

Will, Matthias Georg; Hielscher, Stefan

Article

How do companies invest in corporate social responsibility? An ordonomic contribution for empirical CSR research

Administrative Sciences

Provided in Cooperation with:

MDPI – Multidisciplinary Digital Publishing Institute, Basel

Suggested Citation: Will, Matthias Georg; Hielscher, Stefan (2014) : How do companies invest in corporate social responsibility? An ordonomic contribution for empirical CSR research, Administrative Sciences, ISSN 2076-3387, MDPI, Basel, Vol. 4, Iss. 3, pp. 219-241, <https://doi.org/10.3390/admsci4030219>

This Version is available at:

<https://hdl.handle.net/10419/239736>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/3.0/>

Article

How do Companies Invest in Corporate Social Responsibility? An Ordonomic Contribution for Empirical CSR Research

Matthias Georg Will * and Stefan Hielscher

School of Economics and Business, Martin-Luther-University Halle-Wittenberg, Grosse Steinstrasse 73, 06108 Halle, Germany; E-Mail: stefan.hielscher@wiwi.uni-halle.de

* Author to whom correspondence should be addressed; E-Mail: matthias.will@wiwi.uni-halle.de; Tel.: +49-345-55-23387.

Received: 12 May 2014; in revised form: 25 June 2014 / Accepted: 26 June 2014 /

Published: 21 July 2014

Abstract: This paper takes both a *conceptual* and an *empirical* approach to answer the question as to how Corporate Social Responsibility (CSR) can be connected to the company's role as an agent of social value creation when it operates within an imperfect institutional framework of market competition. To develop a functional design for an empirical study, we draw on the concept of ordonomics, which provides a heuristics for responsible business activities in society. Drawing on ordonomics, we devise three questions: Referring to *action responsibility* we ask in which CSR activities companies do invest in their day-to-day business. Referring to *governance responsibility* we ask as to how companies realize win-win solutions through strategic commitments. In addition, with regard to *discourse responsibility* we ask in which stakeholder dialogues companies engage in order to discuss and find functional rules for organizing win-win solutions. In our empirical study, we reveal insights into the micro-level analysis of the CSP-CFP link and generate several new questions to be the subject of future research.

Keywords: CSR; Empirical CSR Research; CSP-CFP relationship; Ordonomics; Stakeholder Dialogue

JEL Classification: M14, D22, C38

1. Introduction

For almost 35 years, the effect of social activity on company performance has been under empirical analysis. Empirical studies have inquired into the relationship between corporate social responsibility (CSR) or, to use the notions of empirical research, corporate social performance (CSP) and corporate financial performance (CFP). Yet after about 170 studies, it is still an unsettled issue whether companies do well because they are doing good or whether companies that are doing well can also do good. This ambiguity has led some of the most prominent scholars in the field to a discouraging conclusion. Prominent researchers in the field hold that “[t]he continuing quest to substantiate or repudiate a link between CSP and CFP may be of little value. While the quest is seductive, it may be time to let this particular question rest. ... Research must now show *how* CSP comes to bear upon CFP” [1].

This paper takes the above conclusion as its starting point for both a conceptual and an empirical contribution to empirical CSR research. Following the ordonomic perspective on business in society, the article builds upon the tripartite ordonomic idea that companies can assume social responsibility not only in the arena of ordinary day-to-day business activity, but also in the public arena of rule-finding and the political arena of rule-setting. Based on the ordonomic understanding that companies can use ‘*morality as a factor of production*,’ this paper takes both a *conceptual* and an *empirical* approach to answering the question as to how CSR can be connected to the company’s role as an agent of social value creation in its day-to-day business and governance activities.

We highlight the ordonomic contribution to the empirical literature on CSR in three parts. Part 1 reviews the current state of empirical macro-level and micro-level research on CSR. Part 2 presents the ordonomic concept of ‘morality as a factor of production’. Based on this conceptualization, Part 3 contains an ordonomic contribution to the empirical research. Part 3 concludes with suggestions for future empirical work.

2. The Current State of Empirical CSR Research

During the last 35 years, more than 170 empirical studies have been published that analyze the market return of firm investment in corporate social responsibility (CSR) [1]. The good news is that many of these empirical CSR studies find a significant relationship between corporate social performance (CSP) and corporate financial performance (CFP). (Admittedly, a recent article claims that the small but positive CSP-CFP link could be the result of a strong reviewer bias toward those empirical studies that champion a positive relationship and against those studies, which support evidence against such a link [2].) The bad news is that the literature still lacks a clear understanding as to *how* CSR can positively influence a firm’s processes of value creation. In this section, we review the extant empirical research and present its results in the two categories of (1) macro-level and (2) micro-level CSR research.

(1) There is a long tradition in empirical research of analyzing the direct impact of CSP on CFP. By now, many of these studies’ results have been scrutinized by using the tools of statistical meta-analysis. In particular, three prominent meta-studies estimate the overall impact of CSP on CFP.

