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The angel-halo effect: How increases in corporate social responsibility and irresponsibility relate to firm performance

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Abstract

Purpose – To examine how increases in corporate social responsibility (CSR) and corporate social irresponsibility (CSiR) relate to firm performance. Further, we investigate how increases in CSR (CSiR) while CSiR (CSR) is present relate to three measures of firm performance: profitability, management efficiency, and market valuation.

Design/methodology/approach - Using over 10,000 observations from 2009-2013 and combined data from Sustainalytics and Compustat we examine how increases in either CSR or CSiR relate to firm performance.

Findings - We find that increased CSR significantly relates to increased firm performance in all three measures, and that increased CSiR significantly relates to decreased profitability only. Furthermore, increased CSR when CSiR is present relates to increased efficiency and market valuation. Lastly, increased CSiR when CSR is present relates to increased profitability and efficiency. Our results suggest CSR dominates the relationship to firm performance, as it is positively related to all three measures of firm performance, and when CSR and CSiR exist simultaneously, CSR has a dominant positive effect.

Research limitations/implications – Our sample consists of U.S. firms only from 2009-2013, the generalizability of our results to other countries and time periods is unknown.

Practical implications – Our results demonstrating differing effects based on the measure of firm performance suggest that managers should be specific with which measures are used to gauge the impact of CSR and CSiR. In addition, managers would be wise to invest in CSR as our results suggest that they can improve profitability, efficiency and market value. Even further, the empirically identified angel-halo effect suggests that investments in CSR may counter any potential negative effects from CSiR. Lastly, the latter results suggest that firms can "get away" with some degree of CSiR when CSR is present.

Originality/value - By examining changing levels of CSR and CSiR independently and conjunctly across various measures of firm performance, we found a dominating role for CSR, which we label the angel-halo effect.

Keywords - Corporate social responsibility, Corporate social irresponsibility, Financial and firm performance, Angel-halo effect, Devil-horn effect.

Paper type - Empirical

Introduction

We live in a world of increasing paradox; consider the following examples. Wealth in the stock market has reached an all time high, yet the number of homeless people, and most alarmingly children, living in homeless shelters is also at an all time high. Where there is an obesity epidemic in developed countries and millions of starving people in developing countries. Where we have more knowledge and technology than ever before matched with increasing social inequality and uncertainty. We have a growing need for government involvement to regulate financial markets and greenhouse gas emissions, yet increasing animosity towards governments across the world with large-scale growth in militias, protests, and civil disobedience. Where more than 50 million displaced people across the world (the most since World War II) are fleeing persecution in their countries, yet neighboring countries are hardening laws to make it harder for people to enter their countries.

These larger, societal paradoxes also manifest within corporations. In this paper we investigate the paradox of corporate social responsibility (CSR) and corporate social irresponsibility (CSiR), where corporations exhibit both types of behavior simultaneously. Corporate social responsibility is defined as voluntary corporate actions that firms engage in to positively respond to stakeholder interests and improve social conditions (Carroll, 1979; Mackey, Mackey, and Barney, 2007; McWilliams and Siegel, 2001; Silberhorn and Warren, 2007; Wood, 1991). While many researchers focus on the phenomenon of CSR, an important related aspect concerns CSiR, which is a conceptually distinct construct (Godfrey et al., 2009; Kotchen and Moon, 2012; Muller and Kräussl, 2011; Tench, Sun and Jones, 2012). Corporate social irresponsibility is defined as 'the set of corporate actions that negatively affects an

identifiable social stakeholder's legitimate claims (in the long run)' (Strike, Gao and Bansal, 2006: 852).

While researchers have long studied CSR (Bragdon and Marlin, 1972; Hart, 1995; Porter and Van der Linde, 1995; Russo and Fouts, 1997), CSiR is a less explored area (Muller and Kräussl, 2011; Lioui and Sharma, 2012; Oikonomou, Brooks and Pavelin, 2012; Tench et al., 2012), and the balance between the two distinct constructs and the relationship to firm performance is even less understood. Taken together, numerous studies have found positive relationships between CSR activities and firm performance (Brammer and Millington, 2008; Griffin and Mahon, 1997; Hillman and Keim, 2001; Wang, Choi and Li, 2008), and a number of studies have found negative relationships between CSiR activities and firm performance (Baron, Harjoto and Hoje, 2011; Lioui and Sharma, 2012; Muller and Kräussl, 2011; Oikonomou, et al., 2012). Few studies have investigated the simultaneous occurrence of both CSR and CSiR (exceptions include Strike et al., 2006; Tang et al., 2015), and we are unaware of any studies that have examined how increases in CSR (CSiR) when CSiR (CSR) is present relate to firm performance.

In this paper, we combine two datasets, one that provides information on CSR and CSiR, Sustainalytics, and one that provides financial data, Compustat. In the end, we use over 10,000 U.S. firm-quarter observations from 2009-2013 to examine how increases in CSR and CSiR relate to various measures of firm performance, and how they interact in their relationship to firm performance.

The research question addressed is how do increases in CSR (CSiR) while CSiR (CSR) is present relate to various measures of firm performance. In addressing this research question, we make the following contributions to the literature. First, we examine how increasing levels of

CSR and CSiR relate to various measures of firm performance both independently and when they occur simultaneously.

