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Shareholder Reaction to Socially Responsible and Irresponsible Firm Behavior: An Event Study Approach

The Impact of News Concerning Employee and Community
Related CSR Events on Stock Returns

Abstract

This paper investigates the impact on stock returns from positive and negative corporate social responsibility (CSR) events communicated via the Wall Street Journal. We derive a conceptual framework for the definition of CSR that enables us to identify relevant events. An event study is conducted on 128 company-specific events occurring in the time between 2010-2012. Based on the resource-based view, the good management theory and the CSR as an insurance view, we suggest a positive relationship between CSR and stock returns. In line with this we draw on the resource-based view, good management theory and CSR as an insurance view to derive and test hypotheses about the potential impact of CSR events. We find that positive events result in significantly positive mean cumulative abnormal returns. Negative events, on the other hand, do not result in significant mean cumulative abnormal returns. Furthermore, the theory that high CSR performance has an insurance-like effect when negative events occur could not be supported. We draw the conclusion that shareholders reward companies for positive CSR activities. It could not be inferred whether companies are punished for their misdeeds.

Keywords	Corporate Social Responsibility, CSR, Event Study, Resource-based View, Good Management Theory, Insurance
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1 INTRODUCTION

Although a concern for corporate social responsibility (CSR) can be traced back to the early 1900s, it is not until quite recently that the phenomenon has gained a more wide-spread acceptance (Carroll, 1999). In fact, the concept of CSR was “derided as a joke [...] and a contradiction in terms by the investment and business community” as late as the mid-1970s (Lee, 2007, p. 53; Lydenberg, 2005). This has since changed radically, and from the late 1990s CSR activities have become not only legitimate but also highly popular: today, ninety-five percent of the 250 largest companies in the world report on their corporate responsibility activities (KPMG International Cooperative, 2011).

Various reasons for socially responsible behavior have been identified in previous literature. First, managers can value such behavior in its own right, for example as a way to enhance their personal satisfaction. Second, stakeholders such as customers, community groups or regulators might put pressure on the company to behave in a responsible manner. Third, managers can believe that these activities enhance the financial performance of the firm (Campbell, 2007).

In academics the focus has shifted from a macro-social and ethics-oriented view towards a performance-oriented view (Lee, 2007). An explicit emphasis has been laid on attempting to identify whether a “business case” for CSR exists; i.e. a positive relationship between CSR activities and financial performance (Choi et al., 2010). Accordingly there is a large body of recent research investigating the relationship between CSR and financial performance. In this context it has mainly been analyzed whether CSR generates financial benefits in terms of increased profitability (cf. Orlitzky et al., 2003; Margolis et al., 2007).

Less extensive focus has been laid on the effects that CSR has on the stock returns of a company when information about negative or positive CSR related events is released. Previous research in this particular field is mainly concerned with the impact of events related to a specific area of CSR on stock returns (cf. Flammer, 2012; Edmans, 2011; Ahmed et al., 2010; Wright et al., 1995; Meznar et al., 1994; Clinebell and Clinebell, 1994; Davidson and Worrell, 1992; Davidson and Worrell, 1988). Flammer (2012), for example focuses on environmental events only. Edmans (2011) and Ahmed (2010) analyze the financial effect of companies being listed as one of the best companies to work for. Yet others investigate the impact of product recalls (Davidson and Worrell, 1992) or discrimination (Wright et al., 1995) on market based financial performance measures.

With this study we aim to contribute to this field of literature by answering the following research questions:

- (1) Do CSR related events have an impact on the stock returns of a company and if so, what is the nature and direction of this impact?*
- (2) Does perceived CSR performance influence this impact of CSR related events on the stock returns of a company?*

To contribute to existing literature we focus on the impact on financial performance from purely socially responsible behavior only. For our analysis we restrict financial performance

to market-based measures. A range of subcategories related to social engagements is taken into account in this study and we furthermore analyze both negative and positive events. In this process we derive a conceptual framework for the definition of CSR that incorporates various dimensions that are relevant for the course of our study. Based on this definition of CSR, events were gathered by searching Wall Street Journal for relevant articles on news related to CSR. Based on these events we perform an event study and test whether the observed abnormal returns differ significantly from zero. In accordance with the hypothesis that CSR provides the company with intangible resources we find that positive events have a significant positive impact on CSR. We furthermore analyze whether negative events resulted in negative abnormal returns and whether this negative effect can be offset by a previously high CSR performance. No connection between negative events and negative abnormal returns was identified in our analysis. Hence, the market seems to value positive engagement in CSR, but it could not be inferred whether companies are punished for their misdeeds.

The remainder of this paper is structured as follows. In section 2 we will describe the theoretical context of CSR. In this section we will provide a framework for the definition of CSR. This framework will be used to analyze previous literature and derive our hypothesis about the impact of CSR on stock market performance. In section 3 we will elaborate on our methodology and the process of gathering events. In addition potential limitations with respect to our choice of method and the data collection process are discussed. We will present the results of our study in section 4 and discuss them in relation to the theoretical context in section 5. The paper concludes with a summary of the results and outlook for further research.

2 THEORETICAL CONTEXT

2.1 Definition of Corporate Social Responsibility

Several studies offer an overview of the historical development of the CSR concept (cf. Carroll, 1999; Lee, 2007; Moura-Leite and Padgett, 2011). Bowen (1953) provided one of the first definitions of corporate responsibility as “the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (Bowen, 1953, p. 6 as cited in Carroll, 1999). Since then, a broad variety of definitions has been developed; partly overlapping and partly extending each other. Accordingly, reaching one commonly accepted definition has turned out to be difficult (cf. Carroll, 1999). It is beyond the scope of this study to review all existing definitions of CSR in previous literature. For an overview of recent definitions we refer to Dahlsrud (2008). Rather, this section is concerned with the development of a definition of CSR that can be used for our study.

The abundance of definitions could potentially lead to significant problems. Different understandings of CSR might be biased towards particular organizational interests, which can in turn result in the prevention of productive engagements (Dahlsrud, 2008). Moreover, in a research context the lack of one commonly accepted definition impairs the comparability of studies in this field. On the other hand, the usefulness of one single accepted definition can

also be questioned since it would have to be very broad. As such it would likely be too vague to be useful in theory and practice (Marrewijk, 2003).

One reason why CSR is so difficult to define in a straightforward way is the variety of dimensions it encompasses. In his review of 37 different CSR definitions, Dahlsrud (2008) observes that definitions mainly refer to five aspects, namely stakeholder orientation, voluntariness as well as social, economic and environmental responsibilities. However, he offers no comprehensive definition as a result of this analysis. The only conclusion drawn is that the lack of one universally accepted definition seems to be less problematic than it seemed at first, as most definitions do in fact touch upon the same aspects. These aspects, however, refer to different dimensions. For instance, social, economic and environmental responsibilities refer to the categories of undertaken CSR activities. Voluntariness on the other hand indicates on which level CSR activities are carried out, while stakeholder responsibility refers to the target group of CSR activities.

Carroll (1979) tries to capture the different dimensions of CSR activities with a three-dimensional conceptual framework (see Appendix 1). It takes into account (1) the level on which CSR is carried out, (2) the degree of management (pro)activity (social responsiveness) and (3) the categories of CSR. We use the basic outline of this framework, but slightly adapt it to better suit our purposes. In modifying Carroll's (1979) framework by more recent approaches and findings we arrive at a definition of CSR that encompasses a spectrum of dimensions we deem relevant for our analysis. Our adapted framework is shown in Figure 1 and will be elaborated on below.

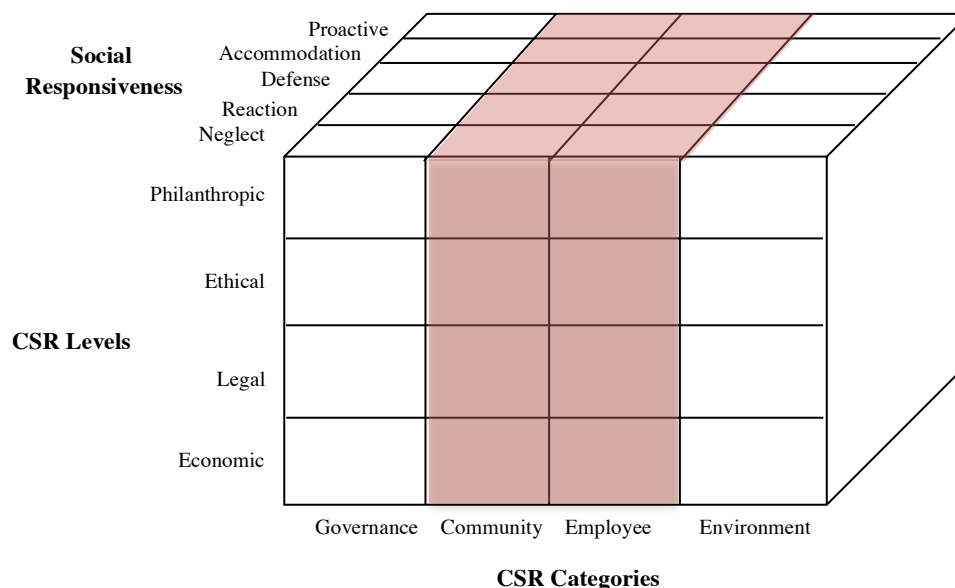


Figure 1 - the three-dimensional CSR conceptual framework (adapted from Carroll (1979))

Regarding the CSR levels, we rely on the *CSR pyramid* framework by Carroll (1999) as seen in Appendix 2. It encompasses four levels that define the extent to which a company acts in a responsible manner. These consist of (1) economic, (2) legal, (3) ethical and (4) philanthropic (discretionary) responsibilities. The idea behind the CSR pyramid is that no company can be regarded as socially responsible if it does not fulfill the basic criteria of being profitable and following the legal requirements. Nevertheless, to be considered socially responsible, a

company also has to behave in a way that is ethically justifiable. As the “icing on the cake”, it should engage in philanthropic activities and make an active contribution to the wider society.

The degree of social responsiveness was slightly modified compared to Carroll’s (1979) framework. One limitation in the original model is that it only takes into account the extent to which companies act responsibly in a proactive and positive manner. Campbell (2007) argues that a “minimum behavioral standard” approach instead should be taken when defining CSR, which explicitly includes the issue of doing harm. He determines that corporations are acting in a socially responsible manner if they fulfill two very basic criteria. First, corporations may not do anything that knowingly harms their stakeholders, including the local community in which they operate. Second, in case corporations cause harm they must remedy these actions whenever they are brought to their attention. Hence, it is enough for corporations to engage in “damage control” as opposed to taking active initiatives to improve their external surroundings.

The approach taken by Campbell (2007) corresponds to what earlier literature refers to as corporate social responsiveness. It has previously been argued that the term social responsiveness is preferred over social responsibility. Ackermann and Bauer (1976), for example, claim that focusing on responsibility rather than responsiveness limits the scope to obligations and accountabilities of the firm. Carroll (1979), however, asserts that instead of using corporate social responsiveness as an alternative to corporate social responsibility it should be seen as the action phase of management. This view will be adopted in our study. Since we are analyzing the effect of CSR related events, the concrete actions taken by management/ corporations are of greater interest than their moral obligations. Hence we regard social responsiveness as one inevitable dimension of a holistic CSR framework.

In our study we analyze both positive actions taken by companies and negative incidents. Krüger (2010) reasons that negative and positive events differ profoundly in character. Positive events are actions that are deliberately taken by the company and can also be referred to as initiatives aimed at benefitting stakeholders. Carroll (1979, 1999) accounted for such events in his framework. Negative events on the other hand are often not intended incidents, which might take place due to lack of managerial care. We, therefore, extend the social responsiveness dimension by management actions that are not socially responsible.

Finally, the categories of CSR must be included in a thorough conception of CSR. The original focus of CSR was concerned with purely social issues (Flammer, 2012). In this context it is, however, necessary to define exactly what issues are regarded to be social. Carroll (1979), for example, includes environmental issues within the social areas that CSR should be concerned with. Others argue that environmental issues should be a separate category. In his analysis of CSR definitions Dahlsrud (2008) regards environmental issues as a separate category besides purely social issues. He thereby acknowledges the fact that today CSR is explicitly understood to go beyond the inclusion of social aspects. Especially when it comes to rankings and evaluations about the quality of CSR, ranking organizations tend to define distinct categories for a more thorough assessment. There are various approaches for confining CSR activities and, hence, the number of identified categories and appending subcategories varies (see for instance categories used in studies by Bird et al., 2007; Roberts, 1992; Ioannou and Serafeim, 2010b).

Ranking organizations provide a common denominator between the different categories. Companies are frequently ranked according to environmental, social and corporate governance issues. For the purpose of our study we will refer to the categories used by the ranking organization CSRHub. The organization gathers CSR performance indicators from over 200 data sources, such as socially responsible investing research firms, indexes, publications, NGOs, and government agencies. The information is aggregated into one comprehensive rating on a scale from 1 to 100 (CSRHub, 2013). Companies are ranked within four categories; (1) environment, (2) community, (3) employee and (4) governance. This very basic categorization can be further divided into subcategories (see Section 3.4).

In the process of identifying a definition of CSR that suits our study, all of these above-mentioned dimensions have to be accounted for. With the risk of being too general, we take the approach of Carroll's (1979) three-dimensional framework, and modify it to better suit our purposes, as depicted in Figure 1. On the horizontal axis, we present the categories from CSRHub. The vertical axis describes the different levels according to the CSR pyramid. The third axis shows the continuum of social responsiveness (managerial actions). It takes into account the full scale from a proactive approach (management initiatives) to no response (management neglect).

We will touch upon this framework explicitly as well as implicitly as we proceed with our study. It is used explicitly in section 2.2 when we describe and compare previous research according to the dimensions of the framework. For the development of our hypothesis in section 2.3 we use it implicitly when elaborating upon possible impacts that CSR events can have on stock returns.

