Corporate Social Responsibility in supply chains

A study on buyer CSR commitment and buyer contracting capabilities and their effect on supplier CSR performance

Master Thesis

Master of Science Business Administration
Rotterdam School of Management
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Dieuwertje Smallenburg
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Executive summary

Driven by consumer and stakeholder pressure Corporate Social Responsibility (CSR) has become an important aspect for firms over the last twenty years (Hoejmose & Adrien-Kirby, 2012). CSR can be described as "the responsibility of a firm towards society in the economical, legal and ethical dimension"(Schwartz & Carroll, 2003). Or, very simply put, CSR is the "positive impact of businesses on their stakeholders" (Turker, 2008). As firms are increasingly dependent on outsourcing (Trent & Monczka, 1998), responsible operations cannot exist without a responsible supply chain (Millington, 2008). For this reason buyers seek ways to improve their supplier's CSR performance. There are many factors that influence supplier CSR performance. This study specifically focussed on the factors that buying firms can directly control. This has resulted in the following research question:

What are the effects of buying firms' CSR commitment on their suppliers' CSR performance in the context of business-to-business purchasing relationships and to what extent do the buyer's contracting capabilities' affect this relationship?

The objective of this study is to contribute to the development of a theory on the relationship between buyers and suppliers in a business-to-business environment by testing five propositions. The propositions are formulated to test the probabilistic relations between the concepts Buyer CSR commitment, Supplier CSR performance and four moderating concepts (buyer design contract capabilities, buyer management contracting capabilities, buyer CSR design contracting capabilities and buyer CSR contract management capabilities). Based on exploration of literature it is argued that a higher level of buyer CSR commitment will result in a higher level of supplier CSR performance. Furthermore, it is argued that this relationship is affected by the buyer's contracting capabilities.

The population selected to conduct this research consists of a specific group of suppliers, all members of FIRA, a sustainability platform. The use of the FIRA platform provided access to a large number of instances (160) together with rich CSR performance data captured in the FIRA-database. Their Supplier CSR performance was measured using benchmarking by expert. For this purpose the best practices implemented by the firms were translated into a score based on the Corporate Shared Value scale: unaware, philanthropic, limited responsible, moderate responsible, highly responsible, shared value. Data for the concepts buyer CSR commitment and the four buyer contracting capabilities were collected independently using an online questionnaire. Of the total 160 suppliers that were approached, 57 suppliers responded. After careful screening this resulted in data set with 52 cases. The acquired data, was extracted and coded and complemented with the supplier CSR performance data provided by the expert judgement. Data analyses is performed using multiple regression.

The outcome of this study confirms that buyers aiming at creating a more responsible supply chain can benefit from showing their commitment to CSR towards suppliers. The main requirement for an increase in supplier CSR performance requires buying firms to "practice what they preach". The outcome of this study confirms that suppliers that perceive that buyers are serious in their efforts to create a more sustainable supply chain are likely to perform

better on CSR. This can only be achieved if buyers "reward" suppliers with high CSR performance by choosing them as a supplier.

Although this study confirms the positive relationship between buyer CSR commitment and supplier CSR performance this study has not reached a conclusion on the effect of contracting capabilities. It was not possible to reach a model fit with a high confidence level, matching the hypothesized relations effect of contracting capabilities on the relationship between Buyer CSR Commitment and Supplier CSR Performance. Further research on methods for measurement of contracting capabilities is therefore recommended. In terms of CSR contracting in general the data acquired for this study encourages firms to focus on their CSR contracting capabilities. Suppliers score their buyers' CSR contracting capabilities on average lower than their overall contracting capabilities, indicating that there especially is room for improvement of buyers' CSR contracting capabilities.

1 Introduction

1.1 Corporate Social Responsibility in supply chains

Firms increasingly rely on products and services from suppliers as a basis for their own products and services. It is therefore no surprise that firms are able to gain considerable short term financial benefits and long term competitive advantage by optimizing their supply chain (Van Weele, 2005). The benefits that can arise from choosing the right supplier, or suppliers, may include lower costs, shorter delivery times, higher quality or even more successful innovations (Krause, 2006, Van Weele, 2005). However, working with suppliers can also pose a risk. Poor supplier performance can affect the buyer performance and pose huge costs on the buyer, in the form of lost production or negative branding. This especially applies to firms that experience poor performance on Corporate Social Responsibility (Waddock et al., 1997; Millington, 2008; Egels-Zanden, 2007).

There are many different definitions of Corporate Social Responsibility (CSR). A comprehensive definition is provided by Schwartz and Carroll (2003) who argue that "CSR is the responsibility of a firm towards society in the economical, legal and ethical dimension". Or, as very simply put by Turker (2008), "CSR is the positive impact of businesses on their stakeholders". Driven by consumer and stakeholder pressure, CSR has become more and more accepted as an important aspect of business (Hoejmose & Adrien-Kirby, 2012). Firms that rely heavily on purchased products and services cannot maintain responsible operations without maintaining a responsible supply chain (Millington, 2008). Firms can therefore derive benefits from working with suppliers who maintain an excellent CSR performance (Hoejmose & Adrien-Kirby, 2012).

1.2 Buyer efforts to increase supplier CSR performance

Figures have shown a steady growth in CSR related activities over the last twenty years, however, still many improvements are to be made (Hoejmose & Adrien-Kirby, 2012). Therefore buyers seek ways to motivate their suppliers to achieve a better CSR performance (Waddock et al., 1997). In supply chain literature it is often assumed that suppliers will follow the buying firms, their customers, in their quest to become more sustainable once they start introducing codes of conducts and certifications (Millington, 2008). However, it has become more and more clear that this is a slow process. There are many factors influencing a suppliers' CSR performance and the improvement there of. For example the buying firms purchasing practices, supplier dependency, the suppliers' available resources, firm size, the level of CSR performance across the industry, requirements from end-customers and locally imposed rules and regulations (Millington, 2008, Aguinis & Glavas, 2012; Baden et al., 2009).

In general, supplier adaptation is mostly driven by the prospect of financial gains. Financial gain is either presented in the form of additional revenue, or in the opportunity to maintain revenue from current customers (Möller and Wilson, 1995). When a supplier sees an opportunity to create competitive advantage, there is a reason to instigate new business practices. For a supplier to perceive the firm's business practices as an opportunity to gain advantage, the supplier has to be convinced that the buying firm is serious in their requests

(Baden, et al., 2009). Therefore, it is argued that buying firms who are looking to improve their suppliers CSR performance have to consistently show their commitment to CSR such that the supplier ultimately perceives the buyer to be sincere in its CSR efforts. This has to be done in such a way that the suppliers feel rewarded for their efforts (Baden et al., 2009).

At the same time buyers try to improve and ensure supplier CSR performance by introducing CSR specific requirements as part of their purchasing and contracting process commonly referred to as Social and Environmental Responsible Purchasing (Hoejmose & Adrien-Kirby, 2012). These SERP practices include mixture of Supplier Codes of Conduct, CSR specific contract terms and monitoring and evaluation programs, however, the effect of these measures are debated. Some researchers argue that these measures indeed improve suppliers' efforts towards CSR, others argue that these measures are only of influence in combination with specific supplier development programs. However, there are also researchers arguing that the buyers' efforts are often poorly executed, therefore allowing suppliers to use the opportunity to rely on greenwashing methods (Giminez &Tachizawa, 2012; Jorgenson & Knudsen, 2006; Jiang, 2008).

How to prevent such opportunism has been a long term debate in contracting research (Furlotti, 2007). Recently, within contracting research the focus has moved to the concept of contracting capabilities and how these can be utilized to prevent opportunism. Contracting capabilities can be utilized to steer suppliers and projects to optimal performance (Siegel & Haapio, 2010) by finding the right balance between contract design and contract management (Lumineau & Henderson, 2012; Nystén-Haarala et al., 2010). This balance can be maintained by firms who have integrated evaluation, learning and adaptation as part of their contracting practices (Argyres & Mayer, 2007; Nystén-Haarala et al., 2010). In literature the focus on contracting capabilities has increased over the past 10 year, but this field of study has not extended to CSR research yet. Still little is known on the influence of contracting capabilities in relation to supplier CSR performance.

1.3 Research question

This study is executed to contribute to existing literature on CSR in supply chains as well as the existing literature on contracting capabilities by conducting empirical research. Firstly, this study contributes to existing research on social and environmental responsible purchasing, with a focus on the relationship between buyers and suppliers and how this impacts the supplier's CSR performance. Secondly, this study contributes to the growing literature on the effects of contracting capabilities, specifically in relation to supplier CSR performance. This has resulted in the following research question:

What are the effects of buying firms' CSR commitment on their suppliers' CSR performance in the context of business-to-business purchasing relationships and to what extent do the buyer's contracting capabilities' affect this relationship?

1.4 Report structure

This report is broken down in 6 chapters, followed by 4 appendices. Chapter 2 provides an overview of existing literature on the topics of CSR, supplier CSR performance, buyer CSR commitment and buyer contracting capabilities. This is followed by the presentation of the

deducted theory and corresponding conceptual model. Chapter 3 provides a description of the research methodology, describing the research strategy, selection of instances and the method for data collection. In chapter 4 the data analyses and results are described and explained, followed by a discussion of this study's outcomes, limitations, conclusions and suggestions for further research in chapter 5. Literature reference is listed in chapter 6. The four appendices include supporting information in de form of scatter plots, examples for benchmarking data and multiple regression data.

2 Literature review

CSR is a much debated concept with more than one definition. Because of this, the literature review starts with an exploration of the concept Corporate Social Responsibility (2.1), followed by exploration ways to approach supplier CSR performance (2.2), buyer influence on supplier CSR performance (2.4) and buyer contracting capabilities (2.4). This chapter is concluded with an overview of the proposed theory for this study and introduction of the conceptual model (2.5).

2.1 Corporate Social Responsibility

Organizations, in many forms, have been actively managing their impact on society for hundreds of years, but it wasn't until after the 1950's that an academic and societal debate on Corporate Socially Responsibility started to evolve (Crane, McWilliams, Matten, Moon & Siegel, 2008). Since then, CSR has been studied by many academics from various perspectives (Carroll, 2008; Aguinis & Glavas, 2012). The academic literature on CSR was is to a large extent influenced by the main perspective of the researcher and its theoretical perspective on politics, ethics and business and (Mele, 2008). As a result CSR is a highly fragmented and still evolving field of research, maintaining multiple definitions of the concept of CSR. (Crane et al., 2008; Aguinis & Glavas, 2012).

One definition widely referred to and proven to be extremely suitable as a framework for application of CSR in firms, is the definition of CSR by Carroll (1979) (Wood, 2010). The original definition of CSR by Carroll (1979; 1991) was proposed as follows: "The social responsibility of business encompasses the economic, legal, ethical and discretionary expectations that society has of organisations at a given point in time" (Carroll, 1979). In this definition four interrelated responsibilities of a firm towards society were worded, each highlighting a dimension of CSR. In 2003, this definition was reconsidered by Schwartz & Carroll , as the discretionary or philanthropic responsibilities can be seen as an ethically or economically motivated. Philanthropy is ethically motivated when it is solely addressed as an act towards society. However, corporate philanthropy can also be used for strategic reasons (Visser, 2010). In that case philanthropy falls within the economical domain. This results in a three domain approach to CSR, including the economic, legal and ethical responsibilities towards society. The economic responsibility relates to every firm's requirement to make a profit, as firms do not have a prolonged existence without being profitable. The second dimension of CSR, the legal responsibilities, refers towards the rules as required by law under which the firm operates. The third dimension, the ethical dimension of CSR, relates to the (non-legal) expectations of stakeholders and society in general. Like legal responsibilities, ethical responsibilities may be perceived differently by society in different cultures. The three domains are highly interrelated and in many cases responsibilities fall within multiple domains at the same time (Schwartz and Carroll, 2003). For the purpose of this study the definition of CSR by Schwartz and Carroll (2003) will be maintained: "CSR is the responsibility of the firm towards society in the economical, legal and ethical dimension". Overarching all dimensions and all levels of CSR engagement is the relation of a firm's ethical, economical, legal responsibilities in relation to their stakeholders. This translates in the responsibility of the firm to consider its stakeholders in any decision, whether this is on the economic, legal or ethical or philanthropic dimension (Dahlsrud,

2008; Van Marrewijk, 2003). Stakeholders in this perspective include shareholders, consumers, employees, community, government and the natural environment (Visser, 2010). The supplier' stakeholders interact with the firms on three levels, which are interrelated: the institutional level, organizational level and individual level (Aguinis & Glavas, 2012). The institutional level deals with the environment of the firm at industry sector or regional level. Examples are sector or country specific rules and regulations outlining the legal and ethical responsibilities of a firm. Directly in control of the firm are it's responsibilities on an organizational and individual level. These levels are directly related to the firm's capabilities and individual capabilities of employees. Factors that influence CSR performance on the organizational level include a firm's motives and a firm's governance structure, which in turn are influenced by the firm's resources and firm visibility by the end consumers (Aguinis & Glavas, 2012). Factors influencing CSR on an individual level are values, needs and awareness, which are influenced by managerial commitment and organizational culture (Aguinis & Glavas, 2012; Baden et al., 2009).

2.2 Supplier CSR performance

2.2.1   Stages of CSR performance

Development of firms with regard to CSR can be divided in four stages. The first stage of CSR can be described as "unaware". A firm that qualifies as unaware passively introduces CSR when required by stakeholders but preferable with no negative effect on profit return (Carlisle & Faulker, 2004, Visser, 2010). The key-investments in this stage are for example programmes to meet legal requirements or to ensure employees are trained in order to be able to understand legislation to meet minimum requirements. In this phase the firm is reactive to requirements from stakeholders and has no directive CSR strategy. The second stage of CSR is the philanthropic stage. This stage is characterized by firms actively donating or participating in charity. Philanthropy in often seen as the second stage in CSR development is because it is a relatively easy step for firms wanting to engage in CSR, while keeping their involvement to a minimum (Visser, 2010). The third stage of firms developing CSR within their organization is described by Porter and Kramer (2006) as the stage where firms build a CSR strategy based on internal and external expectations, such as management systems, codes of conduct and reporting requirements. This stage of CSR within firms is characterized by the utilization of resources and implementation of tools available to optimize the business process of the firm. This stage can require many alterations within a firma and some firms may never utilize all possibilities. The only step up towards the most progressed stage of CSR is when CSR practices shift to Creating Shared Value (CSV) (Porter & Kramer 2006, 2011). Hereby CSR is elevated to the next level by suggesting that the way forward is to aim at "expending the pool of economic and social value instead of redistribution of value" (Porter & Kramer 2006, 2011). In this stage firms create value for society by creating products and services that fundamentally change societal problems. CSV or the final stage of CSR, whereby CSR is fully integrated in a firm is comparable to the "systemic" stage of CSR suggested by Visser (2010). Visser (2010) describes this level of CSR business models that are based on a view of sustainability and responsibility instead of performing the core activities of a firm in the most sustainable manner. Firms do not necessarily go through all phases. It is possible for firms to enter at the CSV level of CSR. At the same time firms may do business based on business models along the CSV idea, while remaining in the philanthropic or CSR phase on different aspects.

2.2.2 Supplier CSR performance measures

The three dimensions of CSR, the interaction by multiple stakeholders and the differences between countries and cultures create a complex network that defines a supplier's performance with reference to CSR. In addition, to measure supplier CSR performance it is required to quantify the direct input and output in terms of (financial) resources, as well as the impact of the investments made. Impact relates to the effects other than financial benefits that affect the stakeholders, in the economic, societal and environmental domains (Wood, 2010; Carroll, 1993; Maas, 2009). The difference between input, output and impact is very important. For example, a firm can score very high on input, for example by donating to charity, but these donations may not have any value for the recipients, resulting in a very low impact. At the same time, relatively low input can result in high level changes to society and the environment (Husted, 2003; Visser, 2010). CSR however, was introduced in business mainly based on the understanding that by "doing good" the monetary benefits, profits, would follow automatically (Carroll, 2010) and it was only after the concept of CSR became popular that performance measurement for CSR was introduced. This was led by concepts as Corporate Social Performance and the Triple Bottom line (Wood, 2008). Corporate Social Performance offers a framework that provides a way of assessing a firm's inputs, processes and outcomes in relation to the firm's stakeholders (Wood, 2010). The Triple Bottom Line refers to the fact that firms can create value in the economic domain, as well as in the social and environmental domain (Elkington, 2010). Following the theories of creating value with CSR, reporting of CSR (for example GRI), certification (ISO26000, ISO140001), and indices such as the Dow Jones Sustainability Index (DJSI) and the FTSE4Good Index followed (Elkington, 2008; Wood, 2008).