Second, we empirically demonstrate that CSR and CSiR are separate, non-symmetrical concepts based on their differing effects on firm performance. More importantly, we introduce a new theoretical concept labeled the angel-halo and/or devil-horn effect; where angel-halo refers to CSR being rewarded even when CSiR increases. Thus previous CSR creates an angel-halo where a corporation continues to be rewarded even when exhibiting CSiR. In contrast, the devil-horn effect refers to CSiR being punished even when CSR increases. Thus previous CSiR creates devil-horns where a corporation continues to be punished even when exhibiting CSR. Thus we extend the literature from the conventional question: Does it pay to be good? To more innovative angles: Does it pay to be good even when also being bad? Or, do you pay for being bad even when also being good? Our results clearly demonstrate the existence of an angel-halo effect where firms tend to benefit from their CSR even when CSiR is present, and even further, when CSiR is present and increasing.

Third, we use three alternative measures of firm performance that are broken into accounting-based measures (ROA and turnover ratio) and a market-based measure (Tobin's Q). Thus we explain how corporate behaviors can have, or not have, differing effects and implications on firm performance. This demonstrates that the relationship between CSR, CSiR and firm performance may be more complicated than previous studies suggest, especially when CSR and CSiR and both present and changing within an organization.

This paper proceeds as follows: First, we review the literature examining the relationship between CSR, CSiR and firm performance. Second, we develop hypotheses and empirical predictions. Third, we delineate our data, variables and methodology. Fourth, we describe and

discuss our results. Lastly, before concluding we discuss our implications for academics and practitioners and the limitations to this study.

Corporate social responsibility and irresponsibility, and firm performance

Although researchers have been examining the relationship between CSR and firm performance for decades (summed up nicely by Margolis and Walsh, 2003; and, Orlitzky, Schmidt and Rynes, 2003), the direction of the relationship remains unclear. Correspondingly, there have been calls for a deconstruction of CSR and its relationship to firm performance as it has become clear that a one-size-fits-all theoretical approach aiming to explain the relationship is not feasible nor advisable (Barnet, 2007). More specific to this paper, researchers have also called for a deconstruction of CSR and CSiR, where they are not viewed as a zero-sum game but as separate constructs that can occur simultaneously (Strike et al., 2006; Tench et al., 2012).

In studying CSiR, a number of studies have demonstrated that it is an important phenomenon in its own right (Chatterji and Toffel, 2010, Griffin and Mahon, 1997, Lange and Washburn, 2012, Mattingly and Berman, 2006). Most researchers investigating CSiR follow a net approach by subtracting it from the total score of CSR (e.g., Wang and Choi 2013); where, for example, a firm might receive points for employee engagement but lose points for a lack of diversity leading to an overall CSR score. However, CSR and CSiR are distinct from each other (Chatterji et al., 2009), and they do not 'necessarily covary in opposite directions' (Mattingly and Berman, 2006). For example, Kotchen and Moon (2012) show that irresponsible behavior has strong *positive* effects on CSR adoption, and that firms often perform responsible and irresponsible actions simultaneously. Likewise, by studying the financial sector during the financial crisis and recession from 2007 to 2010, Herzig and Moon (2013) propose that CSR can precede CSiR, CSiR can exist in the absence

of CSR, or they can exist simultaneously. Accordingly, in this section we provide separate hypotheses for CSR, CSiR, and for their interactive effects on firm performance.

Although the literature has not reached a definitive consensus on the relationship between CSR and firm performance, two major literature reviews, one narrative (Margolis and Walsh, 2003) and one a meta-analysis (Orlitzky et al., 2003), found that the literature tends to suggest a positive relationship. Numerous studies have empirically demonstrated how benefits can be obtained including: efficiency improvements, reductions in regulatory costs, new market access, improved firm reputation, reduced employee turnover, increased customer satisfaction, and the ability to charge premium prices (Ambec and Lanoie, 2008; Bansal and Bogner, 2002; Bansal and Clelland, 2004; Dean and Brown, 1995; Faucheux et al., 1998; Galbreath, 2010; Hart, 1995; Hart and Ahuja, 1996; Hillman and Hitt, 1999; Miles and Covin, 2000; Porter and van der Linde, 1995; Rooney, 1993; Russo and Fouts, 1997). Consistent with this literature, we predict that:

H1: Increasing levels of CSR will be positively related to firm performance

Conversely, the literature has tended to demonstrate that CSiR is related to decreased firm performance. Costs from CSiR include damaged stakeholder relationships, tainted corporate reputations (Muller and Kräussl, 2011), increased financial risk (Lioui and Sharma, 2012; Oikonomou et al., 2012), negative stock market returns (Baron et al., 2011), and increased severity of market reactions during disasters (Muller and Kräussl, 2011). Consistent with this literature, we predict that:

H2: Increasing levels of CSiR will be negatively related to firm performance

The next hypothesis represents our main conceptual contribution to the existing CSR literature as we examine the combination of CSR and CSiR and ask the question: When a firm exhibits CSR and CSiR simultaneously, what is the relationship to firm performance? To help us

navigate the uncharted waters we theorize angel-halo and devil-horn effects. In particular, an angel-halo effect exists when previous CSR continues to be rewarded even when the firm exhibits CSiR. In contrast, a devil-horn effect exists when previous CSiR continues to be punished even when the firm exhibits CSR. Clearly the conceptualization of an angel-halo or devil-horn effect in the simultaneous occurrence of CSR and CSiR are contrasting.