2.2 Previous Research

2.2.1 Theoretical Motivation

Even though there is a clear moral justification for engaging in CSR activities, it often involves companies spending resources on activities that are unrelated to their core business. This has provoked lively debate about whether companies should engage in CSR activities at all and, if so, why. One school of researchers reasons that firms should engage in CSR activities in order to benefit a broad range of stakeholders (Freeman, 1984). Another school of researchers argues that firms should not engage in CSR activities, since it has a negative effect on the company's financial performance (cf. Friedman, 1962; Bird et al., 2007). Essentially, the question of whether and how a company could justify its engagement in CSR activities is captured in the traditional controversy between the stakeholder approach versus the shareholder approach.

The stakeholder approach recognizes that there is a broad range of different stakeholders who have an interest in the firm and should benefit from its actions (Orlitzky et al., 2003). Advocates of stakeholder theory maintain that it lies within the firm's responsibility to simultaneously account for the interests of all stakeholders (cf. Bird et al., 2007; Jensen, 2001). Under this view, engaging in CSR activities can be justified both because it is morally right and because it benefits the various stakeholders of the firm. The impact on shareholder value is however not of primary interest. Branco and Rodrigues (2006) refer to this as the normative case.

Jensen (2001) criticizes the stakeholder approach, claiming that it is not feasible to simultaneously account for all the interests of multiple stakeholders. Serving a heterogeneous set of stakeholders' interests will eventually involve tradeoffs and there is no specification on how these tradeoffs are to be resolved. Stakeholder theory as such is thus incomplete and needs to be developed in order to become a useful analysis tool. He instead provides the enlightened stakeholder theory, combining shareholder theory with stakeholder theory (Jensen 2001, Bird et al.). According to this theory, the various stakeholders' interests should be accounted for, but subordinate to shareholders' overarching aim of value maximization.

In accordance with shareholder theory, as promoted by Friedman (1962), corporate social responsibility does not belong to management's tasks. His approach regards the corporation as an instrument owned by the shareholders. They see the company's only responsibility as increasing firm value within the legal boundaries. In this context it has to be acknowledged that "doing good" can be part of some shareholders' preferences. However, since a company can never satisfy all preferences of a diverse set of shareholders it would, in Friedman's view, be suboptimal for companies to engage in these kinds of activities. The notion that companies should focus on value maximization thus refers strictly to financial performance (in the sense of expected future cash flows). It is moreover argued that potential financial benefits of CSR activities will not outweigh the costs. It is therefore highly likely that CSR activities will result in a cash flow waste and not have a positive impact on bottom line (Becchetti and Ciciretti, 2009). Accordingly, if a company acts in a socially responsible way, it will violate the agreement vis-à-vis its shareholders. This would even be regarded as expropriation of shareholder wealth (Bird et al., 2007). The original paradigm of shareholder value thus predicts a negative relationship between CSR and stock market reactions.

These views stand in sharp contrast to each other. On the one hand investing in CSR benefits stakeholders and is morally desirable. On the other hand it destroys shareholder value. It is clear that both under (enlightened) stakeholder and shareholder approach, the shareholders are the superior stakeholder of interest and that maximizing shareholder value is the overarching objective of the firm. In order to resolve the issue of whether to engage in CSR activities or not the key question is thus whether CSR in fact has a positive impact on financial performance as previously asserted or if evidence can be found to the contrary. In the following section we present some empirical findings on this potentially positive link between CSR and financial performance.

2.2.2 Empirical Observations

The link between corporate social responsibility and financial performance is of interest as it provides insight into how CSR activities are valued. As proposed by the previous discussion, various links between CSR and financial performance are conceivable and have been supported by previous literature (cf. Bird et al., 2007).

- (1) Friedman (1962) suggests that CSR engagements will have a negative impact on financial performance, because the benefits do not outweigh the costs.
- (2) Others argue that no systematic relationship between CSR and financial performance can be found, because the benefits are too small or unobservable (Aupperle et al., 1985).

- (3) Finally some scholars promote that a positive relationship between CSR activities and financial performance exists, because benefits outweigh costs of engaging in CSR activities (cf. Flammer, 2012; Ahmed et al., 2010; Margolis et al., 2007; Orlitzky et al., 2003; Gunthorpe, 1997; Hamilton, 1995; Alexander and Buchholz, 1978; Moskowitz, 1972).

The relationship between CSR and financial performance is highly disputed. As a result fairly extensive literature exists on the topic and empirical and theoretical results are largely fragmented. On several occasions conflicting results have been obtained even using the same dataset (see for example Griffin and Mahon, 1997 vs. Roman et al., 1999 or Hamilton, 1995 vs. Cram and Koehler, 2000). However, in a meta-analysis Orlitzky et al. (2003) argue that the empirical evidence of the relationship between CSR and financial performance¹ is not as fragmented as previously asserted. They conduct a meta-analysis of 52 previous studies on the corporate social responsibility and financial performance relationship. The authors conclude that there are indeed generalizable results indicating that corporate social responsibility pays off financially.

Previous literature, furthermore, suggests that the way the market reacts to news revealed about CSR has changed over time (cf. Flammer, 2012; Ioannou and Serafeim, 2010a; Margolis et al., 2007; Bird et al., 2007). Flammer (2012) finds that the negative impact from negative events has increased over time. The positive impact from positive events, on the other hand, has decreased over time. This time trend is also identified by Ioannou and Serafeim (2010a). They note that socially responsible firms receive more favorable recommendations from equity analysts in recent years compared to earlier years. While Ioannou and Serafeim (2010a) merely assert that their finding documents a change in analysts' perception of value of CSR strategies, Flammer (2012) puts it into a wider theoretical context. She suggests that institutional pressure has become stronger due to a higher awareness for these issues from stakeholders, and broader distribution of news, which significantly increases the potential reach of any event.

The operationalization of both CSR and financial performance may substantially impact the results and moderate the positive association (Orlitzky et al., 2003). In general it can be observed that previous studies differ according to various characteristics of CSR as well as according to the operationalization of financial performance. The characteristics of CSR can be traced back to the dimensions identified in our conceptual CSR framework. In the following previous literature will be analyzed according to this framework.

One dimension is the number and type of categories of CSR that are included. Studies about CSR often refer to a distinct category of CSR or differences between the (sub-)categories. Bird et al. (2007), for instance, find that the market value of CSR activities varies depending on the specific activity. CSR engagement in the diversity subcategory is, for example, rewarded by the market, while community efforts could potentially be punished by the market. Such differences among subcategories are also reported by Margolis et al. (2007). In

¹ Instead of using the terms corporate social responsibility and financial performance the authors refer to corporate social performance (CSP) and corporate financial performance (CFP) (Orlitzky et al., 2003). It is evident from their study that the only difference lays in the term, not in the meaning. For a consistent wording we will maintain our previously defined terms in this study.

their meta-analysis of 162 previous studies the authors find that the relationship between CSR and financial performance seems to be positive, although small. In addition they specify under which circumstances the positive relationship appears to be strongest (e.g. specific dimensions of charitable contributions, revealed misdeeds and environmental performance) and when the association appears to be weakest (e.g. specific dimensions of corporate policies and transparency). One important conclusion from this extensive meta-analysis is that even though the positive effect from a strong corporate social responsibility is very small, at least companies do not seem to get punished for it.

Previous research has focused more on some categories of CSR than others. Especially environmental aspects of CSR have received particular attention, as they are in general both clearly defined and measurable. In a recent study, Flammer (2012) investigates the impact that positive and negative environmental CSR events have on stock returns. Searching the Wall Street Journal she identifies news articles that contain positive or negative news associated with a specific firm. Her findings suggest that positive events are followed by positive reactions, while negative events are followed by negative reactions on the market. In contrast to this broad view on environmental events (cf. Flammer, 2012), others pick one particular aspect of environmental CSR for their study, such as toxic releases (cf. Hamilton, 1995).

Alternatively, some studies isolate a certain part of social issue. CSR events related to both employee and community have been researched separately before (cf. Edmans, 2011; Ahmed et al., 2010; Wright et al., 1995; Clinebell and Clinebell, 1994; Davidson and Worrell, 1992; Worrell et al., 1991; Davidson and Worrell, 1988). Bird et al. (2007) however suggest that not only independent activities are valued by the market but also the totality of various CSR areas. It is beyond the scope of this study to focus on all CSR categories. However, to extend previous research we focus on the impact of both employee and community related CSR events on stock returns. Hence, beside the independent activities related to community and employees also the sum of both is taken into account.

Another differentiator of previous studies is the social responsiveness of companies. Some previous studies have focused on positive events only. Others have taken an even more narrow approach and focused specifically on proactive activities. In an event study Ahmed et al. (2010) investigate the impact from inclusion in the *Fortune 100 Best Companies to Work for* list on the stock market. They find a strong positive relationship between first inclusion and stock market abnormal returns, which suggests that a positive reputation as an employer has a value to the firm. However, the study does not find any evidence that the rank or sustained inclusion on the list has any positive impact on the stock market. Similar to this Edmans (2011) also analyzes the financial impact from being included in the *Fortune 100 Best Companies to Work for* list. He identifies superior long-term returns for companies that are mentioned in the list. Instead of focusing on proactive positive events as Ahmed et al. (2010) and Edmans (2011), other studies have focused on negative events only. Such negative events refer to product recalls (Davidson and Worrell, 1992), plant closings (Clinebell and Clinebell, 1994) or layoffs (Worrell et al., 1991). All these studies conclude that significantly negative abnormal returns can be observed as a result of these events.

Yet other studies have taken into account both positive and negative events. Wright et al. (1995) for example analyzed the effect of news revealed about affirmative actions and discrimination. Other examples can be found in research regarding environmental CSR or when analyzing the impact on other financial performance measures besides the market based ones (cf. Flammer, 2012; Margolis et al., 2007; Orlitzky et al., 2003). We include both positive and negative CSR related events in our study. Our approach moreover differs from previous conceptions of CSR, since it also regards companies that only react on events as socially responsible. Our study, hence, covers the whole range of social responsiveness.

Finally, previous studies vary according to the levels of CSR that they incorporate. Gunthorpe (1997) focused, for instance, on illegal corporate behavior and unethical actions only. She finds the market reacts negatively to the announcement of such behavior. A similar study was conducted by Davidson and Worrell (1988). They used illegal actions as a proxy for negative events related to CSR and observed highly significant negative abnormal returns in connection with the event. In accordance with our conception of CSR we take a broader approach and cover all levels of CSR.

In conclusion we contribute to existing research in the three ways. First, we focus on social events only, including events related to employees and the community. With our framework we acknowledge the fact that CSR incorporates governance and environment related engagements as well. This study is however only concerned with employee and community related events. We thereby explicitly exclude events related to the environmental or corporate governance aspects of CSR from our research focus. For the remainder of this study the term CSR refers to purely social events unless otherwise specified. Second, in accordance with our conceptual framework we extend existing literature by taking a broader view on social responsiveness. In accordance with Campbell (2007), we define CSR activities from a minimum behavioral standard approach. Below this threshold companies are regarded as socially irresponsible (i.e. negative events), while companies above the threshold are regarded as socially responsible (i.e. positive events). In this context we broaden the conception of positive events by also considering reactive and defensive engagements to be relevant positive initiatives in our study. We take into account both positive and negative events. Third, by exploring all levels of CSR we provide a holistic approach on analyzing the impact that CSR related events have on financial performance. The focus of our study is depicted as the highlighted area in Figure 1.

Previous studies furthermore differ according to the type of financial performance indicator. Generally, financial performance indicators can be divided into market-based and accounting based measures (cf. Margolis et al., 2007; Orlitzky et al., 2003). In our study stock returns of the individual company are used as the measure for financial performance. Compared to the possibility of analyzing the effect of CSR events by means of accounting-based measures, an analysis using market-based measures can be performed over a much shorter time frame following an event (MacKinlay, 1997). Furthermore, market-based measures are preferable, since stock-returns cannot be manipulated by managers (Benston, 1982).

2.3 Hypothesis Development

2.3.1 CSR as a Resource

Peloza (2006) suggests a positive relationship between CSR and stock returns. The author reasons that this positive association can be traced back to the incremental value gain or returns that the company achieves by investing in CSR. Margolis et al. (2007) argue that these returns can be achieved if CSR is seen as a resource, which positively affects firm performance.

Generally, the returns on CSR investments can be achieved directly or indirectly (Bird et al., 2007). Direct returns come for instance in form of the higher employee performance due to better working conditions. Indirect returns are, for example, generated through reputational benefits, which provide goodwill to the firm. This might, for instance, facilitate recruiting and retaining employees. Hence the enhancement of corporate image indirectly affects the company's financial performance.

Russo and Fouts (1997) claim that the resource-based view is well fit to explain the impact that CSR has on financial performance for two reasons. First it regards performance as the key output variable, which is ideal for an analysis of whether CSR positively influences stock returns of the firm. Second, the resource-based view is not restricted to tangible assets but explicitly recognizes the impact that intangible resources can have on the firm's stock returns. Under the resource-based view, CSR activities are claimed to enhance the reputation of a firm, and will, hence, create an intangible asset. In this context it must be noted that already the perception among key stakeholders that a company is engaged in doing good can have a positive impact on financial performance (Margolis et al., 2007).

If CSR activities are regarded as an investment in intangible assets then this investment ought to be valued at net present value. According to enlightened stakeholder theory, CSR activities should be undertaken if the net present value of perceived benefits exceeds the net present value of expected expenses associated with the activities (Bird et al., 2007). Stock prices reflect investors' expectations about future benefits and costs incorporated in net present value calculations.