Unfortunately each framework and measurement system is subject to limitations. The two most important limitations are the reliability of data and the possibilities for comparison of data (Turker, 2008).Because of this there is still no standard methodology for comparing input, output (financial) and impact (social and environmental) of CSR (Turker, 2008; Maas, 2009). Acknowledgment that no type of measurement will cover the full concept of CSR in all domains, as well as for input, output and impact at the same time, forces a choice between suboptimal methods for data acquisition. . Data acquisition methods for academic studies at firm level include expert evaluations, the use of single and multiple-issue indicators (using third party or self-rating, content analyses of corporate publications and case studies (Turker, 2008; Maignan and Ferrell; 2000). Based on the earlier studies on methods of social impact measurement from Clark et al. (2004) and Burrit et al. (2002) Maas (2009) suggests a minimum of topics that need to be addressed to enable a reliable measurement. These include: a) the object of the measurement; b) the time frame, future, current of past performance, c) input or output driven measurement d)duration of the measurement; e) level of analysis of the measurement (individual, organizational or institutional) and f) the items measured and related methodology (impact or financial outcome). These considerations are applicable for supplier CSR performance measurement as well. When measuring performance of multiple firms, aspects as firm size, firm industry and geographic regions need to be considered (Turker, 2008; Graafland & Eijffinger, 2004). This highlights that for CSR performance measurement and comparison not only the model itself is important, but also how data is acquired, how it is interpreted and in which context it should be placed. Today it is widely

recognized that not all aspects of CSR are tangible and measurable (Carlisle & Faulker, 2004; Graafland & Eijffinger, 2004; Krut & Munis, 1998).

2.3 Buyer influence on Supplier CSR Performance

In supply chain literature it is often assumed that suppliers will follow the buying firms, their customers, in their quest to become more sustainable once they start introducing codes of conducts and certifications (Millington, 2008). Instead, supplier adaptation in general is affected by many variables, both internal and external, of which the outlook on long term competitive advantage is most important (Möller & Wilson, 1995).

2.3.1 Supplier adaptation

In business relations suppliers implement changes in order to adapt to the needs of important customers, called adaptation (Hallen et al., 1991). Supplier adaptation can take place as a result of changes in the firm's wider environment or as a result of interaction between two firms directly, which is called interfirm adaptation (Brennan et al., 2003). Burrit et al. (2003) describe interfirm adaptation "as dyadic adaptation which relates to all changes on all levels of the organization originating from interaction between two business partners".
Buyer-supplier relationships are especially important to suppliers with only a few main customers and long lasting relationships who provide the majority of the revenue (Hallen et al., 1991). This applies to a majority of firms in the business to business markets, where often suppliers are dependent on small numbers of long term customers (Brennan & Turnbull, 1999; Turnbull et al., 1996). For these suppliers it is important to adapt their business such that they ensure their competitive advantage over their suppliers in order to keep the buyer – supplier relationship they have. Or, in case of absence of the relationship, to create competitive advantage such that their products or services become of interested to buyers.
Schmidt et al. (2007) make a distinction between hard adaptation, adaptations to products or the production process, and soft adaptation: changes to the organization and behavioural changes within a firm. Soft adaptation often follows hard adaptation. Hard adaptation may require adaptation of assets. For example for product specific assembly lines, which can result in changes or improvement of products, product quality or delivery schedules. Some adaptations require less specific investments, and may be smaller, such as paying invoices in a more timely matter (Schmidt et al., 2007). Although these changes are relatively small, any change that is made with the incentive to improve the buyer-supplier relation or the deliverables for the customer qualifies as supplier adaptation.

2.3.2 Buyer CSR Commitment

There are many reasons for suppliers to adapt, such as cost efficiency, improving a relationship or creating more trust (Brennan & Turnbull, 1999). Ultimately the reasons to adapt are the demands of end customers (Burrit et al., 2003). Schmidt et al. (2007) state that "Firms adapt influenced by many impulses, but always with the intention to remain competitive and ensure continuation or growth of business." This suggests that customers influence their suppliers practices and with that the supplier performance. When the buyer is committed to meet the demands of end customers, or the buyer is the end customer with the demand, this can be sufficient to create an opportunity for a supplier to adapt and create competitive advantage (Möller & Wilson, 1995). Most changes that are implemented are

operational and ad-hoc, based on specific client request (Brennan & Turnbull, 1999). To what extent firms eventually adapt in inter-firm relations is subject to many internal and external factors, including the customer's buying power, customer adaptation, supplier managerial orientation, and customer managerial orientation, as well as the firm industry, the supplier's resources, and the long term relationship outlook as perceived by the supplier (Brennan et al., 2003; Turnbull et al., 1996). The more influence the buying organization has over the supplier, to more the supplier will adapt (Brennan & Turnbull, 1999).

The effect of supplier adaptation applies to CSR as well. Jorgensen and Knudsen (2006) found that many suppliers were only motivated to improve their CSR performance when they perceived their buyer to be genuinely engaged with CSR. As soon as suppliers know that a buying firm, while keeping all other selection criteria the same, will choose a supplier with the best CSR performance, CSR performance becomes an important selling point. Hereby it is not per definition necessary that a buying firm imposes CSR performance as a specific product requirement (Möller & Wilson, 1995).

Supplier adaption requires time to allow the supplier to implement changes. Many minor adaptations over time can result in a highly adapted supplier (Brennan & Turnball, 1999; Hallen (1991). But over time the level of supplier adaption can change as well. During long term inter-firm relations the level of adaptation can become less after firms have had time to adjust in earlier stages (Brennan & Turnbull; 1999). As soon as the buyer requires new adaptations the process will start again. Implementation of CSR practices are specifically time dependent. Implementation of CSR practices often requires many strategic and operational changes. These are typically aspects that cannot be adapted overnight. For example, seeking more responsible suppliers or implementation of an environmental management system are typically practices require time (Hoejmose & Adrien-Kirby, 2012).

2.4 Buyer Contracting Capabilities

In this section the concept of contracting capabilities will be further explored (2.4.1). Contracting capabilities will be split in contract design capabilities (2.4.2) and contract management capabilities (2.4.3), followed by specific CSR related contracting capabilities (2.4.4) and the influence of contracting capabilities on the relationship between buyer CSR commitment, as described above and supplier CSR performance (2.4.5).

2.4.1   Contracting Capabilities

Many suppliers are motivated by requirements from buyers during the contracting process (Jorgensen & Knudsen, 2006). Examples of such requirements include: buying firms using Codes of Conduct, supplier rating, supplier development, monitoring, evaluation and sanctions (Jiang, 2008; Pedersen & Andersen, 2006). At the same time, many suppliers who accept contractual CSR clauses may only do this to win business, while not having the intention to comply with the CSR requirements (Baden et al., 2009). For example, supplier Codes of Conduct have been found to provide no guarantee for supplier CSR performance (Pederson, 2006). Successful instances show that an appropriate contract combined with an active approach, communication, evaluating, monitoring, supplier development and follow up with contactors during the course of the work improve supplier CSR performance (Leppelt et al., 2010; Jiang, 2008, Egels-Zanden, 2007).

The buying firm's capability to optimize the contracting process and align it with the required transaction is formed by its contracting capabilities (Yang et al., 2009).

There is no widely accepted definition for the concept of contracting capabilities. In search of consolidation of available knowledge on the subject, Türksever and Wynstra (2013) proposed the following definition for contracting capabilities: "*capabilities that enable organizations to analyse situational characteristics of outsourcing, select the optimum contract specification method, design the appropriate contract (ex-ante), and manage, adjust and eventually terminate the contract effectively (ex post).*" As such contracting capabilities are captured in the tangible and intangible aspects of the firm, such as procedures, policies, processes and undertakings within the organization (Yang et al., 2009; Nystén-Haarala et al., 2010).Contracting capabilities are based on organization capabilities. Organizational capabilities allow a firm to generate and exploit competences in order to adapt the firm in such a way that it creates or keeps competitive advantage in changing environments. The emphasis of organizational capabilities lies on the co-ordinating, learning and adaption functions of the capabilities together with the requirement that these capabilities are firm specific (Winters, 2003; Eisenhardt & Martin, 2000). The ability of organizational learning and adaptation, supported by the right resources within the firm tailor contracting practices to steer suppliers and projects to optimal performance. Without the ability the learn adaptation will not materialize (Haapio, 2008; Siegel & Haapio, 2010; Nyste´n-Haarala et al., 2010). To prevent firms from learning only after incidents or disputes with suppliers (Argyres and Mayer, 2004) firms need to focus on continuous evaluation, learning and adaptation of contracting processes. Key to ensuring continuous improvement is the role of processes and methods that encourage continuous evaluation, learning and adaptation of the firm's routines (Ziggers & Henseler; 2009).

Contracting capabilities are studied from varying perspectives. Yang et al. (2009) specify contracting capabilities as the tasks related to each contracting phase. Contracting can be divided in four phase: agenda setting, contract formulation, implementation and evaluation phase. During the agenda setting phase it is decided whether to outsource the work or to carry it out in-house. Contract formulation deals with the tendering, selection, contract design and contract negotiations. The implementation phase deal with the buyer's involvement in the period the supplier is performing the work. The evaluation phase relates to the buyer's reporting and monitoring processes and systems for evaluation of the supplier performance. Nystén-Haarala et al. (2010) specify contracting capabilities with a higher abstraction level: contract contents, contract process, and relational capabilities. Contract content capabilities relate to the capability of the firm to create and maintain the contract documents and the underlying intangible and invisible aspects that form the bases of contract content. These include rules and regulations as well as habits and business practices of the two contracting parties. Contract process capabilities are related to the capability of the firm to manage the processes related to the drafting, negotiating, execution, management and closeout of contracts. In essence, all those processes that a firm has in place to manage their contracts. The proposed relational capabilities related to the organization's capacity to create, manage, and maintain their contracted relations. Like Nystén-Haarala et al. (2010), Türksever and Wynstra (2013) provide a framework for contracting capabilities independent of the contracting phase, Türksever and Wynstra (2013) suggest a classification based on the organizational capabilities described by Hayes and Upton (1998): processing and managing knowledge; co-ordination and collaboration capabilities and learning and improvement

capabilities. The framework is then further extended following Argyres and Mayer (2007) detailing capabilities on three levels within the organization, as firm capabilities are manifested in individual employees, project teams and the organization as a whole , 2013; Argyres and Mayer, 2007).

2.4.2 Contract design capabilities

For the purpose of this study we follow the split between contract design capabilities and contract management capabilities as suggested by Argyres and Mayer (2007) and aligned with the definition of Türksever and Wynstra (2013). Hereby, contract design corresponds with the ex-ante contracting stage, dealing with the content of the contract and how the content has originated. However, the agenda setting phase is not included. This aspect of the ex-ante contracting stages is not further researched in this study, as this study focuses on the effects of buyers on their suppliers, from the suppliers' perspective, which is not relevant for the agenda setting stage. Contract design is the basis for the two most important requirements of a contract: reducing the risk of non-performance and ensuring the successful ex-post completion of the contact (Furlotti, 2007). Argyres and Mayer (2007) specify contract design capabilities as firm capabilities related to the ex-ante phase of contracting. The contract forms the foundation of the contracting process during the ex-post contract phase (Yang et al., 2009; Lumineau and Henderson, 2012). Aligning contract terms with the specific transaction taking place, and subsequently aligning personnel with knowledge and capabilities to create the required contract terms will lead to superior exchange performance overtime (Argyres and Mayer, 2007). Aligning contract content and design require a trade-off between contract dimensions (Argyres and Mayer, 2007) in order to allow for optimal description of the work and each party's responsibilities. For each project a balance between hard and soft contracting (Williamson, 1981) has to be sought. Hard contracting requires a high level of detail and specificity. Soft contracting aims at coordination between buyer and supplier and optimal buyer-supplier relations. In order to seek a balance the buyer is required to consider the number of contract clauses, the detail of clauses of terms and the level of specificity of clauses to seek the balance that motivates the supplier to achieve the desired outcome (Furlotti, 2007; Schepker et al., 2014). The balance between hard and soft contracting may be different for each project and each supplier. In addition to the required balance between hard and soft contracting, the wording in the contract has to be tailored to the specific scope of the contract. In order to do so, specific knowledge residing within the firm derived from lawyers, engineers and managers as well knowledge of the parties' organization and business practices should be combined when creating contracts (Argyres & Mayer, 2007; Lumineau & Henderson, 2012). Performance development for example is better addressed by terms related to the firm's specific operations, which are better worded by engineers than lawyers. Similar, contractual responsibilities are better defined by lawyers, as they are expected to have knowledge on legal obligations between parties argue Argyres and Mayer (2007). Contract knowledge and how this is shared within the firm are key to high level contract design capabilities. In addition to the importance of the contract as a foundation for contract execution, contract documents are also a storing place for knowledge and play an important role in the learning process (Argyres & Mayer, 2004). Standard contract documents help sharing knowledge within a firm and allow employees to work more effectively. However, this will only maintain if the firm ensures that templates are reviewed regularly and preferable after each contract evaluated. Adaption of contract terms and conditions based on experiences of

previous contract design will address the potential stumbling blocks in the contract better (Argyres & Mayer, 2004). The function of the contract as a storing place for knowledge highlights the importance for accessibility of the firm's contracts and contracts clauses provided by archiving systems and databases (Nystén-Haarala et al., 2010).

2.4.3 Contract Management Capabilities

Although the main objective of a contract is to capture promises and responsibilities between parties (Macneil, 1978) using a contract is not a guarantee for results as contracts are incomplete by definition (Williamson, 1981). Contract management capabilities can narrow the gap by using the firm's processes and resources in order to prevent opportunism (Nystén-Haarala et al., 2010). Contract management capabilities are related to any process within a firm that is aimed at optimizing the contracting process in order to achieve a positive outcome of the contract, in the ex-post contracting phase. The ex-post phase deals with all that is required to manage, change or terminate a contract (Türksever and Wynstra, 2013). Contract management capabilities can be internally focussed, for example responsibilities of a project management team or the set-up of a management system. They can also be externally focussed, aimed at the buyer-supplier relationship and supplier management. Ex-post contracting deals with the implementation, evaluation and termination of contracts (Yang et al., 2009; Brown & Potoski , 2003). The implementation deals with the phase when the supplier is performing the work and how the buyer is best able to assist its supplier, e.g., assisting with the interpretation of rules and regulations (Yang et al., 2009). Contract management capabilities during implementation of the contract include transparent and frequent communication, regular meetings on the scope and progress, active support and collaboration and joint development of work related procedures and protocols (Yang et al., 2009). During the evaluation phase the buyer's capabilities are focussed on monitoring and reviewing of the supplier performance. Important aspects to enable this are formal monitoring systems making use of inspections, audits and formal reporting (Yang et al., 2009; Brown and Potoski , 2003). Contract termination relates to the completion and ending of the contract. How a contract is terminated forms the basis for future dealings between the parties (Furlotti, 2007).

Contract management capabilities require technical, contractual and project management knowledge, supported by formal processes to structure the firm's practices (Yang et al., 2009). These processes are often formalized in firm specific management systems and supported by information and document management systems (Nystén-Haarala et al., 2010). Processes, templates, archiving and data sharing are used to optimize the firm's ability to manage, monitor, evaluate, learn and improve the firm's business practices (Nystén-Haarala et al., 2010; Siedel & Haapio, 2010). How management systems are defined and how data management support is structured influences the access to knowledge that is required to optimize the contracting process (Nystén-Haarala et al., 2010). IT systems are an extremely important asset to a firm, as it helps to share, store and manage knowledge to assist with contract management (Spring & Araujo, 2014).