We predict an angel-halo effect (as opposed to a devil-horn effect), where CSR has a stronger positive effect on firm performance than the negative effect of CSiR. That is, when a firm increases their CSiR, as long as CSR is present we still expect a positive effect on firm performance. Further, when a firm increases their CSR, even with CSiR present we still expect a positive effect on firm performance.

We make this prediction for two reasons: First, for many stakeholders CSiR is often difficult to identify because of a lack of information or mixed evidence from corporate practices such as green-washing (Walker and Wan, 2012). In contrast, a firm is likely to advertise and promote their CSR. Thus corporations may effectively increase stakeholder awareness on their CSR while hiding or downplaying their CSiR (Walker and Wan, 2012). Similarly, we also suspect that the level of detail reported by Sustainalytics on CSiR is not common knowledge and companies may actively seek to hide or confuse the matter. With greater awareness about CSR than CSiR, we predict a greater effect for CSR on firm performance when CSiR is present.

Second, researchers have noted extensive benefits to firm performance related to CSR including efficiency improvements, reductions in regulatory costs, new market access, improved firm reputation, reduced employee turnover, increased customer satisfaction, and the ability to charge premium prices (Ambec and Lanoie, 2008; Bansal and Bogner, 2002; Bansal and Clelland, 2004; Dean and Brown, 1995; Faucheux et al., 1998; Galbreath, 2010; Hart, 1995; Hart

and Ahuja, 1996; Hillman and Hitt, 1999; Miles and Covin, 2000; Porter and van der Linde, 1995; Rooney, 1993; Russo and Fouts, 1997). Conversely, researchers have complied a less extensive list of the costs of CSiR (Baron et al., 2011; Lioui and Sharma, 2012; Muller and Kräussl, 2011; Oikonomou et al., 2012). While this may reflect a research bias in favor or CSR over CSiR, the numerous potential benefits to CSR seem to outweigh the potential costs to CSiR. This is not to say that there are not costs to CSiR (indeed see our second hypothesis), only that when both CSR and CSiR are present the varied benefits to CSR may outweigh the negative implications of CSiR on firm performance.

Accordingly, if a corporation participates in both CSR and CSiR, we predict an angel-halo effect where the overall effect of firm performance is positive.

H3: If a firm engages in both CSR and CSiR, the impact of CSR dominates leading to a positive relationship to firm performance.

Data and methods

Data

We compile data from two sources. The first dataset is Sustainalytics, which provides information for our measures of CSR and CSiR. Sustainalytics is one of the world leading research companies specializing in Environmental, Social and corporate Governance (ESG) data. They collect information from primary and secondary sources as well as specialized data providers.

For any given firm, Sustainalytics provides detailed ratings on up to 148 items. Each item is assigned a value ranging from 0 and 100 with a higher value representing better performance. Sustainalytics also provides item weighting based on specific sectors and industries. Sustainalytics aggregates the weighted score of its individual scores to calculate the total ESG

score. The weighted score addresses common criticisms of other datasets such as KLD, by acknowledging the differing circumstances in different industries (Surroca et al., 2010). Therefore, one key benefit of using Sustainalytics is that its weighting scheme give users the flexibility to create customized ESG scores based on individual items and corresponding weights. This benefit allows us to decompose the ESG information into CSR and CSiR.

Although Sustainalytics updates CSR and CSiR values on a monthly basis, Compustat updates financial information quarterly and annually. Therefore, if changes in CSR and CSiR have an impact on firm performance, then we would observe the change on a quarterly basis in Compustat data. We calculated quarterly changes in CSR and CSiR by taking the differences of CSR and CSiR scores between two consecutive quarters then merged them with the Compustat data. Following prior literature, we exclude financial companies (SIC code between 6000 and 6999) because financial firms are in a highly regulated industry and they exhibit substantially different firm-level characteristics compared to non-financial firms. We classify industries based on the two-digit SIC code and we removed industries with less than 15 observations. Our final sample contains 11,896 firm-quarter observations during the period of 2009 to 2013.

Variables

Corporate social responsibility and irresponsibility. Our measures of CSR and CSiR were constructed using rating data in Sustainalytics under five types of stakeholders – Employees (items S.1.*), Suppliers (S.2.*), Customers (S.3.*), Communities (S.4.*), and Environment (E.*). The items related to controversies or incidents (including items S.1.7, S.2.3, S.3.3, S.4.3, E.1.12, E.2.2 and E.3.2) are used to construct the aggregate CSiR variable and the remaining items are employed to construct the aggregate CSR variable. We compute the CSR and CSiR value as the sum of the weighted average of the raw scores divided by their weights. This calculation

transforms the CSR and CSiR ratings into a 0-100 scale and it facilitates comparisons across different industries. To make the interpretation more intuitive, we calculate CSiR as 100 minus the weighted adjusted CSiR scores, where 0 represents no CSiR incidents and 100 represents the worst CSiR incidents. More specially, CSR and CSiR variables are defined as follows:

$$CSR = \frac{\sum(CSR\ items\ raw\ scores * weight)}{\sum weight} \tag{1}$$

$$CSiR = 100 - \frac{\sum(CSiR\ items\ raw\ scores * weight)}{\sum weight} \tag{2}$$

We measure the change of CSR and CSiR status as follows: CSR_UP equals to one if the change in CSR from the previous quarter for any given firm is positive, and zero otherwise; CSiR_UP equals to 1 if the change in CSiR is positive, and zero otherwise. To test the angel-halo and devil-horn effects, we generated interaction terms CSR_UP*CSiR and CSiR_UP*CSR to access the moderating effects.

