt ratio. The remaining models omit the debt ratio since it correlates significantly with the ROA variable. In the last model the debt ratio is forced into the model in order to test the full model. The first hypothesis states that leverage has an effect on CSR but that this effect can be negative as well as positive. The analysis shows that for all three variables of CSR, the results are insignificant. In order to test the robustness of these results, the analysis is repeated using debt to equity ratio instead of debt ratio. Results of this analysis can be found in appendix E. In line with the results of the analysis with debt ratio as measure of leverage, also debt to equity ratio indicates insignificant results on all three dependent variables. An additional subsample is created in order to test the hypothesis for the manufacturing industry (MAN). This analysis can be found in appendix E. Results of this analysis also indicate insignificant results. Thus based on the results found in the various OLS regression analyses, we can conclude that hypothesis 1 is not confirmed and that financial leverage is not associated with CSR engagement. This result is in line with the results of Reverte (2009) and Artiach et al. (2010) who also found insignificant results for leverage and its effect on CSR.

6.4.2 Profitability

The various models 2 are designed to test the second hypothesis regarding profitability. Hypothesis 2 states that corporations with higher levels of profitability will undertake more CSR. Results from the OLS regression analysis indicate that profitability however, as measured by return on assets (ROA), has an insignificant effect on CSR engagement. The subsample analysis of the manufacturing industry also indicates that ROA has an insignificant effect on CSR (appendix E). In order to test the robustness of the results, ROA is replaced with return on equity (ROE) in the first model. Results can be found in appendix E. This additional analysis however indicates the same results as when ROA is used. Since both measures show insignificant results, the hypothesis regarding profitability cannot be confirmed.

In addition to these models, an additional model has been constructed including a lagged variant of ROA in order to test if earlier financial performances lead to more CSR engagement in the future. Results of this analysis can be found in appendix E. Results of this analysis also indicates insignificant coefficients with CSR ratings of content analysis (CSR_CONT: b=-0.429, t(65)=-1.119; CSR_SCORE: b=-319.553, t(65)=-0.637) as well as with CSR ratings of the Transparency Benchmark (CSR_TRAN: b=-64.551, t(65)=-0.560). Based on these results it can be concluded that the second hypothesis cannot be confirmed. Reasons behind this finding may be found in the causality of the relationship. As of today, it is still unclear if better financial performance lead to more CSR or if CSR engagement will lead to better financial performances. The results of the analysis are in line with the results of Reverte (2009) who also found insignificant results for profitability variables in a Spanish

context. Also Artiach et al. (2010) found insignificant results for profitability measures. However Artiach et al. (2010) did report a significant result when ROE was used as a proxy for profitability.

6.4.3 Board diversity

The models 3 in the analysis are designed to test the third hypothesis, which states that corporations with greater board diversity will undertake more CSR. Results from the OLS regression analysis indicate that board diversity, as measured by the variable board diversity (see table 4.1), has an insignificant coefficient on CSR engagement. All dependent variables indicate an insignificant result. Also the subsample of the manufacturing industry indicates insignificant results for board diversity (appendix E). These results do not provide us enough evidence to confirm hypothesis 3.

In order to further validate the results found in the first OLS regression analysis and in the subsample analysis, an additional analysis is performed. This analysis can be found in appendix E. In this additional analysis the board diversity variable is decomposed into two diversity variables, that is: age and gender diversity. The results of this analysis however also indicate insignificant results for age diversity as well as for gender diversity on all three measures of CSR. It seems that board diversity does not influence CSR engagement of Dutch listed firms. Based on the results found, it can be concluded that hypothesis 3 cannot be confirmed. Reasons behind the results may be found in social sciences. It could be that age diversity leads to more struggles in determining which CSR goals should be targeted and that in the process this will cost the firms' CSR engagement.

