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The Relative Effects of Perceived Company Ethics versus Remuneration Package Satisfaction on Employee Engagement

A research report submitted by

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Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Riyadh Mayet 10 November 2014

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Abstract

Employee engagement is an essential driver to obtaining more effective, motivated employee participation and improved business performance. Perceived company ethics and remuneration package satisfaction are significant yet potentially conflicting forces on employee engagement, as companies may pursue higher financial rewards through unethical ways. This research answers the grand challenge in terms of which one of the employee engagement influencing forces of perceived company ethics and remuneration package satisfaction are stronger influences by using a quantitative approach.

The financial services industry has been exposed recently for various unethical practice scandals as well as having its excessive remuneration levels being highlighted. By understanding the forces of employee engagement better, this provides financial services companies with a better informed view as to where their focus should be.

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Keywords

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Introduction

Stakeholders, especially employees, want to be associated with ethical profit-making companies (Aula (2010)). Gatzert, Schmit, & Kolb (2014) discuss how problems arise with stakeholders when various ethical issues arise, which include the unfair treatment to staff or where companies source their goods. Mehta & Mehta (2013) determined the factors influencing employee engagement, which they found to include perceived company ethics and remuneration package satisfaction.

Despite the fact that employee engagement is a currently well researched topic in the human resources area (Saks (2006), Beames (2007), Lakshmi (2012), Mehta & Mehta (2013) and Kataria, Garg, & Rastogi (2013)), the relative influencing forces of paying staff more and having higher perceived company ethics has not been compared to each other. These factors can potentially be at a conflict with each other as remuneration incentives can be targeted for short-term large profits which may be achieved easier by unethical business practice. This paper looks to expand on current knowledge by testing these two relative forces driving employee engagement. This is important as the relationship of employee engagement to improved company performance and to gaining a competitive advantage has been well demonstrated (Edmans (2011)). In better understanding these relative employee engagement forces, the company can thus better improve its performance.

Research Problems and Motivation

Companies are always seeking for ways to increase their revenues. This exploration can sometimes lead to companies bending the rules and not fully considering the strategic options and its impact on and of stakeholders. Concurrently, companies use remuneration package incentives to motivate their staff to pursue additional profits. These remuneration expenses are a material portion of company expenses. The problem is the unethical pursuit of revenues may adversely reduce the employee engagement that the remuneration incentives try to achieve in the first place. The power of the forces of perceived company ethics and remuneration package satisfaction are thus important to understand to ensure that an overall net engaged workforce is achieved. This paper sets out to understand these forces.

The financial services industry is defined as the economic services provided by the finance industry. This includes a broad range of organisations that manage money and provide services of a financial nature to its customers. Bernal, Gnabo, & Guilmin (2014) discuss how the financial system plays a central role in the functioning of modern economies. As such, companies in the system need to ensure they maintain ethical behaviours to ensure the system is operating trustworthy in order for stakeholders to continue to participate in the system. Holme (2008) describes how the financial failures of big US based companies in the early 2000s, followed by the financial crisis and more lately the Libor Rigging and Gold Price Rigging scandals amongst large international banks have placed financial services companies under increased scrutiny regarding their unethical behaviours to maximise their financial performance, more so than companies in other sectors. The culture of the financial services sector is blamed for these unethical behaviours instead of these being isolated scandals. Gregg, Jewell, & Tonks (2012) further explains the exorbitant remuneration paid to these financial services employees whilst they pursue profits often in unethical ways. The financial services industry thus carries a bad reputation

where employees are considered “guns for hire” and the sector is perceived to have lost its humanity. This paper shall look at whether perceived company ethics effects employees engagement in this sector and also whether these employees are engaged the more they are satisfied with their remuneration package. Given the strong unethical focus and high remuneration status of financial services players, this paper shall further look at these forces of engagement relative to each other to see whether there is benefit in companies in the financial services sector focusing more on the ethical way of doing business.

Understanding Employee Engagement

Over the years many publications have attempted to define the concept of employee engagement and Markos (2010) recognises that there is no single definition for employee engagement. He further found that the meaning of the employee engagement depended on the context that the term was being used and the concept is multi-dimensional with inter-related constructs. He further explains employee engagement to relate to the employees’ willingness and ability to help their company succeed. An engaged employee is described as being aware of the business direction and working with colleagues to improve performance within the job for the benefit of the organisation. Kahn (1990) more broadly describes employee engagement as “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances”.

The benefits of employee engagement are described in Saks (2006) as engaged employees having a high quality relationship with their employer, thus leading them to also have more positive attitudes, intentions and behaviours in the workplace. He also states that employers want employees who will do their best work to help the company achieve its objectives and that employees, in turn, want good jobs that are challenging and meaningful to them as well.