Firm performance. We use three alternative measures to evaluate firm performance from different aspects. Two are accounting-based: *ROA* (net income divided by total assets) and *asset turnover ratio* (sales revenue divided by total assets), and one is market-based: *Tobin's q* (market value of equity plus book value of debt, divided by book value of total assets).

Three variables reflect different aspects of firm performance. Specifically: (1) ROA measures accounting profitability; (2) asset turnover ratio reflects a company's management efficiency and whether the firm is using its assets effectively in generating sales; and, (3) Tobin's Q is a snapshot of the market value of the firm relative to its book value, where a higher Tobin's Q indicates a higher growth opportunity for the firm.

Control variables. Following prior CSR literature we include many common determinants of firm performance. First, *size* is measured as the log of total assets. Second, *profit margin* is measured as earnings before interest and taxes divided by sales. Third, *debt* is

measured as long-term debt divided by total assets. Fourth, *liquidity* is measured as cash divided by total assets. Fifth, *tangibility* is measured as net property, plant and equipment divided by total assets. Sixth, Research and Development (*R&D*) is measured as R&D expense divided by total assets. Lastly, we also include industry and quarterly dummies to control for the fixed industry and time effects. The industry dummy is coded using the two-digit SIC code while the quarterly dummy is created by the total quarters during our sample period.

Methodology

We run the following regression model to examine the impact of increase in CSR and CSiR, as well as their moderating effects on firm performance:

$$Performance_{i,t} = \alpha + \beta_1 Size_{i,t-1} + \beta_2 Debt_{i,t-1} + \beta_3 Liquidity_{i,t-1} + \beta_4 Tangible_{i,t-1} + \beta_5 RD_{i,t-1} + \beta_6 PM_{i,t-1}$$
$$+ \beta_7 CSR\_UP_{i,t-1} + \beta_8 CSiR\_UP_{i,t-1} + \beta_9 CSR\_UP*CSiR_{i,t-1} + \beta_{10} CSiR\_UP*CSR_{i,t-1} + Quarterly$$
$$Dummies + Industry\ Dummies + \varepsilon_{i,t} \tag{3}$$

Where i and t represent firm i at t^{th} quarter, respectively. The dependent variable firm performance is measured by three variables defined above: ROA, total assets turnover ratio, and Tobin's Q. To avoid the impact of outliers biasing the regression results, we winsorize all variables at the 1% and 99% tails. We also perform a robustness check by running a fixed firm effects regression and the results remain qualitatively the same.

Results

Table 1 presents descriptive statistics for the dependent and explanatory variables used in the study. Our data indicates that on average 27.1 of firms increase their CSR, while 20.1 percent of firms increase their CSiR, relative to the level in the previous quarter. Table 2 presents the correlations among key variables. We find that the correlations among our control variables are all less than 35 percent, and thus multicollinearity is not a concern.

Insert Tables 1 and 2 about here

Table 3 presents the results for the impact of increases in CSR and CSiR across the three measures of firm performance. Hypothesis one predicts that increases in CSR will be positively related to firm performance. Results are consistent with this hypothesis in all three financial measures. Specifically, increasing CSR is positively and significantly related to ROA, asset turnover and Tobin's Q. Hypothesis two predicts that increases in CSiR will be negatively related to firm performance. We find marginal support for this hypothesis. Although our results show that CSiR is negatively related to firm performance for all three financial measures, only the result for ROA are significant.

Insert Table 3 about here

Next, we test the angle-halo effect. Table 4 presents the results for increasing levels of CSiR when CSR is present, tested in the interaction term CSiR_UP*CSR. Our regression results suggest that when CSR is present, increasing CSiR is positively associated with firm performance in ROA and asset turnover ratio, but not Tobin's Q. Hypothesis three predicts that when both CSR and CSiR are present, the impact of CSR will dominate leading to a positive relationship to firm performance. Overall, our results are consistent with this hypothesis where in two of three financial measures we find a positive relationship to firm performance.

Insert Table 4 about here

Table 5 presents the results for increasing levels of CSR when CSiR is present, tested in the interaction term CSR_UP*CSR. Results suggest that when CSiR is present, increasing CSR is positively associated with firm performance in asset turnover ratio and Tobin's Q, but not ROA. Thus again, overall our results are consistent with hypothesis three where in two of three financial measures we find a positive relationship to firm performance.