2.4.4 Contract Capabilities related to CSR

Changes to a buying firm's business model or required product or service require changes to the firm's standard contracting practices (Argyres and Mayer (2004). These changes may require new contract templates, new processes and changes to the firm's standard risk

mitigation and responsibilities (Nystén-Haarala et al., 2010). When buyers started to focus on social and environmental responsible buying, they therefore amend their contracts and contracting processes to include CSR specific measures. Many buyers use standard Code of Conducts or similar clauses to specify the suppliers' obligations towards CSR and specify CSR as part of the requirements in the scope of work (Pederson, 2006). Buyers may have implemented supplier audit and monitoring programs, specifically focussed on CSR. Where buyers lack the ability or knowledge third parties may be mobilised to input CSR specific knowledge and resources. Bigger firms are known to assist through supplier development programs, often to ensure their suppliers reach the specified CSR goals.

The success of CSR specific contract terms and contract management practices are dependent on the buyer's contacting capabilities. Dealing with CSR specific contracting should become an integrated aspects of the buyer's contracting processes. However, a buyer can have very well developed contracting capabilities tailored to optimize the execution of the project in relation to cost, quality and delivery times. Dealing with CSR requires different knowledge and specific monitoring practices. For example, where product quality can be measured after delivery, the supplier's CSR performance needs to be checked with the supplier, and their suppliers on site. In order to differentiate between contracting capabilities and CSR specific contracting capabilities the concepts CSR contract design capabilities and CSR contract management capabilities are introduced. A firm's CSR contract design capabilities and CSR contract management capabilities are based on the firm's ability to evaluate, learn and adapt their contracting process and contract design, specifically focussed on the firms CSR requirements. As such CSR related content, such as Supplier Code of Conducts, should be drafted using CSR specific knowledge, residing with lawyers, engineers and managers (Argyres and Mayer, 2007). This will ensure that the terms are applicable to project and the suppliers expectations and capabilities. Ex post, CSR specific contracting practices also include CSR specific supplier monitoring, evaluation and supplier development. These systems are often used to control supplier CSR performance (Jiang, 2008). In particular for management of CSR performance IT systems can play a major role. The advantages of IT systems include optimized data management, automated and weighted assessments and more accurate measurements of performance which are relevant when managing suppliers as well as internal knowledge and performance (Spring & Araujo, 2014; Nystén-Haarala et al., 2010).

2.4.5 The effect of capabilities

Literature on contracting capabilities comprises mainly conceptual theories and a limited number of case studies. The effect of contracting capabilities on supplier performance has not been widely empirically researched. Limited empirical research that is available however indicates positive effect of contracting capabilities, when applied in the correct manner.

Yang et al. (2009) have measured the perceived impact of contracting capabilities on supplier performance in relation to cost, quality and efficiency. Overall their research concluded that the effect of contracting capabilities reaches a maximum, after which more of the specific capability appears to have a negative effect on performance. Specifically the cost related to improving contracting capabilities is raised as a limiting factor. After a certain point cost no longer outweighs the benefits gained in performance. In addition, Yang et al. (2009) suggest that effects on performance appear to wear of over time. Two explanations are suggested: Suppliers increase their ability to learn and are therefore able to make better use of the

inevitable contract incompleteness, or the effect of the managerial strategy applied by the firm reduces. Both suggestions however imply that the buyer is not able to evaluate the effectiveness of the applied contracting methods in order to learn and adapt which is suggested in this study.

This study is based on the theory that contracting capabilities are those capabilities that allow the firm to anticipate on supplier learning by evaluation, learning and adaption. In other words, come up with better or different solutions to keep improving supplier performance instead of applying more of the same methods. The most important conclusion of Yang et al. (2009) is that contracting capabilities will only work with the right balance between knowledge, procedure or methods, and knowing when to apply them. These results originate from a study directly measuring the relation between contracting capabilities and performance. As suggested in section 2.2 some suppliers are additionally motivated to improve CSR performance when firms introduce CSR as criteria in their purchasing process (Baden et al., 2006). It is therefore argued that the relationship between buyer CSR commitment and supplier CSR performance is affected by the buyer's contracting capabilities; in specific the buyer's CSR contracting capabilities.

2.5 Theory and conceptual model

The purpose of this study is to contribute to development of a theory by conducting a literature study followed by empirical research. The literature reviewed in this chapter has led to the formulation of the following theory:

"If a buying firm's commitment to CSR increases, then it is likely that its suppliers' CSR performance is higher. It is likely that the effect of this relation is positively affected by the buying firm's contracting capabilities".

It is argued that any opportunity for a supplier to create value will be a motivator for a supplier to adapt and to create this benefit (Möller & Wilson, 1995). This theory applies to supplier adaption with reference to CSR as well. Therefore the supplier needs to perceive a buyers' commitment to CSR as genuine and consistent for it to motivate the supplier to improve its CSR performance. The concept buyer CSR Commitment is therefore representative for how genuinely the buyer interest in CSR is perceived by the buyers' suppliers. Thus, buyer CSR commitment is the extent to which a buyer is perceived to opt for a supplier with better CSR performance. Based on this theory the following proposition is formulated:

P1 If a buyer's CSR commitment is higher, then it is likely that the supplier CSR performance is higher.

A buyers' contract design capabilities lead to optimized contract performance by aligning contract terms with the required transaction and aligning personnel with the relevant knowledge to create these terms (Argyres and Mayer; 2007). It is therefore argued that a Buyers' contract design capabilities will positively affect the relation between Buyer CSR Commitment and Supplier CSR performance due to additional motivation and guidance towards performance improvement. Based on this theory the following proposition is formulated:

P2 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyers' Contract Design Capabilities.

Buyers' contract management capabilities lead to optimized contract performance by utilizing suitable resources and processes for supplier assistance, monitoring and evaluation (Brown and Potoski, 2003). This provides the supplier with additional guidance and motivation for performance improvement. Based on this theory the following proposition is formulated:

P3 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyer Contract Management Capabilities.

The formulated theory and propositions are presented in the following conceptual model.
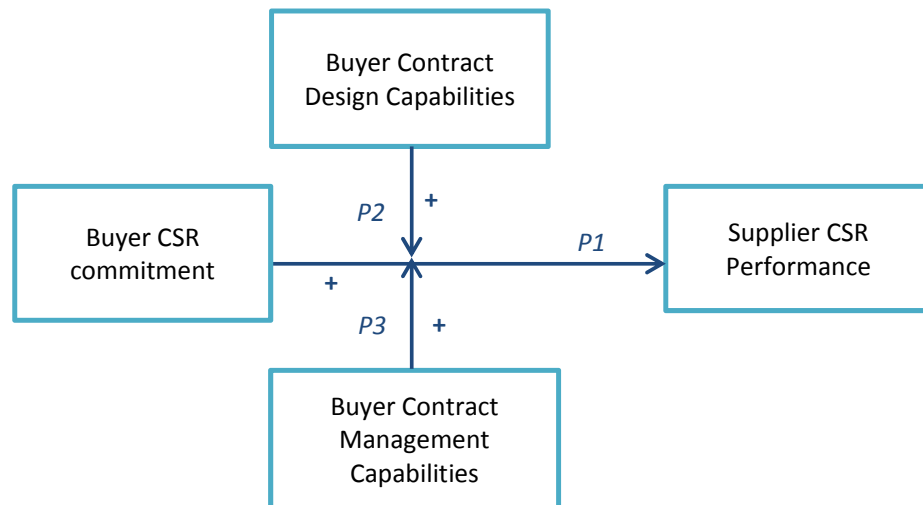
Figure 2.1 Conceptual Model 1

This study aims at measuring the effects of efforts that can be used by buyers' to improve the suppliers' CSR performance. It is argued that to achieve a specific project outcome this needs to be specifically agreed in the contract and managed during project execution. To be able to gain insight on the effect of contracting capabilities the concepts CSR contract design and CSR contract management capabilities are introduced based on contracting practices commonly used to improve supplier CSR performance (Pederson, 2006; Hoejmose & Adrien-Kirby, 2012; Jiang, 2009). It is argued that the components of contracting capabilities specifically aimed at optimizing the CSR scope in the contract, BCSR CDC and BCSR CMC, will positively affect the relation between buyer CSR commitment and supplier CSR performance. The concepts CSRCDC and CSRCMC can be considered components of the overarching concepts CDC and CMC and can therefore not be tested in one model. A separate model conceptualizing the new relations, formulation with two new propositions, P4 and P5, is formed. To complete this model P1 is included in this model as well.

P4 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyer CSR Contract Design Capabilities.

P5 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyer CSR Contract Management Capabilities.

The formulated theory and propositions are presented in the following conceptual model.
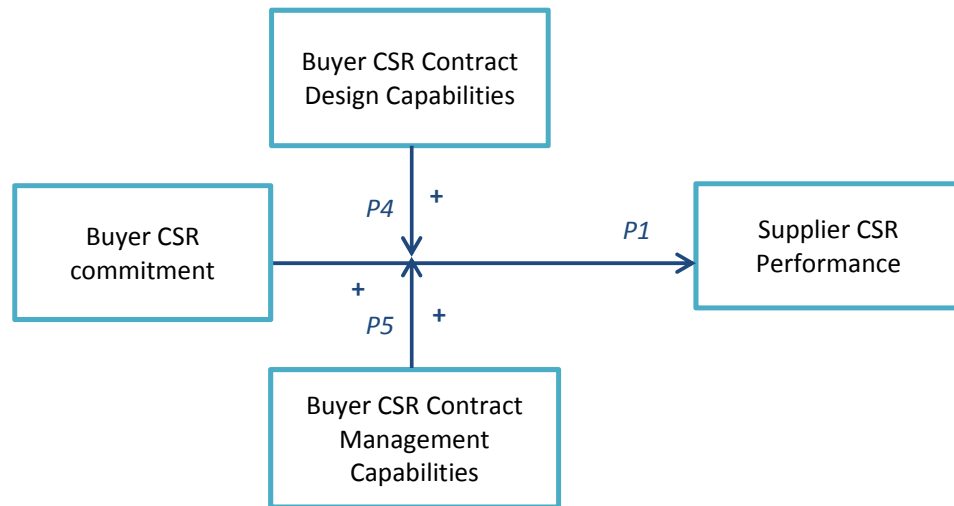
Figure 2.2 Conceptual Model 2

The domain of this study for which the theory is assumed to be true is the business to business market. The object of study is defined as firms and the concepts of study are defined as Supplier CSR Performance, Buyer CSR commitment, Buyer contract design capabilities (BCDC), Buyer contracting management capabilities (BCMC), Buyer CSR contract design capabilities (BCSR CDC) and Buyer CSR contracting management capabilities (BCSR CMC).

The concept Buyer CSR commitment is the independent variable and is proposed to be positively related to the dependent variable, Supplier's CSR performance. The relation between Buyer CSR commitment and Supplier CSR performance is affected by the concepts buyer contract design and contract management capabilities. To differentiate between general contracting capabilities and CSR contracting capabilities two additional concepts are formulated: Buyer CSR design management capabilities and buyer CSR contract management capabilities. The concepts BCDC, BCMC, BCSR CDC and BCSR CMC are hypothesized as moderating variables, as they are argued to positively affect the relationship between buyer CSR commitment and Supplier CSR performance.

3 Methodology

This chapter provides a comprehensive overview of the research methodology. This chapter firstly describes the research strategy (3.1), followed by the selection of instances (3.2), data collection (3.3) and introduction of the control variable (3.4).

3.1 Research Strategy

The objective of this study is to contribute to the development of a theory on the relationship between buyers and suppliers in a business-to-business environment by testing five propositions. The propositions are formulated to test the probabilistic relations between the concepts Buyer CSR commitment, Supplier CSR performance and four moderating concepts (buyer design contract capabilities, buyer management contracting capabilities, buyer CSR design contracting capabilities and buyer CSR contract management capabilities). Based on exploration of literature it is argued that a higher level of buyer CSR commitment will result in a higher level of supplier CSR performance. Furthermore, it is argued that this relationship is affected by the buyer's contracting capabilities.

There are many other variables, outside the scope of this study, affecting the outcome of the proposed relationships. The propositions are therefore tested as probabilistic relationships (Dul and Hak, 2008). It may occur that despite very high levels of buyer CSR commitment and contracting capabilities some suppliers still do not improve their CSR performance. For the purpose of this study the independent, dependent and moderating concepts are measured at organisation level, measuring a large number of direct relations between buyer and supplier. Dul and Hak (2008) state that an experiment is the most preferred research strategy to test probabilistic relations between concepts as a controlled environment allows for manipulation of the independent concepts (Dul and Hak, 2008). However, setting up an experiment that allowed for manipulation of CSR commitment and contracting capabilities at organization level is not feasible. Therefore, this study was conducted using the second preferred research strategy to test a probabilistic relation; a survey (Dul and Hak, 2008).

3.2 Selection of Instances

The theory as proposed in this study applies to all firms operating in a business-to-business environment, outlining the domain of this study. The population selected to conduct this research consist of all firms operating in a business-to-business environment within the Netherlands. Both the dependent and independent variables are measured at organization level.

Testing probabilistic relations, especially when relations are expected to be weak, require a high number of instances. To achieve a high number of instances (firms) convenience sampling was used. The sample consists of a specific group of suppliers, all members of FIRA, a sustainability platform. The use of convenience sampling instead of random sampling results in non –probability sampling. Therefore there is no guarantee that the sample represents the entire population of this study (Easterby-Smith et al., 2012). Despite this limitation, convenience sampling was preferred. The use of the FIRA platform provided

access to a large number of instances (160) together with rich CSR performance data captured in the FIRA-database.

3.3 Data collection

Supplier CSR performance was measured using expert judgment in the form of benchmarking (3.3.1). Data for the independent and moderating concepts were collected using a self-administered questionnaire gathering data based on supplier perceptions (3.3.2).

3.3.1   Measuring Supplier CSR performance

In literature varying methodologies are used to measure CSR performance, however a standard methodology integrating the measurement of input, output and impact is not available (Turker, 2008; Maas, 2009). This study follows Sardinha et al. (2011) and Graafland and Eijffinger (2004), using benchmarking as methodology to rate CSR performance. Benchmarking by external independent parties, allows for a more objective rating on CSR performance than purely based on ratings and data bases consisting of perceived performance by the firms themselves (Graafland & Eijffinger, 2004). Benchmarking by expert judgement is often used for ranking of qualitative items and has been used in CSR performance studies before (Graafland & Eijffinger, 2004, Krut & Munis, 1998; Sardinha et al., 2011).

Subjectivity in benchmarking using expert judgement can be minimized by selecting experts from a wide network covering the full extent of the topic of expertise (Okoli & Pawlowski, 2004). In order to minimize the risk of subjectivity in this study two experts performed the rating separately having the same data set available. Where scores were identical the scores were considered valid. Where the outcome of the benchmarking differed, the experts explored their differences in their perception and jointly agreed on a final rating. The participating experts have been chosen based on their experience. Both experts have over 10 years' experience in CSR research, CSR strategy development, and CSR implementation and auditing. In addition, due to their involvement with the data provided by the suppliers, they have in-depth knowledge of the supplier's best practices and actual results over the past years.

In this study the benchmarking exercise is focused on the number of successfully implemented CSR achievements and the comparison of the input, output and impact of these achievements. The data used for benchmarking is derived from the FIRA-database. Each suppliers' achievements are logged in this database. This data consists of policies, statements, certificates and a description of the best practices provided by suppliers themselves. The data available in the FIRA database is in almost all cases verified and audited by a team of FIRA-experts. Where data is not verified, it is not used during benchmarking.

CSR achievements include best practices, certificates, product for labels and improvement plans. For each firm the achievements are categorised based on the ISO26000 issues. The 7 core categories are: organizational governance, human rights, labour practices, the

environment, fair operating, consumer issues, community involvement and development (Buck et al., 2014).

Examples for best practices are participation in CSR knowledge development committees, programmes to improve work processes according to "zero waste" initiatives, exchange programmes. Certificates include amongst others ISO14001, NEN4400-1. In certain cases best practices can be rewarded with certificates or product labels. Product labels are product and sector specific labels, such as UTZ Certified and EU Ecolabel for supply chain partners. Improvement plans can be aimed at any aspect of CSR to be implemented in the organization. Although improvement plans are part of the available information, they will be excluded as "achievement" as first implementation needs to commence.