In line with this theory, we therefore argue that an engagement in CSR will provide the company with intangible assets that will give it a competitive advantage over other firms. This competitive advantage will be shown in stock returns. Our first hypothesis therefore suggests that

Hypothesis 1: shareholders react positively to the announcement of positive CSR related events/ initiatives

Flammer (2012) suggests that internal firm factors affect the value of environmental CSR under the resource-based view, specifically the internal quality levels of environmental performance. In analogy with this, we perform a similar analysis that investigates the value of CSR events directed at employees and the community. We test how the market reacts to positive events depending on the company's CSR performance. The theoretical justification is ambiguous. On one hand, high CSR performance may point investors' attention towards CSR activities and therefore a positive event results in a relatively more positive market reaction.

On the other hand, high CSR performance might make investors more demanding in terms of expectations and therefore there is a smaller reaction to a positive event. The latter argument can be seen as CSR actions exhibiting diminishing marginal returns. (Flammer, 2012). In line with this theory our hypothesis is as follows:

Hypothesis 1a: shareholders react less positively to the announcement of positive CSR related events for companies with relatively higher CSR performance

In their study of CSR as a risk mitigating intangible resource, Godfrey et al. (2009) claim that CSR activities are perceived as different types of resources depending on the stakeholder group they refer to. The authors distinguish between two groups of stakeholders; primary stakeholders who are crucial for business operations (e.g. employees), and secondary stakeholders who influence business operations only indirectly via primary stakeholders (e.g. the community). Whereas primary stakeholders have both the power and urgency to directly influence the performance of the firm, secondary stakeholders lack both these capabilities. CSR activities directed at primary stakeholders could thus be perceived as more self-serving as it encompasses the “potential to create more advantageous exchanges between the firm and its primary stakeholders” (Godfrey et al., 2009, p.429). These advantageous exchanges are considered to be in line with the value-maximization-principle of the firm. CSR activities targeting primary stakeholders are expected to produce “exchange capital”. In contrast, CSR activities directed at secondary stakeholders can be perceived as more altruistic. The investment in CSR is then rather motivated by the argument that it is morally right to engage in CSR. CSR activities targeting secondary stakeholders are, hence, expected to produce “moral capital”. Under the resource-based view, we believe that the market does not distinguish between the resource value of exchange capital and moral capital. We will therefore test the hypothesis:

Hypothesis 1b: there is no difference in shareholders’ reaction to positive CSR related events for firms that perform well in CSR targeted at primary stakeholders (employees) compared to firms that perform well in CSR targeted at secondary stakeholders (the community)

2.3.2 CSR and the Good Management Theory

The good-management theory suggests that the engagement in CSR activities will lead to an improved relationship with key stakeholders (Rodgers et al., 2008). The overall company performance will thereby be increased (cf. Freeman, 1984; Waddock and Graves, 1997). Furthermore, some scholars argue that if a company’s management acts in a socially aware and concerned manner it is also superior in more traditional management activities (Alexander and Buchholz, 1978). Conversely, if a company acts in a socially irresponsible way it could be argued that this reflects less good management in traditional activities. The relationship between the company and key stakeholders can be affected negatively, thereby decreasing the overall company performance. In this context Margolis et al. (2007) suggest that the exposure of misdeeds might indicate to the market that the company’s management is incapable of good judgment. Margolis et al. (2007) describe the consequences of negative events to be multifaceted; they can be both direct and indirect. Direct effects have an immediate effect on the company performance in form of costs. They can for example impact

the future cost of operations due to stricter regulations in the future. Indirect effects, on the other hand, impact the firm's profitability in form of losses in reputation and goodwill. If the loss in reputation impacts the demand for the firm's products and services revenues will eventually decrease. These expectations will be incorporated in buying and selling recommendations from investors. Our second hypothesis therefore investigates whether

Hypothesis 2: shareholders react negatively to the announcement of negative corporate events/ initiatives related to CSR

2.3.3 CSR as an Insurance

The idea behind the CSR as an insurance approach is that the effects of negative CSR related events could be offset by prior engagement in (positive) CSR activities (Peloza, 2006). As such, CSR activities do not so much generate financial performance but rather preserve it (Godfrey et al., 2009). The general idea behind the CSR as insurance approach is that a corporation first invests in increasing its CSR reputation (Minor and Morgan, 2011) and will at a later point be rewarded for this investment. The reward can take two forms. On the one hand a high score on CSR can prevent events from actually happening (Bird et al., 2007). If a company already voluntarily engages in CSR activities at a certain cost, it can deter future governmental regulations on this topic, which would infer even higher costs. On the other hand, engaging in positive CSR can create a goodwill-like capital that will mitigate value-destructive consequences if negative CSR incidents hit the company (Peloza, 2006). We focus on the mitigating effects of CSR involvement. Our third hypothesis analyzes whether

Hypothesis 3: shareholders react less negatively to the announcement of negative CSR related events for companies with relatively higher CSR performance

Under the view of CSR as an insurance we revisit the relationship between stakeholder characteristics and market reaction to CSR events as described for hypothesis H1b. As described by Godfrey et al. (2009), the insurance effect from CSR activities mainly stems from the goodwill it generates. Since CSR activities that are directed at secondary stakeholders have no direct consequence for business operations, it is more likely to be viewed as "voluntary acts of social beneficence" (Godfrey et al. p. 429). In line with this, Godfrey et al. (2009) propose that CSR activities aimed at secondary stakeholders will be perceived as less self-serving and thus produce more moral capital in comparison to CSR activities targeted to primary stakeholders. We will therefore test the hypothesis:

Hypothesis 3a: there is a less negative shareholder reaction to negative CSR related events for firms with relatively more moral capital (high performers of CSR targeted at secondary stakeholders), compared to firms with relatively more exchange capital (high performers of CSR targeted at primary stakeholders)

3 DATA AND METHODOLOGY

3.1 Choice of Methodology

In order to investigate the impact from corporate social responsibility (CSR) related news on financial performance we will conduct an event study. Hence the measure for financial performance used in our study will be stock returns. Event studies are a useful instrument for an analysis of the financial impact of events, since stock prices adjust rapidly to new information (Fama et al., 1969). Recent studies concluded that news are incorporated in stock prices within the first minutes after the news release (cf. Busse and Clifton Green, 2002; Frijns and Schotman, 2009; Gaviious and Kedar-Levy, 2013). This is not to say that stock prices always correspond to the intrinsic value of a security. In a world of uncertainty these intrinsic values, which are based on future earnings expectations, are generally unknown (Fama, 1965). However, under the efficient market hypothesis, stock prices are assumed to fully reflect information publicly available.

The assumption that stock prices always fully reflect all available information is crucial for the conduction of our event study. A market in which this assumption holds is called an efficient market (Fama, 1970). In performing our event study we assume that the stock market is efficient in a semi-strong form. This implies that stock prices adjust efficiently to new information that becomes publicly available (Fama, 1970). The validity of this assumption is supported by evidence from several event studies that were previously conducted. The event study methodology is therefore an adequate approach to test our research hypothesis.

While there is no such thing as a standard procedure for an event study, a general outline is provided in pertinent literature (cf. MacKinlay, 1997; McWilliams and Siegel, 1997; Peterson, 1989). Many different choices must be considered along the way. Each choice entails a trade-off between important factors and there is no perfect way. The steps for conducting an event study are described in the following section 3.2. Event study methodology relies heavily on a variety of assumptions (cf. Brown and Warner, 1985; McWilliams and Siegel, 1997). As these assumptions are critical for the power of the results they should receive substantial consideration. We will touch briefly upon the assumptions where necessary in the following description of our research design and discuss them in more detail in section 3.3. A section about data collection and analysis as well as potential issues in the quality of our study concludes this chapter.

3.2 Research Design

3.2.1 Event Study Set-up

The basic idea behind an event study is to test whether any abnormal returns can be earned by shareholders in the occurrence of a particular event (Peterson, 1989). In accordance with Peterson (1989) and MacKinlay (1997), five steps involved in an event study are identified and systematically performed. First, data about the events and the event dates is gathered. Only events that fulfill certain pre-determined criteria are eligible to be incorporated in the study. Second, the length of the event and estimation window is decided. The event window covers at least the day of the event but is commonly extended over several days before and after the event. Third, abnormal returns are calculated as the difference between actual and

normal returns. Various methods exist for estimating normal returns and the optimal method is selected on a case-by-case basis according to data availability and characteristics. Fourth, the obtained abnormal returns are tested for significance. Researchers can choose between a variety of tests and the choice depends to a great extent on data characteristics. Finally, explanations for abnormal returns are investigated in a regression analysis. In the following we discuss the considerations taken for each step more in depth, as well as elaborate on our choice of methodology.

3.2.2 Event and Market Data Selection Process

The event-specific data was gathered by searching the Wall Street Journal² for relevant articles. Articles are deemed relevant if they fulfill the predefined selection criteria. First, the articles have to relate to a CSR event, which can be allocated into one, and only one, subcategory of social CSR. As a reference regarding which subcategories social CSR encompasses the distinction published by CSRHub (2013) was used. We accounted for this by using keywords that directly related to these subcategories for our search.³

Second, the time frame for events was determined to be between 2010-2012. The selection of a rather short time span is based on the changing perception and importance of CSR over time (cf. Flammer, 2012; Ioannou and Serafeim, 2010a). In analogy with these findings, we believe that our selected three-year-period instead displays the current perception of social CSR.

Finally, only events related to companies that are listed on the New York Stock Exchange (NYSE) are selected. This choice was motivated by a study conducted by Brown and Warner (1985). They find that models used for calculating the abnormal return have a substantially higher explanatory power for NYSE securities than AMEX securities, due to more frequent trading. Furthermore data availability regarding stock prices, events and additional information such as CSR rankings played an important role and reinforced our choice. Events that fulfilled all the above stated criteria were selected for the initial sample of our study.

For the calculation of the abnormal return a benchmark has to be determined. In order to get a benchmark index that pictures the market as a whole and is not influenced by the analyzed event it is useful to take a very broad index. Commonly the S&P 500 is used (Campbell et al., 1997). Since the S&P 500 consists of 500 frequently traded American stocks, it is highly unlikely that an event that impacts one of the companies part of this index also impacts the index as a whole. The S&P 500 is therefore preferred to indices that contain fewer securities, such as the Dow Jones Index, or a less broad selection, such as industry specific indices.

3.2.3 Determination of Estimation and Event Window

The choice of length for the estimation and event window depends on the purpose of the study and is left entirely up to the researcher (Ryngaert and Netter, 1990). The set-up and notation of the windows used in this study follows the idea pictured in Figure 2.

² Wall Street Journal is a newspaper that provides information about financially relevant news (McWilliams and Siegel, 1997). It has frequently been used for event studies with a similar set-up (cf. Peterson, 1989; Flammer, 2012). Hence, we deem it to be a thorough and credible source for news articles about CSR that potentially impact stock returns.

³ The process of deriving keywords and searching for events will be described in more detail in section 3.4.

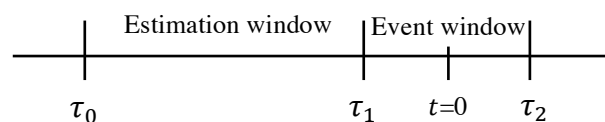


Figure 2 – Set-up of estimation and event window

The determination of an appropriate event window is of great importance to the outcome of the study, and therefore requires extensive consideration. It is set around the event date, which is usually the date on which the article about the event was published ($t=0$). In event studies it is common to extend the event window to include several days before and after the publication date. Benefits and costs for an extension of the event window have to be weighed against each other (cf. Peterson, 1989; MacKinlay, 1997).

On the one hand, extending the event window over a longer period accounts for the problem of event-date uncertainty (MacKinlay, 1997). Especially when events are gathered from journals such as the Wall Street Journal, information about the event might have reached the market already before the publication (McWilliams and Siegel, 1997). A simple approach to account for these effects is to also include the day before the actual publication. Furthermore, one or more days after the event could also be included in the event window. The theoretical justification for this is that market participants may be unable to fully comprehend and adjust their actions in accordance with the new information instantly. In addition this approach can account for backlashes that result from overreactions (De Bondt and Thaler, 1985).

On the other hand, the event window ought not to be extended over a too long time period. A common problem with long event windows is the probability of confounding events (McWilliams and Siegel, 1997). The longer the event window the more likely is the occurrence of confounding events. Ryngaert and Netter (1990) argue that a small event window reduces the potential of noise generated by confounding events. Another issue refers to our assumption that the market is efficient in the semi-strong form. Under the efficient market hypothesis it is expected that information is rapidly incorporated into stock prices. McWilliams and Siegel (1997) argue that extending the event window beyond the event date suggests that researchers do not believe that the market is efficient. The use of an event study would then be inappropriate. We conduct our study with an event window consisting of three trading days $[-1,1]$. We thereby extend the event window by one trading day before and after the day of the publication, in order to account for leakages before the event and lagged effects after the event. To check for robustness of the results, we also use alternative event windows of different lengths.

For the calculation of model parameters an estimation window must be determined. Clement et al. (2007) suggest that the estimation window should cover one year prior to the event in order to take into account all seasonal effects that the company is exposed to. A more recent, and hence shorter, estimation window on the other hand better reflects the current economic situation of the company. This could improve the quality of the estimated parameters for the calculation of the normal return⁴. The event window itself is not included in the estimation window. The idea behind this is that the abnormal return is derived as the difference between

⁴ Besides “normal return” the wording “expected return” is used in existing literature.

actual and normal return. Normal returns must not be influenced by the event. Only then will the abnormal return capture the full impact of the event (MacKinlay, 1997). Some scholars even argue that the estimation window should end several days before the event window starts (cf. Goerke, 2008; Clement et al., 2007). According to these researchers, the length of this time in between estimation window and event window depends on the level of anticipation of the event. In our data selection process we only considered publications that contained new information for market participants. It is therefore assumed that the event was not anticipated by the market. The estimation window in our study comprises the 120 days directly prior to the event window, in accordance with MacKinlay's (1997) approach. To check for robustness of our results we also extend the estimation window to 250 trading days.