Insert Table 5 about here

Discussion

We developed and tested three hypotheses in this paper; in this section we discuss each of them in turn. The first investigated how increases in CSR related to firm performance. Results were consistent with our hypotheses in all three measures of firm performance. Within our five-year (2009-2013) study based on quarterly financial data that occurred immediately after the Great Recession in 2007-2008, it appeared that increases in CSR were positively related to higher profitability (ROA), improved efficiency (asset turnover), and improved market valuation (Tobin's Q). Such improvements are consistent with past literature (Ambec and Lanoie, 2008; King and Lenox, 2001; Margolis and Walsh, 2003; Orlitzky et al., 2003). However, to our knowledge this is the first study to demonstrate that increasing levels of CSR are related to profitability, efficiency, and market value. This suggests a dominating role for CSR on firm performance. Given that our study took place four years after the Great Recession, CSR may have had a particular influence on firm performance in a highly competitive and constrictive environment. In addition, our longitudinal study examined a post-recessionary environment

(2009-2010) followed by a period of slow but substantial regrowth (2011-2013). Of interest is that regardless of the macro economic cycle, CSR was related to all three measures of firm performance.

The second hypothesis examined the relationship between changes in CSiR and firm performance. Results were consistent with the hypothesis for ROA alone, and only marginally so. Our results suggest that higher CSiR will hurt profitability, and opposite to the positive impacts of CSR. However, CSiR is not significantly related to management efficiency or market value. This suggests that CSiR does not represent a poor use of assets nor an inability to generate sales from these assets, and that the market may not significantly punish CSiR even though it has a significant negative effect on profitability.

Examining the results for CSR and CSiR together, we found that CSR played a dominant role on firm performance (positively significant in all three measures of firm performance), while the influence of CSiR was only marginally significant under ROA (and non-significant for the other two measures of firm performance). Furthermore, consistent with the predicted angel-halo effect, when both CSR and CSiR were present regardless of which one was increasing, CSR had a controlling positive effect. That is, of the six possible relationships (CSR increasing while CSiR is present and vice versa, for three measures of firm performance), four had a positive relationship to firm performance. Taking all the results together CSR appears to dominate the relationship to firm performance as compared to CSiR. In relation to our conceptualization of an angel-halo or devil-horn effect, clearly we find evidence of an angel-halo effect. That is, firms tend to benefit financially from their CSR even when CSiR is present, and going even further, our data demonstrates that the relationship still exists when CSiR is present and increasing.

Two possible reasons for the dominating effect of CSR over CSiR on firm performance include the ability of firms to emphasize their CSR and downplay, hide, or green-wash their CSiR, and the varied potential benefits to CSR compared to the more limited potential costs of CSiR. Related to the former, our results suggest that firms can "get away" with CSiR in that it was not significantly related to measures of management efficiency or market performance. Further, when exhibiting both CSR and CSiR, the angel-halo enables firm to continue to benefit in two of three measures of firm performance. Related to the latter, our results showed that CSiR had only a marginally significant negative effect on ROA, whereas CSR had a significant positive effect on all three measures of firm performance. This supports the argument that there are varied benefits to CSR (evidenced in profitability, asset turnover, and Tobin's Q), and more limited costs to CSiR (ROA only).

Implications

Theoretical implications

We have two main theoretical implications. First, by examining changing levels of CSR and CSiR independently and conjunctly, we found a dominating role for CSR. Not only are increasing levels of CSR related to various measures of firm performance, but it has an overwhelming positive influence on firm performance in the presence of CSiR. Thus we find strong support for the existence of an angel-halo effect.

Second, by examining multiple measures of firm performance we found differing effects. Thus academics must be mindful of which measures of firm performance they use when examining the relationships between CSR, CSiR and firm performance. Furthermore, perhaps the best course of action is to always use multiple measures as we try to understand the complexity

of the influence of social behaviors on firm performance. Investigating the relationships of CSR and CSiR on various measures of firm performance may also aid in understanding the strategic implications of corporate social behaviors (Bhattacharyya, 2010; Galbreath, 2009).

Practical implications

We have three main managerial implications. First, our results suggest that managers should be very specific as to which benefits they seek from their responsible or irresponsible behavior, and which measures of firm performance to use to gauge CSR or CSiR. For example, our results suggest the increases in CSiR significantly reduce ROA only, but do not hurt asset turnover or Tobin's Q in a pronounced way.

Second, managers would be wise to invest in CSR as our results suggest that they can improve profitability, efficiency and market value. These are very different and important financial benefits. Even further, investing in CSR may counter any potential negative effects from CSiR. Managers may particularly relate to the concept of an angel-halo effect and find solace in knowing that investments in CSR appear to pay off in multiple ways, and continue to pay off even when CSiR is present and increasing.

Third, our results tend to suggest that firms can "get away" with some CSiR in two ways. First, while profits (specifically ROA) may be affected by CSiR, management efficiency (asset turnover) and market valuation (Tobin's Q) were unaffected in our study. Second, as long as CSR is present the angel-halo effect identified in this study allows for some CSiR.