By means of expert judgement, each best practice is valued considering the supplier's input, output and the impact achieved with the best practice in place. As with any other methodology for CSR measurement, comparison of firms across industries comparing best practices only is not possible (Sardinha et al.; 2001; Krut and Munis, 1998). In addition, the potential influence of firm size and firms sector has to be mitigated (Arendt & Brettel, 2010; Blomback & Wigren, 2009; Brammer & Millington, 2006; Lepoutre & Heene, 2006; Robson, A & Mitchell, 2007).To enable comparison, irrespective of the suppliers' firm size or industry of operation, the best practices implemented by firms are translated in to a score on the Corporate Shared Value scale, as presented by Porter and Kramer (2006). The CSV framework, normally supporting four categories, has been extended to a scale with 6 categories, in order to support sufficient differentiation between firms and their CSR performance. This resulted in a 6 point scale: unaware, philanthropic, limited responsible, moderate responsible, highly responsible, shared value. The rating is applied as listed in table 3.1 below.

Table 3.1			
Score	Category	Measure	References
1	Unaware	No CSR achievements beyond the legal minimum requirements	Porter & Kramer, 2006; Visser, 2010; Carlisle & Faulker, 2004.
2	Philanthropic	Achievements limited to investments in social causes using the firm's (financial) resources available – non-material issues related to firm's industry	Porter & Kramer, 2006; Visser, 2010; Carlisle & Faulker, 2004.
3	Limited Responsible	One or more efforts qualified as Best Practices – implementation incomplete or focus on non-material industry practices	Porter & Kramer, 2006; Visser, 2010; Carlisle & Faulker, 2004, Sardinha et al., 2011
4	Moderate Responsible	Multiple Best Practices implemented with a focus in material industry practices.	Porter & Kramer, 2006; Visser, 2010; Carlisle & Faulker, 2004, Sardinha et al., 2011
5	Highly Responsible	Most or all material industry Best Practices successfully implemented	Porter & Kramer, 2006; Visser, 2010; Carlisle & Faulker, 2004, Sardinha et

			al., 2011
6	Shared Value	The firm's business model, or the business model of one or more of the firms operating companies are operating to enable sustainability and responsibility.	Porter & Kramer, 2006; Visser, 2010;

3.3.2 Buyer CSR commitment and contracting capabilities

The preferred method for measurement of a construct is to measure directly at the measure itself (Rossiter, 2011). To measure the concepts buyer CSR commitment and the four buyer contracting capabilities at organisation level it would be preferred to measure the concepts directly with the buyers. However, establishing a direct link between a buyer and a supplier is very difficult as not many buyers and suppliers will easily share information about each other. For this reason the buyers' CSR commitment and contracting capabilities are measured as to how they are perceived by their suppliers. It is therefore specifically highlighted that the measured concepts , buyer CSR commitment and the buyer contracting capabilities, have to be interpreted as the "buyer's CSR commitment as perceived by supplier" and the "buyer's contracting capabilities as perceived by supplier". This approach is a methodology often used in marketing and business studies, including research specifically on contracting capabilities (Brown and Potoski, 2003).

The concept Buyer CSR commitment is based on the theory developed by Möller and Wilson (1995) that in order to be motivated by a buyer, the supplier needs to perceive the buyer's commitment as serious. For this study this implies that the supplier needs to perceive that the buyer will choose a supplier considering their CSR performance as an important criterion. The concept is measured using a single-item scale, presented to the suppliers using an online questionnaire. The item for buyer CSR commitment is listed in table 3.1, question 2.

The concepts buyer contract design capabilities, buyer contract management capabilities, buyer CSR contract design capabilities and buyer CSR contract management capabilities are concepts based on the underlying capability of the organisation to evaluate, learn and adapt the organisation in such a way that its contracting process is optimized. This is reflected by the extent to which an organisation has adapted contract design and contract management procedures and how the organisation is set up to ensure improvements are integrated when deemed necessary. To measure the concepts a reflective multi-item scale was developed as the change in the underlying (latent) variable is reflected in changes of the observed measures (Diamantopoulos & Siguaw, 2006). Although a reflective scale is used for measurement, the scale is developed to capture the theorized concept in full. Each item addresses a new aspect considered being part of the overall concepts. As the multi item scale is set up to fully capture the concepts, post-measurement analysis to enhance the measure's statistics will not be applied.

The items for the construct contract design capabilities and contract management capabilities are based on the existing questionnaire created by Yang et al. (2009). The questions were rephrased were necessary, to increase the content-validity (Rossiter, 2011). The terminology used is common for informants working in sales and project management. In addition, the questions are complemented with new questions based on literature.

Additions are based on the studies of Argyres and Mayer (2007) and Nystén- Haarala et al. (2010).

The concept buyer contracting design capabilities was measured using 5 items, the concept buyer contract management capabilities is captured in 6 items. The items used for measurement are listed in table 3.1. The items for the concepts buyer contract design capabilities and buyer contract management capabilities were used for buyer CSR contracting design capabilities and buyer CSR contract management capabilities, but tailored to CSR specific contracting methods and tools. These contracting methods and tools were defined using the results from the studies from Jiang (2008), Pederson (2006), Carter and Jennings (2002) and Hoejmose andAdrien-Kirby (2012). The items used for the CSR specific measures are also listed in table 3.1.

The concepts buyer CSR commitment and buyer contracting capabilities are measured using a Likert scale. The measurements are conducted on a 5 point scale, to allow for sufficient subtlety while minimizing the possibility of extreme responding (Easterby-Smith, et al., 2012). The question capturing the item for buyer CSR commitment required an answer ranging from totally disagree to totally agree. The questions capturing the variables BCDC, BCMC, BCSR CDC and BCSR CMC required an answer ranging from never to almost always.

To ensure reliability of the measures, one standardized questionnaire is used for all participating suppliers. Prior to the start of data collection, the questionnaire was tested by professionals, who are involved in sales, procurement and contracting. During interview the questionnaire was reviewed and where required wording was rephrased to enhance the informants understanding. The questions were guided by a short introduction explaining the exact criteria of the buyer for which the questionnaire was completed. The invitation included clear instructions on the knowledge required for informants to conclude the questionnaire. Informants were approached based on contacts from the FIRA database. To ensure that informants would qualify as experts on the topic, specific knowledge was requested in project management, contracting and sales. This was emphasized in the invitation, as well as during follow up calls.

Every email without response was followed up with a phone call and eventually one reminder per email in an attempt to limit non-response (Easterby-Smith et al., 2012). To reduce common method bias the respondents were not informed about the exact purpose of the study (Podsakoff et al., 2003). To measure the effect of commitment and contracting capabilities in a specific buyer-supplier relationship it is important that the buyer that is rated by the supplier is important enough for the supplier to motivate adaptation. To ensure that only buyer-supplier relations with a considerable importance to the supplier were explored, the suppliers were specifically asked to complete the questionnaire with in mind of one of their top-5 customers of the last three years or a customer that had significant influence on their CSR performance.

Table 3.1 Supplier Questionnaire		
Supplier CSR experience		
1	Sinds wanneer is uw organisatie bezig met de implementatie van een MVO beleid? (Antwoord in hele jaren)	Open
Buyer CSR Commitment		
2	De opdrachtgever kiest eerder voor een leverancier met MVO beleid dan een leverancier zonder MVO beleid.	Zeer mee oneens – zeer mee eens
Buyer Contract Design Capabilities		
3	De opdrachtgever maakt gebruik van contract templates met project specifieke aanpassingen.	Nooit – zeer vaak
4	De door de opdrachtgever gebruikte contract templates worden door de opdrachtgever geëvalueerd en aangepast op basis van opgedane ervaringen.	Nooit – zeer vaak
5	De door de opdrachtgever opgestelde contracten zijn helder en gespecificeerd en maken het mogelijk het werk volgens deze specificatie uit te kunnen voeren.	Nooit – zeer vaak
6	In het contract staan de verantwoordelijkheden voor beide partijen helder beschreven.	Nooit – zeer vaak
7	Het door de opdrachtgever gebruikte contract is opgesteld met behulp van de kennis van juristen, technische en commerciële experts.	Nooit – zeer vaak
Buyer Contract Management Capabilities		
8	Tijdens uitvoering van het contract stelt de opdrachtgever middelen en mensen beschikbaar om zijn leverancier, indien nodig, te ondersteunen en te begeleiden ten behoeve van een optimaal project resultaat.	Nooit – zeer vaak
9	Tijdens de aanbesteding maakt de opdrachtgever een keuze voor een leverancier met behulp van selectiecriteria met betrekking tot kosten, kwaliteit en beschikbaarheid.	Nooit – zeer vaak
10	De opdrachtgever maakt gebruik van (digitale) beheersystemen en (interne en/of externe) databases voor contract management.	Nooit – zeer vaak
11	De opdrachtgever maakt gebruik van procesbeschrijvingen voor contract management, vastgelegd in een management systeem.	Nooit – zeer vaak
12	De opdrachtgever evalueert het contract management proces tijdens en na afloop van het project en past deze aan waar nodig is op basis van opgedane ervaring.	Nooit – zeer vaak
13	De opdrachtgever maakt gebruikt van één of meerdere methodieken om de prestatie(s) van de toeleverancier te monitoren en te evalueren, aangepast op de scope van het werk.	Nooit – zeer vaak
Buyer CSR Contract Design Capabilities		
14	De opdrachtgever maakt gebruik van contract templates voor MVO met project specifieke aanpassingen.	Nooit – zeer vaak
15	De door de opdrachtgever opgestelde contract clausules met betrekking tot MVO zijn helder en gespecificeerd en maken het mogelijk het werk volgens specificatie uit te kunnen voeren.	Nooit – zeer vaak
16	De opdrachtgever evalueert de MVO gerelateerde onderdelen van het contract en past deze aan op basis van opgedane ervaringen.	Nooit – zeer vaak
17	In het contract staan de verantwoordelijkheden voor beide partijen ten aanzien van MVO helder beschreven.	Nooit – zeer vaak
18	De MVO gerelateerde aspecten in het door de opdrachtgever gebruikte contract zijn opgesteld door experts op het gebied van MVO.	Nooit – zeer vaak
Buyer CSR Contract Management Capabilities		
19	Tijdens uitvoering van het contract stelt de opdrachtgever middelen en mensen beschikbaar om de leverancier, indien nodig, te ondersteunen en te begeleiden ten behoeve van een optimaal projectresultaat op het gebied van MVO.	Nooit – zeer vaak
20	Tijdens de aanbesteding maakt de opdrachtgever een keuze voor een leverancier op basis van selectiecriteria met betrekking tot mate waarin de leverancier MVO beleid voert.	Nooit – zeer vaak
21	De opdrachtgever maakt gebruik van beheersystemen en (interne en/of externe) databases voor management van MVO gerelateerde processen.	Nooit – zeer vaak
22	De opdrachtgever maakt gebruik van procesbeschrijvingen voor contract management met betrekking tot MVO, vastgelegd in een management systeem.	Nooit – zeer vaak
23	De opdrachtgever evalueert het contract management proces op het gebied van MVO tijdens en na afloop van het werk en past deze aan, waar nodig, op basis van opgedane ervaring.	Nooit – zeer vaak
24	De opdrachtgever maakt gebruik van één of meerdere methodieken voor monitoring van MVO prestatie(s) en MVO evaluatie en past deze aan op de scope van het werk.	Nooit – zeer vaak

3.4 Control Variable

Beyond buyer CSR commitment and buyer contracting capabilities there are multiple other parameters that influence supplier CSR performance (Aguinis and Glavas, 2012; Jiang, 2008). Variables often included as control variables in business studies are firm size and firm sector. In this study these variables are already considered during benchmarking. However, the supplier experience with CSR is not considered during benchmarking, Implementing CSR

business practices and policies requires time, in order to gain knowledge and experience (Leire & Mont, 2010, Leppelt et al., 2011). Firms are unlikely to create and implement a CSR strategy within months, a year might even be considered as a short time frame. The suppliers' experience with CSR will thus affect the firm's CSR performance. Firms actively focussing on CSR performance for a longer period will have a better CSR performance than firms who have recently started developing their CSR efforts (Baden et al., 2009). Based on this theory the Supplier CSR experience is measured as the number of years the firm has been involved with CSR, with the question as presented in Table 3.1

Spector and Brannick (2010) argue it is preferred to integrate control variables in the conceptual model proposed, with corresponding hypotheses formulated to enable hierarchical multiple regression (Spector and Brannick, 2010). However, this study is focussing specifically on the relationship between Buyer CSR commitment and Supplier CSR Performance, and the moderating effect of contracting capabilities. The control variable has therefore not been included in the conceptual model but will be included in the regression model.

4 Data analyses and results

This chapter provides a detailed description of the data collected (4.1), a summary of the data analyses and overview of the results of the analyses (4.3 and 4.4) and the outcome of the hypothesis testing (4.4).

4.1 Descriptives

Of the total 160 suppliers that were approached, 57 suppliers responded, resulting in a response rate of 35%. For 4 of the 57 suppliers it was concluded that the available supplier data was insufficient to justify expert judgement. Data from one case was excluded This resulted in data set with 52 cases. The data, acquired via an online survey, was extracted and coded and complemented with the supplier CSR performance data provided by the expert judgement. The descriptive statistics are provided in Table 4.1.

Table 4.1 Descriptive Statistics

	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
CSR experience	1.00	35.00	5.90	0.75	5.37
CSR Performance	3.00	5.00	4.04	0.09	0.63
CSR Commitment	2.00	5.00	3.77	0.10	0.73
Buyer Contract Design Capabilities	1.60	4.80	3.23	0.10	0.74
Buyer Contract Management Capabilities	1.83	5.00	3.17	0.10	0.75
Buyer CSR Contract Design Capabilities	1.00	4.40	2.78	0.11	0.82
Buyer CSR Contract Management Capabilities	1.00	4.33	2.46	0.11	0.82

The lowest score reported for supplier CSR performance was 1 and the highest score was 5 on a scale of 6. The data does not show an evenly distributed score. The majority of suppliers was scored as moderate responsible. None of the suppliers scored as philanthropic or shared value. Only one firm was scored unaware (score 1*).This case is excluded from the data set to avoid the results being influenced considerable by one case. Although this case is not an outlier, it does deviate considerable from all other entries.

Table 4.2 Supplier CSR Performance Classification

Classification	Score	Number of Cases
Unaware	1	1*
Philanthropic	2	0
Limited responsible	3	9
Moderate responsible	4	32
Highly Responsible	5	11
Shared Value	6	0

4.2 Scale and inter-rater reliability

Scale reliability is relevant for interpretation of the outcomes of this study. This applies to the scales used for measurement of the concepts BCDC, BCMC, BCSR CDC and BCSR CMC, acquired with a questionnaire, as well as the reliability of the benchmark scores provided by expert judgement.

The reliability of the scales for of the concepts BCDC, BCMC, BCSR CDC and BCSR CMC is tested with an analysis using the scale's Cronbach α. The results showed for buyer contract design capabilities 0.8, buyer contract management capabilities 0.79, buyer CSR contract design capabilities 0.85 and buyer CSR contract management capabilities 0.90. Values around 0.8 are considered to be reliable scales (Field, 2013).

To confirm the reliability of the results for CSR supplier performance as rated via expert judgement, an inter-reliability test by means of correlation analysis was performed. Table 4.3 below presents the descriptive of the results. A correlation of .778 (p <0.01) confirms a high level of reliability of the expert judgment results.

Table 4.3. Inter-rater reliability

Variable		Mean	Std. Deviation	1
1	Expert classification 1	3.849	.6905	
2	Expert classification 2	3.981	.7465	.778**

**. Correlation is significant at the 0.01 level (1-tailed).

4.3 Data analyses

4.3.1   Correlations

For this study a total 7 different variables are measured, which are tested in two separate regression analyses. The correlations between the variables are presented in one model, to allow for comparison of the correlations. The correlation between the control variable Supplier CSR Experience and Supplier CSR performance shows a small but positive correlation, indicating that the CSR experience of a supplier positively affects it's supplier CSR performance, although very limited.
The correlation between Buyer CSR commitment and Supplier CSR performance is positive and corresponds with the hypothesized relationship (correlation coefficient 0.32 and p < 0.05).

Only positive correlations were expected, but the correlation between BCDC and Supplier CSR Performance as well as Buyer CSR CDC and Supplier CSR performance indicate a negative relationship. . The negative correlations for the moderator variables raise questions about the accuracy of the measurement as well as the hypothesized relations, which will be further addressed in Chapter 5.