6.4.4 Ownership concentration

The various models 4 in the analysis are designed to test the fourth hypothesis. This hypothesis states that corporations that have more concentrated share ownership strucutre will engage more in CSR. The hypothesis is tested with the variable of freefloat shares as a percentage of total outstanding shares. When the CSR ratings of the Transparency Benchmark are used as the dependent variable, results indicate an insignificant coefficient. When the CSR ratings of the content analysis are used as the dependent variable, results indicate a positive and significant coefficient (at the 10% level). Also when the absolute CSR scores of the content analysis are used as the dependent variable, results indicate a positive and significant coefficient (at the 5% level). The additional analysis of the manufacturing industry also indicates positive and significant results when CSR ratings of the content analysis (CSR_CONT 1% level, CSR_SCORE 5% level) are used as the dependent variable. This analysis can be found in appendix E. Based on these results hypothesis 4 cannot be confirmed. These results indicate the opposite as of what is expected. More dispersed firms engage more in CSR activities than more closely held firms.

In order to test the robustness of these results the percentage of freefloat shares is replaced with the OCI variable (see table 4.1). This additional OLS regression analysis can be found in appendix E. When the OCI is used to measure the ownership concentration of firms a negative and significant coefficient is found when the ratings of the Transparency benchmark are used as the

dependent variable (CSR_TRAN: b=-104.234, t(59)=-1.715). When the content analysis is used as the dependent variable, results indicate insignificant coefficients for the OCI variable. However in the whole model, significant results at the 10% are found for the OCI variable (CSR_CONT: b=-0.425, t(45)=-1.839). The fact that this coefficient is negative whilst the percentage of freefloat shares is positive is conforming expectations. Freefloat shares is a measure that indicates how more dispersed ownership there is while the OCI is a measure that indicates a level of concentrated ownership. Therefore, the results have the same meaning. Based on the results found in the analysis, hypothesis 4 cannot be confirmed. Reasons behind this result may be found in the fact that more dispersed firms disclose more social and environmental aspects into their reports.

6.4.5 R&D

In order to test the hypothesis regarding R&D, the various models 5 are designed. Hypothesis 5 states that corporations that invest more in R&D do engage more in CSR. This hypothesis is tested by measuring R&D as a ratio of R&D expenses to sales. Results indicate an insignificant coefficient on all three CSR variables. These results are in line with the results found in the analysis of the manufacturing industry. Here also an insignificant result is found for the R&D ratio (appendix E). However in the whole model (model 6) a negative and significant result is found at the 10% level when the content analysis is used as the dependent variable.

To test the robustness of these results and to test whether or not earlier investments do lead to higher future levels of CSR, a lagged variant of R&D has been incorporated into an additional OLS regression analysis. Results of this analysis can be found in appendix E in model 7. The lagged variant of R&D is a ratio of R&D expenses to sales of the year 2014. When CSR ratings of the Transparency Benchmark are used as the dependent variable, results indicate an insignificant coefficient (CSR_TRAN: b=-19.775, t(45)=-0.090). Also when the absolute scores of the content analysis is used as the dependent variable, results indicate an insignificant coefficient (CSR_SCORE: b=-1,492.286, t(45)=-1.565). However, when the CSR ratings of the content analysis are used, results indicate a negative but also significant coefficients (at the 5% level)(CSR_CONT: b=-1.885, t(45)=-2.698). These results do not confirm hypothesis 5 and instead of the expected positive relation, a negative relation is found in some models. Based on these results it can be concluded that CSR is not a side product of R&D. As for the reasons behind these results, it may be that firms do focus on both CSR and R&D, instead of either one of two as the sources of competitive advantage.

7. Conclusion

In this chapter the results of this study will be interpreted and discussed. First the results of this study will be discussed regarding the discussed theories. Second, limitations on this study will be discussed and recommendations for future research will be presented.