Limitations

Our study has two main limitations both related to the generalizability of our main finding, the angel-halo effect. First, our results were based on a sample of U.S. firms. Therefore, to what extent our findings on the angle-halo effect could be generalized to firms in other

countries was beyond the scope of this study and worth future exploration. For example, researchers have noted that the consciousness of CSR is less developed in China than in developed countries, suggesting that we might not find evidence of the angel-halo effect (Yang & Crowther, 2012). Second, our sample period covers 2009 to 2013, during which the economic recovery was slow and weak, and was venerably impacted by several macro shocks, such as the U.S. sovereign debt rating downgrades by S&P in August 2011, and the European sovereign debt crisis in 2011-2012. Whether the angel-halo effect observed in our paper persists in a normal economic environment is an important question to pursue in future research.

Conclusion

In this study we found that increasing levels of CSR are related to improved profitability, efficiency and market value, and that increasing levels of CSiR are marginally related to decreased profitability. Our research question asked how do increases in CSR (CSiR) while CSiR (CSR) is present relate to various measures of firm performance? We found that increasing levels of CSR when CSiR is present are related to improved efficiency and market value, and that increasing levels of CSiR when CSR is present are related to improved profitability and efficiency.

Our results are clear in demonstrating (1) varied benefits to firm performance from CSR; and, (2) an angel-halo effect, where CSR "outweighs" CSiR. In a world of paradoxes, the results from this study suggest that CSR is rewarded, even when it exists simultaneously with CSiR.

References

Ambec, S., and Lanoie, P. (2008). "Does it pay to be green? A systematic overview. *Academy of Management Perspectives",* Vol. 22 No. 4 pp, 45-62.

Bansal, P., and Bogner, W. C. (2002), "Deciding on ISO 14001: Economics, institutions, and context", *Long Range Planning,* Vol. 35 No, 3 pp, 269.

Bansal, P., and Clelland, I. (2004), "Talking trash: Legitimacy, impression management, and unsystematic risk in the context of the natural environment", *Academy of Management Journal*, Vol. 47 No. 1 pp, 93-103.

Baron, D.P., Harjoto, M. A., and Hoje, J. (2011), "The economics and politics of corporate social performance", *Business and Politics,* Vol. 13 No. 2 pp. 1-46.

Bhattacharyya, S. S. (2010), "Exploring the concept of strategic corporate social responsibility for an integrated perspective", *European Business Review,* Vol. 22 No. 1 pp, 82-101.

Bragdon, J. H., and Marlin, J. A. T. (1972), "Is pollution profitable?", *Risk Management,* Vol. 19 No. 4 pp, 9-18.

Carroll A. (1979), "A three dimensional model of corporate performance. *Academy of Management Review,* Vol. 4 pp, 497–505.

Chatterji, A. K., Levine, D. I., & Toffel, M. W. (2009), "How well do social ratings actually measure corporate social responsibility?", *Journal of Economics & Management Strategy,* Vol. 18 No. 1 pp, 125-169.

Chatterji, A., & Toffel, M. (2010), "How firms respond to being rated", *Strategic Management Journal,* Vol. 31 No. 9 pp, 917-945.

Dean, T. J., & Brown. R. L. (1995), "Pollution regulation as a barrier to new firm entry: Initial evidence and implications for future research", *Academy of Management Journal,* Vol. 38 pp, 288-303.

Faucheux, S., Nicolai, I., & O'Connor, M. (1998), "Globalization, competitiveness, governance and environment: What prospects for a sustainable development?" In S. Faucheux, J. Gowdy & I. Nicola. (Eds.). *Sustainability and Firms, Technological Change and the Changing Regulatory Environment*. Edward Elgar Publishing: Massachusetts.

Galbreath, J. (2009), "Building corporate social responsibility into strategy", *European Business Review,* Vol. 21 No. 2 pp, 109-127.

Galbreath, J. (2010), "How does corporate social responsibility benefit firms? Evidence from Australia", *European Business Review,* Vol. 22 No. 4 pp, 411-431.

Godfrey, P. C., Merrill, C. B., and Hansen, J. M. (2009), "The relationship between corporate social responsibility and shareholder value: An empirical test o the risk management hypothesis", *Strategic Management Journal,* Vol. 30 No. 4 pp, 425-445.

Griffin, J., & Mahon, J. (1997) "The corporate social performance and corporate financial performance debate: Twenty-five years of incomparable research", *Business and Society,* Vol. 36 No. 1 pp, 5-31.

Hart, S. L. (1995), "A natural-resource-based view of the firm", *Academy of Management Review*, Vol. 20 No. 4 pp, 986-1014.

Hart, S. L., and Ahuja, G. (1996), "Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance", *Business Strategy and the Environment*, Vol. 5 pp, 30-37.

Herzig, C., & Moon, J. (2013)*,* "Discourses on corporate social ir/responsibility in the financial sector", *Journal of Business Research,* Vol. 66 No. 10 pp, 1870–1880.

Hillman, A. J., & Hitt, M. A. (1999), "Corporate political strategy formulation: A model of approach, participation, and strategy decisions", *Academy of Management Review*, Vol. 24 No. 4 pp, 825–842.

Hillman A, & Keim G. (2001), "Shareholder value, stakeholder management, and social issues: what's the bottom line?", *Strategic Management Journal*, Vol. 22 No. 2 pp, 125 – 139

King, A. A., and Lenox, M. J. (2001), "Lean and green? An empirical examination of the relationship between lean production and environmental performance", *Production and Operations Management*, Vol. 10 No. 3 pp, 244-256.