The correlation between BCMC and supplier CSR performance, as well as between Buyer CSR CMC and Supplier CSR performance indicate a positive but small relationship. Scatterplots are presented in Appendix A to visualize the data distribution of the variables, compared to

Supplier CSR Performance. The high correlation between BCDC and BCSR CDC as well as the high correlation between BCMC and BCSR CMC are a result of the measurement of overlapping constructs. These constructs will therefore not be tested in one model, but in two separate models. BCSR CMC and BCSR CDC however, show a high correlation although these are two separate constructs. As these variables will be included in one model for testing as part of the interaction variable, this raises concern for multicollinearity (Field, 2013), which is further explored during regression analyses.

Table 4.4. Correlations

Variable		Mean	SD	1	2	3	4	5	6
1	CSR experience	5.90	5.37						
2	CSR Performance	4.04	0.63	.042					
3	CSR Commitment	3.77	0.73	.144	.320*				
4	Buyer Contract Design Capabilities	16.15	3.68	-.146	-.096	.050			
5	Buyer Contract Management Capabilities	19.04	4.49	-.153	.013	.206	.628**		
6	Buyer CSR Contract Design Capabilities	13.88	4.10	.037	-.014	.128	.596**	.635**	
7	Buyer CSR Contract Management Capabilities	14.75	4.91	.050	.061	.366**	.554**	.580**	.759**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

a N=52

4.3.2 Multiple regression analyses

The propositions hypothesized in this study are tested using multiple regression analysis. The two conceptual models presented are tested in two separate analyses. The items measured for the concepts buyer CSR commitment, BCDC, BCMC, , BCSR CDC and BCSR CMC, s are measured using a Likert scale. Although Likert scales are ordinal, with sequential ratings, they do not necessarily have the same "measured distance" between two answers, which is a required to perform mathematical calculations (De Vocht, 2013). However, as answer scales used are symmetrical and just as the scale for Supplier CSR performance set up aiming at having the same distance between them, the level of measurement is assumed to be interval (Field, 2013).

The conceptual models include two moderating variables. Moderation is the effect of one variable on the relation between two other variables. The moderating variable can weaken or strengthen the relation, or alter the direction of the relation between the dependent and independent variables (Field, 2013). To test the effect of the moderators interaction variables are calculated by multiplying the independent and the moderator variables. The variables are entered blockwise, based on their importance for the outcome of the model, starting with the control variable, the independent variable and thereafter the interaction variables. The moderator variables are excluded to avoid including correlations that are not hypothesized in the conceptual model (Aiken & West, 1991).

The correlation analyses indicated a potential risk for multicollinearity. Multicollinearity may also occur due to the high level of collinearity between the independent and interaction

variable, originating from multiplying the independent and moderator variables. Testing a model including constructs with high collinearity may result in untrustworthy effect sizes (Field, 2013). In order to reduce the effect of multicollinearity grand mean centring was used, centring the mean values of the variables at zero (Field, 2003).

Conceptual Model 1 Buyer CSR Commitment and Generic Contracting Capabilities

The outcome of the regression analysis of the model as presented in Conceptual Model 1 is presented in Table 4.5. The full regression analyses, including ANOVA and Collinearity Statistics is listed in appendix C. Confirming the correlation analysis, the regression analysis shows that the effect of the control variable is limited and non-significant (β -.01, p 0.97).The main effect, the effect of Buyer CSR Commitment on Supplier CSR performance is positive and significant at $p < 0.1$. (β 0.31). The positive and considerable regression coefficient confirms the hypothesized relation between Buyer CSR commitment and Supplier CSR performance. The effect of Buyer CSR commitment accounts for 10% of the variation in the overall model, making this variable the most important predictor in the model. The effect of the interaction variable Buyer CSR Commitment* CDC is limited and negative, with a regression co-efficient of β-0.05 (p 0.76). The interaction variable Buyer CSR commitment* BCMC shows a regression co-efficient of β 0.002 (p 0.99). The interaction variables only make a small contribution to the predicted model (1%).
The overall fit of the model is relatively low, with only 11%, which could be expected of a model capturing only a selection of all variables that theoretically affect Buyer CSR Performance.

Table 4.5 Results regression analyses Conceptual Model 1

Dependent variable Supplier CSR Performance		Model 1	Model 2	Model 3
Control variable	CSR Experience	0.042	-0.004	-0.006
Independent Variable	Supplier CSR Commitment		0.321*	0.313*
Interaction variable	BCSR Commit* BCDC			-0.05
	BCSR Commit* BCMC			0.002
Model Summary	R2	0.002	0.103	0.105
	Adjusted R2	-0.018	0.066	0.029
	F	0.88	2.802	1.379

* p <0.1

N=52

The significance level of the regression co-efficient for the control variable as well as the interaction variables are well above p>. 0.1. This could be a result of the relative small sample size, with N=52. This is considered a small sample for testing models with four variables, especially when small effect sizes are expected (Field, 2013). Secondly, the relatively wide distribution of data for the interaction variables, compared to the relatively small distribution for Supplier CSR performance, result in high standard errors. This is been illustrated in the scatterplots in Appendix A.

As the Variance Inflation Factor (VIF) (presented in Appendix C) shows no values greater than 10 and is on average not much higher than 1, there is little worry for collinearity in this model

(Field, 2013). The Variance Proportions (Appendix D) does indicate that there is some collinearity between the independent and interaction variables. However, this is limited and as expected between the interaction and independent variable.

Conceptual Model 2 Buyer CSR Commitment and CSR Contracting Capabilities

The outcome of the regression analysis of the model as presented in Conceptual Model 2 is presented in Table 4.6 listed below.

Tabel 4.6 Results regression analyses Conceptual Model 2

Dependent variable Supplier CSR Performance		Model 1	Model 2	Model 3
Control Variable	CSR Experience	0.042	-0.004	0.01
Independent Variable	Supplier CSR Commitment		0.321*	0.288*
Interaction variable	BCSR Commit* BCSR CDC			-0.325
	BCSR Commit* BCSR CMC			0.244
Model Summary	R2	0.002	0.103	0.145
	Adjusted R2	-0.018	0.066	0.073
	F	0.88	2.802	1.997

* p <0.1

N=52

The effect of the control variable and the independent variable are consistent with the outcome of the regression analysis for model 1. The effect of Supplier CSR Experience is limited and non-significant (β=0.01 and p 0.94). The effect of Buyer CSR Commitment, is positive and significant at p <0.1 (β 0.29 and p 0.06). The effect of Buyer CSR commitment accounts for 10% of the variation in the overall model, making this variable the most important predictor of the model.

The regression co-efficient calculated for the interaction variable Buyer CSR commitment* BCSR CDC is β -0.34. Though this effect is considerable, it is in the opposite direction of the hypothesized relationship. The regression co-efficient calculated for the interaction variable Buyer CSR commitment* BCSR CMC is β =0.24, positive as per the hypothesized relation. In this model the interaction variables contribute 4% to the overall fit of the model. The confidence levels again are all well above p>0.1.

The results for the VIF values are higher than in the previous regression model, although not greater than 10. However, further analysis of the Variance Proportions (Appendix D) indicates that there is a higher level of collinearity in this model, predominantly between the interaction variables. Multicollinearity makes it more difficult to assess the importance of the individual variables and the overall fit of the regression model. The consequences of this outcome will be further discussed in Chapter *5.*

4.3.3 Moderation analyses

Moderation effects can vary for different values of the interaction variable. Basic slope analyses are presented to visualize the effect of the interaction. The slope analyses visualize the moderating effects by presenting the relation between the independent and dependant variables at high and low levels of the moderators (+ 1 standard deviation and -1 standard deviation.

Figure 4.1 Moderating effects BCDC and BCMC
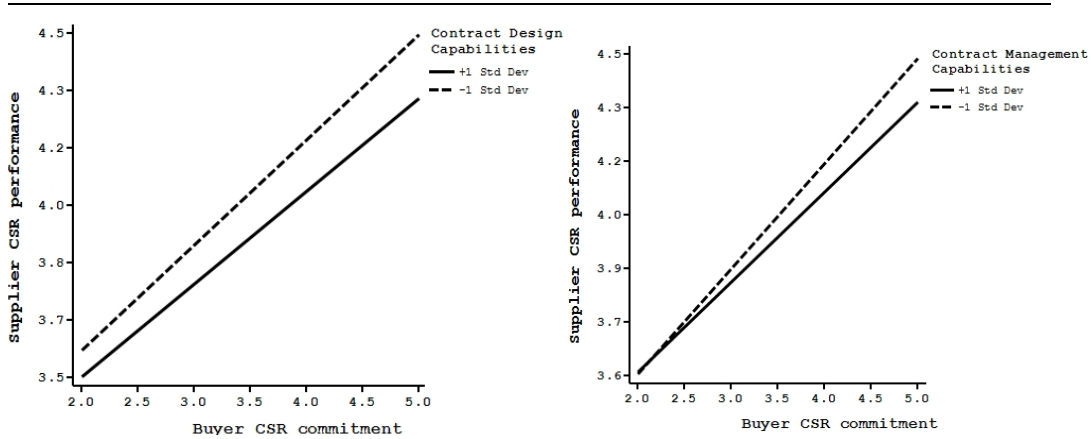
The slope analysis in figure 4.1 visualizes the negative effect of the interaction between buyer CSR commitment and BCDC and BCMC. . The interaction lines in both figures visualize that higher level of BCDC and BCMC negatively impact the relation between buyer CSR commitment and Buyer CSR performance. The divergent effect visualized in both figures indicate that the negative effect of high values of contracting capabilities increases for higher values of buyer CSR commitment, for the data available for the presented values. In other words, high levels of contracting capabilities negatively impact the effect of Buyer CSR commitment.

Figure 4.2 Moderating effects of BCSR CDC and BCSR CMC
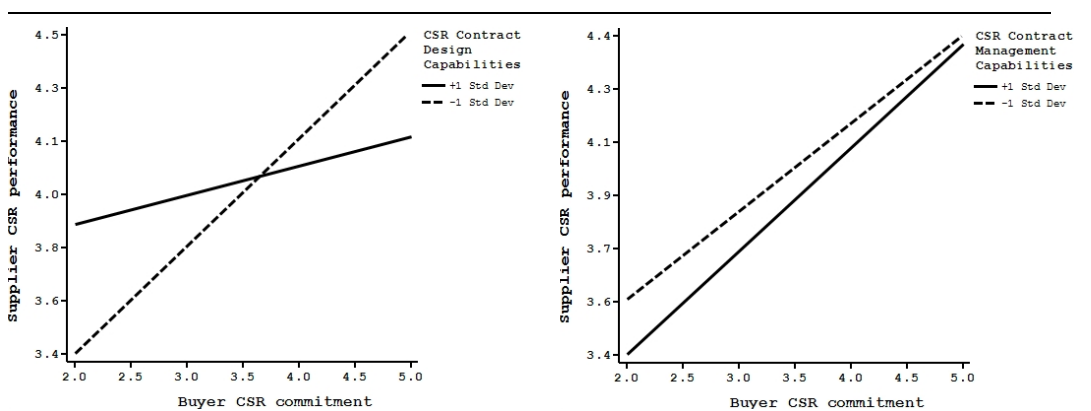
The slope analysis in figure 4.2 visualizes the negative effect of the interaction between buyer CSR commitment and BCSR CDC and the positive effect of BCSR CMC. The interaction line in the graph for BCSR CDC shows that the relation between Buyer CSR commitment and Supplier CSR performance varies for different values of BCSR CDC. The interaction line shows that for

low values of BCSR CDC the influence of buyer CSR commitment is higher than with high values of CSR CDC. The crossing of the interaction lines would suggest that up to a certain level of buyer CSR commitment (a buyer commitment of 3.5) it would be more beneficial to have high contracting capabilities, however, when buyer CSR commitment increases, it would be better to operate with low contracting capabilities. The interaction line in the graph presented for BCSR CMC (left), visualized the positive effect of high levels of BCSR CMC on the relation between Buyer CSR commitment and supplier CSR performance. The interaction lines show that for high values of the BCSR CMC the influence of Buyer CSR commitment is higher, than for low values of CSR CMC. However, for the values of Buyer CSR commitment presented it visualized that the firms operating with low BCSR CMC have a better CSR performance. For values of +1 and -1 standard deviation there is no crossing point of the interaction lines within the plotted data range.

4.4 Hypotheses testing

The relations as proposed in this study are tested with five hypotheses, presenting the standardized regression co-efficient (β) and the level of significance of the outcome. The hypotheses are tested at a 10% significance interval ($p<.10$). A 10% significance level is accepted considering the relatively small data sample (n = 52) and a possible higher signal-to-noise ratio resulting from this (Field, 2013). The outcome of the tested hypotheses apply to the sample of this study only. Due to the use of convenience sampling the results of this study can not be generalized beyond the sample used.

H1 If a buyer's CSR commitment is higher, then it is likely that the supplier CSR performance is higher.

The regression analysis, based on the variables from conceptual model 1 shows a positive effect of Buyer CSR commitment on Supplier CSR performance, with a regression co-efficient of β= 0.31. The results are found to be significant at p= 0.06. For conceptual model 2 the regression analysis shows a result of β= 0.29, also significant at p =0.06. These outcomes are consistent with the hypothesized relation and p <0.1 and thus H1 is therefore accepted.

H2 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyers' Contract Design Capabilities.

The moderating effect of Buyer Contract Design Capabilities is tested to be minor as well as negative, with a regression co-efficient of β= -.05. The results are found not be significant, with a significance level of p=0.76. H2 is therefore not accepted.

H3 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyers' Contract Management Capabilities.

The regression analysis shows that the effect of the moderator Buyer Contract Management Capabilities is positive, but minor. The regression co-efficient is β= 0.002 with a significance level of p=0.99. This outcome is not significant and H3 is therefore not accepted.

H4 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyers' CSR Contract Design Capabilities.

The effect of the moderator Buyer CSR Contract Design Capabilities is negative, with a regression co-efficient of β= -.33 and a significance level of p =0.13. Although the calculated effect size is considerable, this outcome does not correspond with the hypothesized positive direction of the effect. And although only 0.03 higher than p = 0.1, the significance level exceeds the level for acceptance. H4 is therefore not accepted.

H5 The relation between Buyer CSR commitment and Supplier CSR performance is positively affected by the Buyers' CSR Contract Management Capabilities.

The moderating effect of the concept Buyer CSR Contract Design Capabilities is positive, with a regression co-efficient of β= 0.24 and a significance level of p=0.26. This outcome does correspond with the hypothesized relation, however, its significance level exceeds p < 0.1 and H5 is therefore not accepted.

5 Discussion and conclusion

This chapter describes the theoretical (5.1) and managerial implications (5.2) of the outcome of this study, followed by a description of this study's limitations and suggestions for further research (5.3). Finally, an overall conclusion is reported, highlighting the main findings of this research (5.4).

5.1 Theoretical implications

When completing a thesis ideally this paragraph would be the section where the author presents why this study answers the research question as introduced in chapter 1. For this study this can only be partly done. This study's research question consisted of two parts. The first part was worded as follows: *What are the effects of buying firms' CSR commitment on their suppliers' CSR performance in the context of business-to-business purchasing relationships?* The results of this study confirm, for the studied data sample, the theory that buyer CSR commitment is positively related to supplier CSR performance. This result is consistent with the general assumption that buyers motivate their suppliers by implementing CSR efforts (Schmidt et al., 2007; Baden et al., 2009).

The second part of the research question: T*o what extent do the buyer's contracting capabilities' affect this relationship?,* unfortunately raised more questions than answers. The outcomes of the hypothesized relations were either very small, in the opposite direction, or representing a predictor with only a very small contribution to the regression model. The high collinearity found during data analyses affect the presented outcomes and therefore caution is required formulating any conclusions about the outcome of the analyses. It also raises questions about the formulated theory, the research methodology and data measures used to answer the second part of the research question.

Firstly, the multicollinearity found in both regression models stems from the high correlation between the moderating variables, BCDC and BCMC and the high correlation between BCSR CDC and BCSR CMC. The split between Design Capabilities and Management Capabilities was made based on review of existing literature. The reason for this high correlation could originate from indirect measurement of the underlying aspects of organizational evaluation, learning and adaption which both form part of the design and management capabilities. This would suggest that the contracting capabilities should actually be measured as one concept, including both BCDC and BCMC.