7.1 Conclusions

Over the years, there has been a growing public awareness of the role of corporations in society and as a result the topic of CSR has received much attention. This increased attention is likely because of the promise of increased financial performance. However results of this work are still contradictory and ambiguous (Mellahi et al., 2016). Therefore it is important to expand the CSR research towards the drivers of CSR in order to further understand the construct. Based upon the five most explanatory theories within the last decade, this study supports multiple drivers of CSR theoretically and empirically and finds an answer for the following research question: *What are the determinants of corporate social responsibility for Dutch listed firms?*

Based upon the stakeholder theory it is expected that financial leverage is negatively associated to CSR due to stakeholder salience and that the level of debt limits the amount of cashflows for managers to invest in CSR. On the other hand however, following agency theory, it is argued that more highly leveraged firms disclose more voluntary information in their annual reports in order to reduce agency costs and, as a result, cost of capital (Reverte, 2009). Following this second reasoning one could say that leverage and CSR are positively associated. Therefore the first hypothesis expected an effect of leverage on CSR but did not made an assumption about the direction of the relationship a priori. The analysis found insignificant coefficients for the leverage of the firm measured by the debt ratio and debt to equity ratio. The results of the univariate analysis indicate that the high performing CSR group hold higher levels of debt as the lower performing CSR group. Although these findings are statistically insignificant it gives an indication that financial leverage is positively associated to CSR. It may be that firms with higher debt levels voluntarily disclose more information in their reports in order to reduce agency costs. Another explanation behind these findings may be found within the fact that CSR will lead to better financial performance and that therefore, debt holders want the firms to invest in CSR. Based upon the legitimacy theory it is expected that profitability is positively associated to CSR due to the fact that highly profitable firms are more exposed to public scrutiny and political pressure and thus are in need of more social approval (Ng & Koh, 1994; Reverte, 2009). This expectation however was not confirmed by the regression analysis. The analysis found insignificant coefficients for the profitability of the firm measured by ROA and ROE. Also an additional analysis with a lagged variant of ROA indicates insignificant coefficients. Based on these findings it can be argued that profitability is not associated to CSR. Reasons behind this finding may be found in the

causality of the relationship. As of today, it is still unclear if better financial performance lead to more CSR or if CSR engagement will lead to better financial performances (Mellahi et al., 2016). Based upon the resource dependency theory (RDT) it is expected that board diversity, as measured by gender and age diversity, is positively associated to CSR due to the fact that different genders respond to different norms, attitudes, beliefs, and perspectives (Pelled et al. 1999), and that, as directors mature, their generational behavior (Harfsi & Turgut, 2013) increases and they may be more sensitive to society at large and more willing to contribute to its welfare. This expectation is not confirmed by the analysis, as coefficients are found insignificant. In an additional regression analysis, gender diversity and age diversity are entered separately and the analysis also found insignificant coefficients. Based on these findings, it cannot be concluded that gender diversity or age diversity is associated with CSR. Based upon the agency theory it is expected that ownership concentration, as measured by a concentration index and the percentage of freefloat shares, is positively associated to CSR due to the fact that large shareholders want firms to invest in CSR and that these large shareholders have direct access to management and thus can verify behavior of management. This expectation is not confirmed by the analysis in which positive and significant coefficients are found in most models for the measurement of freefloat shares and negative and significant coefficients for the concentration index. So it can be argued that a firm with a more dispersed ownership structure engages more in CSR than a firm with a more closely held share ownership structure. Reasons behind this finding may be found in agency theory since that a more dispersed firm discloses more social and environmental aspects into its reports. Another explanation may be found in political cost theory. A higher level of public accountability may necessitate additional involvement in social or community activities and, hence, disclosure of these activities. This suggests that companies with a big group of small shareholders are likely to provide more CSR-related information in their reports to reduce the potential political costs. Based upon the resource-based view (RBV) it is expected that R&D, as measured by a ratio of R&D expenses to sales, is positively associated with CSR, due to the fact that investments in R&D will ultimately lead to process and product developments that have CSR attributes in it and thus contributes to the CSR engagement of a firm. This expected relationship however is not confirmed in the analysis. Results of the analysis indicate insignificant coefficients for R&D. Also an additional analysis with a lagged variant of the R&D expense to sales ratio indicated insignificant coefficients in almost all models. The univariate analysis indicates that the high performing CSR group has lower levels of R&D to sales ratios than the low performing CSR group. However differences are found to be insignificant. These results do not confirm a relationship between R&D and CSR engagement of a firm.