Kotchen, M., and Moon, J. J. (2012), "Corporate social responsibility for irresponsibility", *B E Journal of Economic Analysis and Policy,* Vol. 12 No. 1 pp, 1-21.

Lange, D., & Washburn, N. T. (2012), "Understanding attributions of corporate social irresponsibility", *Academy of Management Review,* Vol. 37 No. 2 pp, 300-326.

Lioui, A., and Sharma, Z. (2012), "Environmental corporate social responsibility and financial performance: Disentangling direct and indirect effects", *Ecological Economics,* Vol. 78 pp, 100-111.

Mackey, A., Mackey, T., & Barney, J. (2007), "Corporate social responsibility and firm performance: Investor preferences and corporate strategies", *Academy of Management Review,* Vol. 32 pp, 817–835.

Mattingly, J. E., & Berman, S. L. (2006), "Measurement of corporate social action: Discovering taxonomy in the Kinder Lydenburg Domini ratings data", *Business & Society,* Vol. 45 No. 1 pp, 20-46.

McWilliams, A., & Siegel, D. (2001), "Corporate social responsibility: A theory of the firm perspective", *Academy of Management Review,* Vol. 26 No. 1 pp, 117-127.

Miles, M. P., & Covin, J. G. (2000), "Environmental marketing: A source of reputational, competitive, and financial advantage", *Journal of Business Ethics,* Vol. 23 No. 3 pp, 299-311.

Muller, A., and Kräussl, R. (2011), "Doing good deeds in times of need: A strategic perspective on corporate disaster donations", *Strategic Management Journal*, Vol. 32 pp, 911–929.

Oikonomou, I., Brooks, C., and Pavelin, S. (2012), "The impact of corporate social performance on financial risk and utility: A longitudinal analysis", *Financial Management,* Vol. 41 pp, 483–515.

Orlitzky, M., Schmidt, F. L., and Rynes, S. L. (2003), "Corporate social and financial performance: A meta-analysis", *Organization Studies*, Vol. 24 No. 3 pp, 403-441.

Porter, M. E., and Van der Linde, C. (1995), "Toward a new conception of the environment-competitiveness relationship", *Journal of Economic Perspectives*, Vol. 9 No. 4 pp, 97-118.

Rooney, C. (1993), "Economics of pollution prevention: How waste reduction pays". *Pollution Prevention Review,* Vol. 3 pp. 261-276.

Russo, M. V., and Fouts, P. A. (1997), "A resource-based perspective on corporate environmental performance and profitability", *Academy of Management Journal*, Vol. 40 No. 3 pp, 534-559.

Silberhorn, D., & Warren, R. C. (2007), "Defining corporate social responsibility". *European Business Review*, Vol. 19 No. 5 pp, 352-372.

Strike, V., Gao, J, Bansal, P. (2006), "Being good while being bad: Social responsibility and the international diversification of US firms", *Journal of International Business Studies,* Vol. 37 pp, 850–862.

Surroca, J., Tribó, J.A., & Waddock, S. (2010), "Corporate responsibility and financial

performance: The role of intangible resources", *Strategic Management Journal,* Vol. 31 pp, 463-490.

Tang, Y., Qian, C., Chen, G., & Shen, R. (2015), "How CEO hubris affects corporate social (ir)responsibility", *Strategic Management Journal,* Vol. 36 No. 9 pp, 1338-1357.

Tench, R., Sun, W., & Jones, B. (2012), "The challenging concept of corporate social irresponsibility: An introduction", in Ralph Tench, William Sun, Brian Jones (ed.) Corporate Social Irresponsibility: A Challenging Concept (Critical Studies on Corporate Responsibility, Governance and Sustainability, Volume 4) Emerald Group Publishing Limited, pp.3 – 20.

Walker, K., and Wan, Fang. 2012. The harm of symbolic actions and green-washing: Corporate actions and communications on environmental performance and their financial implications. *Journal of Business Ethics,* 109(2): 227-242.

Wang, H., Choi, J., & Li, J. (2008), "Too little or too much? Untangling the relationship between corporate philanthropy and firm financial performance", *Organization Science,* Vol. 19 No. 1 pp, 143-159.

Wang, H., & Choi, J. (2013), "A new look at the corporate social-financial performance relationship: The moderating roles of temporal and interdomain consistency in corporate social performance", *Journal of Management,* Vol. 39 No. 2 pp, 416-441.

Wood DJ. (1991), "Corporate social performance revisited", *Academy of Management Review,* Vol. 16 pp, 691–718.

Yang, Q., & Crowther, D. (2012), "Chapter 7: The relationship between CSR, profitability and sustainability in China", in Güler Aras, David Crowther (ed.) Business Strategy and Sustainability (Developments in Corporate Governance and Responsibility, Volume 3) Emerald Group Publishing Limited, pp.155 – 175.