Secondly, though special care has been taken to make sure the questionnaire used consisted of high-content valid measures, the questions as well as the answer scale may be interpreted different by informants within the sampled population. This effect could have been worsened as the participating firms come from a variety of sectors, and are highly different in firm size. Perhaps this effected the perception of firms towards what would be considered a high score on contracting capabilities. Based on the distribution of the data (appendix A) this effect specifically applied to the BCSR CDC and BCSR CMC. Based on these considerations, it is likely that the hypothesized relations have not been confirmed due to inaccurate measurement than due to an incorrect theory.

5.2 Managerial Implications

The outcome of this study confirms that buyers aiming at creating a more responsible supply chain can benefit from showing their commitment to CSR towards suppliers. The main requirement for an increase in supplier CSR performance requires buying firms to "practice what they preach". During follow up calls as part of the data acquisition multiple suppliers explained their lack of interest in CSR performance claiming that "buyers in the end will always choose price above CSR performance". The outcome of this study confirms that suppliers that perceive that buyers are serious in their efforts to create a more sustainable supply chain are likely to perform better on CSR. This can only be achieved if buyers "reward" suppliers with high CSR performance by choosing them as a supplier. Managers are therefore encouraged to ensure their commitment is perceived as consistent and genuine, in order for suppliers to be motivated to adapt its practices.

With reference to the influence of the buyers contracting capabilities the outcome of this study does not provide a reliable result that can be translated into advice for managers. However, in terms of CSR contracting in general the data acquired for this study encourages firms to focus on their CSR contracting capabilities. It appears that all firms score lower on CSR contracting capabilities than on generic contracting capabilities. Although this may not directly affect supplier CSR performance, firms should be aware that some contracting capabilities may be perceived less than others, which potentially can lead to supplier opportunism in specific areas or in underutilized supplier performance that could be gained by more specific focus on the CSR aspect of contracts.

5.3 Limitations and suggestion for further research

In addition to the limitations discussed in section 5.1, the results as presented in this study are subject to other limitations originating from the research strategy, selection of instances, measure and method of data collection. These considerations are addressed in this section together with suggestions for further research.

Firstly, this study was set up to achieve a high internal validity and reliability of the individual measures. However, valid and reliable measures for CSR are subject to debate. To be able to measure the concept CSR as complete as possible CSR data used in this study has specifically been extracted from an independent database. In order to be able to compare CSR performance among a broad variety of different types of suppliers, expert judgement was used. Although often used in research and despite the efforts to achieve a high inter-rater reliability, expert judgement remains subjective. Until there is a widely accepted standard measure for CSR performance measurement, this will remain subject to debate by scholars and firms dealing with CSR performance measurements. This provides a wide variety of opportunities for further research.

Secondly, the measure for buyer CSR commitment was designed as a single-item measure, based on literature on supplier adaptation. It is suggested for further studies to further explore the concept, to specify a broader multi-item measure that may help understand how the buyer can best build CSR commitment within the organisation. A similar suggestion applies to further research on contracting capabilities. Existing literature on contracting

capabilities is mainly conceptual and empirical testing has been scarce and theories around contracting capabilities are focussed on generic contracting capabilities. This study has not been able to present significant outcomes. Considering the potential cause of inaccuracy in measurement, it is suggested that future studies would benefit from more specific measures for contracting capabilities.

During this study an attempt has been made to achieve a high number of instances to allow for statistically valid testing of hypothesis. In order to achieve this convenience sampling was used. The sample finally included firms with highly different profiles. The participating firms operate across 15 different industries. In addition, the firms also differ in terms of size. In hindsight, this data set may have been too diverse. Firms may experience a buyer's contracting capabilities in many different ways and firms in different sectors may be used to different standards in terms of contracting. Furthermore, this study has aimed at quantifying relatively abstract concepts. During this process assumptions have been made on the proportions between reported values, this applies to all variables in this study. For further research on this topic it is advised to obtain a data sample within one industry, as well as using an alternative research strategy, that would allow more in-depth questioning of informants, to ensure that the questions are correctly understood and answers are logged accordingly.

In addition, although a response rate of 35% was achieved, the number of cases in the final data sample, 52 cases, can be considered as insufficient data to test small effects, especially when testing is performed with multiple variables (Field, 2013). These limitations are assumed to have contributed to the mostly non-significant results of hypothesis testing. For future research using inferential statistics it is recommended to strive towards a much higher number of cases, to be better able to detect small effects.

Last but not least, the results of this study apply specifically to the sample that has been used for study, due to the use of a convenience sampling. As a result this study is subject to low population representativeness. Because of this, the results of this study should not be generalized.

5.4 Conclusion

This study was executed to answer the following research question: *What are the effects of buying firms' CSR commitment on their suppliers' CSR performance in the context of business-to-business purchasing relationships and to what extent do the buyer's contracting capabilities' affect this relationship?* In literature it is widely accepted that supplier CSR performance is influenced by many variables, including buyer CSR commitment. This study confirms the positive relationship between buyer CSR commitment and supplier CSR performance and on this basis it is strongly advised to buyers to commit to an active and consistent CSR policy to encourage supplier to follow their example.

Building on results on recent contracting literature, it was suggested that contracting capabilities influence the relationship between buyer CSR commitment and supplier CSR performance. In contradiction to the hypothesized positive effect of all contracting capabilities on the relationship between Buyer CSR commitment and Supplier CSR Performance, a more complex effect was detected. The moderating effect of both BCDC and BCSR CDC was found to

be negative, while the moderating effect of BCMC and BCSR CMC was found to be positive. However, this study has not reached a conclusion on the effect of contracting capabilities, as it was not possible to reach a model fit with a high confidence level matching the hypothesized effect of contracting capabilities on the relationship between Buyer CSR Commitment and Supplier CSR Performance. Further research on methods for measurement of contracting capabilities is therefore recommended, in order to support future data collection.

6   References

Aiken, L.S. & West, S.G. (1991). Multiple regression: testing and interpreting interactions. *Sage Publications*

Arendt, S., & Brettel, M. (2010). Understanding the influence of corporate social responsibility on corporate identity, image, and firm performance. *Management Decision*, *48*(10), 1469-1492.

Aguinis, H., & Glavas, A. (2012). What we know and don't know about corporate social responsibility a review and research agenda. *Journal of Management*, *38*(4), 932-968.

Argyres, N. & Mayer, K.J. (2007). Contract design as a firm capability: an integration of learning and transaction cost perspectives. *Academy of Management Review,32* (4), 1060-1077.

Baden, D. A., Harwood, I. A., & Woodward, D. G. (2009). The effect of buyer pressure on suppliers in SMEs to demonstrate CSR practices: an added incentive or counter productive?. *European Management Journal*, *27*(6), 429-441.

Blombäck, A., & Wigren, C. (2009). Challenging the importance of size as determinant for CSR activities. *Management of Environmental Quality: An International Journal*, *20*(3), 255-270.

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

Brennan, R., & Turnbull, P. W. (1999). Adaptive behavior in buyer–supplier relationships. *Industrial Marketing Management*, *28*(5), 481-495.

Brennan, D. R., Turnbull, P. W., & Wilson, D. T. (2003). Dyadic adaptation in business-to-business markets. *European Journal of Marketing*, *37*(11/12), 1636-1665.

Brown, T. L., & Potoski, M. (2003). Contract–management capacity in municipal and county governments. *Public Administration Review*, *63*(2), 153-164.

Buck,B., Espinach, L. & Söderberg, S. (2014). GRI G4 Guidelines and ISO6000:2010. *www.globalreporting.org.*

Burritt, R. L., Hahn, T., & Schaltegger, S. (2002). Towards a comprehensive framework for environmental management accounting - links between business actors and environmental management accounting tools. *Australian Accounting Review, 12*(2), 39-50.

Carlisle, Y. M., & Faulkner, D. O. (2004). Corporate social responsibility: a stages framework. *European Business Journal*, *16*(4), 143-151.

Carroll, A. B. (2000). A commentary and an overview of key questions on corporate social performance measurement. *Business & Society*, *39*(4), 466-478.

Carroll, A. B. (1991). The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders. *Business horizons*, *34*(4), 39-48.

Carter, C. R., & Jennings, M. M. (2002). Social responsibility and supply chain relationships. *Transportation Research Part E: Logistics and Transportation Review*, *38*(1), 37-52.

Crane, A., Palazzo, G., Spence, L. J., & Matten, D. (2014). Contesting the Value of the Shared Value Concept. *California Management Review*, *56*(2).

Crane, A. , McWilliams, A., Matten, D. Moon, J., Siegel. & D.S. (2008). The Oxford Handbook of Corporate Social Responsibilty, Oxford University Press

Dahlsrud, A. (2008). How corporate social responsibility is defined: an analysis of 37 definitions. *Corporate social responsibility and environmental management*, *15*(1), 1-13.

Diamantopoulos, A., & Siguaw, J. A. (2006). Formative versus reflective indicators in organizational measure development: a comparison and empirical illustration. *British Journal of Management*, *17*(4), 263-282.

Dul, J., & Hak, T. (2008). Case study methodology in business research. Routledge.

De Vocht,A. (2013). *Basishandboek SPSS 21.* Bijleveld Press.

Easterby-Smith, M., Thorpe, R., & Jackson, P. (2012). *Management research*. Sage Publications.

Egels-Zandén, N. (2007). Suppliers' compliance with MNCs' codes of conduct: Behind the scenes at Chinese toy suppliers. *Journal of Business Ethics*, *75*(1), 45-62.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they?. *Strategic management journal*, *21*(10-11), 1105-1121.

Elkington, J. (2010). The Triple Bottom line. In Visser, W., Matten, D., Pohl M. & Tolhurst, N. (2010). *The A-Z of Corporate Social Responsibility*. Wiley

Field, A. (2013). Discovering statistics using IBM SPSS statistics. Sage.

Furlotti, M. (2007). There is more to contracts than incompleteness: a review and assessment of empirical research on inter-firm contract design. *Journal of Management & Governance*, *11*(1), 61-99.

Gimenez, C. & Tachizawa E.M. (2012). Extending sustainability to suppliers: a systematic literature review , *Supply Chain Management Journal, 17*(5), 531–543

Graafland, J. J., Eijffinger, S. C., & SmidJohan, H. (2004). Benchmarking of corporate social responsibility: methodological problems and robustness. *Journal of business ethics, 53*(1-2), 137-152.

Haapio, H. (2008). Innovative contracting. *A Proactive Approach to Contracting and Law*, 105-152.

Hallen, L., Johanson, J., & Seyed-Mohamed, N. (1991). Interfirm adaptation in business relationships. *The Journal of Marketing*, 29-37.

Hayes, R. H., & Upton, D. M. (1998). Operations-Based Strategy. *California Management Review 40*(4), 8-25.

Hoejmose, S. U., & Adrien-Kirby, A. J. (2012). Socially and environmentally responsible procurement: A literature review and future research agenda of a managerial issue in the 21st century. *Journal of Purchasing and Supply Management*, *18*(4), 232-242.

Husted, B. W. (2003). Governance choices for corporate social responsibility: to contribute, collaborate or internalize?. *Long Range Planning*, *36*(5), 481-498.

Jiang, B. (2009). Implementing supplier codes of conduct in global supply chains: Process explanations from theoretic and empirical perspectives. *Journal of Business Ethics*, *85*(1), 77-92.

Jorgensen, A. L., & Knudsen, J. S. (2006). Sustainable competitiveness in global value chains: how do small Danish firms behave?. *Corporate Governance*, *6*(4), 449-462.

Krut, R., & Munis, K. (1998). Sustainable industrial development: benchmarking environmental policies and reports. Greener Management International, 87-98.

Lumineau, F., & Henderson, J. E. (2012). The influence of relational experience and contractual governance on the negotiation strategy in buyer–supplier disputes. *Journal of Operations Management*, *30*(5), 382-395.

Leire, C., & Mont, O. (2010). The implementation of socially responsible purchasing. *Corporate Social Responsibility and Environmental Management*, *17*(1), 27-39.

Lepoutre, J., & Heene, A. (2006). Investigating the impact of firm size on small business social responsibility: a critical review. *Journal of business ethics*, *67*(3), 257-273.

Leppelt, T., Foerst, K., Reuter & C., Hartmann E. (2013). Sustainability management beyond organizational boundaries - sustainable supplier relationship management in the chemical, Journal of Cleaner Production, Vol. 56, 94-102

Lockett, A., Moon, J., & Visser, W. (2006). Corporate Social Responsibility in Management Research: Focus, Nature, Salience and Sources of Influence. *Journal of management studies*, *43*(1), 115-136.

Maas, K. (2009). Corporate Social Performance From Output Measurement to Impact Measurement, ERIM Electronic Series Portal: http://hdl.handle.net/1765/1

Macneil, I. R. (1977). Contracts: adjustment of long-term economic relations under classical, neoclassical, and relational contract law. *Nw. UL Rev.*, *72*, 854.

Maignan, I., & Ferrell, O. C. (2000). Measuring corporate citizenship in two countries: The case of the United States and France. *Journal of Business Ethics*, *23*(3), 283-297.

Maon, F., Lindgreen, A., & Swaen, V. (2010). Organizational stages and cultural phases: a critical review and a consolidative model of corporate social responsibility development. *International Journal of Management Reviews*, *12*(1), 20-38.

Matten, D., & Moon, J. (2008). "Implicit" and "explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of management Review*, *33*(2), 404-424.

Mayer, K. J., & Argyres, N. S. (2004). Learning to contract: Evidence from the personal computer industry. *Organization Science*, *15*(4), 394-410.

Mayer, K. J., & Salomon, R. M. (2006). Capabilities, contractual hazards, and governance: Integrating resource-based and transaction cost perspectives. *Academy of Management Journal*, *49*(5), 942-959.

Mele, D. (2008) Corporate Responsibility Theories. In Crane, A. , McWilliams, A., Matten, D. Moon, J., Siegel. & D.S. (2008). The Oxford Handbook of Corporate Social Responsibilty, Oxford University Press

Millinton,A. (2008) Responsibility in the supply chain. In Crane, A. , McWilliams, A., Matten, D. Moon, J., Siegel. & D.S. (2008). The Oxford Handbook of Corporate Social Responsibilty, Oxford University Press

Möller, K., & Wilson, D. T.. (1995). *Business marketing: An interaction and network perspective*. Springer.

Nystén-Haarala, S., Lee, N., & Lehto, J. (2010). Flexibility in contract terms and contracting processes. *International Journal of Managing Projects in Business*, *3*(3), 462-478.

Okoli, C., & Pawlowski, S. D. (2004). The Delphi method as a research tool: an example, design considerations and applications. Information & Management, 42(1), 15-29.

Pedersen, E. R., & Andersen, M. (2006). Safeguarding corporate social responsibility (CSR) in global supply chains: how codes of conduct are managed in buyer-supplier relationships. *Journal of Public Affairs*, *6*(3-4), 228-240.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard business review*, *89* (1/2), 62-77.

Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, *11*.

Robson, A., & Mitchell, E. (2007). CSR performance: driven by TQM implementation, size, sector?. *International Journal of Quality & Reliability Management*, *24*(7), 722-737.

Rossiter, J. R. (2011). Marketing measurement revolution: the C-OAR-SE method and why it must replace psychometrics. *European Journal of Marketing*, *45*(11/12), 1561-1588.

Schepker, D. J., Oh, W. Y., Martynov, A., & Poppo, L. (2014). The Many Futures of Contracts Moving Beyond Structure and Safeguarding to Coordination and Adaptation. *Journal of Management*, *40*(1), 193-225.

Sardinha, I. D., Reijnders, L., & Antunes, P. (2011). Using corporate social responsibility benchmarking framework to identify and assess corporate social responsibility trends of real estate companies owning and developing shopping centres. *Journal of Cleaner Production*, *19*(13), 1486-1493.

Schmidt, S. O., Tyler, K., & Brennan, R. (2007). Adaptation in inter-firm relationships: classification, motivation, calculation. *Journal of Services Marketing*, *21*(7), 530-537.

Schwartz, M. S., & Carroll, A. B. (2003). Corporate social responsibility: a three-domain approach. *Business Ethics Quarterly*, 503-530.

Sebastian, A. & Malte Brettel (2010) Understanding the influence of corporate social responsibility on corporate identity, image, and firm performance. *Management Decision, 48* (10), 1469 – 1492

Siedel, G. J., & Haapio, H. (2010). Using proactive law for competitive advantage. *American Business Law Journal*, *47*(4), 641-686.

Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, *14*(2), 287-305.

Spring, M. & Araujo, L., (2014). Indirect capabilities and complex performance, *International Journal of Operations & Production Management*,34 (2), 150 – 173

Spring, M., & Araujo, L. (2009). Service, services and products: rethinking operations strategy. *International Journal of Operations & Production Management*, *29*(5), 444-467.

Turker, D. (2009). Measuring corporate social responsibility: A scale development study. *Journal of business ethics*, *85*(4), 411-427.

Türksever, H. & Wynstra, F. (2013). Classifying Contracting Capabilities: A literature review, IPSERA Conferance 2013, Competative paper

Trent, R. J., & Monczka, R. M. (1998). Purchasing and supply management: trends and changes throughout the 1990s. *International Journal of Purchasing and Materials Management*, *34*(3), 2-11.

Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: between agency and communion. *Journal of business ethics*, *44*(2-3), 95-105.

Van Weele, A. J. (2005). *Purchasing & supply chain management: analysis, strategy, planning and practice*. Thomson

Visser, W. (2011). *The Age of Responsibility CSR 2.0 and the new DNA of Business*. Wiley

Waddock, S. A., Bodwell, C., & Graves, S. B. (2002). Responsibility: The new business imperative. *The Academy of Management Executive, 16*(2), 132-148.

Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American journal of sociology, 87* (3), 548-577.

Winter, S.G. (2003). Understanding Dynamic Capabilities, *Strategy Management Journal, 24*. 991-995

Wood, D. (2010).Corporate Social Performance. In Visser, W., Matten, D., Pohl M. & Tolhurst, N. (2010). *The A-Z of Corporate Social Responsibility*. Wiley

Yang, K., Hsieh, J. Y., & Li, T. S. (2009). Contracting capacity and perceived contracting performance: Nonlinear effects and the role of time. *Public Administration Review*, *69*(4), 681-696.

Ziggers, G. W., & Henseler, J. (2009). Inter-firm network capability: how it affects buyer-supplier performance. *British Food Journal*, *111*(8), 794-810.
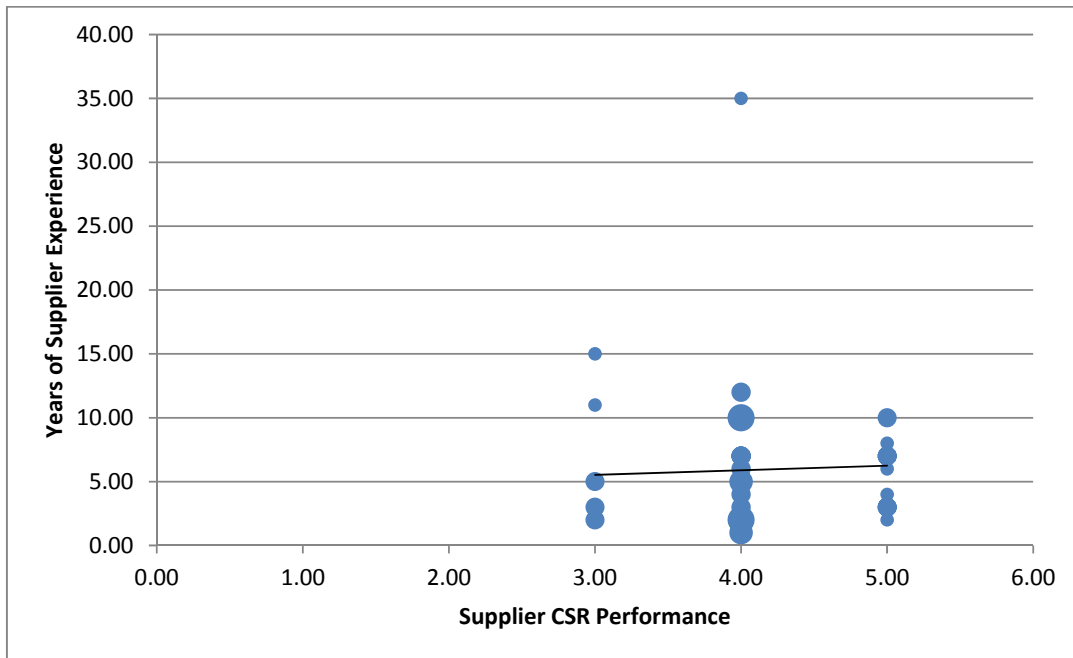
Figure A.1 Distribution of scores for Supplier CSR performance vs Supplier CSR Expierence (in years)
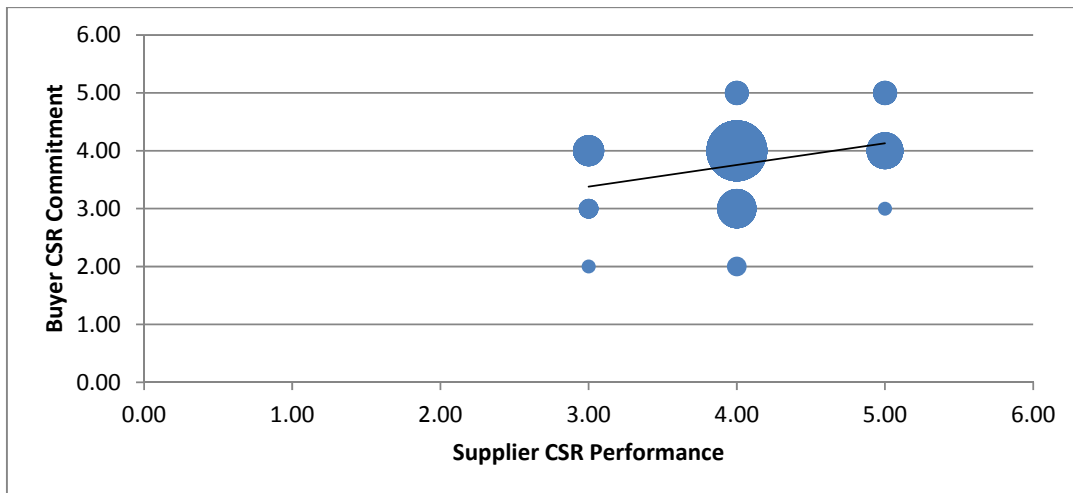

Figure A.2 Distribution of scores Supplier CSR performance vs Buyer CSR Commitment
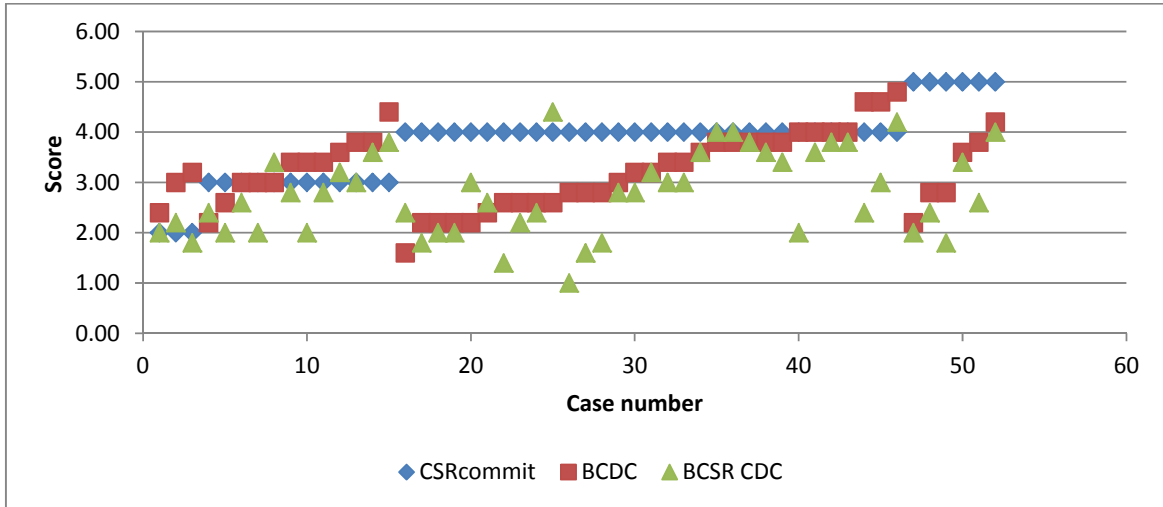
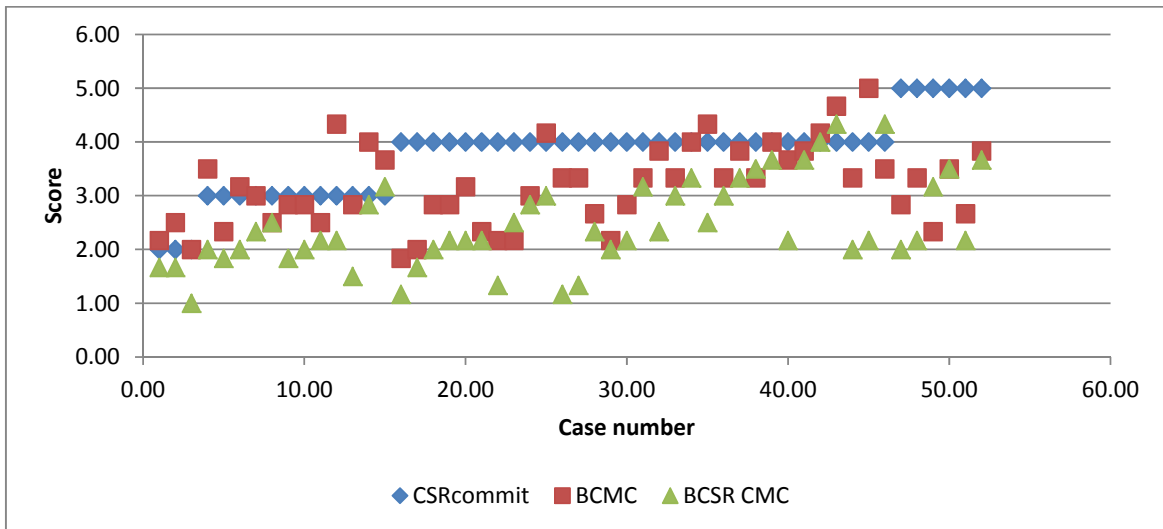Figure A.3 Distribution of scores per case for Buyer CSR commitment, BCDC and BCSR CDC

Figure A.4 Distribution of scores per case for Buyer CSR commitment, BCMC and BCSR CMC

Figure A.5 Distribution of scores for Supplier CSR performance vs Buyer Contract Design Capabilities

Figure A.6 Distribution of scores for Supplier CSR performance vs Buyer Contract Management Capabilities
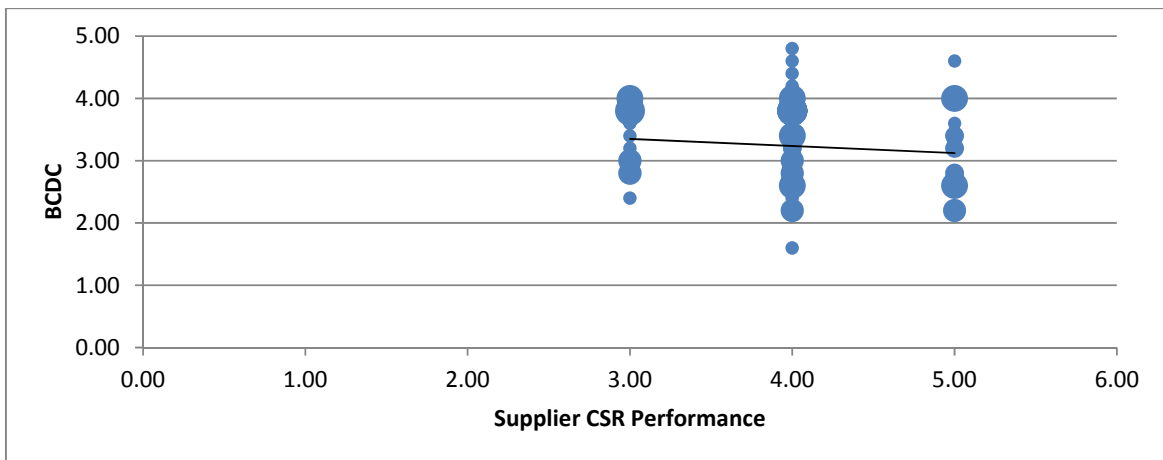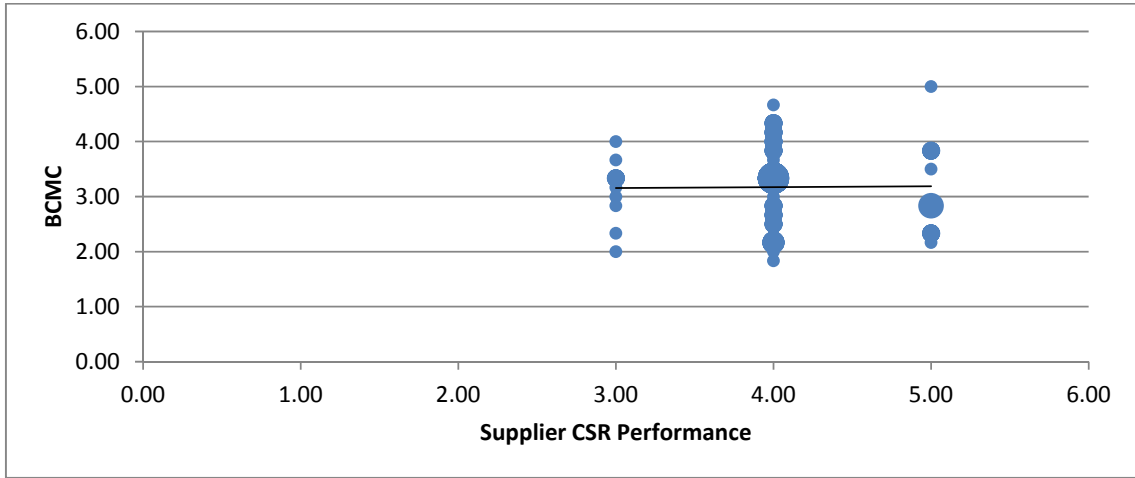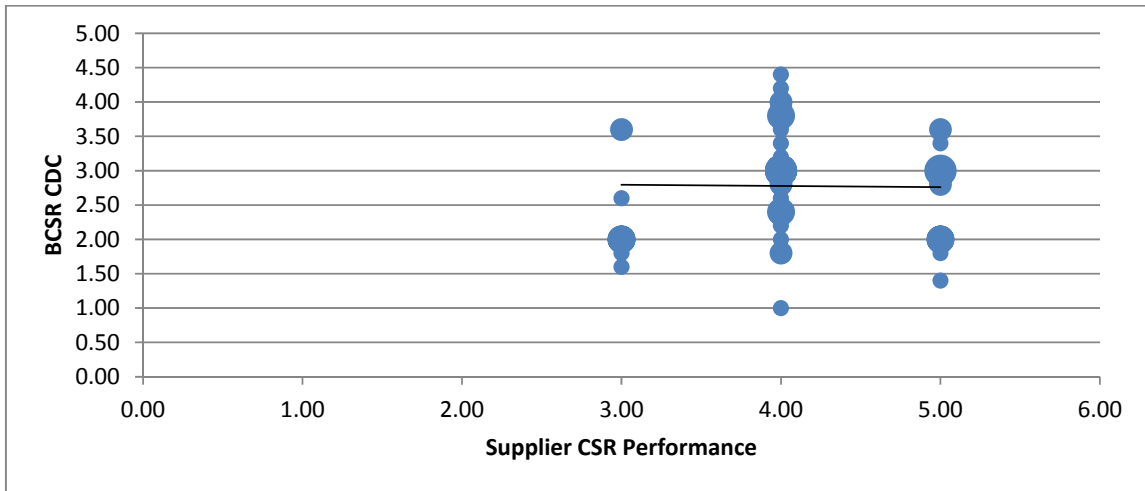