Conclusive, this study contributes to the existing literature by discussing multiple possible determinants of CSR of Dutch listed firms. Thereby ownership concentration was found to be of influence on CSR engagement of Dutch listed firms. Results of this study do not provide evidence for leverage, profitability, board diversity and R&D as determinants of CSR. Model 4, using the CSR

ratings of the Transparency benchmark as the dependent variable and incorporating the control variables industry and size, shows the highest adjusted R-squared value (0.373), which indicates that this model is the best predictive model.

7.2 Limitations and recommendations

This study has provided various relevant results regarding possible determinants of CSR of Dutch listed firms. However this study also has its limitations. This section discusses the most important limitations of this study and provides several recommendations for future studies doing research on determinants of CSR.

The first set of limitations that I want to address is regarding the sample of this study. With only 68 firms the sample was relatively small compared to other studies with samples of over 400 (Padgett & Galan, 2010; Gamerschlag et al, 2011). However samples of this small size are not uncommon and have been used in previous studies as well (Reverte, 2009). Furthermore, this study is based upon the Dutch context. It may be that institutional effects influences firms to engage in CSR or not. Future research should incorporate multiple institutional settings into the study in order to identify the institutional effects on the determinants. For example, one could extent this research into other countries to see if the determinants of CSR are the same in other countries. Another limitation of the sample is the fact that it comprises of listed Dutch companies only. It may be that the determinants have different effects on non-listed firms in the Netherlands. It would have been possible to extend the sample with more Dutch firms but this will take much more time to collect the data that is needed.

The second set of limitations is regarding the variable measurement and research design. One of the primary sources in this study for measuring CSR is the annual report of the corporations. However this source is a bit biased since it is unlikely that irresponsible behavior is disclosed in these reports and thus only contains positive information regarding CSR engagements of the firms. As of today, a measurement using indicators of responsible and irresponsible behavior is already available and used in some studies (Padgett & Galan, 2010; Barnea & Rubin, 2010). However this measurement is not publically available and holds only 6000 companies worldwide (MSCI, 2016). Future research may be capable of developing another measurement incorporating both negative and positive CSR aspects. Furthermore, this study only uses 2015 data on measures of CSR. Therefore this study cannot measure what a change in a determining factor means for CSR over time. Future research should, when possible, incorporate different time intervals to see the effect of the determinants on CSR over time. Lastly the causality issues that are incorporated with CSR research are proven to be a difficulty. Does CSR lead to certain performances or do certain performances lead to more CSR? This question remains difficult to answer and seems to be a matter of perspective since different studies provide different evidence.

Although this study, like any other study, has its limitations, it also contributes to the extensive literature and provides opportunities for more future research regarding CSR determinants.

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Appendix A: Keywords for content analysis

Dimension	Economical	Social	Environmental
Keywords	Economic performance	Employment	Renewable materials
	Market presence	Labor relations	Recycling
	Indirect economic impacts	Management relations	Energy consumption
	Local impacts	Occupational health	Heating consumption
	Procurement practices	Occupational safety	Cooling consumption
	Procurement process	Training	Water
	Donations	Education	Biodiversity
		Diversity	Spills
		Equal opportunity	Emissions
		Equal remuneration	Effluents
		Discrimination	Waste
		Supplier assessment	Transport
		Labor practices	Supplier environmental
		Grievance mechanisms	assessment
		Freedom of association	Green
		Collective bargaining	Greenhouse gas
		Child labor	
		Forced labor	
		Compulsory labor	
		Security practices	
		Human rights	
		Local communities	
		Anti-corruption	
		Public policy	
		Compliance	
		Customer health	
		Customer safety	
		Product safety	
		Product quality	
		Customer privacy	