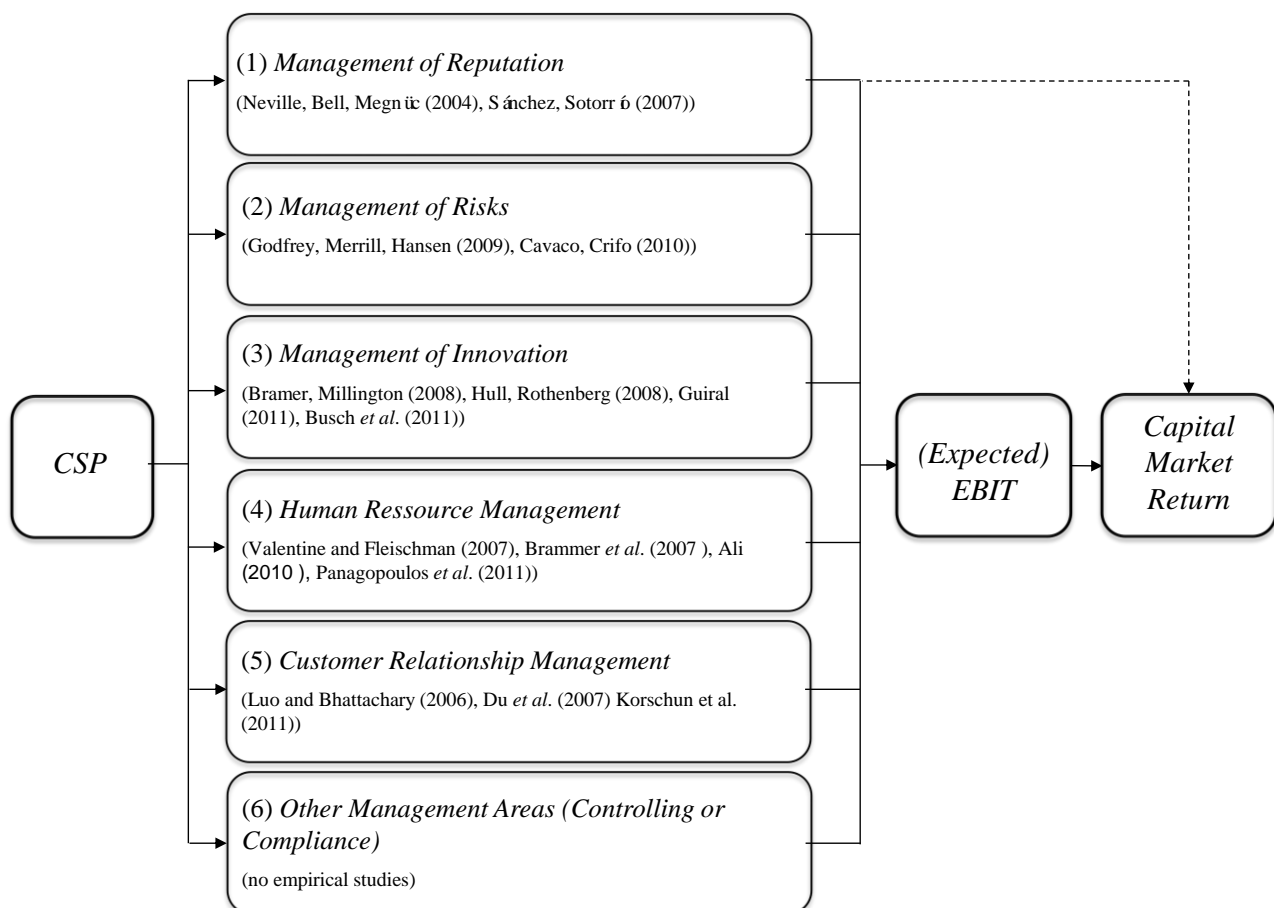
- One meta-study analyzes 52 empirical studies [3]. This meta-study concludes (a) that although the studies mainly find positive and significant correlations, the causal link between CSP and CFP is likely to be reciprocal and simultaneous. (b) The authors emphasize that the reputation the company gains from CSR activity greatly influences the strength of the CSP-CSF-link. (c) In addition, the meta-study also highlight the methodological weaknesses of all CSP-CSF studies. According their analysis, the variance of the error terms explains from 15 to 100% of the CSP-CFP link in the original studies.
- Another meta-study analyzes 82 empirical studies [4]. That meta-analysis comes up with five major results. (a) CSP has a positive impact on CSF, and this effect is stronger in the United Kingdom than in the United States. (b) Reputation gained from CSR activity has a stronger influence on the CSP-CFP link than other explaining parameters such as, for example, company audits. Philanthropic activity and environmental programs have a small effect on CFP. (c) The results of many empirical studies are, in part, due to statistical artifacts. For example, the authors show that positive effects are stronger if the studies use OLS regression or mean comparison tests. (d) Parameters such as size of firm, industry or company-specific risk, and R&D expenditure have no effect on the CSP-CFP relationship. (e) Tests suggest that CSR has a bigger influence on subjective measures and market indicators like stock market returns than on accounting-based parameters. (f) According to the meta-analysis, there is a structural discontinuity in the observation period: It shows that CSR had stronger effects in the 1960s than in the 1980s.
- The most recent meta-study examines 167 empirical studies [1]. That meta-analysis yields the following results. (a) Capital markets do not punish companies that invest in CSR. (b) The returns of pro-active CSR activities are lower than investments in innovation, capital goods, or mergers. (c) Capital markets severely punish moral misconduct of firms in the present and in the future. Consequently, CSR is profitable if it helps minimize business scandals or if it is used to prevent negative reputation effects caused by company scandals. (d) Companies with strong financial fundamentals in the past are more likely to spend money for philanthropic activities. (e) Current CSR activity predicts neither present nor future CFP. Indeed, it is highly probable that a good CFP promotes CSP, not vice versa. (f) In many cases, the reliability and validity of the CSP indicators are doubtful.

In short, the available meta-studies reveal that the data of the original studies are often too much aggregated to be fully exploited by correlation or regression analysis. This is so for two reasons: First, firms are very diverse with respect to their organization and industry and, second, CSR activities vary among companies because firms address diverse stakeholders in different industries. As a consequence, empirical studies that use aggregated macro data to evaluate the CSP-CFP link encounter difficulty in finding causal interdependencies. As a matter of fact, in many cases the link between CSR and profitability is neither linear nor monocausal. Thus, empirical research needs a theoretical framework to handle the complex CSP-CFP link before the link can be evaluated effectively.

As a result, the literature criticizes not only the quality of the empirical concept but also the theoretical foundation of CSP-CFP research. Some researchers even go so far as to challenge the whole idea of analyzing the CSP-CFP on a macro level: “Ironically, 167 studies later, managers may be exactly where they were in 1972: seeking criteria to judge when CSP makes sense and guidance about how to advance both CSP and CFP, if they are both worthy of pursuit but not entirely consistent. The continuing quest to substantiate or repudiate a link between CSP and CFP may be of little value. While the quest is seductive, it may be time to let this particular question rest. There may be other aspects of the CSP-CFP relationship that are now more important to investigate” [1].

(2) A more systematic approach to empirical CSR research focuses on ‘other aspects of the CSP-CFP relationship’ and pays attention to the organizational micro-level of the firm’s value creation activities. The idea behind such empirical work is to associate CSR with specific business functions such as reputation management, risk management, innovation management, and human resource management. These micro-level studies ask as to how different CSR functions can influence the present or future profit and even the market value of the firm. The underlying assumption is that CSR activities that affect the future value also raise present equity prices because of a higher cash value. As shareholders anticipate prospective gains from their current investment decisions, CSR can also bear on the current market value of the firm. Figure 1 illustrates the hypothesis that functional CSR explains the CSP-CFP relationship and also shows *how* the research is associated with this hypothesis.

Figure 1. Micro-level empirical corporate social responsibility (CSR) research: CSR functions and the corporate social performance (CSP)-CFP relationship (own illustration).



- *Management of reputation.* Several studies investigate the impact of reputation management on the CSP-CFP relationship. Some authors find a positive link between reputation and financial performance [5], but according to other scholars [6], the marginal returns of reputation are declining. Reputation management does not seem to be a cash cow and the effects of a good reputation on profitability are small. These micro-level studies do not analyze to what extent reputation increases (future) profits or whether reputation directly increases stock market returns [6]. Yet according to other theoretical findings, this is an important piece of information when evaluating the efficiency of capital markets: if investors focus only on the reputation of companies and not on company fundamentals, capital will accumulate inefficiently because investors waste scarce capital and create bubbles [7]. Under these circumstances, acting ‘morally’ would lead to socially undesirable results. Doing good would result in market failure.
- *Management of risks.* Other work argues that CSR can insure against the risk that the company’s core business activities will result in unintended but morally suspicious results, such as company scandals. According to their analysis, stakeholders (especially the general public) tend to forgive business misbehavior more easily if firms display good moral intentions but, less easily, if firms have a doubtful moral reputation [8]. Similar results are provided by studies that argue that an investment in CSR pays off for shareholders because a good CSP reduces business risks and therefore decreases volatility on the capital market [9]. According to that view, good CSR management creates strong ties with important stakeholders of the company, as well as with shareholders, that will endure even in periods of crisis.
- *Management of innovation.* Several empirical studies show a strong relationship between CSP, CFP, and innovation management [10–12]. The direction of the causality, however, is still an open question: Does CSR increase the probability of generating more and better innovations or does CSR send a positive signal to financiers so that companies can invest in more risky projects? In addition to the problem of reverse causality, the empirical studies do not reveal whether innovative companies invest more money in CSR activities. It is quite possible that the measured relationship is just a spurious correlation in the case that highly profitable and innovative firms also implement CSR and in the case that CSR does not influence the investors’ decisions and does not increase the probability of being innovative. Other authors even measure a negative and significant relationship between CSP and innovation [13]. In addition, the empirical literature has not yet asked the question whether firms explicitly use stakeholder dialogues to develop new organizational innovations such as new business models.
- *Management of human resources.* The theoretical CSR literature champions the idea that CSR has a positive impact on employee productivity [14]. The empirical CSR research seems to support this idea. For example, some studies research the empirical relationship between CSR and work satisfaction [15]. Furthermore, other work analyzes the effect of employee commitment on company fundamentals such as

market share, competitive position, and return on investment [16]. The commitment literature provides an idea for why CSR can positively influence a firm's human resources management. According to a much earlier study, a commitment 'represents something beyond mere passive loyalty to an organization. It involves an active relationship with the organization such that individuals are willing to give something of themselves in order to contribute to the ... organization's well being' [17]. Along these lines, employees who are strongly committed to their companies seem to work more productively [18,19]. In a similar fashion, some scholars apply theories of social identity and find that companies with strong CSP indicators are also more attractive employers for potential employees than firms with weak CSP indicators [20].