3.2.4 Calculation of Abnormal Return

In our event study it is analyzed whether abnormal returns can be earned if information about positive or negative CSR events is released. These abnormal returns are derived as the difference between the actual and normal return of a security.

$$(1) \widehat{AR}_{it} = R_{it} - \widehat{NR}_{it}, \text{ with } \widehat{AR}_{it} \sim N(0, \sigma^2(\widehat{AR}_{it}))$$

$\widehat{AR}_{it}$ estimated abnormal return for security i in period t

R_{it} actual return for security i in period t

$\widehat{NR}_{it}$ estimated normal return for security i in period t

Several approaches for calculating the normal return exist and have been used in previous studies. Generally, models for measuring the normal return can be divided into statistical models and economic models (MacKinlay, 1997). Both types of models are based on statistical assumptions. The second category, however, also incorporates additional assumptions about economic behavior of investors. The choice of an appropriate model is dependent on the additional explanatory power of more sophisticated models compared to less explanatory power in more basic approaches. MacKinlay (1997) describes four statistical models of calculating the abnormal return, (1) the constant mean return model, (2) the market model, (3) multi-factor models and (4) market adjusted return model. In addition Brown and Warner (1985) and MacKinlay (1997) mention three economic models, namely (5) the capital asset pricing model (CAPM), (6) the Fama-French Three-Factor-Model and (7) the arbitrage pricing theory (APT). These approaches are discussed below.

A very simple approach is the constant mean return model. It assumes that the return of a given security is constant over time. The normal return is therefore calculated as the sum of the mean return and a disturbance term of a given security. Despite this simplistic assumption Brown and Warner (1985) find that it often leads to results that are comparable to more advanced models.

The market model relates the return of any security to the return of a benchmark portfolio of securities in form of a linear regression. Compared to the simple constant mean return model, the market model reduces the variance of the abnormal return as it adjusts for the part of the

return that can be explained by variations in the market return. The ordinary least squares (OLS) are used for the estimation procedure of the market model. An important underlying assumption of the linear regression is normality of stock returns. This assumption is especially problematic when using daily returns, as we do in our study. However, Brown and Warner (1985) find in their analysis about the use of daily returns in event studies that the potential non-normality of daily returns has no impact on the usefulness of the model. Inferences made on the basis of the normality assumption are valid.⁵

Multi-factor models use the same approach as the market model. The idea behind this approach is to add supplementary factors, beside the market return, that explain variations in the normal return. Such additional influencing factors are commonly industry-specific measures or size clusters (MacKinlay, 1997). The gains from multi-factor models in comparison with the market model are however rather marginal. Researchers are advised to only consider this model if the sample firms have a common characteristic, such as similar size or operate within the same industry (MacKinlay, 1997; Brown and Weinstein, 1985). In these cases the additional factors have explanatory power and the variance reduction is greatest.

MacKinlay (1997) furthermore describes a statistical model that does not require an estimation window. The market-adjusted return model is based on the market model, but assumes that alpha is zero and beta is one. Since the parameters are predefined they do not need to be calculated over an estimation window. However, due to the restrictions of this model, results cannot be assumed to be unbiased. This model should therefore only be used if an estimation window is not available.

Economic models go beyond the statistical assumptions and include additional assumptions concerning the investors' behavior. MacKinlay describes two common models. One former frequently used model for event studies is the CAPM. According to this model the normal return of a given security is determined by only one factor, which is the systematic risk factor. However, the results of an event study may be sensitive to the specific CAPM restrictions. MacKinlay (1997) argues that the use of the market model avoids this sensitivity at little cost. As a result the use of the CAPM in event studies has almost come to an end.

The Fama-French three factor model (Fama and French, 1992) is a multifactor model that in addition to the market factor includes the size factor and the book-to-market factor. Flammer (2012) points out that including these factors is similar to controlling for size, book-to-market and past performance in a cross-sectional regression.

Multifactor normal performance models motivated by Roll and Ross's (1984) APT are another method to derive normal returns. Under the APT normal returns can be explained by various macro-economic factors via a linear regression (Roll and Ross, 1984). MacKinlay (1997), however, argues that the most important factor used in that model behaves like a market factor. The additional factors only add marginal explanatory power and the gains compared to the market model are, hence, slim.

To sum up, there is a multitude of different models used to estimate abnormal returns, each with its up- and downsides. The market model decreases the variance of abnormal returns

⁵ The normality assumption will be discussed in detail in section 3.3.1.

compared to the constant mean return model. The variance would, however, not be substantially further decreased with the use of a multi-factor model. Supplementary economic restrictions by the economic models do not provide large additional explanatory power. In our study, hence, the market model is used to estimate the normal return. In accordance with MacKinlay (1997) it is calculated as

$$(2) \quad NR_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \text{ with } E(\varepsilon_{it}) = 0 \text{ and } var(\varepsilon_{it}) = \sigma_{\varepsilon_i}^2$$

NR_{it}	<i>normal return for security i in period t</i>
R_{mt}	<i>return on the market portfolio in period t</i>
$\alpha_i, \beta_i, \sigma_{\varepsilon_i}^2$	<i>parameters of the market model</i>
ε_{it}	<i>zero mean disturbance term</i>

Subsequently, abnormal returns can be calculated in accordance with Formula (1). To perform the significance test, abnormal returns are derived for each day within the event window. They are subsequently aggregated across time and securities in order to draw overall inferences for our study (MacKinlay, 1997). Previous literature has not been consistent in their wording regarding average abnormal return (AAR), cumulative abnormal return (CAR) and cumulative average abnormal return (CAAR). In order to make it easier for the reader to comprehend our understanding of the terms, we depicted the aggregation procedures in Figure 3. The AAR, CAR and CAAR refer to the accumulation across securities, over the event window and both, respectively.

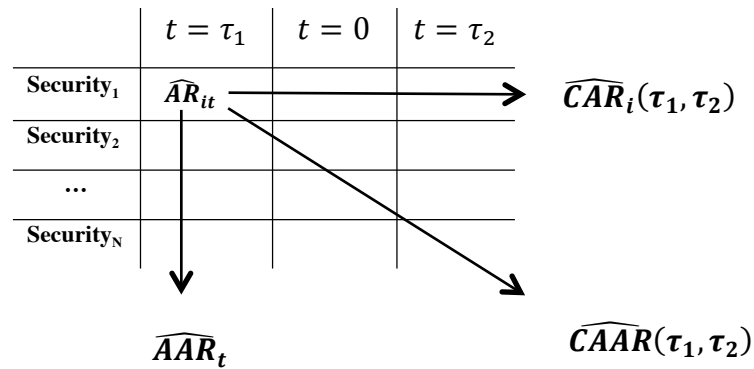


Figure 3 - Graphical display of accumulation over the event window, across securities and both

In order to arrive at the cumulated abnormal return, the abnormal returns generated on each day in the event window are summed up for every security respectively (MacKinlay, 1997). If the event window ranges from τ_1 to τ_2 , the cumulated abnormal return is

$$(3) \quad \widehat{CAR}_i(\tau_1, \tau_2) = \sum_{t=\tau_1}^{\tau_2} \widehat{AR}_{it}$$

$\widehat{CAR}_i(\tau_1, \tau_2)$ *cumulated abnormal return over the event window $\tau_1 \leq 0 \leq \tau_2$*

For the accumulation across securities the average abnormal return is calculated for each t of the event window (MacKinlay, 1997).

$$(4) \quad \widehat{AAR}_t = \frac{1}{N} \sum_{i=1}^N \widehat{AR}_{it}$$

$\widehat{AAR}_t$ *average abnormal return over securities*

The cumulated averaged abnormal return can then either be calculated as the sum of the average abnormal returns or the average of the cumulated abnormal returns (MacKinlay, 1997).

$$(5) \quad \widehat{CAAR}(\tau_1, \tau_2) = \sum_{t=\tau_1}^{\tau_2} \widehat{AAR}_t = \frac{1}{N} \sum_{i=1}^N \widehat{CAR}_i(\tau_1, \tau_2)$$

$\widehat{CAAR}(\tau_1, \tau_2)$ *cumulated average abnormal return over the window $\tau_1 < 0 < \tau_2$*

3.2.5 Significance Tests

In order to find support for our hypotheses developed in section 2.3 we formulate respective null hypotheses. According to the null hypotheses we test whether the abnormal returns of each day in the event window and the cumulative abnormal returns differ significantly from zero. In the testing procedure the abnormal returns as well as the cumulative abnormal returns are accumulated over all securities. MacKinlay (1997) notes that in order for the accumulation, both over time and across securities, to yield unbiased results it must be ensured that abnormal returns are independent across securities and across time. It has been proven that stock prices, and with it actual returns, follow a random walk pattern (Fama, 1965). Abnormal returns, however, are calculated using a sample regression. The abnormal return is hence subject to a sampling error in α_i and β_i . This leads to serial correlation, which means that abnormal returns are not independent over time (cf. McWilliams and McWilliams, 2011; MacKinlay, 1997). This sampling error will, however, vanish if the estimation window is determined to be very large. In that case the abnormal returns will become asymptotically independent (for elaborations on this issue see MacKinlay, 1997; Campbell et al., 1997). The estimation window of our study is assumed to be large enough so that returns are independent across time.

The dependence across securities is a more complex issue and has been given extensive consideration in previous literature about event studies. This so-called cross-sectional dependence is likely to exist when the event dates are the same for several securities in the sample, i.e. when the events are clustered. If there is no clustering of events, the covariance between the distinct securities' CARs or ARs for the respective dates will be zero (MacKinlay, 1997). If, on the other hand, event windows do overlap, the covariance might

differ from zero and the assumption that the CARs are normally distributed is incorrect (cf. Campbell et al., 1997; MacKinlay, 1997; Bernard, 1987).

Bernard (1987) provides an extensive analysis about the issues arising with cross-sectional dependence. The author argues that estimates of the OLS regression can be correct, even if returns are cross-sectional dependent. The estimates of the standard error, on the other hand, are generally biased in this case. Depending on the choice of test, cross-sectional dependence can lead to false inferences about the rejection of the hypothesis. The inferences drawn from tests, which assume cross-sectional independence, might then be incorrect.

This issue has to be taken into account when selecting appropriate tests in the course of an event study. Generally significance tests can be divided in parametric and non-parametric tests. Parametric tests, such as the t-test, rely on the assumptions of normal distribution of (cumulative) abnormal returns (MacKinlay, 1997). These tests are therefore not always suitable for data samples with cross-sectional dependence. Collins and Dent (1984) find that tests that do not account for cross-sectional dependence, if it is prevalent, tend to arrive at downward biased estimates that over-reject the null hypothesis.

Hence, some authors propose the use of a multivariate regression method with generalized least squares (GLS) instead of OLS to account for the cross-sectional dependence (cf. Schipper and Thompson, 1983; Collins and Dent, 1984; MacKinlay, 1997). Bernard (1987), however, argues that this approach requires a precise estimation of the covariance matrix of residual returns, which is normally impossible in finite examples with large number of firms (cf. Bernard, 1987; Kolari and Pynnönen, 2010).

Several procedures have been considered in theory to account for cross-sectional dependence. These procedures differ in practicability and effect (for reviews of procedures and their effect we refer to Collins and Dent, 1984; Bernard, 1987; MacKinlay, 1997; Campbell et al., 1997). Brown and Warner (1985), however, find that gains from tests that assume independence can also be realized if clustering is in fact prevalent. They furthermore find substantial losses in the power of tests when using procedures that adjust for cross-sectional dependence. We therefore use an unadjusted t-test for our analysis in order to maintain the power of the testing procedure. In addition we refer to non-parametric tests, to check the robustness of our results.

Researchers generally provide non-parametric tests in addition to parametric tests as the former remove misspecifications prevalent in parametric tests. Results from non-parametric tests can hence confirm the results found under the normal distribution assumption by parametric tests (cf. McWilliams and McWilliams, 2011; MacKinlay, 1997). Various non-parametric tests exist in previous literature. They differ in power of their result depending on characteristics of the abnormal returns. These characteristics include the distribution on abnormal returns, event-induced variance increases, outliers as well as the length of the event window (Cowan, 1992). The Corrado rank test seems to be a suitable test for our study. In the ranking procedure the distribution of the abnormal returns is transformed into a uniform distribution across all possible rank values. Possible asymmetry in the original distribution can hence be disregarded (Corrado, 1989). Since the non-normal distribution of daily returns is not an issue when using the Corrado rank test, it is also robust in cases of cross-sectional dependence (Kolari and Pynnönen, 2010). The rank test is furthermore better specified compared to the t-test if event induced variance increases exist, as the former is largely

immune towards the phenomenon (Cowan, 1992; Corrado, 1989; Brown and Warner, 1985). Another problem of the t-test is its sensitivity in case of outliers. These commonly arise in the process of estimating parameters with the OLS regression. The use of the rank tests is a suitable approach to control for outliers (McWilliams and Siegel, 1997). It must be noted that the advantages of the rank test vanish as the event window increases. For short event windows the rank test is however better specified as comparable other non-parametric tests (Cowan, 1992).

This notion has to be taken into account when selecting appropriate tests in the course of an event study. In our study some of the events/ initiatives taken by the companies are induced by the same external event, notably the earthquake in Haiti. The events overlap, which means that the events are in fact clustered. We therefore use the non-parametric Corrado rank test in our study to undermine the results generated with the t-test.

3.2.6 Explanation of Abnormal Return

In order to gain further theoretical insights and better understand the reasons for our obtained results, we will analyze the relationship between the magnitude of the abnormal return and event-specific characteristics. For this purpose, we take a regression approach. In line with our Hypothesis 3 and 3a we specifically want to analyze whether the cumulative abnormal returns differ with the level of CSR performance. The regression is set up as follows. The dependent variable is the three-day mean CAR (obtained with the market model). The independent variables are dummy variables indicating whether a firm is a relatively high or low CSR performer. We use the ranking published by CSRHub as a proxy for the CSR performance. Depending on their rank, companies are split into five groups of CSR performance. This allocation described in detail in section 3.4.