Table 1: Descriptive Statistics

	Mean	SD	Median	N
Size	8.819	1.208	8.712	11173
ROA	0.015	0.033	0.015	11168
Q	1.391	1.321	1.023	11039
Turnover	0.232	0.178	0.184	11170
Debt	0.237	0.183	0.220	11096
Liquidity	0.876	18.291	0.381	11155
Tangible	0.302	0.244	0.219	11143
PM	0.035	7.907	0.135	11142
RD	0.006	0.013	0.000	11190
CSR_UP	0.271	0.445	0.000	10432
CSiR_UP	0.201	0.401	0.000	10432
CSR	22.749	15.015	18.977	11190
CSiR	4.326	8.248	5.751	11190

Table 2: Correlation Matrix

	ROA	Turnover	Q	Size	Debt	Liquidity	Tangible	RD	PM	CSR_UP	CSiR_UP
ROA	1										
Turnover	0.1478*	1									
Q	0.2687*	0.1482*	1								
Size	-0.0262*	-0.1273*	-0.3794*	1							
Debt	-0.1710*	-0.1803*	-0.2932*	0.1452*	1						
Liquidity	-0.1174*	-0.0307*	0.2473*	-0.0514*	-0.0207*	1					
Tangible	-0.1114*	-0.1738*	-0.2324*	0.2040*	0.2736*	-0.0264*	1				
RD	-0.0328*	-0.1204*	0.3294*	-0.2135*	-0.2433*	0.1916*	-0.3114*	1			
PM	0.1277*	0.0138	-0.1630*	0.0394*	0.0118	-0.9249*	0.0133	-0.1707*	1		
CSR_UP	0.0217*	-0.0054	0.0097	0.0919*	-0.0384*	0.0225*	0.002	0.0197*	-0.0181*	1	
CSiR_UP	0.0025	0.0019	0.0073	0.0362*	0.0111	0.0268*	0.0258*	-0.0154	-0.0225*	0.2971*	1

*denotes 10% significance

Table 3: Regression Results for Increasing Levels of CSR and CSiR

| | Dependent variables: | | |
	ROA	Turnover	Q
CSR_UP	0.001	0.008	0.065
	(2.00)**	(2.67)***	(2.95)***
CSiR_UP	-0.001	-0.004	-0.042
	(1.76)*	(1.08)	(1.28)
Size	-0.001	-0.018	-0.320
	(6.57)***	(17.33)***	(39.78)***
Debt	-0.026	-0.101	-1.332
	(18.56)***	(13.19)***	(22.40)***
Liquidity	-0.005	-0.066	0.102
	(14.10)***	(32.02)***	(6.37)***
Tangible	-0.006	-0.049	-0.087
	(3.80)***	(5.76)***	(1.31)
RD	-0.082	-0.776	20.682
	(3.69)***	(6.48)***	(22.23)***
PM		-0.154	2.646
		(16.68)***	(36.72)***
Constant	0.046	0.466	3.918
	(14.51)***	(26.73)***	(28.20)***
Adjusted R^2	0.16	0.62	0.48
N	10,283	10,263	10,155

* significant at 10%; ** significant at 5%; *** significant at 1%.

Table 4: Regression Results for Increasing Levels of CSiR when CSR is Present

	Dependent variables:		
	ROA	Turnover	Q
CSiR_UP	-0.003	-0.015	-0.052
	(3.22)***	(2.80)***	(1.21)
CSiR_UP*CSR	0.000	0.001	0.001
	(3.28)***	(3.58)***	(1.02)
Size	-0.001	-0.019	-0.320
	(7.04)***	(17.52)***	(38.63)***
Debt	-0.026	-0.101	-1.335
	(18.53)***	(13.17)***	(22.45)***
Liquidity	-0.005	-0.066	0.103
	(14.04)***	(31.95)***	(6.41)***
Tangible	-0.006	-0.049	-0.089
	(3.88)***	(5.84)***	(1.34)
RD	-0.084	-0.784	20.704
	(3.76)***	(6.54)***	(22.24)***
PM		-0.154	2.647
		(16.68)***	(36.72)***
Constant	0.048	0.474	3.956
	(14.93)***	(27.20)***	(28.45)***
Adjusted R^2	0.16	0.62	0.48
N	10,283	10,263	10,155

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5: Regression Results for Increasing Levels of CSR when CSiR is Present

	ROA	Turnover	Q
	Dependent variables:		
CSR_UP	0.001	0.005	0.031
	(1.28)	(1.57)	(1.36)
CSR_UP*CSiR	0.000	0.000	0.006
	(0.77)	(2.07)**	(3.27)***
Size	-0.001	-0.018	-0.326
	(6.49)***	(17.25)***	(39.26)***
Debt	-0.026	-0.100	-1.322
	(18.50)***	(13.08)***	(22.22)***
Liquidity	-0.005	-0.066	0.103
	(14.10)***	(32.01)***	(6.39)***
Tangible	-0.006	-0.049	-0.091
	(3.83)***	(5.80)***	(1.37)
RD	-0.081	-0.773	20.717
	(3.67)***	(6.45)***	(22.28)***
PM		-0.154	2.653
		(16.62)***	(36.83)***
Constant	0.045	0.461	3.868
	(14.54)***	(27.37)***	(28.76)***
Adjusted R^2	0.16	0.62	0.48
N	10,283	10,263	10,155

* significant at 10%; ** significant at 5%; *** significant at 1%