There is empirical research to conclude that commitment and job satisfaction is achieved through employee engagement (Beames (2007)). Engaged employees are described as one of the key constructs to increasing the quality of a company's human capital, which thus creates a competitive advantage for a company.

Beames (2007) discusses the cost of staff turnover in terms of finding adequate replacements and training these replacements tend to outweigh the costs a company incurs to keep an employee engaged. A business case for engaging and retaining staff is summarised by what he calls the "turnover cost iceberg". This includes the visible costs such as exit costs, vacancy costs, replacement costs, commencement costs and training costs. In addition there are however substantial invisible costs not always considered by a company which include intellectual property investment, performance, effect on morale, external client relationships, development costs, productivity and effect on reputation. Understanding the key influences of employee engagement is thus important to avoid incurring all of these costs.

The importance of employee engagement is further discussed by Edmans (2011), who was able to demonstrate a strong relationship between employee engagement and a company's stock price, income growth and overall financial performance. Gaining employee engagement is thus a competitive advantage for businesses.

Mehta & Mehta (2013) describes organisations with high employee engagement levels as being more productive and more profitable than those with low levels of employee engagement. They found both business ethics and remuneration to be amongst those factors affecting employee engagement.

Lakshmi (2012) states that employee engagement is a current corporate "buzz" word. It is an essential driver to obtaining quality outputs, improved performance, employee participation and increased motivation levels in a company. Engaged employees are those who work with passion and feel an intense connection with the workplace. They drive

innovation and move the company forward. Totally disengaged employees are those who are not satisfied at work. They act out their unhappiness at work, effecting revenue generation, and tend to end up leaving the company, effecting costs of running the business. Mann (2012) also states that low levels of employee engagement are destructive in an organisation leading to dissatisfaction, poor productivity, absenteeism and employee turnover.

Kataria, Garg, & Rastogi (2013) state that employee engagement is more vital than ever before to an organisation's success and competitive advantage. Young people also no longer work for one company until retirement as they did in the past, thus may leave employment where they are disengaged. They further state that experts predict the current turnover rate in companies may rise substantially due to a lack of focus on getting engaged employees. With recruiting costs running high, the ability to engage and retain valuable employees has a significant impact on an organisation's financial performance.

Employee engagement may also be defined from a commercial business perspective, which Storey, Ulrich, Welbourne, & Wright (2009, p. 300) looked at. They provide two examples, i.e.:

- The Caterpillar company definition as "The extent of employees' commitment, work effort, and desire to stay in an organisation"; and
- The Dell Inc definition as "To compete today, companies need to win over the minds (rational commitment) and the hearts (emotional commitment) of employees in ways that lead to extraordinary effort".

In understanding employee engagement better, the underlying forces that influence it is explored. Werner, Karel, Jan, & Wait (2011, p. 8808) in this respect describes the key influences of employee engagement, which include employees:

- Are encouraged to develop skills with a focus on career planning and individual growth and development;

- Get to have a work-life balance with the establishment of a culture where leaders are role models of a balanced work-life;
- Believe in the organization's direction and leadership with an awareness and understanding of the strategic direction of the organization;
- Are being praised / recognised for good work through effective reward and recognition mechanisms
- Are being cared about as a person thus promoting culture of caring in the workplace;
- Are motivated by competitive compensation and benefits programs with formal mechanisms in place, e.g. incentive programs;
- Have clear job expectations with an awareness and understanding of what is expected of employees;
- Have the resources for effective job performance thus ensuring the availability of sufficient equipment and resources to all employees; and
- Are being provided the opportunity to use skills, thus having equal opportunities for employees to utilize current skills and develop new ones.

Quantifying Employee Engagement

Employee engagement is a social construct which is challenging to quantify precisely. The most encompassing measure is known as the Utrecht Work Engagement Scale (UWES) as defined in Schaufeli & Bakker (2003). This scale assesses different components of employee engagement:

- Vigour;
- Dedication; and
- Absorption.

Schaufeli & Bakker (2003) provide a straightforward definition for each of their metrics. They state that Vigour is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication refers to being strongly involved in one's own work and experiencing a sense of enthusiasm, significance, inspiration, pride and challenge. The Absorption metric is characterised by an employee being fully concentrated and happily engrossed in their work, whereby time passes quickly and the employee has difficulties with detaching themselves from work."

The UWES has 17 questions with the Vigour Scale has 6 questions; the Dedication Scale has 5 questions and the Absorption Scale has 6 questions. For each questions, the employee is asked to indicate how frequently they felt this way at work on a 0 (Never) to 6 (Always) scale. A score for each of the three metrics is calculated as the average across their respective questions. An overall employee engagement score for the entire UWES is calculated as the average rating across all 17 questions.