Figure A.7 Distribution of scores for Supplier CSR performance vs Buyer CSR Contract Design Capabilities
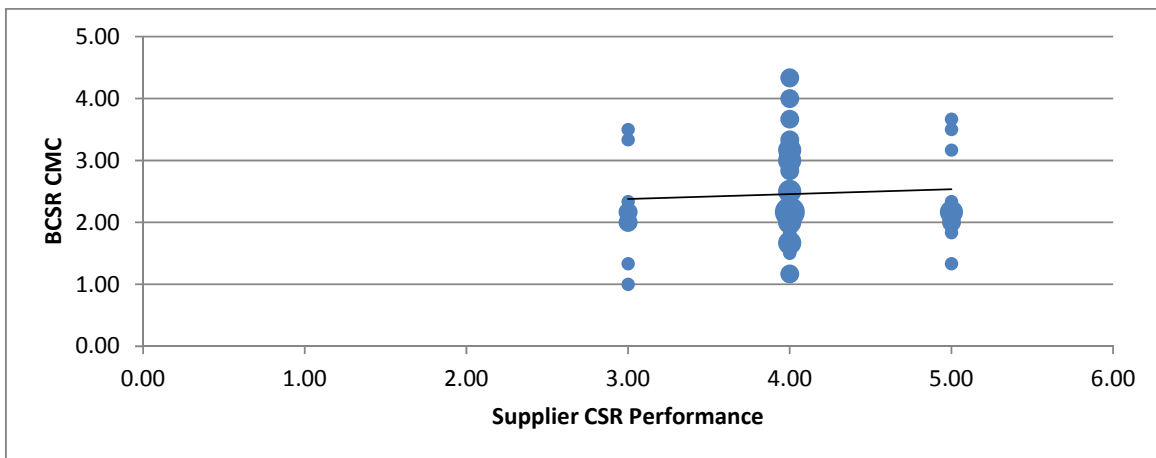
Figure A.8 Distribution of scores for Supplier CSR performance vs Buyer CSR Contract Management Capabilities
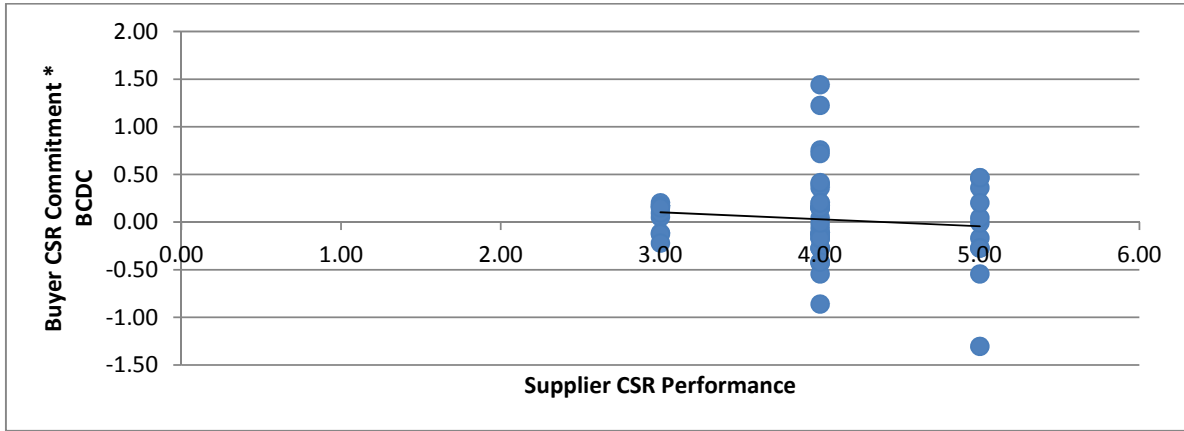
Figure A.9 Buyer Supplier CSR performance vs Buyer CSR Commitment* Buyer Contract Design Capabilities (Centered)
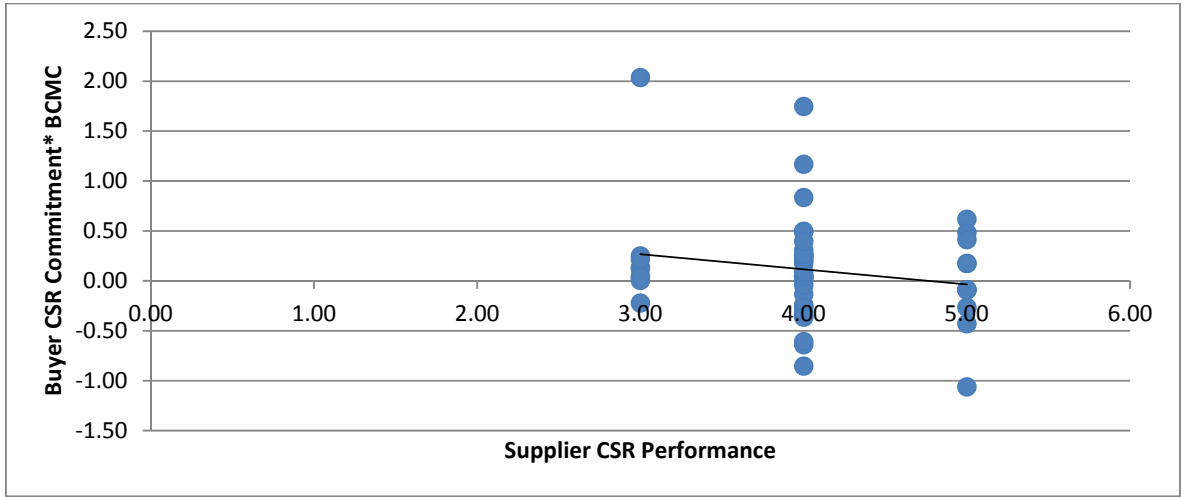
Figure A.10 Supplier CSR performance vs Buyer CSR Commitment* Buyer Contract Management Capabilities (Centered)

Figure A.11 Distribution of scores for Supplier CSR performance vs Buyer CSR Commitment* Buyer CSR Contract Design Capabilities (Centered)

Figure A.12 Distribution of scores for Supplier CSR performance vs Buyer CSR Commitment* Buyer CSR Contract Management Capabilities (Centered)
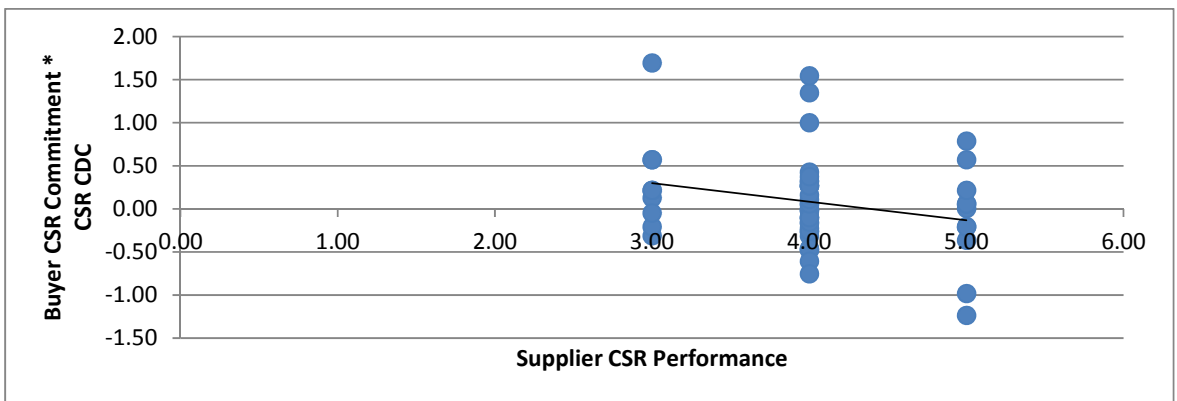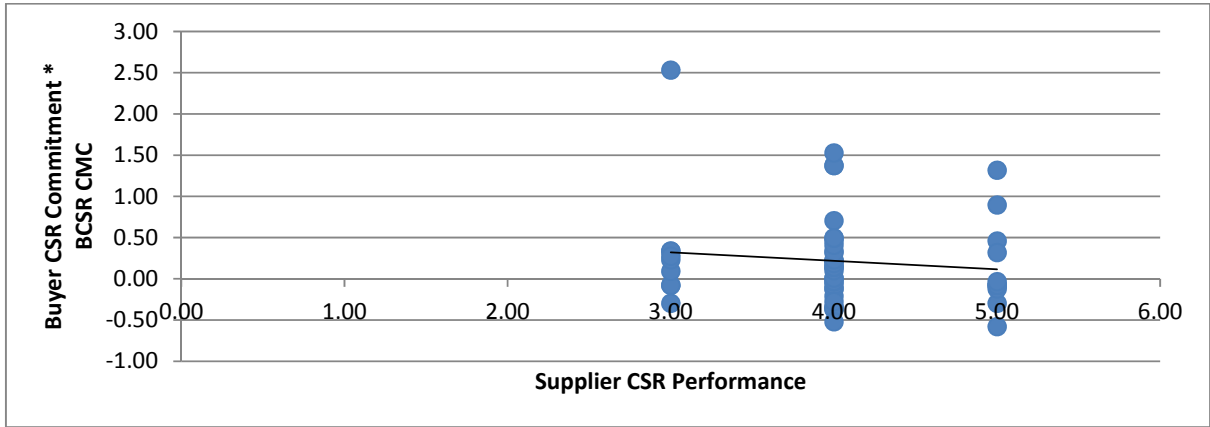
APPENDIX B EXAMPLE BENCHMARKING CSR PERFORMANCE

Name Company: **Anonymous — Sector:** Office Services			
Review balance & completeness: Company practices are focused on environment, health and safety. Company also complies to a large number of product labels relating compliance on consumer health issues. We encourage Company to develop and disclose practices on promoting social responsibility in the supply chain and labour practice.			
BP's Porter		**Completeness (Expert Judgment)**	
Classification	**# BP's (incl. type)**	**Classification**	**Explanation (B&C Comment)**
Philanthropic	0 BP	NA	
Responsible	1 BP 2 certificates 5 product labels 12 TPA	Limited Moderate High	People en supply chain missing (parts from all over the world)
Shared Value	0 BP	NA	
Result	**Moderate responsible**		

Name Company: **Anonymous — 2 — Sector: Office Supplies**			
Review balance & completeness: Company is challenged delivering a large variety of products form many parts of the world and from many suppliers. Company has practices in place for the majority of their material issues. We encourage Company to scale their efforts on sustainable consumption and include social issues within their 'sustainabilty' program. We also encourage to grow their supplier auditing program (see also supplier audits)			
BP's Porter		**Completeness (Expert Judgment)**	
Classification	**# BP's (incl. type)**	**Classification**	**Explanation (B&C Comment)**
Philanthropic	0 BP	NA	
Responsible	2 BP 3 certificates 1 product label 3 TPA	Limited Moderate **High**	
Shared Value	0 BP	NA	
Result	**High responsible**		

APPENDIX C MULTIPLE REGRESSION OUTPUT CONCEPTUAL MODEL 1

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.042[a]	.002	-.018	.631	.002	.088	1	50	.768	
2	.320[b]	.103	.066	.604	.101	5.508	1	49	.023	
3	.324[c]	.105	.029	.616	.002	.063	2	47	.939	2.234

a. Predictors: (Constant), CSRexp

b. Predictors: (Constant), CSRexp, CSRCommit_CT

c. Predictors: (Constant), CSRexp, CSRCommit_CT, Interaction_CDC, Interaction_CMC

d. Dependent Variable: CSRperf

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.035	1	.035	.088	.768[b]
	Residual	19.888	50	.398		
	Total	19.923	51			
2	Regression	2.045	2	1.022	2.802	.070[c]
	Residual	17.878	49	.365		
	Total	19.923	51			
3	Regression	2.093	4	.523	1.379	.256[d]
	Residual	17.830	47	.379		
	Total	19.923	51			

a. Dependent Variable: CSRperf

b. Predictors: (Constant), CSRexp

c. Predictors: (Constant), CSRexp, CSRCommit_CT

d. Predictors: (Constant), CSRexp, CSRCommit_CT, Interaction_CDC, Interaction_CMC

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	4.010	.131		30.694	.000	3.747	4.272		
	CSRexp	.005	.016	.042	.297	.768	-.028	.038	1.000	1.000
2	(Constant)	4.032	.125		32.134	.000	3.780	4.284		
	CSRexp	.000	.016	-.004	-.031	.975	-.032	.031	.979	1.021
	CSRCommit_CT	.275	.117	.321	2.347	.023	.039	.510	.979	1.021
3	(Constant)	4.035	.131		30.800	.000	3.772	4.299		
	CSRexp	-.001	.016	-.006	-.044	.965	-.033	.032	.977	1.024
	CSRCommit_CT	.268	.137	.313	1.952	.057	-.008	.544	.739	1.353
	Interaction_CDC	-.070	.230	-.050	-.306	.761	-.533	.392	.701	1.427
	Interaction_CMC	.002	.220	.002	.008	.993	-.441	.445	.547	1.827

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSRexp	CSRCommit_CT	Interaction_CDC	Interaction_CMC
1	1	1.743	1.000	.13	.13			
	2	.257	2.603	.87	.87			
2	1	1.763	1.000	.12	.12	.01		
	2	.984	1.338	.01	.00	.96		
	3	.252	2.643	.87	.88	.03		
3	1	1.890	1.000	.05	.04	.03	.07	.09
	2	1.703	1.054	.06	.08	.09	.05	.04
	3	.818	1.520	.01	.00	.47	.40	.00
	4	.345	2.340	.00	.07	.41	.47	.78
	5	.244	2.783	.87	.80	.00	.02	.09

a. Dependent Variable: CSRperf

APPENDIX D MULTIPLE REGRESSION OUTPUT CONCEPTUAL MODEL 2

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.042[a]	.002	-.018	.631	.002	.088	1	50	.768	
2	.320[b]	.103	.066	.604	.101	5.508	1	49	.023	
3	.381[c]	.145	.073	.602	.043	1.172	2	47	.319	2.153

a. Predictors: (Constant), CSRexp

b. Predictors: (Constant), CSRexp, CSRCommit_CT

c. Predictors: (Constant), CSRexp, CSRCommit_CT, Interaction_CSR_CMC, Interaction_CSR_CDC

d. Dependent Variable: CSRperf

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.035	1	.035	.088	.768[b]
	Residual	19.888	50	.398		
	Total	19.923	51			
2	Regression	2.045	2	1.022	2.802	.070[c]
	Residual	17.878	49	.365		
	Total	19.923	51			
3	Regression	2.894	4	.724	1.997	.110[d]
	Residual	17.029	47	.362		
	Total	19.923	51			

a. Dependent Variable: CSRperf

b. Predictors: (Constant), CSRexp

c. Predictors: (Constant), CSRexp, CSRCommit_CT

d. Predictors: (Constant), CSRexp, CSRCommit_CT, Interaction_CSR_CMC, Interaction_CSR_CDC

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	4.010	.131		30.694	.000	3.747	4.272		
	CSRexp	.005	.016	.042	.297	.768	-.028	.038	1.000	1.000
2	(Constant)	4.032	.125		32.134	.000	3.780	4.284		
	CSRexp	.000	.016	-.004	-.031	.975	-.032	.031	.979	1.021
	CSRCommit_CT	.275	.117	.321	2.347	.023	.039	.510	.979	1.021
3	(Constant)	3.994	.132		30.167	.000	3.728	4.261		
	CSRexp	.001	.016	.010	.073	.942	-.031	.033	.975	1.026
	CSRCommit_CT	.247	.127	.288	1.946	.058	-.008	.502	.828	1.208
	Interaction_CSR_CDC	-.372	.243	-.325	-1.530	.133	-.860	.117	.403	2.481
	Interaction_CSR_CMC	.266	.232	.244	1.148	.257	-.200	.733	.404	2.475

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSRexp	CSRCommit_CT	Interaction_CSR_CDC	Interaction_CSR_CMC
1	1	1.743	1.000	.13	.13			
	2	.257	2.603	.87	.87			
2	1	1.763	1.000	.12	.12	.01		
	2	.984	1.338	.01	.00	.96		
	3	.252	2.643	.87	.88	.03		
3	1	2.231	1.000	.04	.03	.02	.05	.05
	2	1.620	1.173	.06	.09	.12	.03	.01
	3	.678	1.813	.03	.02	.84	.09	.04
	4	.281	2.815	.39	.61	.01	.24	.20
	5	.189	3.433	.49	.26	.00	.59	.69

a. Dependent Variable: CSRperf