- *Management of customer relationships.* Another line of research argues that CSR activities increase customer satisfaction. Yet the empirical link is statistically not significant. The relationship varies because 'satisfaction plays a significant role in the relationship between CSR and firm market value and ... a proper combination of both CSR initiatives and product-related abilities is important' [21]. In a micro study of 3,500 customers of three yoghurt companies, CSR activities show a statistically significant impact on purchasing behavior [22]. Customers are more likely to buy the products of companies that use CSR. In addition, buyers show more loyalty to and identification with goods that are produced by companies that engage in CSR. In addition, if CSR strengthens social identity with the firm, employees tend to be more responsive to customer needs [23]. However, consumer orientation is higher only if employees are convinced that the company has a credible customer focus. In addition, have to be convinced that consumers have a strong demand for CSR and share the same values. In general, the impact of CSR is higher if (a) the customers and the company share the same values and if (b) customers support the special areas of CSR interest [24]. Furthermore, costumers seem to be more sensitive toward negative CSR compared to information on good CSR performance.

(3) There is no doubt that micro-level research has enriched the macro-level empirical research on CSR. In fact, the idea of focusing on how CSR impacts specific business functions is a big step forward in the attempt to better understand the CSP-CFP relationship *en detail*. Yet still, most of the empirical literature primarily connects CSR with management functions such as reputation management, risk management, innovation management, or human resources management. (However, there has not been empirical work on several other management areas so far, such as controlling or investor relationships.) Unfortunately, the evidence uncovered by this micro-level empirical CSR research is by no means clear-cut. In short, it is still an open question whether companies do well by doing good (and/or by avoiding bad [25]), or whether firms that do well can also afford to do good (and/or can afford to avoid bad).

As a result, even after more than 35 years of intense research, the empirical CSR literature is a long way from providing a practical management heuristics for firms. Drawing on the current empirical evidence, managers can only conclude that investing in CSR is an adventure with a spurious outcome. Despite many research efforts on the micro-level of the firm, empirical CSR research is still in the

obscure state as described so eloquently by [1]: “Too many studies speculate about mechanisms that explain results or end with a call to investigate them. It is time to study mechanisms systematically. ... No matter how well measured the constructs [of the 167 studies], research must move beyond simply assessing the magnitude of the CSP-CFP relationship. Research must now show how CSP comes to bear upon CFP”.

From this short survey, we conclude that the empirical literature will greatly benefit from a conceptual contribution that helps to better understand ‘*how* CSP comes to bear upon CFP.’ In an effort to provide such a theoretical concept, we present the ordonomic approach to business in society in the following section.

3. An Ordonomic Conceptualization of CSR: Morality as a Factor of Production

In this section, we introduce the theoretical perspective of ordonomics [26–33]. Drawing on the ordonomic approach, we embed the idea of corporate social responsibility (CSR) in the wider liberal notion that companies are agents of social value creation [34]. We develop this ordonomic concept in four steps. Step (1) argues that, in an ideal world, competitive markets are socially beneficial institutions. Step (2) presents the argument that any societal role of business must be compatible with real-world markets, however. Step (3) develops the argument that CSR can reinforce this role of business in society. Step (4) clarifies the ordonomic understanding of win-win oriented CSR.

We take the ordonomic perspective as a starting point for two reasons. *First*, we believe that a more fundamental approach to looking at the social responsibility of business firms achieves a better understanding as to how modern CSR can be used not to weaken, but to strengthen the role of business in society under the conditions of a modern, increasingly globalized market economy. In view of the current state of the empirical literature, we argue, *second*, that this ordonomic conceptualization can help develop an empirical research design that generates new ideas for studying *en detail* the CSP-CFP relationship.

(1) *Competitive markets*. The classical explanation of the working properties of a market economy rests in the idea of social cooperation in a modern society. According to liberal economists such as Ludwig von Mises [35], the institution of the market is the prime instrument for maintaining peaceful cooperation among individuals in complex societies whose members do not know all needs of all other members and cannot fully predict the entire consequences of their actions [30]. In a modern society, markets are functional loci of cooperation because markets use competition in a systematic and purposeful way. As a matter of fact, competition among suppliers on one side of the market and competition among consumers on the other side of the market prevents undesirable forms of cooperation such as producer cartels and monopolies or consumer cartels or monopsonies. From the perspective of society, such cooperation is undesirable because it prevents consumers and producers from fully exploiting the win-win potential of their cooperation. Therefore, the institutional framework of competition—e.g., property rights, contract law, the rule of law, and anti-trust regulation—is an instrument that helps all members of society to fully reap the benefits of their role as consumers *and* producers. In short, from an ordonomic perspective, competition is not an *end* in itself, but a *means* of societal cooperation (for an earlier version of this argument *cf.* [36] and for an ordonomic conceptualization *cf.* [37]).

(2) *Companies as agents of social value creation.* The classical liberal argument in favor of a ‘social responsibility’ of companies is put forward by Milton Friedman. Friedman argues that companies best fulfill their social responsibility if they maximize their profits [38]. Yet in contrast to Friedman’s idea, companies do not operate within an ideal framework of perfect market institutions. In the ‘real’ world, companies have to deal with systematic incompleteness—with an incomplete institutional order of competitive markets and with incomplete contracts for market transactions [34].

Under the ordonomic approach, imperfect institutions and incomplete contracts are the starting point of any moral role for business firms in society. Yet, embedding the corporation into the system of market competition and its indisputable moral quality, a claim for social responsibility cannot simply mean abandoning the profit principle in conflicts between profit and morality. Therefore, any role of business in society must be compatible with the real-world market system, and must be founded on the premise that companies are societal agents for mutually advantageous value creation [34].

Against this backdrop, the ordonomic approach focuses on how corporate actors can use moral commitments to create a functional framework for win-win cooperation with their stakeholders—that is, with their customers, employees, suppliers, and financiers—and also with civil society organizations, politicians, and the media. Yet according to some researchers, social cooperation is always antagonistic cooperation, because it involves not only common interests but also conflicting interests [39]. Take the stakeholder relationship between a company and its investors. Managers prefer to work for a successful market leader; investors want a high return on their investments. Hence, both parties have a common interest in a productive process of value creation. Yet, they also have conflicting interests. Managers are risk averse and tend to engage in mainly low-risk projects with a certain value added; investors would like to see managers invest in high-risk projects that yield higher—although more uncertain—expected returns. Successful cooperation between managers and shareholders thus requires a suitable institutional arrangement that reduces the impact of conflicting interests and brings to bear the common interests of cooperation. Indeed, the whole system of corporate governance is an attempt to institutionally establish and maintain the precarious relationship between management and shareholders [28].