Knox-Davies (2010), Reynhardt (2010), Huhtala, Feldt, Lamsa, Mauno, & Kinnunen (2011), Hamman (2012), Clercq, Bouckenooghe, Raja, & Matsyborska (2013) and Roof (2014), for example, have used the UWES framework to quantify engagement levels, with statistical tests proving the scale to be highly reliable. This demonstrates the relevance and accepted use of this quantification scale as a reliable and valid measure of employee engagement.

Due to the full disclosure of the underlying calculation methods of the UWES, the ease of use, the proof of reliability of using this measure, the widespread use of this measure in the industry and the usefulness of this measure described above, the UWES scale was used in this paper to assess employee engagement. These questions are in the appendix.

Understanding Perceived Company Ethics

Crane & Matten (2010, p. 5) define company ethics as the study of business situations, decisions and activities where the issues of right and wrong are addressed. They describe a company's ethics as focusing on the practices of dealing with what is morally right and wrong. Goel & Ramanathan (2014) further state that company ethics covers the areas of moral principles and decision making, governance issues and code of conduct for a business. They do recognise the concept of company ethics to be a mutating thing, which differs slightly in its meaning in the context of new technologies, new ways of resource mobilisation and utilisation, and evolves based on societal practices and an increasingly global business network. The level of practices and treatments of ethical issues in a company affects its employee's perceptions of the company's ethics. They further state that ethical leaders always ensure the company is authentic in its goals, mindful of each of its employees, sustainable in its vision and embraces diversity by engaging with the staff. These factors influence the levels of employee motivation, job satisfaction and employee engagement.

The concept of ethics though extends further than employee engagement. Webley & More (2004) state that financial players with a code of ethics tend to generate more Economic Value Added and Market Value Added, as seen in the late 90s over extended periods of time than those without these codes. Companies with a code of ethics also experienced far less Price to Earnings ratio volatility over time than those without them. Raghunathan (2013) discuss why people should be ethical which can be summarised as saying that an individual needs personal ethics for one's own self-worthiness. To be ethical wins people the approval of society/community and earns people greater self-esteem. Ethical conduct helps simplify life and the decision making, by helping resolve conflicts with others. A similar context for a business being recognised as a persona of its own can be argued, with each individual a recipient of the business ethical behaviours as a whole.

Ethical failures have however been a central point of focus of media attention in the financial services industry. Holme (2008) describes that there are many examples where dishonest behaviour in the financial services industry has come to light more recently and raises concerns of how many more acts are not being brought to light. They also state that stakeholder interest is central to the consideration of ethical and fair treatment, which is lacking in the financial services industry. Jameson (2009) further echoes the need for ethics in the financial services industry as they describe the collapse of major global investment banks. They also comment on the poor set of ethics in a major insurance company, which was exposed during the financial crisis and represent an unethical way of doing business in order to maximise profits at all costs. Roth (2009) and Earle (2009) further explain the impact of unethical behaviour during the financial crisis, which seem to indicate that accepting more minor unethical behaviours may lead to over time accepting more extreme unethical behaviours due to the moral compass deteriorating gradually over time in the financial service industry. This has led to profit seeking no matter how it was done and in turn caused the major collapse.

Edelman (2013) further assessed the trust of employees to their respective industries. The results of the survey showed that in both 2012 and 2013 banks and other financial services companies have the lowest level of trust amongst the broad spectrum of industries. Whilst this survey was not peer reviewed, it does provide a big indication that there may be trust concerns in the financial services industry.

Quantifying Perceived Company Ethics

Perceived company ethics is a social construct, which is challenging to quantify precisely. Akaah & Lund (1994, p. 426) has however managed to quantify perceived company ethics with questions relating to personal use of company assets, passing blame, bribery, falsification, padding expenses and deception in the company. Holme (2008) looks at

questions relating to trust openness & sincerity, treating people with respect & dignity, learning responsibilities and social responsibilities.

The questions used in the survey of this paper leveraged off the literature above with adjustment for clearer wording. Despite the concern of measuring a social construct like perceived company ethics, the strong reliability tests, shown later, confirm the relevance and validity of the questions used in this survey.

Understanding Remuneration Package Satisfaction

Shapiro (1976, p. 27) highlighted the in the 1970s the need to monitor employee pay satisfaction. The lack of research into this aspect prior to this paper is highlighted by him and the findings include that pay dissatisfaction leads to negative things such as poor job performance, strikes, grievances, high staff turnover, job dissatisfaction and mental disorders in the workplace.