We, furthermore, select control variables based on suggestions by previous literature. In line with Flammer (2012) we control for size differences (using the natural logarithm of total assets), price to book values and profitability (ROA, using income before taxes over total assets) as a proxy for differences in operational performance. Other studies conclude that CSR performance might have a risk mitigating effect (cf. Godfrey et al., 2009; Pelozo, 2006). Therefore, the level of risk in the firm might influence the relationship between CSR performance and CAR. We include leverage as a proxy for long-term financial risk (natural logarithm of leverage). All control variables refer to the year in which the event occurred. The regression model is specified as follows:

$$(6) \quad \widehat{CAR}_{ij} = \delta_{0j} + \delta_{1i} \cdot CSR_{rank1i} + \delta_{2i} \cdot CSR_{rank2i} + \delta_{3i} \cdot CSR_{rank3i} + \delta_{4i} \cdot CSR_{rank4i} + \sum_{k=5}^8 \delta_{ki} \cdot controls_{ki}$$

i index for security

j index for event

δ_{nj} regression coefficients ($n=0, \dots, 8$)

CSR_{rankR} dummy variable for the categorized ranking of CSR performance ($R=0, \dots, 4$)

$controls_{ki}$ replacement character for the control variable k

For our analysis the coefficients of interest are $\delta_{0i}, \dots, \delta_{4i}$. We will perform a t-test to test the significance of these coefficients.

From the previous elaborations it becomes evident that our event study is subject to various assumptions. Especially our choice of daily returns leads to potential biases. Brown and Warner (1985) identify several theoretical issues that arise with the use of daily returns compared to monthly returns. These are discussed below to show that these assumptions are in fact valid and do not result in misspecifications of our results.

3.3 Critical Evaluation of Assumptions

3.3.1 Non-normality of Abnormal Returns

Contrary to earlier beliefs, Mandelbrot (1963) asserted that the assumption of normality is not valid, but that outliers in returns usually yield leptokurtosis, a phenomenon also referred to as fat-tails. From this observation it can be concluded that returns do not follow a normal distribution. The general finding is, furthermore, that daily returns differ more from normal distribution than monthly returns (Fama, 1976). The errors in a model that result from the erroneous assumption of normality of stock returns are hence more severe for daily returns than for monthly returns. Normality can under the Central Limit Theorem still be assumed if a large enough sample is used for the significance tests. Billingsley (1986) argues that under the Central Limit Theorem, if the returns of cross-section of sample firms are independent and identically distributed with a well-defined mean and variance, then the sample return will converge towards normal distribution as the number of firms increases. The independence assumption of stock prices is an adequate depiction of reality (Fama, 1965). For a large enough sample, the distribution of a sample should therefore converge towards normality. Warner and Brown (1985) use a sample of 50 firms and conclude that this sample size is large enough for the sample average abnormal return to converge to normal distribution.

3.3.2 Non-synchronous Trading

Another issue arises when securities are traded at different frequencies. This phenomenon is referred to as non-synchronous trading. The ordinary least square (OLS) estimates of market model parameters might be imprecise if non-synchronous trading is prevalent, yielding a lower power of the tests (Brown and Warner, 1985). This problem is particularly severe when daily stock returns are used (Scholes and Williams, 1977). Several other approaches to estimate the parameters have been suggested by researchers. Warner and Brown (1985) compared these techniques and did not find a clear benefit of alternative models compared to the OLS estimation. The use of OLS estimation in our study therefore appears to yield sufficient quality of our results.

3.3.3 Event-induced Variance

Previous studies suggest that the variance of a securities return should increase around the time of an event (cf. Patell and Wolfson, 1979; Beaver, 1968). This poses a problem if the variance is estimated with standard procedures that use a time series of non-event data to estimate the variance of the mean abnormal returns (Brown and Warner, 1985). The t-test relies on a time series procedures to calculate standard deviation for the test statistic (cf.

Brown and Warner, 1985; Corrado, 1989). Hence, it has been suggested that the t-test is not a very powerful method to detect abnormal returns of securities (Corrado and Zivney, 1992). It is misspecified and yields an over-rejection of the null hypothesis that the mean abnormal return is zero (Brown and Warner, 1985). Several adjustments techniques are possible and they differ in effect and power (for suggestions of adjustments and discussions we refer to Brown and Warner, 1985; Corrado, 1989; Peterson, 1989; Corrado and Zivney, 1992). Brown and Warner (1985) propose a direct way of addressing possible variance increases. They suggest that the dataset should be split according to whether the event related to good or bad news. This reduces the misspecification. We run our entire tests with datasets partitioned according to the sign of the impact of the event. The problems of event-induced variance in the t-test are thereby decreased. The Corrado rank test is unaffected by such variance shifts (Brown and Warner, 1985).

3.4 Data Collection and Analysis

The identification of relevant events was based on an extensive keyword search in the Factiva database. For this process searchable keywords had to be found. Identifying these keywords is a crucial part of our study. It determines which events are included in our analysis and, hence, has a great impact on our results. No standard procedure that guarantees a neutral and comprehensive list of keywords could be found in previous literature. We therefore had to derive our own approach.

First, since we aim to investigate the impact of social events only, the boundaries of these had to be clearly defined. As a starting point we used the categorization introduced in our conceptual framework. We, furthermore, referred to the subcategories related to these four CSR categories as described by CSRHub (2013). The subcategories were thoroughly discussed, in terms of their fit to purely socially responsible events. It proved especially tricky to distinguish corporate governance related events from the purely social domain of CSR. We, finally, deemed only the subcategories related to the employee and community categories to constitute a comprehensive and credible partition for our purposes. An overview of the relevant subcategories obtained from CSRHub is given in Table 1. To yield a more thorough understanding of this categorization, examples of potential events relating to these different categories were sought. Finally, a total of eight keywords or keyword combinations relating to the categories was set through a brainstorming process.

Category	Subcategory	Examples for positive events	Examples for negative events	Keywords
Employee	• Compensation and benefits	• Social security for the workforce	• Discrimination of minorities	• Work* condition*
	• Diversity and Labor rights	• Initiatives to support minorities in their career	• Engagement in child labor	• Labor right*
	• Training, Health and Safety			• Exploit* and work* or labor*
				• Child labor
				• Discriminat*

Category	Subcategory	Examples for positive events	Examples for negative events	Keywords
Community	- Community development and philanthropy - Product - Human Rights and Supply Chain	- Contributing time and resources to the community - Donations to charity	- Dishonest behavior to the community - Defect products enter the market	- Donat* - Suppl* relation - Product Qualit* and recall* or withdraw*

Table 1 – Overview of derived keywords classified according to CSR subcategories(in dependence on CSRHub, 2013)

These keywords were used when searching for news articles in the Wall Street Journal. The wildcard function in the Factiva database was very beneficial in this process.⁶ In total, the search for our keywords generated a total of 20691 articles. This first sample was filtered to only include articles relating to companies listed on the NYSE and then manually screened and categorized according to content. As a result of this process it was possible to divide our second sample into two groups based on expected positive or negative impact. This is shown in Table 2. It is an essential prerequisite of event studies to form an expectation about the direction of the potential impact. Abnormal returns can only be explained if an underlying hypothesis about the potential impact exists and can be tested (McWilliams and Siegel, 1997).

Main Keyword		child labor	discriminat*	donat*	labor right*	product qualit*	suppl* relation*	work* condition*	exploit*	All keywords
combined with						recall* or withdraw*			work* or labor*	
First Sample	tot	181	3965	8851	154	3493	33	799	3215	20691
Second Sample	pos	3	10	75	0	1	2	1	0	92
	neg	7	44	8	6	5	3	14	0	87
	tot	10	54	83	6	6	5	15	0	179
Third Sample	pos	2	8	57	0	1	2	1	0	71
	neg	6	32	2	3	5	3	10	0	61
	tot	8	40	59	3	6	5	11	0	132
Final Sample	pos	2	8	55	0	1	1	1	0	68
	neg	6	31	2	3	5	3	10	0	60
	tot	8	39	57	3	6	4	11	0	128

*Table 2 – Overview of the number of events in the sample selection process and composition of final sample
First sample: Hits in Factiva; Second sample: After revising only articles referring to NYSE companies; Third sample: after eliminating ambiguous, non-news and too briefly mentioned events; Final sample: after eliminating newly listed companies and securities with missing returns.*

This second sample was further revised. Some events had to be eliminated for variety of reasons. First, the content of some articles was rather ambiguous. This was partly due to the fact that the article contained both positive and negative information related to the same company. In addition the nature of the event was in some instances unclear. Second, some events of interest were only mentioned briefly while the main content of the article was unrelated to CSR. Third, some articles only mentioned previous incidents and, hence, did not provide news to the market. After these eliminations we arrived at the third sample.

⁶ The wildcard function can be used to search for several words with the same word stem. For instance “discriminat*” would yield search results relating to discrimination, discriminatory, discriminating etc.

For each event of this third sample stock prices were gathered. Company related and market index data was obtained from the Datastream database. Again some events had to be dropped for a variety of reasons. First, companies that were not listed throughout the estimation and event window had to be eliminated from our study. Second, for some securities missing returns were reported. There are several possibilities for dealing with missing returns in the estimation or event window (for an overview of four different techniques we refer to Peterson, 1989). We chose a method employed by Brown and Warner (1985) according to which the missing period and the succeeding period are removed from the analysis. With this approach securities had to be taken out of our sample, if the day of the missing return or the succeeding day fell within our three-day event window.

After accounting for these additional eliminations our final sample of social CSR events contains 128 events, out of which 68 are positive events and 60 negative events. We deem these respective sample sizes large enough to assume normal distribution of average abnormal returns across the samples. Some companies are subject to a high number of events. It is not expected that this has a distorting influence on our results. As long as the events are clearly separated in time and can be defined as either positive or negative, all of them are included in the sample.

3.5 Critical Evaluation of the Data Selection and Classification Process

Issues related to the data gathering start with the selection of relevant keywords. In a keyword search, there is no way to verify that all relevant keywords have been covered. One potential issue might be that the keyword list was too narrow, and that potentially relevant events therefore have been omitted from the sample. Since we did not exclude keywords relating to a certain categories on purpose we can conclude that the sample of events we obtained is random. Hence even though potential omitted events reduce the explaining power of obtained results, it does not cause any bias (Flammer, 2012).

Biases can on the other hand be created by the selection of keywords with a negative or positive connotation. Our keyword “donation” is, for instance, likely to yield more positive results than negative results. The keyword “discrimination” on the other hand has a rather negative connotation. Table 2 shows that these impressions are verified by the results of the keyword search; “donation” leads to considerably more positive results than negative ones, for “discrimination” we observe the opposite. However, even though including these keywords might lead to biased results, we find them relevant for our analysis they will add to the explanatory power of our results. Furthermore, we include some keywords with a negative connotation and some with a positive one. A severe bias towards one direction of impact is hence deemed to be unlikely.

Beside the identification of events also their classification leads to issues. The classification in positive and negative events was not in all cases straightforward. Several events were concerned with settlements of lawsuits, mainly in relation with accusations regarding discrimination. It could be argued that the settlements should be evaluated in comparison to the market expectations about the outcome of the lawsuit prior to the settlement, in order to specify whether the settlement was a positive or negative event. We have nevertheless chosen to specify all of these events as negative for two reasons. First, due to lack of information in

the screened articles it was not possible to determine whether the reported outcome was better or worse than the expected outcome of the lawsuit. Second, and perhaps more importantly, settlement cases can conceptually be considered as negative CSR from the company. From our understanding, when settling a lawsuit, the company is implicitly admitting a misdeed. According to this argumentation we do not account for the potential higher or lower financial impact of the settlement compared to pursuing the lawsuit. Rather we base our classification on the expected public perception of the action.

4 RESULTS

4.1 CSR as a Resource

4.1.1 CSR as a Resource

In line with the view that social CSR engagement constitutes a resource to the company (introduced in section 2.3.1), we expect that:

Hypothesis 1: shareholders react positively to the announcement of positive CSR related events/ initiatives

In order to investigate this we set the null hypothesis H_{10} as mean CAR being equal to zero. In economic terms this implies no impact from the positive CSR event on stock returns. Hence, the null hypothesis can be rejected if the mean value of CAR is significantly different from zero. Furthermore, for the support of our Hypothesis 1 we expect the sign on mean CAR to be positive. The dataset for positive CSR events contains 68 different events and relate to 51 different companies. The results are summarized below.

Positive events N=68				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	0.0113	0.0018	0.0070	0.0201
SD	0.0195	0.0177	0.0187	0.0364
T stat	4.7874	0.8352	3.1133	4.5594
Q-value	0.0000	0.4066	0.0027	0.0000
Corrado rank test Prob > z	0.0076	0.9124	0.0168	0.0188

Table 3 – Test results for Hypothesis 1

The overall mean CAR for the three-day event window is positive and strongly significant at a 1% level. The individual mean ARs are also positive. However, the significance tests for the individual ARs provide us with somewhat surprising results. First, the AR is significant on a 1% level for $t=-1$ and $t=1$, but not for the event day $t=0$. Second, we observe that the mean AR is higher for $t=-1$ than for $t=1$. From this analysis it appears that investors on average react positively to positive news relating to CSR events. However, it appears that there is both a leakage and a lagged effect, with the former being stronger than the latter. We will provide a more thorough interpretation of these findings in section 5.

To verify our results, we also report the p-value from the non-parametric Corrado rank test. The results are weaker when using this test; thus, the parametric t-test leads to an over-rejection of the null hypothesis. This observation suggests that the events in our dataset are

cross-sectionally dependent. Cross-sectional dependence can exist if events are clustered around the same date. Hence, we reexamine the original dataset, so see if such a point in time can be identified.