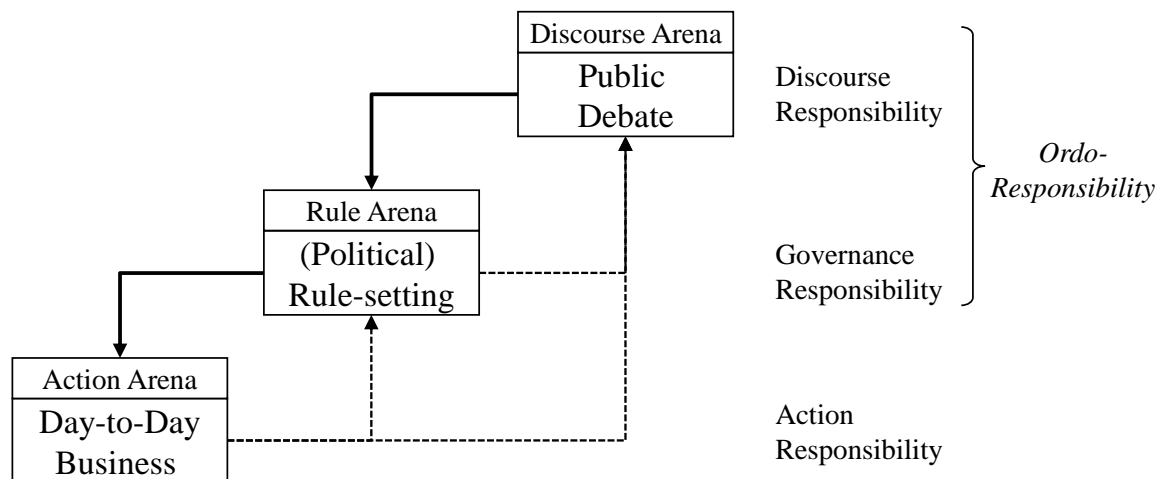
From an ordonomic perspective, the simultaneous presence of common and conflicting interests can be understood as a social dilemma situation. The defining feature of a social dilemma is that it is a situation of collective self-damage, a situation in which a win-win solution cannot be realized due to an incentive structure that makes it difficult (if not impossible) for rational actors to behave in a mutually beneficial way even though it would be in their common interest to do so. Paradigmatically, the ordonomic approach distinguishes between two types of collective self-damage: one-sided dilemma structures and many-sided dilemma structures. Analogously, there are two ways of overcoming situations of collective self-damage: individual commitments in one-sided dilemma situations and collective commitments in many-sided dilemma situations [28].

As a consequence, companies can use moral commitments—*i.e.*, institutional arrangements to overcome one-sided or many-sided social dilemmas—as a systematic ‘*factor of production*’ [28,40]. The underlying idea is that prudent moral commitments can trigger a win-win outcome by convincing stakeholders of the company’s reliability as an interaction partner. If commitments create trust, they can induce productive cooperation with stakeholders that would be impossible otherwise. In this sense,

moral commitments can be a factor of production because they signal that the firm is interested in and considerate of others, a signal that can be immensely important for the value creation of the firm [34].

(3) According to the ordonomic perspective, companies are agents of social value creation if they use morality as a factor of production. Taking value creation as a starting point, we can identify three different arenas in which companies can assume social responsibility [41] (Figure 2).

Figure 2. Three arenas of social responsibility of business firms [30].



In day-to-day business, companies create value by cooperating with their stakeholders in diverse markets, chiefly consumer markets, but also labor and other markets. On this level, companies can assume *action responsibility* in the basic game of business, e.g., by saving natural resources in production or reducing the carbon footprint of their business activities, by building trust with suppliers and employees, and by circumventing the negative effects of child labor.

On the level of (political) rules and institutions, business firms can use moral commitments to create a functional framework for win-win cooperation with their stakeholders. On this level, companies can assume *governance responsibility* in the meta-game of rule-setting. Here, the underlying idea is that companies need to change the business as usual way of ‘doing things’ inside the firm or with their partners by changing the incentives for action in order to reduce the waste of resources or to build up trust. In some cases—i.e., in the case of a one-sided dilemma structure—it suffices to implement an individual self-commitment such as a code of conduct to change the behavior of employees. In situations comprising a many-sided social dilemma, however, companies need to establish an industry code of ethics as a collective self-commitment together with their competitors (for example, in order to make anti-corruption the incentive compatible behavior of all firms in the market).

Finally, companies can also engage in public or non-public discourses. On this level, companies can assume *discourse responsibility* in the meta-meta game of rule finding. Evidently, establishing moral commitments often requires the support of many stakeholders. Take the case of fighting corruption in bidding competition. In order to successfully introduce integrity pacts, companies need to discuss and share ideas with NGOs, state representatives and competitors in multi-stakeholder forums *before* implementing no-bribe-rules or black lists. The ordonomic idea is that companies can strive for a common understanding of the win-win properties of cooperation in stakeholder dialogues, which includes creating *both* a shared understanding of the underlying social dilemma *and* a common

appreciation of suitable moral commitments as a solution to it. As a result, companies can assume “ordo-responsibility” if they take on a bipartite political role and participate in the new governance processes of rule-*setting* and rule-*finding* [41].

(4) Following this three-tiered ordonomic approach, we can clarify three important issues for CSR in business practice.

(a) The idea that CSR can create mutual benefits is not alien to the literature. Yet we argue that empirical research has not sufficiently brought to bear the broader possibilities of win-win solutions. As existing empirical approaches interpret the idea of mutual benefits in terms of commonly shared values, researchers mainly look out for, e.g., the common denominators of social identity [20], or the commitment of companies to specific moral values [17,42]. However, as John Rawls points out, in a pluralistic society it has become increasingly difficult to find win-win solutions on the basis of commonly shared values. According to our understanding, finding a consensus on the ‘correct’ moral point of view is quite difficult in a pluralistic society [43].

(b) Creating mutual benefits solely based on commonly shared values, is only one—and increasingly less effective—way of the broad possibilities of a win-win oriented approach to CSR. The ordonomic approach thus suggests searching for rules that help to create win-win solutions even in the absence of shared values. Finding and implementing rules that facilitate cooperation, however, does not lead companies and their stakeholders into controversies about the ‘right’ moral values. In contrast, the ordonomic concept of ordo-responsibility avoids unproductive trade-off discussions and paves the way for constructive stakeholder dialogues with the aim of finding practical solutions to the real-world problems of social dilemmas—without forcing companies to compromise their profit interests nor NGOs to curb their social and moral ideals.

(c) In fact, companies engage in CSR for many reasons: industry scandals force companies to change business-as-usual procedures; a more demanding workforce pushes business firms to engage in moral activities beyond the mere production of goods and services; and shareholders may be interested in strengthening the firm’s image to create a positive impact on society. Yet from an ordonomic perspective, companies do not need to fear such CSR drivers as interfering negatively with their role as economic actors. In contrast, companies can welcome public or non-public criticism if they use it to strengthen their core business of value creation.

4. Developing a Design for Empirical CSR Research

Based on this ordonomic conceptualization of the social responsibility of business firms, this section develops a design for empirical CSR research in two steps. In Step (1) we derive three sets of questions from the ordonomic approach. In Step (2), we present an empirical study and, along the lines of the study’s results, we formulate hypotheses for future research.