Appendix B: Industry sections

NACE REV. 2 - sections
A. Agriculture, forestry and fishing
B. Mining and quarrying
C. Manufacturing
D. Electricity, gas, steam and air conditioning supply
E. Water supply; sewerage, waste management and remediation activities
F. Construction
G. Wholesale and retail trade; repair of motor vehicles and motorcycles
H. Transportation and storage
I. Accommodation and food service activities
J. Information and communication
K. Financial and insurance activities
L. Real estate activities
M. Professional, scientific and technical activities
N. Administrative and support service activities
O. Public administration and defence; compulsory social security
P. Education
Q. Human health and social work activities
R. Arts, entertainment and recreation
S. Other service activities
T. Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
U. Activities of extraterritorial organizations and bodies

Appendix C: VIF

Model – CSR_TRAN as dependent variable	VIF
LN_ASSETS	1.476
DEBT_ASS	1.737
ROA	1.214
B_DIV	1.150
FREEFLOAT	1.325
R_D	1.303

Notes: for description of the variables see table 4.2

Model – CSR_TRAN as dependent variable	VIF
LN_SALES	1.585
DEBT_EQ	1.619
ROA_LAG	1.785
ROE	1.839
AGE_DIV	1.164
GEN_DIV	1.139
OCI	1.445
R_D_LAG	1.385

Notes: for description of the variables see table 4.2

Appendix D: Additional univariate analysis

Variables	CSR_TRAN > Median	CSR_TRAN < Median	Difference	T-Value
Panel A: CSR_TRAN				
DEBT_ASS	0.5519	0.5036	0.0483	0.797
DEBT_EQ	1.8100	1.3544	0.4556	1.041
ROE	0.0917	0.1009	-0.0092	-0.454
ROA	0.0369	0.0492	-0.0123	-1.244
B_DIV	2.3653	2.2318	0.1335	0.586
AGE_DIV	1.8922	1.8939	-0.0017	-0.009
GEN_DIV	0.4734	0.3373	0.1361	1.625
OCI	0.1002	0.0845	0.0157	0.622
FREEFLOAT	0.8172	0.7164	0.1008	1.911*
R_D	0.0155	0.0303	-0.0148	-1.157
LN ASSETS	15.3173	13.2821	2.0352	5.904***
LN SALES	15.8880	13.7906	2.0974	4.895***
Variables	**CSR_CONT > Median**	**CSR_CONT < Median**	**Difference**	**T-Value**
Panel B: CSR_CONT				
DEBT_ASS	0.5891	0.4818	0,1073	1,847*
DEBT_EQ	1.7388	1.3991	0,3397	0,799
ROE	0.1031	0.0829	0,0202	0,975
ROA	0.0474	0.0368	0,0106	1,092
B_DIV	2,2659	2,3085	-0,0426	-0,194
AGE_DIV	1.8406	1.9326	-0.092	-0.484
GEN_DIV	0.4250	0.3762	0.0488	0.590
OCI	0,1034	0,0887	0,0147	0,586
FREEFLOAT	0,7897	0,7159	0,0738	1,369
R_D	0,0165	0,0341	-0,0176	-1,308
LN ASSETS	14.9608	14,7459	0,2149	0,439
LN SALES	14.8730	13.6394	1,2336	3,108***

Notes: for description of the variables see table 4.2. ***. Difference is significant at the 10% level (2-tailed). **. Difference is significant at the 5% level (2-tailed). *. Difference is significant at the 1% level (2-tailed)