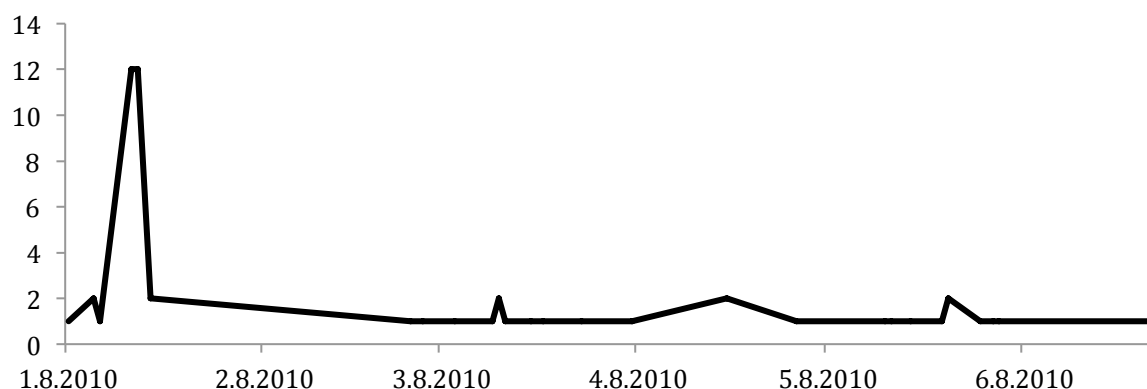


Figure 4 – Number of events of the period January 1st – June 30th 2010

As indicated in Figure 4, a large number of events appear to take place in mid-January 2010 (for a graphic illustration of the comprehensive dataset, see Appendix 3). Out of the dataset of 68 positive events, 23 of these relate to actions undertaken by companies in the aftermath of the Haiti earthquake on January 12th 2010. These events can potentially distort the dataset for two reasons. First, since the events are clustered, ARs might be cross-sectionally dependent. Second, turmoil on stock markets around the world increases the likelihood of other significant factors influencing stock returns in this period. We therefore reduce the sample by these events and perform the same tests as before.

Positive events excluding Haiti N=45				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	0.0082	-0.0000	0.0039	0.0121
SD	0.0187	0.0178	0.0186	0.0361
T stat	2.9406	-0.0070	1.4041	2.2409
Q-value	0.0052	0.9944	0.1673	0.0301

Table 4 – Test results for Hypothesis 1 without events relating to the Haiti earthquake

As shown in Table 4, results are somewhat weaker compared to the full dataset. They do, however, follow the same pattern in all major aspects. The mean ARs and CAR are still positive over all days in the event window and CAR is significant on the 5% level. We can also see that results from t=-1 are considerably stronger than t=1. The conclusions regarding Hypothesis 1 that were drawn previously do not change.

4.1.2 CSR as a Resource with Diminishing Marginal Returns

In line with the view that social CSR activities constitute a resource with diminishing marginal returns (introduced in section 2.3.1), we expect that:

Hypothesis 1a: shareholders react less positively to the announcement of positive CSR related events for companies with relatively higher CSR performance

In order to investigate this relationship we use a regression-based approach. Specifically, we are interested in the cross-sectional relationship between CAR and CSR performance. We have previously obtained significant and positive CARs in accordance with the resource based view for positive CSR events. As it was obvious that the events related to the Haiti earthquake distorted our data we only use the revised sample of 45 observations. Due to data-unavailability, eight observations are dropped, reducing our sample size to 37 observations. The regression model follows the specifications outlined in section 3.2.5. The dependent variable is the three-day CAR. The independent variable is CSR performance, measured as the CSRHub ranking. CSR Hub uses a rating system on a scale from 0-100. The rankings of the firms in our dataset range from 39 to 74. Since the ranking intervals cannot be expected to linearly correspond to CARs, but are organized as ordinal data, we choose to group the firms into five categories based on their rating value. There are no obvious threshold values that allow a division into groups with for example “insufficient” or “excellent” CSR practices. We, therefore, rather attempt to make the groups of as equal size as possible. The groups are shown in Appendix 4.

As control variables we used natural logarithm of total asset, price-to-book-ratio, ROA and the natural logarithm of leverage. The following results are obtained:

N=37						
Variable name	Coefficient	Std. error	T	P> t 	95% Conf. interval	
Ln(Total assets)	-0.0117	0.0119	-0.98	0.337	-0.0361	0.0128
Price to book ratio	-0.0057	0.0027	-2.11	0.044	-0.0112	-0.0002
ROA	-0.0001	0.0017	-0.07	0.946	-0.0036	0.0033
Ln(Leverage)	0.0154	0.0142	1.09	0.287	-0.0136	0.0444
CSR rank 1 (low)	-0.0057	0.0154	-0.37	0.715	-0.0373	0.0259
CSR rank 2	-0.0233	0.0267	-0.87	0.390	-0.0779	0.0314
CSR rank 3	0.0312	0.0238	1.31	0.201	-0.0176	0.0799
CSR rank 4	-0.0071	0.0175	-0.40	0.689	-0.0430	0.0288
CSR rank 5 (high) – const.	0.0683	0.0899	0.76	0.454	-0.1158	0.2523

Table 5 - Test results for Hypothesis 1a using a regression approach of CSR ranking

The coefficients referring to the CSR ranks 1-5 are of interest for our study. None of these are significant, not even on a 10% level. The adjusted R^2 is 0.0635. These results indicate that there is no systematic relationship between CSR performance and CAR. Thus, we find no support that the market reacts less positively for positive CSR events relating to firms with comparatively higher CSR performance.

4.1.3 The Resource Value of Moral Capital and Exchange Capital

CSR activities create exchange capital or moral capital depending on the stakeholder group they are directed at (introduced in section 2.3.1). We expect that:

Hypothesis 1b: there is no difference in shareholders' reaction to positive CSR related events for firms that perform well in CSR targeted at primary stakeholders (employees) compared to firms that perform well in CSR targeted at secondary stakeholders (the community)

Similar to the previous case we run two regressions to test this hypothesis. However, in this case the ranking refers to community and employee, respectively, in the two regressions. The groups for the ranking are determined according to the ranges presented in Appendix 5. The control variables do not change compared to the previous regression. Our results are reported in Table 6 and Table 7.

N=37						
Variable name	Coefficient	Std. error	T	P> t	95% Conf. interval	
Total assets	-0.0008	0.0099	-0.08	0.935	-0.0210	0.0194
Price to book ratio	-0.0092	0.0030	-3.03	0.005	-0.0154	-0.0030
ROA	0.0018	0.0017	1.06	0.298	-0.0017	0.0052
Leverage	0.0196	0.0130	1.52	0.141	-0.0069	0.0462
CSR comm. rank 1 (low)	0.0570	0.0276	2.07	0.048	0.0006	0.1135
CSR comm. rank 2	-0.0362	0.0184	-1.97	0.059	-0.0739	0.0015
CSR comm. rank 3	0.0945	0.0464	2.03	0.052	-0.0007	0.1896
CSR comm. rank 4	0.0041	0.0154	0.27	0.792	-0.0275	0.0357
CSR comm. rank 5 (high) - intercept	-0.1809	0.1077	-1.68	0.104	-0.4016	0.0398
Adjusted R ² : 0.1315						

Table 6 - Test results for Hypothesis 1b using a regression approach of CSR ranking related to community

N=37						
Variable name	Coefficient	Std. error	T	P> t	95% Conf. interval	
Total assets	-0.0053	0.0126	-0.42	0.675	-0.0311	0.0205
Price to book ratio	-0.0051	0.0029	-1.77	0.087	-0.0110	0.0008
ROA	0.0002	0.0019	0.10	0.921	-0.0037	0.0041
Leverage	0.0090	0.0159	0.57	0.575	-0.0235	0.0415
CSR empl. rank 1 (low)	-0.0044	0.0201	-0.22	0.829	-0.0455	0.0368
CSR empl. rank 2	0.0186	0.0256	0.73	0.473	-0.0338	0.0710
CSR empl. rank 3	-0.0036	0.0243	-0.15	0.883	-0.0533	0.0461
CSR empl. rank 4	0.0057	0.0200	0.29	0.777	-0.0352	0.0466
CSR empl. rank 5 (high) - intercept	0.0165	0.0892	0.19	0.854	-0.1661	0.1992
Adjusted R ² : -0.0531						

Table 7 - Test results for Hypothesis 1b using a regression approach of CSR ranking related to community

For the dataset relating to employee ranking we do not find significant coefficients for the independent variables of interest. For the community ranking on the other hand we observe significant values for the coefficient referring to CSR community rank 1 – 3. There appears to be a small impact from the CSR community ranking on the mean of CAR. However, we do not identify any systematic relationship between the respective rankings and stock returns. Thus, no statement can be made about whether there is a difference in “resource value” of CSR activities when comparing CSR performance related to primary stakeholders to CSR performance related to secondary stakeholders.

4.1.4 Summary of the Resource-based View

Event studies are often sensitive to the chosen length of estimation and event window (McWilliams and Siegel, 1997). We therefore check the robustness of our results by rerunning the tests with alternative estimation and event windows. For these checks we use

the dataset of positive events excluding events related to the Haiti earthquake. First, we keep the three-day event window in combination with a prolonged estimation window. The results are virtually the same as in the case with 120 days estimation window. Second, McWilliams and Siegel (1997) find that there is a positive relationship between the length of event day and the significance of CAR. In our case, the short event window already minimizes this problem. However, to confirm our findings we shorten the event window further to include only two days [-1, 0] and [0, 1] respectively. We also test whether there is a lagged market reaction by using a [0, 2] event window. The results of these robustness checks are in all cases significant at least on the 5% level (for a summary of these results, see Table 8 below).

In conclusion we find support for our Hypothesis 1. Positive events seem to generate statistically significant positive mean ARs for all days in the event window except for the event day. Furthermore, there is a positive relationship between the three-day mean CAR and the positive event in all cases. The daily mean ARs vary between 1-0,5%. The findings, however, do not support Hypothesis 1a and 1b. CSR performance does not appear to have an influence on mean CAR. This outcome is the same whether CSR performance relates to an overall ranking or a specific ranking for employee and community respectively.

Summary of positive events results (52 pos. CAR, 16 neg. CAR)		
	CAR	ρ (prob. > t)
Full sample, (N=68)	0.0201	0.0000
Corrado rank test Prob > z , (N=68)	0.0201	0.0188
Excluding Haiti (N=45)	0.0124	0.0234
Alternative estimation window (250 days), (N=45)	0.0126	0.0150
Alternative event window [-1, 0], (N=45)	0.0083	0.0433
Alternative event window [0, 1], (N=45)	0.0043	0.3290
Alternative event window [0, 2], (N=45)	0.0106	0.0558

Table 8 – Summary of test results for Hypothesis 1 relating to full sample data set and sub datasets

4.2 CSR and the Good Management Theory

4.2.1 CSR and the Good Management Theory

For the test of our second hypothesis we only use negative events and investigate their potential impact on stock market reactions. In line with the view that negative CSR events are an indication of management neglect (introduced in section 2.3.2), we expect that:

Hypothesis 2: shareholders react negatively to the announcement of negative corporate events/ initiatives related to CSR

The null hypothesis is specified as $H2_0$ that the mean CAR is equal to zero. For this test, however, we expect the mean of ARs and CAR to be negative. As in the case of positive events, we start our hypothesis testing with the full dataset of negative events. The dataset is slightly smaller than the previous one with 60 events relating to 39 unique companies. Results are presented in the table below.

Negative events N=60				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	0.0004	0.0001	-0.0023	-0.0018
SD	0.0260	0.0253	0.0212	0.0480
T stat	0.1138	0.0386	-0.8408	-0.2891
Q-value	0.9098	0.9693	0.4038	0.7735
Corrado rank test Prob > z	0.9920	0.5620	0.6030	0.7642

Table 9 – Test results for Hypothesis 2

As shown in Table 9, neither the individual ARs nor CAR are significant according to the t-test or the Corrado rank test. Thus, we fail to reject H_{2_0} and cannot draw any conclusions about the market's reactions to negative CSR events. We partition the dataset in order to see whether some subset of the gathered data produces a significant outcome and thereby at least partially support our hypothesis.

In the negative sample, there is a substantial subset of events that relate to settlement of lawsuits, which mainly concern discrimination due to gender, race or age. It could be argued that these events yield a positive impact on stock returns if one regards settling a lawsuit as deterring longer, potentially more costly trials. We, however, classified them as negative, as we feel that settling a lawsuit, at least to a certain extent, implies admitting a misdeed. Due to the potential conflict between the financial and values-based classification it is obvious that there could be some ambiguity related to these events. They constitute a large part of the dataset (17 out of the 60 events). We rerun the tests without the settlement cases to see whether our insignificant results for Hypothesis 2 are influenced by the ambiguous nature of the settlement cases. The results are shown in the table below.

Negative events, without settlement N=43				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	0.0018	0.0025	-0.0010	0.0033
SD	0.0259	0.0229	0.0162	0.0387
T stat	0.4442	0.7012	-0.3861	0.5518
Q-value	0.6592	0.4871	0.7013	0.5840
Corrado rank test Prob > z	0.6456	0.2224	0.6966	0.4354

Table 10 – Test results of Hypothesis 2 without settlement cases

Once again, none of the variables is significant, not even on the 10% level. Therefore, also in this case, we fail to reject our H_{2_0} that mean CAR is equal to zero and have to conclude that based on the data we cannot draw any conclusions regarding our Hypothesis 2.