(1) The ordonomic approach identifies three arenas in which companies can assume corporate social responsibility (CSR). An empirical research study based on the ordonomic approach can thus generate at least three categories of questions.

The first category refers to *action responsibility* in day-to-day business activities. In line with micro-level empirical CSR research, an empirical study inspired by ordonomics would focus on CSR as a possible *instrument* for strengthening the (core) business functions of the company. It asks

following questions: What are the specific functions of CSR policies? What is the specific goal of each project? What is the business case? What is the social case? Is the CSR activity to be characterized as pure philanthropy? Or does CSR relate to risk management, research and development, controlling, capital expenditure management, financial management, investor relations, compliance, human resource management, public relations, and marketing?

In addition to these questions, which have been asked, at least to some extent, in a couple of micro-level CSP-CFP studies, the ordonomic perspective would also evaluate the degree of professionalization of CSR. In an effort to identify whether CSR is viewed as an important business function, appropriate control parameters would focus on how CSR is implemented by the firm. Interesting questions in this context are the following:

- How is CSR integrated into the organization?
- Do companies professionalize in CSR with a specialized manager who has an own budget and staff?
- To whom does the CSR division report: to another department or directly to the board?

The second category refers to the *governance responsibility* in intra- and inter-company rule-setting. On this level, an empirical study inspired by the ordonomic perspective would turn its attention to commitments and commitment services that companies implement to establish cooperation with important stakeholders. In doing so, it could ask the following questions:

- Are CSR policies designed to enable reciprocal cooperation? What kinds of commitments do companies use?
- How do companies commit themselves or how do they provide commitment services for their stakeholders?
- Do firms offer commitment technologies only to their closest stakeholders, such as customers, suppliers, employees, and shareholders that participate in their core business activities?
- Do companies also use commitments with other, more remote stakeholders, such as civil society organizations, environmentalist groups, politicians, or the media? Do firms use commitments on a regional, a national, or even an international level?
- Are commitments appropriate to realize cooperation?

Category three refers to discourse responsibility in public or non-public rule-finding. On the level of discourse, an ordonomically-inspired empirical study would concentrate on the role of stakeholder dialogues. Such dialogues can help resolving problems of cooperation. To evaluate whether companies also professionalize in stakeholder dialogues, an appropriate empirical analysis would focus on the following questions:

- Do companies cultivate contacts or even dialogues with their stakeholders? How do they organize them and which stakeholders are addressed and included? With which stakeholders do companies cooperate more intensely?

- Do firms promote only their existing way of doing business or are they also interested in finding new ways of mutually beneficial cooperation? Do companies engage in dialogues only because competitors do so or do they so engage with a true purpose of discovering new ideas for their business models?
- How do companies rank the importance of stakeholder dialogues internally? Who is responsible for organizing stakeholder dialogues? Is the person in charge professionally trained to instruct other departments in the organization? How often do stakeholder dialogues take place? To what extent do companies institutionalize important dialogue functions such as mediation?

To sum up, we believe that the ordonomic approach has much to offer for empirical CSR research. In particular, the ordonomic approach of action, governance and discourse responsibility yields new insights. The Appendix gives an illustrative overview over the methodology derived from the ordonomic perspective and the questions related to all three categories discussed above.

(2) In our empirical study, we conducted an empirical study involving 42 publicly listed companies of the German capital goods industry. Besides clarifying some empirical links, the aim of this study is generating new questions for further empirical research. The study has the following design: (i) Referring to different functions of CSR, we evaluated official corporate publications subject to a set of criteria focusing on the functions of CSR (*cf.* Appendix). (ii) With regard to the empirical method, a factor analysis reveals the relationship between CSR function characteristics and some company fundamentals. The factor analysis consists of a parametric model that requires no *ex ante* assumption about causality [44,45]. Compared to traditional regression analyses (like OLS) the factor analysis reveals dependencies that are not obvious when employing traditional parametric regressions. Furthermore, we included fundamentals of the current fiscal year and some previous values to control for effects over time. With this design, our factor analysis shows differentiated results on the relationship between CSR functions and the CSP-CFP link that are stable even when we change the estimation method of our factor analysis.

We present the result of our study in two steps: Step (1) explains the results of the factor analysis. Using the measured correlations, step (2) derives new hypotheses for the exploration by future research.

Step (1) Table 1 summarizes the results of the factor analysis and presents the loadings of the eight factors with an Eigenvalue bigger than one. These eight factors explain about 80% of the variance in the data set. The individual factors can be interpreted as follows.

- *Factor 1.* The loadings of Factor 1 relate to many different variables which makes a clear interpretation difficult. Depending on the researcher's theoretical background, different interpretations are possible. Thus, a more detailed analysis of these loadings will be the task of a prospective study.
- *Factor 2.* Companies with a specialized CSR manager that use CSR for management functions such as controlling, investment, finance, compliance, and investor relations more often participate in initiatives such as the Global Compact. The public criticizes both the sector and the individual firm even if firms engage in CSR activities. These

companies had above-average price-to-book ratios in 2009 and paid higher dividends in 2010.

Table 1. Results of the empirical study: factor loadings.

Number of Observations: n = 42	F1	F2	F3	F4	F5	F6	F7	F8	Uniqueness
Proportion	0.35	0.11	0.09	0.07	0.06	0.05	0.04	0.03	0.20
Eigenvalue	10.46	3.16	2.66	2.14	1.75	1.55	1.23	1.03	
B2C							0.80		0.31
Organization of CSR:									
Counterpart for CSR	0.45	0.38	−0.19					−0.47	0.37
CSR not as staff position		0.28			0.66				0.47
decentralized CSR			−0.17		0.75			0.19	0.35
CSR in a subdivision		−0.18			0.64	−0.25			0.48
KPIs for CSR		0.29			−0.19	0.72			0.32
Functions of CSR:									
Philanthropy	0.88								0.15
Public Relation	0.69						−0.17		0.47
Risk Management	0.90						−0.17	0.17	0.11
Marketing	0.93								0.09
Research and Development	0.92							0.17	0.07
Controlling	0.86	0.19						−0.21	0.14
Capex Management	0.87								0.19
Financial Management	0.89	0.18							0.12
Investor Relation	0.79	0.18	0.21				0.17		0.26
Compliance	0.40	0.51			−0.27		−0.19		0.42
Human Resource Management	0.93								0.09
Dialogues and Initiatives:									
Public criticizes the sector	0.32	0.58			0.16		0.45		0.31
Public criticizes the company	0.24	0.55	−0.18		0.30		0.44		0.29
Dialogues with stakeholders	0.57	0.42		−0.21		0.16			0.40
Member of the UN Global Compact	0.30	0.86							0.15
Participation on UN GC with Reports	0.31	0.83		0.17					0.17
Participation on other CSR initiatives	0.23	0.57	0.26	0.17	−0.25	0.23	0.20		0.37
Company Fundamentals:									
Price-to-Book-ratio 2008			0.96						0.06
Price-to-Book-ratio 2009		0.17	0.93						0.08
Price-to-Book-ratio 2010			0.85						0.24
Dividend Yield (%) 2008				0.88					0.19
Dividend Yield (%) 2009			0.27	0.67					0.44
Dividend Yield (%) 2010	0.20	0.22	0.19	0.76			0.28		0.22
Return on Assets (%) 2008	0.16		−0.21		−0.42	−0.18	0.33	0.32	0.50
Return on Assets (%) 2009		−0.17				0.77			0.33
Return on Assets (%) 2010	0.15				0.17	0.16		0.75	0.33
Return on Assets (%) 2011 (forecast)	0.32	0.16	−0.16		0.28	−0.39		0.25	0.54

Note: For the study, we analyzed 42 companies active in the German capital goods industry. The factors listed in the table were extracted by the non-iterative principal-factor approach. Only eight factors have

Eigenvalues bigger than 1. The factor loadings are rotated by orthogonal varimax rotation. Blanks in the original data set were filled by mean imputation. Sources: [46], company publications, own calculations. Blanks represent absolute loading <0.15. Sources: [46], company publications, own calculations.