Appendix E: Additional regression analyses

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6			Model 7		
	CSR_TRAN	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*
Intercept	-184.834***	-0.089	-328.143	-185.984***	-0.092	-331.270	-178.681***	-0.057	-301.563	-182.778***	-0.081	-336.645	-182.888***	-0.082	-337.182	-191.071***	-0.106	-371.132	-191.469***	-0.144	-401.199
	(-3.936)	(-0.555)	(-1.583)	(-3.869)	(-0.554)	(-1.540)	(-3.898)	(-0.373)	(-1.511)	(-3.582)	(-0.459)	(-1.474)	(-3.585)	(-0.460)	(-1.480)	(-3.804)	(-0.605)	(-1.647)	(-3.221)	(-0.766)	(-1.559)
MINCON	13.577	0.157**	146.194	11.035	0.149*	139.280	15.615	0.157**	150.558*	11.272	0.150*	138.884	15.921	0.164**	161.621	22.758	0.185**	189.989*	22.662	0.176**	182.697
	(0.627)	(2.136)	(1.529)	(0.493)	(1.921)	(1.390)	(0.756)	(2.284)	(1.674)	(0.498)	(1.910)	(-1.370	(0.689)	(2.048)	(1.567)	(0.990)	(2.300)	(1.843)	(0.835)	(2.043)	(1.555)
MAN	-3.684	0.028	9.826	-0.193	0.039	19.321	-3.474	0.041	16.017	-0.078	0.039	19.129	4.533	0.054	41.680	3.282	0.050	36.492	4.113	0.129**	99.148
	(-0.284)	(0.627)	(0.171)	(-0.014)	(0.803)	(0.309)	(-0.273)	(0.975)	(0.289)	(-0.006)	(0.803)	(0.303)	(0.306)	(1.040)	(0.629)	(0.226)	(0.978)	(0.559)	(0.211)	(2.084)	(1.174)
TT	5.456	0.074	3.393	9.425	0.087	14.190	6.421	0.088	11.144	10.118	0.090	13.028	12.655	0.097	25.483	14.424	0.103	32.782	14.380	0.099	29.459
	0.289	(1.156)	(0.041)	(0.472)	(1.258)	(0.159)	(0.349)	(1.432)	(0.139)	(0.495)	(1.262)	(0.142)	(0.615)	(1.361)	(0.277)	(0.714)	(1.452)	(0.362)	(0.603)	(1.303)	(0.285)
LN SALES	20.547***	0.022*	35.892**	20.981***	0.023*	37.072**	20.622***	0.020*	35.328**	20.968***	0.023*	37.093**	20.650***	0.022*	35.539**	22.036***	0.027**	41.291**	22.097***	0.032**	45.826**
	(6.176)	(1.949)	(2.444)	(6.088)	(1.962)	(2.404)	(6.453)	(1.908)	(2.540)	(6.023)	(1.939)	-2.381	(5.910)	(1.846)	(2.277)	(6.263)	(2.160)	(2.616)	(5.252)	(2.425)	(2.516)
DEBT_EQ	2.902	-0.002	5.302	2.650	-0.003	4.618				2.677	-0.003	4.572	1.852	-0.006	0.537	1.771	-0.006	0.201	1.601	-0.022	-12.616
	(0.827)	(-0.026)	(0.342)	(0.735)	(-0.256)	(0.286)				(0.735)	(-0.246)	(0.280)	(0.496)	(-0.437)	(0.032)	(0.484)	(-0.461)	(0.012)	(0.736)	(-1.478)	(-0.618)
ROE (+)				-64.564	-0.208	-175.604				-66.849	-0.216	-171.773	-80.842	-0.260	-240.205	-67.489	-0.219	-184.800	-70.291	-0.486	-396.285
				(-0.809)	(-0.753)	(-0.492)				(-0.822)	(-0.767)	(-0.472)	(-0.980)	(-0.906)	(-0.652)	(-0.831)	(-0.771)	(-0.507)	(-0.697)	(-1.521)	(-0.908)
ROA_LAG (+)							-64.551	-0.429	-319.553												
							(-0.560)	(-1.119)	(-0.637)												
AGE_DIV (+)										-1.588	-0.006	2.663	-3.140	-0.010	-4.925	-3.572	-0.012	-6.718	-3.496	-0.004	-0.996
										(-0.204)	(-0.204)	(0.076)	(-0.396)	(-0.374)	(-0.139)	(-0.459)	(-0.426)	(-0.507)	(-0.379)	(-0.150)	(-0.025)
GEN_DIV (+)													19.679	0.061	96.239	14.224	0.044	73.606	14.680	0.088	108.007
													(1.016)	(0.906)	(1.112)	(0.739)	(0.660)	(0.852	(0.631)	(1.191)	(1.072)
OCI (+)																-104.234*	-0.316	-432.472	-105.384	-0.425*	-519.244
																(-1.715)	(-1.482)	(-1.585)	(-1.446)	(-1.839)	(-1.645)
R_D_LAG (+)																			-19.775	-1.885**	-1,492.286
																			(-0.090)	(-2.698)	(-1.565)
Adjusted R^2	0.418	0.098	0.095	0.412	0.084	0.077	0.418	0.123	0.107	0.400	0.066	0.057	0.400	0.062	0.062	0.424	0.086	0.091	0.372	0.184	0.078
N	60	60	60	60	60	60	66	66	66	60	60	60	60	60	60	60	60		46	46	46