The data gathered only refers to a relatively short period of time of three years. Whereas this is theoretical justifiable in light of recent findings that perceptions of CSR change over time, it also confines our dataset. Due to the limited size of the initial sample we were not able to focus on events with a high presumed impact. Hence, one concern is that some of the identified events might be of a too small magnitude to affect shareholders' decisions. In order to at least partially account for this problem, we regroup the data according to the magnitude and presumed impact of the event. The regrouping was based on several criteria, which included the potential financial impact of the event (e.g. settlement of a lawsuit), amount of words in the article dedicated to the event in question (e.g. was it only listed as one example

among many or was the article explicitly dedicated to the event) and the closeness of the event to the firm (e.g. whether it was the company itself that was acting irresponsibly or a subcontractor/supplier). This generated a total of 29 events with high presumed impact. We reran the test with this refined dataset. The results are presented in Table 11 below. It is evident that the groups yield similar results, none of which are significant. Hence, also this regrouping of events does not shed light on the impact on stock returns from negative events.

Negative events, high importance N=29				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	-0.0008	0.0021	-0.0002	0.0011
SD	0.0231	0.0246	0.0163	0.0418
T stat	-0.1754	0.4527	-0.0562	0.1478
Q-value	0.8620	0.6543	0.9556	0.8835
Corrado rank test Prob > z	0.7948	0.1586	0.4238	0.7338

Table 11 – Test results for Hypothesis 2 only taking into account events with high importance

To seek further explanation for our previous results we test whether either community related or employee related CSR events have a larger impact on stock returns. Throughout this study we aim to take the comprehensive range of CSR activities into account. However, we believe that dividing the data according to the categories used in our framework might provide additional insights. We identify 50 employee related and only 10 community related negative events. The community related events mainly involve sizable product recalls or reported harm caused to customers due to defect products. Examples of employee related events include unannounced strikes, or bad working conditions. Our results are shown in the tables below.

Negative events, employees N=50				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	-0.0016	-0.0006	-0.0029	-0.0051
SD	0.0275	0.0271	0.0224	0.0514
T stat	-0.4137	-0.1504	-0.9090	-0.6963
Q-value	0.6809	0.8810	0.3678	0.4895
Corrado rank test Prob > z	0.3898	0.8494	0.7718	0.8728

Table 12 – Test results for Hypothesis 2 taking into account only events relating to employee impact

Negative events, community N=10				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean	0.0103	0.0036	0.0006	0.0145
SD	0.0141	0.0135	0.0145	0.0198
T stat	2.3195	0.8529	0.1249	2.3257
Q-value	0.0455	0.4159	0.9033	0.0451
Corrado rank test Prob > z	0.0768	0.3422	0.5418	0.2984

Table 13 - Test results for Hypothesis 2 taking into account only events relating to community impact

The null hypothesis H_{2_0} that the mean CAR is equal to zero cannot be rejected on a meaningful significance level for the employee related events. For the community related events, on the other hand, we observe a significant positive AR for t=-1. Due to the small dataset, we cannot rely on the accuracy of the t-test. Our results are, however, reinforced by the Corrado rank test. This finding contradicts the expected impact of negative events on

stock returns and goes against our Hypothesis 2. We furthermore obtain a significant positive mean CAR when applying the t-test. However, the CAR is insignificant when using the Corrado rank test. Overall it is, hence, not possible to find support for our Hypothesis 2.

4.2.2 Summary of the Good Management Theory

As in the case with positive events we experiment with different estimation and event windows to check the robustness of our results. Maintaining the original event window we first alter the length of the estimation window to 250 days. Contrary to the sample of positive events, we additionally extend the event window in order to evaluate whether there might be a lagged effect in market reaction. We perform the t-test with event window length of [-1, 5], [-1, 10] and [-1, 20]. The results are shown in Table 14. Also with the different estimation and event window lengths no significant impact of negative CSR events on stock returns can be observed.

In conclusion we find that the market does not react on the announcement of negative events related to CSR. Even after accounting for ambiguous events no significant abnormal returns were identified. We furthermore refined the sample by using only events with high presumed impact, but did not obtain a different finding. In addition we split up the sample in order to see whether news related to a particular category of CSR events revealed significant results. The only instance of significant ARs was for community related events in $t=-1$. Apart from this, no significant abnormal returns were observed. We could, hence, not reject Hypothesis 2. Our overall findings including the robustness checks are found below.

Summary of negative events results		
	CAR	ρ (prob. > t)
Full sample, (N=60)	-0.0018	0.7735
Corrado rank test Prob > z , (N=60)		0.7642
Excluding settlement cases (N=43)	0.0033	0.5840
Employee related (N=50)	-0.0051	0.4895
Community related (N=10)	0.0145	0.0451
Alternative estimation window (250 days), (N=60)	0.0058	0.3100
Alternative event window [-1, 5], (N=60)	-0.0013	0.9209
Alternative event window [-1, 10], (N=60)	-0.0008	0.9595
Alternative event window [-1, 20], (N=60)	0.0207	0.4551

Table 14 – Summary of test results for negative events relating to full sample data set and sub datasets

4.3 CSR as an Insurance

4.3.1 CSR as an Insurance

In line with the view that high CSR performance provides the company with an insurance, if misdeeds related to CSR are revealed (introduced in section 2.3.3), we expect:

Hypothesis 3: shareholders react less negatively to the announcement of negative CSR related events for companies with relatively higher CSR performance

None of the previous testings of negative events have yielded significant mean CARs. Hence, unlike the case of positive events, it would not be appropriate to take a regression approach to evaluate the impact of CSR performance on stock returns. Instead, we split the sample of

negative events into two sub datasets depending on their CSR ranking as issued by CSR Hub (2013). As described in section 4.1.2, in the absence of a clear threshold value for “good” or “bad”, we attempt to split the data into as equal groups as possible. One observation was dropped due to lack of data. Our null hypothesis H_{3_0} proposes that the mean CAR is the same for companies with high and low CSR ranking. The test results for both sub datasets are shown below.

N=29				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean High rank	-0.0032	0.0010	0.0000	-0.0021
Mean Low rank	0.0046	-0.0007	-0.0048	-0.0009
Mean difference (high-low)	-0.0081	0.0017	0.0048	-0.0012
SD difference	0.0399	0.0330	0.0288	0.0661
T stat	-1.0530	0.2844	0.9120	-0.0974
Q-value	0.3013	0.7782	0.3696	0.9231

Table 15 - Test results for Hypothesis 3

The obtained results from both samples are insignificant for all days in the event window as well as for the cumulative abnormal return. The null hypothesis can therefore not be rejected. There is no indication that the market reaction to negative events is less negative for firms with high CSR performance compared to firms with low CSR performance.

4.3.2 The Insurance Value of Moral Capital and Exchange Capital

Finally, in line with the view that moral capital provides more insurance value compared to exchange capital (introduced in section 2.3.3), we expect that:

Hypothesis 3a: there is a less negative shareholder reaction to negative CSR related events for firms with relatively more moral capital (high performers of CSR targeted at secondary stakeholders), compared to firms with relatively more exchange capital (high performers of CSR targeted at primary stakeholders)

Similar to section 4.3.1 we split up the dataset of negative events. In this case, the partition is based on the ranking for a specific stakeholder group. For this analysis we only take into account companies that are high performers in each respective category. The ranking distribution differs between the ranking in the employee category and the community category; in particular firms perform better in the employee category. Because of this we cannot find a common threshold value for the partition in low and high CSR performers. Consistent with our previous reasoning, we instead try to obtain datasets that are similar in size. Community related ranks are categorized as high if they exceed 51,5 and employee related ranks are categorized as high if they exceed 53,5. The null hypothesis H_{3a_0} suggests that the mean CAR does not differ among the sub-datasets. Our results are displayed in the table below.

N=34				
Stats	AR t=-1	AR t=0	AR t=1	CAR
Mean comm. rank	0.0017	0.0033	0.0007	0.0056
Mean empl. rank	-0.0010	-0.0006	0.0011	-0.0006
Mean difference (comm.-empl)	0.0027	0.0039	-0.0005	0.0062
SD difference	0.0363	0.0267	0.0213	0.0437
T stat	0.4391	0.8513	-0.1277	0.8213
Q-value	0.6635	0.4007	0.8991	0.4174

Table 16 – Test results for Hypothesis 3a

No significant results were obtained with our data, neither for the individual mean ARs in the event window nor for the mean CAR. We can therefore not reject our null hypothesis and no conclusions can be drawn regarding the insurance value of moral capital in relation to exchange capital.

In this section we presented the entirety of our results from the event study and regression analysis. These results will be analyzed in relation to theory and previous literature in the following section.

5 DISCUSSION

The general purpose of this study is to explore the nature and direction of the stock market impact from CSR events. We therefore analyze our findings in light of theory and previous literature. Our findings are presented in the table below and will be discussed in the remainder of this section.

Hypothesis	Finding
CSR as a resource	Supported
Hypothesis 1: shareholders react positively to the announcement of positive CSR related events/ initiatives	
Hypothesis 1a: shareholders react less positively to the announcement of positive CSR related events for companies with relatively higher CSR performance	Not supported
Hypothesis 1b: there is no difference in shareholders' reaction to positive CSR related events for firms that perform well in CSR targeted at primary stakeholders (employees) compared to firms that perform well in CSR targeted at secondary stakeholders (the community)	Not supported
CSR and the good management theory	
Hypothesis 2: shareholders react negatively to the announcement of negative corporate events/ initiatives related to CSR	Not supported
CSR as an insurance	
Hypothesis 3: shareholders react less negatively to the announcement of negative CSR related events for companies with relatively higher CSR performance	Not supported
Hypothesis 3a: there is a less negative shareholder reaction to negative CSR related events for firms with relatively more moral capital (high performers of CSR targeted at secondary stakeholders), compared to firms with relatively more exchange capital (high performers of CSR targeted at primary stakeholders)	Not supported

Table 17 – Presentation of our hypothesis and respective findings

In line with Hypothesis 1 we find that the market reacts positively to positive news about CSR activities. These results underline the findings of several previous studies, including two of the most extensive meta-analyses provided in this field (cf. Margolis et al., 2007; Orlitzky et al., 2003). Our findings suggest that investors assign a value to positive CSR activities. Based on these results, no definite conclusion can be drawn on whether CSR is actually regarded as a resource by investors. The theory behind our hypothesis is, however, supported by our finding and provides one possible explanation for the positive abnormal returns around the event date. We do not find support for Hypotheses 1a and 1b. Our findings do not reveal whether CSR performance affects the impact of positive CSR events on stock returns. Since our data did not yield significant results, no further interpretation can be made regarding the theory behind the hypotheses. In the subsequent analysis we therefore focus on the findings relating to Hypothesis 1.

Under the resource based view the finding suggests that CSR activities are regarded as an intangible asset that will enhance future financial performance. Stock returns are affected by investors' expectations about future benefits and costs incorporated in net present value calculations. A positive impact from positive CSR events suggests that investors assign a positive net present value to the CSR event. Positive events commonly refer to deliberate actions taken by the company. It is likely that a company only undertakes a particular CSR activity if the company expects that the future benefits will outweigh the costs. One interpretation of our findings is that investors are aware of this behavior and therefore react positively when news about positive CSR events are released.

Interestingly we find the largest impact from an event on the days immediately before and after the publication. The day preceding the event day yields the most significant mean AR, indicating that the leakage effect is larger than the lagged effect. It seems like information about the CSR event reaches the market already before the information is published in Wall Street Journal. Information about CSR events is likely to appear in the printed Wall Street Journal one day after they occur. In this context our results are sensitive to (1) the choice of news medium and source as well as (2) the length of the event window.

First, we include articles from both the online version and the printed version of Wall Street Journal. It could be argued that the use of printed reports from Wall Street Journal for event studies is outdated. Instead, it might be better to refer to a more frequently updated news medium only, such as online channels. In addition, even though the Wall Street Journal is one of the most important sources for financial news there might be a more relevant source for news relating to CSR events. It is possible that the news appeared in such a source before Wall Street Journal reported about them. The release day of the news is important for our study, as serves as a proxy for the event day. Hence, the choice of news medium and source for the events and – related to that – the determination of the event date have a big impact on the outcome of our study.

Second, McWilliams and Siegel (1997) argue that longer event windows are more likely to yield significant results. They reason that this finding is related to the occurrence of confounding events instead of the CSR event in question. Longer event windows make it difficult to analyze the effect of only one event in isolation. In our study we accounted for this fact by using a very small event window of three days only. We furthermore test with even

smaller events windows. The probability that our results are distorted by confounding events is hence very slim. This strengthens our findings that the market positively values news relating to CSR engagements.

The results also support findings by Flammer (2012), who conducts a similar study with environmental events only. This suggests that the market does not distinguish between the resource value created by positive CSR or positive environmental CSR. However we do not find any support for the hypothesis that there should be diminishing marginal returns to CSR, while there appears to be such an effect for environmental CSR. One reason could be that environmental CSR does not relate in the same way to primary stakeholders and thus the resource value is primarily related to reputation. As long as the company reaches some threshold value the subsequent engagement does not add as much. In contrast, primary stakeholders (notably employees and customers) are an important part of CSR. Since primary stakeholders have a direct impact on the result of the company, CSR performance might be equally important regardless of the previous levels.

The results we obtained for our dataset of negative CSR events are insignificant and we cannot reject the null hypothesis. Hence no conclusion can be drawn regarding how investors react to negative CSR events. In addition, no statement can be made about the theory that negative CSR events are viewed as an indicator of poor management. Two possible explanations for the lack of impact on stock returns from negative CSR events can be identified. First, the market might not be efficient in pricing the impact of negative CSR events. Second, negative events might not contain information indicating future financial performance. Based on our findings it is not possible to determine whether either or both of these reasons are valid.

It cannot be excluded that our findings are sensitive to the magnitude of the events. In this context McWilliams and Siegel (1997) argue that firm's diversification has a large impact on the results. Diversified companies will only be affected by an event on firm level if the magnitude is fairly large. Even though the impact might be large on plant level, the impact might be slim or even non-existing on company level. We tried to account for this by only using events with a presumed high impact and did not obtain significant results.