- *Factor 3.* Companies with more centralized CSR departments participate in CSR initiatives and use CSR for investor relations. The public rarely criticizes these firms. During the observation period, the price-to-book ratio is higher and the companies paid higher dividends in 2009 and in 2010.
- *Factor 4.* Companies with an average CSR professionalization engage less in stakeholder dialogues, too, but show above average participation in the UN Global Compact and other CSR initiatives. These firms paid higher dividends to their owners in all observed years.
- *Factor 5.* Companies in a sensitive industry sector without key performance indicators to control their CSR activities are viewed more critically by the public. These companies organize CSR decentralized as a sub-division and not as an executive department. They also focus less on compliance and participate less in other CSR initiatives compared to other companies in the industry. These firms achieve above-average returns on invested capital in 2010 and 2011, but below-average returns in 2008.
- *Factor 6.* Firms that organize CSR as an executive department also professionalize CSR with key performance indicators (KPIs). In addition, they also engage in stakeholder dialogue and participate in other CSR initiatives. These firms have above-average returns on investment capital in 2009 and 2010, but below-average returns in 2008. The return on investment forecast is also below industry average for 2011.
- *Factor 7* represents companies that also operate in a business-to-consumer market. Public opinion views these companies more critically compared to firms only operating in the B2B market. In these companies, CSR has an impact on investor relations. In the fields of public relations, risk management or compliance, however, the impact of CSR is poor. These companies had above-average returns on investment capital in 2008 but paid above-average dividends to their shareholders in 2010.
- *Factor 8.* Companies with decentralized CSR professionalize in risk management and R&D. However, the impact of CSR on controlling is poor. These companies had higher returns on invested capital in 2008 and 2010, and, as a forecast, also for 2011.

This analysis shows interdependencies between factors that do not reveal mono-causal relationships, but this result is not surprising: the 42 companies active in the German capital goods industry not only produce a wide range of goods, they also deal with CSR very differently and enjoy (or not) widely diverse public reputation. The study highlights the broad spectrum of possible CSR concepts: CSR is used as pure public relations, as pure philanthropy, and also as a cooperation-oriented win-win approach.

Step (2) This ordonomically-inspired factor analysis derives new and interesting hypotheses about the CSP-CFP link. Yet further research is required to test some hypotheses that result from our factor analysis.

- *Further research options inspired by factor 2.* Companies with a professional CSR manager engaging in CSR in financial management and in investor relations seem to use public criticism to question existing business models. Stakeholder dialogues, the Global Compact, and other CSR initiatives seem to be instruments to generate ideas for improving the value creation process.
- *Further research options inspired by factor 3.* If companies professionalize their CSR activities by means of more centralized CSR management, the public tends to be less critical of them. Such professionalization of CSR might enable more productive investor relationships: investors might expect more sustainable business models and also higher future growth values, both of which facilitate refinancing sustainable investment funds.
- *Further research options inspired by factor 4.* Some companies do not invest in CSR because other investments yield higher returns. These companies might be under strong pressure from investors to pay high dividends. *Alternative research options inspired by factor 4.* Certain companies are so successful that they can afford not to engage in CSR activity. These firms seem to buy their “license to operate” with high capital costs.
- *Further research options inspired by factor 5.* Companies that *do not* connect CSR with their core business model (and hence do not control their CSR with key performance indicators) are criticized more often by the public. These companies use CSR primarily as a tool of corporate communication, *i.e.*, they professionalize their public reputation and web sites.
- *Further research options inspired by factor 6.* Companies that *do* connect CSR to their core business model (and hence measure their CSR with key performance indicators) might use stakeholder dialogues to discover new stakeholder needs and to develop business models to meet them.
- *Further research options inspired by factor 7.* Companies operating in the business-to-consumer industry seem to use CSR to strengthen the relationship to their shareholders or even to attract new investors.
- *Further research options inspired by factor 8.* Companies that use CSR decentralized in risk management and in innovation management (and hence improve their current business model or develop new business models) also yield higher returns on invested capital.

The results of our empirical study are mixed. In part, this is due to the complexity and diversity of CSR strategies within companies. At this point, the question of whether companies use CSR to solve real business problems remains unanswered. However, the study does indicate that

- some companies use CSR to establish win-win cooperation with a few stakeholders,
- only few core business functions are supported by CSR projects, and
- costs of financing are higher if companies inadequately implement CSR.

Our study also gives rise to new and more precise empirical parameters that can enrich any further analysis in empirical CSR research. An important question guiding the design of future research can (and should) be: How do companies professionalize CSR and how can firms organize mutually beneficial cooperation through stakeholder dialogue?

5. Conclusions and Implications for Future Research

Based on the ordonomic notion that companies can use morality as a factor of production, this paper inquired into the question as to how CSR can be connected to the company's role as an agent of social value creation. We believe that our approach generates interesting conceptual insights into how companies can use CSR to create value. Our analysis suggests how future CSR research can measure and estimate particularly important parameters. More specifically, we suggest the following directions for future research in the field of empirical CSR:

- An important insight is that not all CSR is functional. From an ordonomic perspective, it is not at all surprising that CSR shows a negative return in empirical studies if CSR activities are completely unconnected to the corporate processes of value creation, *i.e.*, when CSR is exclusively designed as an instrument of 'giving back to society.'
- Another important insight is that CSR can be functional if companies use moral commitments as a factor of production. This type of CSR is be strongly connected to corporate processes of value creation and, hence, also to important management functions such as, for example, risk management and innovation management. This effect should show up in the data.
- If CSR is implemented with the help of moral commitments, companies are not only playing within the game of day-to-day business but also in the game(s) of creating new rules of day-to-day business activities. We argue that empirical CSR research should bear in mind Buchanan's distinction between 'choices within rules' and 'choices among rules' [47]. It is not sufficient to describe the CSP-CFP link by listing what companies actually do in the 'real' world. A sound empirical analysis should be able to differentiate between social cooperation and the *rules* that lead to successful cooperation from the viewpoint of institutional (economic) theory.
- From an ordonomic perspective, the CSP-CFP literature would be well advised to distinguish not just two levels of social interaction, but three. In addition to the arena of business and the arena of rule-setting, the ordonomic perspective emphasizes that social cooperation also needs a common understanding of the win-win potential of social cooperation. Discourse, sometimes also public discourse, can create such a common awareness and is thus an important prerequisite for mutually beneficial value creation with stakeholders.

Acknowledgements

Budget resources of the Martin-Luther-University Halle-Wittenberg financed this independent empirical research.

Author Contributions

Stefan Hielscher and Matthias Georg Will designed research concept; Matthias Georg Will analyzed data; Stefan Hielscher and Matthias Georg Will wrote the paper.

Conflicts of Interest

The authors declare no conflict of interest.