Table E.1 Additional regression analysis

MAN group	Model 1			Model 2			Model 3			Model 4			Model 5		
	CSR_TRAN	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*	*CSR_TRAN*	*CSR_CONT*	*CSR_SCORE*
Intercept	-138.762	-0.111	-469.213*	-202.353**	-0.064	-302.805	-212.082**	-0.113	-379.825	-232.151**	-0.206	-457.067*	-234.032**	-0.232	-482.142*
	(-1.586)	(-0.435)	(-1.775)	(-2.389)	(-0.247)	(-1.128)	(-2.426)	(-0.430)	(-1.448)	(-2.749)	(-0.906)	(-1.909)	(-2.381)	(-0.954)	(-1.907)
LN ASSETS	19.663***	0.022	38.157**	19.853***	0.023	38.861**	19.397***	0.020	35.254*	16.525**	0.007	24.196	16.836**	0.011	28.349
	(3.365)	(1.287)	(2.160)	(3.479)	(1.293)	(2.149)	(3.321)	(1.154)	(2.011)	(2.831)	(0.449)	(1.462)	(2.452)	(0.671)	(1.605)
DEBT_ASS	-64.655	0.090	235.297												
	(-0.921)	(0.441)	(1.109)												
ROA (+)				453.348	-0.141	-886.957	451.226	-0.152	-903.756	390.677	-0.431	-1,136.800	386.966	-0.483	-1,186.262
				(1.674)	(-0.171)	(-1.034)	(1.641)	(-0.184)	(1.095)	(1.472)	(-0.604)	(-1.511)	(1.254)	(-0.633)	(-1.495)
B_DIV (+)							7.755	0.039	61.391	3.267	0.018	44.118	5.004	0.043	67.267
							(0.615)	(1.031)	(1.623)	(0.265)	(0.555)	(1.261)	(0.322)	(1.109)	(1.682)
FREEFLOAT (-)										96.010	0.442***	369.531**	92.042	0.387**	316.657*
										(1.693)	(2.902)	(2.298)	(1.367)	(2.324)	(1.829)
R_D (+)													-72.451	-1.011	-965.526
													(-0.287)	(-1.621)	(-1.488)
Adjusted R^2	0.286	0.001	0.165	0.343	0.077	0.158	0.323	-0.008	0.221	0.381	0.265	0.365	0.310	0.306	0.391
N	25	25	25	24	24	24	24	24	24	24	24	24	21	21	21

Table E.2 Additional regression analysis on the manufacturing industry group