Besides the magnitude of an event also its characteristics might furthermore explain the outcome of our study. It could be possible that negative CSR events are anticipated by the market. The impact from these types of events would in that case already be factored in the stock prices, before the news is published in the Wall Street Journal. Drawing on our previous reasoning, our results might, therefore, be affected by the choice of news medium and source (Wall Street Journal).

Most of our negative events relate to discrimination. Such events have been analyzed in isolation before in a study by Wright et al. (1995). When applying a short event window and controlling for confounding events, no significant negative mean ARs and CAR could be observed after news about discriminating actions had been published (cf. McWilliams and Siegel, 1997; Wright et al., 1995). Consequently such actions did not seem to be of importance for investors. Since such a large fraction of our negative events are concerned with discriminatory actions they influence our findings. A possible explanation for our

insignificant results for negative events is, hence, that still today the market does not penalize firms for discriminatory actions.

At first, it might seem peculiar that the relationship between CSR and stock market performance is not the same for positive and negative events. With this finding, however, we support Krüger's (2010) reasoning that positive and negative CSR events are fundamentally different in nature. Accordingly, there is not necessarily any inherent contradiction in the finding that the market reacts positively to positive events but shows no reaction to negative events. This asymmetric effect of the market's reaction on negative and positive events has been noticed before by Ioannou and Serafeim (2010b). The authors analyze both social and environmental events together.⁷ According to the conclusions drawn from their study CSR strengths are presumably perceived as value enhancing by the market. CSR weaknesses, on the other hand, are not perceived as value destroying. This conclusion is reinforced by our findings.

Our results both support and contest previous research. One example is the recent study conducted by Flammer (2012). Our study yields similar results as hers with regards to positive CSR events. This indicates that investors assign a value to positive CSR events regardless of whether they are of environmental or social nature. Our findings for negative events, on the other hand, differ from Flammer's (2012) results. It appears that investors allocate more value to negative environmental CSR events than to negative social CSR events. The comparability of our study to Flammer's (2012) study might, however, be impaired by the magnitude of the events used. From the time frame covered and the number of identified events it can be inferred that Flammer (2012) used events with comparatively larger impact.

Concerning the insurance view, our findings do not support the hypothesis that CSR performance mitigates the effect of a negative event. These findings contest earlier work. Godfrey et al. (2009), for instance, conclude that an engagement in CSR activities will provide companies with an insurance-like protection that mitigates the effect of negative CSR events. However, their study only tests the insurance value for firms engaging in CSR activities as opposed to a control sample of firms not engaging in CSR activities at all. We refine their study by testing a hierarchy of CSR performance. Our study investigates whether a mitigating effect in case of negative events is higher for companies with high CSR performance than for companies with low CSR performance. As we did not obtain significant results in our study we are not able to draw any conclusion about the insurance value of CSR performance. This is the case for overall CSR performance as well as for CSR performance relating to primary and secondary stakeholders respectively.

A potential limitation to the testing of Hypothesis 3 is the initially small dataset. First, we were constrained to regroup companies according to only two categories of CSR performance, namely high and low. Second, the CSR performance of the companies of the dataset is distributed within a rather narrow range. Hence, the difference between the high and low CSR performance might not be large enough to yield significantly diverging mean CARs.

⁷ Ioannou and Serafeim (2010b) divided CSR events into six categories of which five related to purely socially responsible behavior and one to environmental actions.

Regarding Hypothesis 3a, a potential limitation is concerned with linkages between the CSR ranking referring to employees and the community. If high performance in one subcategory is systematically related to high performance in the other subcategory, the test results for Hypothesis 3a might be distorted. Since CSRHub takes into account a variety of sources for their ranking, the likelihood for this correlation is reduced, but cannot be completely excluded. It is therefore possible that this affects the outcome of our study.

6 CONCLUSION AND OUTLOOK

With this study we aim to contribute to existing literature in this field by answering the following research questions:

- (1) Do CSR related events have an impact on the stock returns of a company and if so, what is the nature and direction of this impact?*
- (2) Does perceived CSR performance influence this impact of CSR related events on the stock returns of a company?*

We operationalize these overarching questions by specifying six hypotheses. These are analyzed by conducting an event study and subsequent regressions, where applicable. We find that for positive events, there is a positive impact on stock returns over the three-day event window. The findings are not significantly affected by excluding events relating to the aftermath of the Haiti earthquake and are furthermore robust to different estimation window and event windows. We find no support for the existence of a relationship between stock returns and negative social CSR events. Moreover, shareholders do not seem to assign any value mitigating effect to current events due to high CSR performance. In light of these findings we suggest several extensions to our study for further research, which we have excluded due to limitations in time, resources, data availability or scope.

First, in our study, we have mainly attempted to explain our results according to event and CSR performance characteristics. One different application would be to focus more on the characteristics of the individual securities. For instance, ownership could be one interesting area of research. This topic would include research questions such as: (1) is there a stronger reaction to social CSR events for securities that are predominantly owned by “ordinary people” as opposed to institutional investors?, (2) is it of importance whether there is one or just a few principal owners in comparison with a widely dispersed ownership?, or (3) does the geographical distribution of shareholder matter?

Second, related to the geographical distribution, it would be interesting to investigate data from other parts of the world. Most current studies focus on US data, probably due to data accessibility and the international character and global impact of companies listed on US exchanges. One interesting application could be to compare and contrast current findings with findings from less developed parts of the world, which are traditionally believed to put lower emphasis on CSR issues.

Third, the main limitation to our study is the rather small number of selected events. This is exclusively due to the time consuming nature of manually screening all Wall Street Journal articles for event identification and selection. The comparatively short time period that we

were able to dedicate to event gathering also imposed limitations on the final sample of data; in particular regarding the magnitude of events. It would therefore be interesting to see this study being replicated with a larger dataset in order to obtain significant abnormal returns. Negative events – if large enough – can be argued to exhibit the characteristics of corporate crisis. Anecdotal evidence from recent incidents relating to environmental CSR (e.g. the BP oil spill) and corporate governance CSR (e.g. the TeliaSonera corruption case) issues suggest that management response to this type of events has an impact on the subsequent stock market reaction. It would therefore be interesting to investigate how management response to these types of major events can mitigate reputational or financial losses.

Fourth, our conceptual CSR framework provides areas that could be investigated in depth. Especially with regards to social responsiveness, differences in its degree provide an interesting field for further research. It could, for instance, be analyzed whether the market reacts differently to positive initiatives taken proactively compared to initiatives taken only as a reaction to a previous negative event.

Finally, despite being a widely used source of information for stock market actors and in addition the predominant source of information about events in event studies like ours, we feel that the relevance and use of Wall Street Journal as the primary source of information for events of interest to the stock market should be investigated closer. For events studies nowadays it might in fact make more sense to use less traditional sources, such as blogs, twitter and other online and social media forums.

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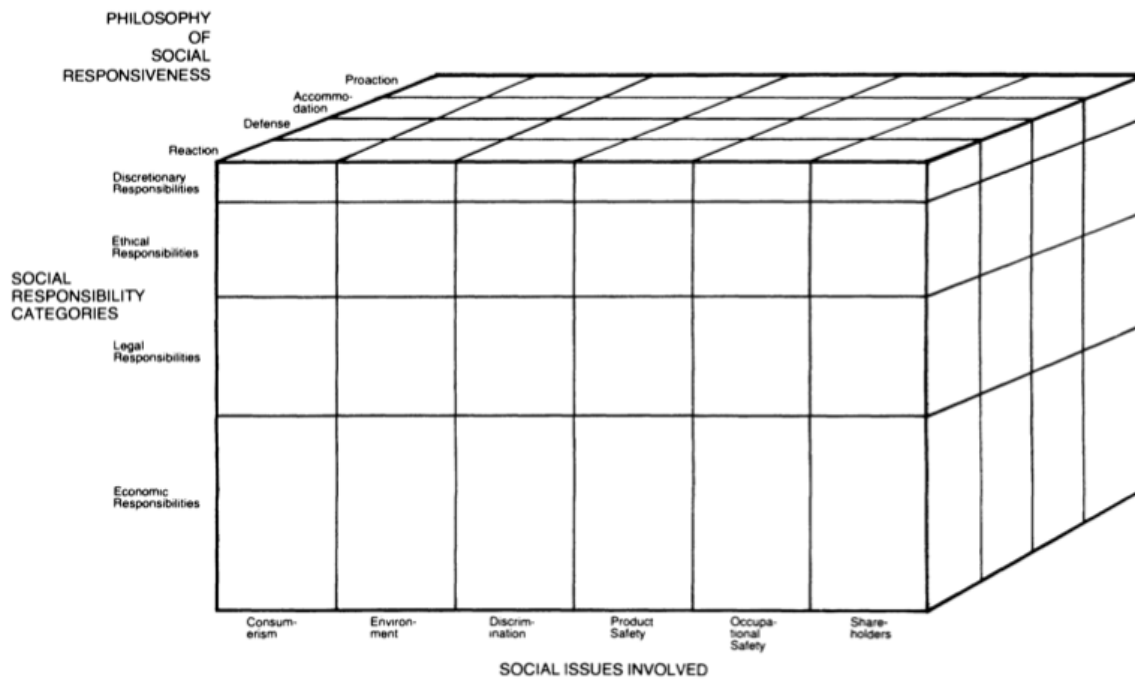
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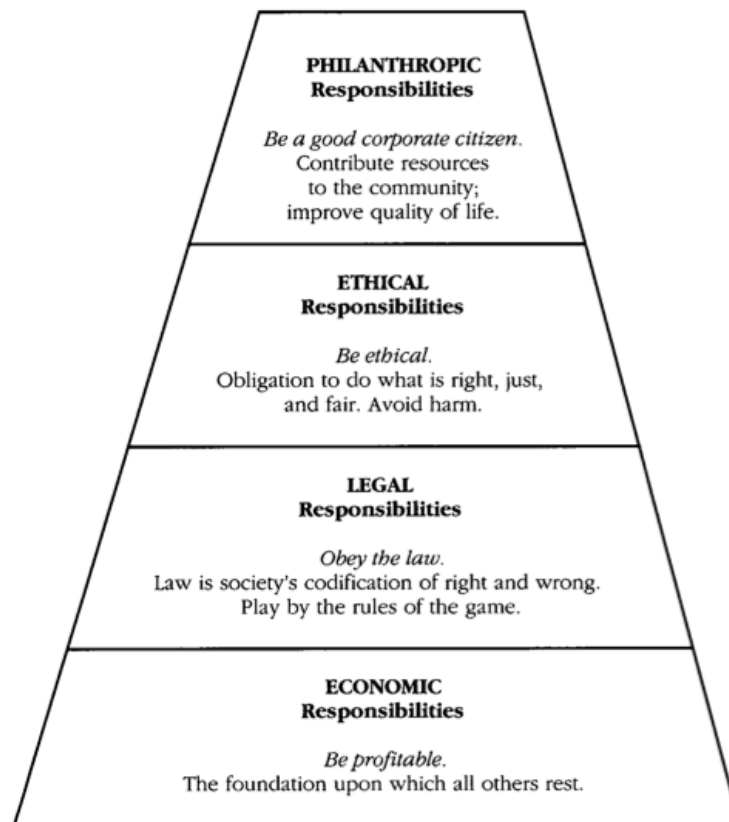
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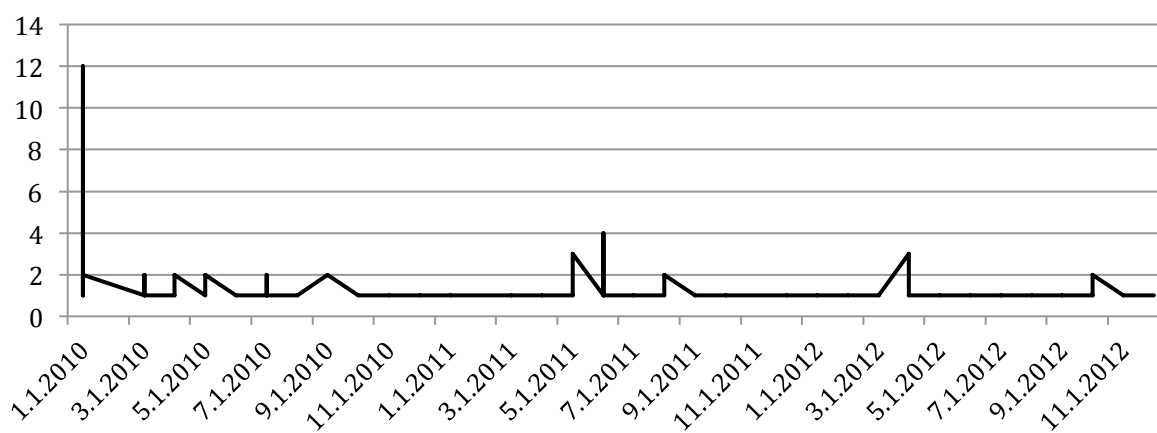
8 APPENDIX



Appendix 1 – The Corporate Social Performance Model (Carroll, 1979)



Appendix 2 – The Pyramid of Corporate Social Responsibility (Carroll, 1991)



Appendix 3 – Number of events 2010-2012

CSR performance	N	Range
5 (= high)	11	63,5 – 70,5
4	7	58,5 - 63,0
3	8	54,5 - 58,0
2	2	48,5 - 54,0
1 (= low)	9	40,0 – 48,0

Appendix 4 – CSR performance ranking for Hypothesis 1a

CSR performance	N of employees	Range employees (CSRHub ranking)	N of community	Range community (CSRHub ranking)
5 (= high)	6	63,0 - 67,0	14	65,0 - 75,0
4	9	58,0 - 62,5	12	59,0 - 64,5
3	6	53,0 - 57,5	1	55,0 - 58,5
2	9	47,0 - 52,5	6	50,0 - 54,5
1 (= low)	7	40,0 - 46,5	4	40,0 - 49,5

Appendix 5 – CSR performance ranking according to employees and community for Hypothesis 1b