Appendix

Name of the Category	What do we want to measure?	The expected or unused win-win-potentials of CSR	How do we measure?	Within the Pilot Study?
Integration of CSR within the organization				
Organizational Integration of CSR	Does the way how companies integrate CSR affect CSP and/or CFP?	A centralized CSR department which is very close to the top management can easier implement CSR.	Is CSR management centralized? Is the responsible department an executive department or just a sub-division? Is there a professional manager for CSR?	Yes
			How often does the CSR department communicate with the CEO or CFO, with risk management, R&D or controlling?	No
			Is the CSR department organized as a profit or a cost center?	No
			Does the CSR department use or develop KPIs?	Yes
			How many people work for the CSR department and how much money can the department spend a year?	No
CSR-Functions				
Philanthropy	Can philanthropic activities influence the value creation of the company?	Philanthropy has maybe some side effects on the business model.	The CSR department finances philanthropic activities, i. e. the company spends money for charity or sponsoring.	Yes
Public Relation	Can CSR improve the company's reputation?	The company is more interesting for customers who want to do something good.	The CSR department operates similar to the public relations department: it helps to improve the public image of the company and builds up a reputation as a "good corporate citizen".	Yes
Risk Management	Can CSR reduce the risks of value creation?	Reduced risks lead to higher profits.	The CSR department uses CSR as risk management. It tries to realize societal risks for the business model in an early stage (for example through environmental screening) and develops ideas how to reduce these risks.	Yes

Appendix Cont.

Name of the Category	What do we want to measure?	The expected or unused win-win-potentials of CSR	How do we measure?	Within the Pilot Study?
Marketing	Can companies use CSR for marketing?	If companies use CSR as marketing, we shall expect effects that are similar to marketing campaigns.	The CSR department is similar to the marketing department: it uses CSR to place, advertise or price new products and services in a more efficient or effective way.	Yes
Research & Development	Can CSR increase the probability of marketable innovations?	Using CSR to receive important stakeholder information can lead to advantages in the R&D process.	The CSR department supports the research and development (R&D) for new products, services or applications. The CSR department helps in an early stage of the process of product development through information management: it submits the wishes and suggestions of important stakeholders (like customers, suppliers, employees, environmental protection organizations, <i>etc.</i>).	Yes
Controlling	Can CSR have an influence on the efficiency and effectivity of controlling?	Controlling figures are more efficient and effective because of commonly accepted rules. Employees have less incentives to defect.	The CSR department influences the controlling of the company. Improvement proposals of the CSR department become relevant through target values and indicators.	Yes
Capex Management	Can CSR improve investment decisions?	Implementing technologies that waste less resources have a positive effect on the cost structure.	The CSR department influences the investment activities of the company (investment management). The company uses voluntary standards like environmental or social standards to improve investment decisions.	Yes
Financial Management	Can CSR influence financial management?	The financial risks of the business model can be reduced if CSR leads to more stable incomes and expenditures.	The CSR department participates in finance decisions (finance management): it helps to plan and to control finances (for example: liquidity management or hedging).	Yes

Appendix Cont.

Name of the Category	What do we want to measure?	The expected or unused win-win-potentials of CSR	How do we measure?	Within the Pilot Study?
Investor Relation	Can CSR improve the relation to investors?	Capital suppliers would be more interested in the business model of a company if CSR improves the relationship to investors.	The CSR department supports the company with the acquisition of debt or equity capital (investor relation). The CSR increases the acceptance of investors or lenders and promotes <i>i.e.</i> the listing in sustainability or social indexes (like MSCI ESG).	Yes
Compliance	Can CSR improve the compliance of the company?	Less company scandals will strengthen good relationships to important stakeholders.	The CSR department implements compliance and helps to reduce corruption, bribery and insider trading.	Yes
Human Resources Management	Can CSR influence the human resources management?	Companies can attract more employees who increase their efforts because the firm enhance mutual benefits through CSR management.	The CSR department supports the management of human resources through strategic or operative decisions for recruitment and for individual development.	Yes
<i>Dialogues with stakeholders</i>				
Dialogue topics	Are companies able to use dialogues to improve or develop business concepts?	Companies can use dialogues to receive important stakeholder information. Thus, criticism can be an indicator that stakeholders have unsatisfied needs that companies can meet by improved or new business models.	Do companies focus on social topics (e.g. working conditions) and environmental topics (e. g. use of resources) or on general regulatory procedures (e.g. antitrust, anti-corruption, insider trading, <i>etc.</i>).	No
Dialogue partners			Do companies voluntarily communicate with labor unions, politicians, authorities, the media and local or global NGOs? How often do they communicate?	No
Public critique			Is the company or the sector in which the company operates criticized by the public?	Yes
Member of the UN Global Compact			Is the company a member of the UN Global Compact? Does the company participate with reports?	Yes
Member of other CSR initiatives			Is the company a member of other CSR initiatives? How strong is the influence within the initiative?	Only member of other initiatives

References

1. Margolis, J.D.; Elfenbein, H.A.; Walsh, J.P. Does it pay to be good? A meta-analysis and redirection of research on the relationship between corporate social and financial performance. Working Paper, Ross School of Business, University of Michigan, Ann Arbor, MI, USA, 2007.
2. Rost, K.; Ehrmann, T. Reporting Biases in Empirical Management Research: The Example of Win-Win Corporate Social Responsibility. Proceedings of the 5th International Conference on Corporate Social Responsibility, Berlin, Germany, 6 October 2012.
3. Marc, O.; Schmidt, F.L.; Rynes, S.L. Corporate Social and Financial Performance: A Meta-Analysis. *Organ. Stud.* **2003**, *24*, 403–441.
4. Allouche, J.; Laroche, P. A Meta-Analytical Investigation of the Relationship—Between Corporate Social and Financial Performance. Available online: <http://www.reims-ms.fr/agrh/docs/actes-agrh/pdf-des-actes/2005allouche-laroche005.pdf> (accessed on 11 July 2014). Also published in *Revue de gestion des ressources humaines*, Paris, France, 2005.
5. Neville, B.A.; Bell, S.J.; Mengüç, B. Corporate reputation, stakeholders and the social performance-financial performance relationship. *Eur. J. Market.* **2005**, *39*, 1184–1198.
6. Sánchez, J.L.F.; Sotorró, L.L. The Creation of Value through Corporate Reputation. *J. Bus. Ethics* **2007**, *76*, 335–346.
7. Fama, E.F.; French, K.R. Disagreement, Tastes, and Asset Prices. *J. Finance Econ.* **2007**, *83*, 667–689.
8. Godfrey, P.C.; Merrill, C.B.; Hansen, J.M. The Relationship between Corporate Social Responsibility and Shareholder Value: An Empirical Test of the Risk Management Hypothesis. *Strat. Manag. J.* **2009**, *30*, 425–445.
9. Orlitzky, M.; Benjamin, J.D. Corporate Social Performance and Firm Risk: A Meta-Analytic Review. *Bus. Soc.* **2001**, *40*, 369–396.
10. Brammer, S.; Millington, A. Does it pay to be different? An analysis of the relationship between corporate social and finance performance. *Strat. Manag. J.* **2008**, *29*, 1325–1343.
11. Busch, T.; Stinchfield, B.T.; Wood, M.S. A Triptych Inquiry: Rethinking Sustainability, Innovation, and Financial Performance. Working Paper, TI11–026 of the Duisenberg School of Finance, Duisenburg, Germany, 2011.
12. Guiral, A. Corporate Social Performance, Innovation Intensity and Their Impacts on Financial Performance: Evidence from Lending Decision. Working Paper, University of Alcalá, Alcalá, Spain, 2011.
13. Hull, C.E.; Rothenberg, S. Firm Performance: The Interactions of Corporate Social Performance with Innovation and Industry Differentiation. *Strat. Manag. J.* **2008**, *29*, 781–789.
14. Bhattacharya, C.B.; Sen, S.; Korschun, D. Using Corporate Social Responsibility to Win the War for Talent. *MIT Sloan Manag. Rev.* **2008**, *49*, 37–44.
15. Valentine, S.; Fleischman, G. Ethics Programs, Perceived Corporate Social Responsibility and Job Satisfaction. *J. Bus. Ethics* **2007**, *77*, 159–172.
16. Ali, I.; Rehman, K.U.; Ali, S.I.; Yousaf, J.; Zia, M. Corporate social responsibility influences, employee commitment and organizational performance. *Afr. J. Bus. Manag.* **2010**, *4*, 2796–2801.

17. Mowday, R.T.; Steers, R.M.; Porter, L.W. The Measurement of Organizational Commitment. *J. Vocat. Behav.* **1979**, *14*, 224–247.
18. Panagopoulos, N.G.; Rapp, A.A.; Vlachos, P.A. Corporate Social Performance and Employees: Construed Perceptions, Attributions and Behavioral Outcomes. Working Paper. Available online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1858084 (accessed on 11 July 2012).
19. Brammer, S.; Millington, A.; Rayton, B. The contribution of corporate social responsibility to organizational commitment. *Int. J. HRM* **2007**, *18*, 1701–1719.
20. Greening, D.W.; Turban, D.B. Corporate Social Performance as a Competitive Advantage in Attracting a Quality Workforce. *Bus. Soc.* **2000**, *39*, 254–280.
21. Luo, X.; Bhattacharya, C.B. Corporate Social Responsibility, Customer Satisfaction, and Market Value. *J. Market.* **2006**, *70*, 1–18.
22. Du, S.; Bhattacharya, C.B.; Sen, S. Reaping relational rewards from corporate social responsibility: The role of competitive positioning. *Int. J. Res. Market.* **2007**, *24*, 224–241.
23. Korschun, D.; Bhattacharya, C.B.; Swain, S.D. When and How does Corporate Social Responsibility Encourage Customer Orientation? ESMT Working Paper 11–05, Berlin, Germany, 2011.
24. Sen, S.; Bhattacharya, C.B. Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility. *J. Market. Res.* **2001**, *38*, 225–243.
25. Lin-Hi, N.; Müller, K. The CSR Bottom Line: Preventing Corporate Social Irresponsibility. *J. Bus. Res.* **2013**, *66*, 1828–1936.
26. Beckmann, M.; Hielscher, S.; Pies, I. Commitment Strategies for Sustainability. How Corporations can create Value through New Governance. *Academy of Management Best Paper Proceedings*, San Antonio, TX, USA, 2011.
27. Beckmann, M.; Hielscher, S.; Pies, I. Governance Strategies for Corporate Sustainability: How Business Firms Can Transform Trade-Offs into Win-Win Outcomes. *Bus. Strat. Environ.* **2014**, *23*, 18–37.
28. Hielscher, S. Morality as a Factor of Production: Moral Commitments as Strategic Risk Management. In *Corporate Citizenship and New Governance: The Political Role of Corporations*; Koslowski, P., Ed.; Dordrecht and Heidelberg: Heidelberg, Germany, 2011; pp. 117–132.
29. Hielscher, S. Vita consumenda oder Vita activa?—Edmund Phelps und die moralische Qualität der Marktwirtschaft. In *Edmund Phelps, Konzepte der Gesellschaftstheorie*; Pies, I., Leschke, M., Eds.; Mohr Siebeck: Tübingen, Germany, 2012. (In German)
30. Pies, I.; Hielscher, S.; Beckmann, M. Moral Commitments and the Societal Role of Business: An Ordonomic Approach to Corporate Citizenship. *Bus. Ethics Q.* **2009**, *19*, 375–401.
31. Pies, I.; Hielscher, S.; Beckmann, M. Value Creation, Management Competencies, and Global Corporate Citizenship: An Ordonomic Approach to Business Ethics in the Age of Globalization. *J. Bus. Ethics* **2010**, *64*, 265–278.
32. Pies, I.; Beckmann, M.; Hielscher, S. The Political Role of the Business Firm: An Ordonomic Re-Conceptualization of an Aristotelian Idea. *Bus. Soc.* **2014**, *53*, 226–259.
33. Hielscher, S.; Pies, I.; Valentinov, V. 2012. How to Foster Social Progress: An Ordonomic Perspective on Institutional Change. *J. Econ. Issues* **2012**, *46*, 779–797.

34. Pies, I.; Beckmann, M.; Hielscher, S. Competitive Markets, Corporate Firms, and New Governance—An Ordonomic Conceptualization. In *Corporate Citizenship and New Governance. The Political Role of Corporations*; Pies, I., Koslowski, P., Eds.; Dordrecht and Heidelberg: Heidelberg, Germany, 2011; pp. 171–188.
35. Mises, L.v. *Liberalism: In the Classical Tradition*; Cobden Press and the Foundation for Economic Education Irvington-on-Hudson: New York, NY, USA, 2002.
36. Hazlitt, H. *The Foundations of Morality*; The Foundation for Economic Education Irvington-on-Hudson: New York, NY, USA, 1994.
37. Pies, I. *Ordnungspolitik in der Demokratie: Ein ökonomischer Ansatz diskursiver Politikberatung*; Mohr Siebeck: Tübingen, Germany, 2000. (In German)
38. Friedman, M. The social responsibility of business is to increase its profits. *New York Times Magazine*, 13 September 1970, Issue 122–126, 32–33.
39. Schelling, T.C. *The Strategy of Conflict*; Harvard University Press: Cambridge, MA, USA, 2003.
40. Pies, I. *Moral als Produktionsfaktor: Ordonomische Schriften zur Unternehmensethik*; wvb: Berlin, Germany, 2009. (In German)
41. Beckmann, M.; Pies, I. Ordo-Responsibility—Conceptual Reflections towards a Semantic Innovation. In *Corporate Citizenship, Contractarianism and Ethical Theory on Philosophical Foundations of Business Ethics*; Conill, J., Lütge, C., Schönwälder-Kuntze, T., Eds.; Ashgate: Farnham, UK, 2008; pp. 87–115.
42. Balfour, D.L.; Wechsler, B. Organizational Commitment: Antecedents and Outcomes in Public Organizations. *Publ. Prod. Manag. Rev.* **1996**, *19*, 256–277.
43. Rawls, J. *Political Liberalism*, expended ed.; Columbia University Press: New York, NY, USA, 1993; reprint 2005.
44. Backhaus, K.; Erichson, B.; Plinke, W.; Weiber, R. *Multivariate Analysemethoden—Eine anwendungsorientierte Einführung*, 11th ed.; Springer Verlag: Berlin, Germany, 2006. (In German)
45. Mukhopadhyay, P. *Multivariate Statistical Analysis*; World Scientific: Danvers, MA, USA, 2009.
46. Ariva.de. *Fundamental*. Available online: www.ariva.de (accessed on 10 November 2011).
47. Buchanan, J.M.; Dollison, R.D.; Tullock, G. *Toward a Theory of the Rent-Seeking Society*. A&M University Economics Series, College Station: Texas, TX, USA, 1980.