Edvinsson & Camp (2005) describes how the world's economies are changing from just having the traditional industrial labour workers to a greater proportion of knowledge workers. The war of companies to gain a competitive advantage in the next few decades is expected to be the war for talent. They claim that in the knowledge based economy, workers are to be remuneration in intelligent ways and not the traditional cash at the end of the week type. Knowledge workers need to be satisfied with a comprehensive package that may include cash, long term incentives, health and other company benefits. An attempt to convert all of these benefits into a cash lump sum does not necessarily have the same effect as structuring an intelligent remuneration system. Companies should also consider that knowledge work involves elements of teamwork, thus reward structures that consider group achievements may be required.

Remuneration packages are also different according to the sector an employee in working in. Edvinsson & Camp (2005, p. 116) demonstrates that engineering, General IT and Industrial IT sectors may have different factors that make up the eventual salary paid by companies depending on what skills are required and important. In some areas this is about the knowledge on the topic, some based on past experience and some one's access to networks. The satisfaction of remuneration always tends to involve what peers are earning within a sector.

Lee (2009) discussed the importance of getting the correct level of remuneration for employees. A relationship between employee remuneration and company overall financial performance was found by him. By increasing the remuneration package to employees, this would thus expectedly lead to some increase in the company performance as employees are more engaged and work harder. Ghazanfar, Chuanmin, Khan, & Bashir (2011) also found that the satisfaction of the remuneration package of an employee is essential to ensure the employee is kept motivated and engaged.

Gregg, Jewell, & Tonks (2012) however discuss how financial services companies in particular offer higher levels of incentives in their remuneration to get employees to maximise the financial performance of the company. They caution that these exorbitant levels of remuneration incentives has negative consequences on the ethical decisions their staff make in pursuit of profits, thus whilst more remuneration incentives gets staff engaged, the negatives behaviours associated with this in turn reduces engagement to the company. The net engagement effect is what is important and needs to be understood. That net effect however requires an understanding of the relative force of remuneration package satisfaction on employee engagement compared to the perceived company ethics effects on employee engagement, which shall be tested in this report.

Quantifying Remuneration Package Satisfaction

Shapiro (1976, p. 28) did a survey to assess which of the many constructs would aid in determining pay satisfaction in a more commonly researched area of the time. His research found four key areas in determining pay satisfaction, which include:

- Social Comparisons: Payment relative to what others receive;
- Actual Pay Level;
- Scale of Living: Amount relative to what is required to cover basic needs, which is defined as what neighbour's style and expenses come out to; and
- Wage History: Past pay affects what an employee perceives to be paid, small incremental increases over time lead to a greater sense of dissatisfaction.

Whilst the constructs were determined in the 1970s, recent research shows similar findings. Scarpello & Carraher (2008, p. 31) use six similar pay satisfaction questions in assessing:

- The employee's current wage or salary amount;
- How the employee's raises are determined;
- Differences in pay levels of different employees;
- The employee's overall pay level or rate;
- The employee's pay relative to the effort they have to exert; and
- The employee's pay relative to similar jobs.

A questionnaire to quantify remuneration package satisfaction was constructed based on the above questions. This is shown in the appendix. The strong reliability statistics, shown later, justify the reliability of the questions to be used for statistical inference purposes.

Influences on Employee Engagement

The test of motivation-hygiene theory is explained in Brenner, Carmack, & Weinstein (1971). In the 1970s, employee engagement was not as big a concept as today but rather related to concepts like job satisfaction and motivation. Those were being tested as an alternative to Maslow's hierarchy of needs theory (Maslow, 1943) and the relationships found with job satisfaction and motivation are still of great use, given these areas have links to employee engagement. What Brenner, Carmack, & Weinstein (1971) found was that the Frederick Herzberg Motivation-Hygiene Theory provides us with a better understanding of how to motivate or prevent motivation in staff (Herzberg, 1959). The Motivation factors relate to the job itself and the results that performance of the job causes, thus more of these factors lead to better motivation. These factors include:

- Recognition;
- Achievement;
- Work itself;
- Opportunity for advancement; and
- Responsibility.

Brenner, Carmack, & Weinstein (1971) describe the hygiene factors to relate more to the environment of the job and a lack therefore in turn reduces motivation. These factors however have limited additional benefit beyond a point at which they are present. These factors include:

- Salary;
- Company Policy;
- Interpersonal relations;
- Working Conditions; and
- Technical Competence.

The concept used in this paper relating to remuneration package satisfaction may map intuitively to salary and the concept of business ethics spans the constructs of company policy, interpersonal relations and working conditions. All of these constructs are thus linked to hygiene factors, thus the suggestion that they prevent demotivation (translated broadly to disengagement) rather than increase motivation (translated broadly to engagement). Whether the factors of remuneration and business ethics are pure engagement or hygiene factors is not the issue at hand, as the concept of disengagement is just as harmful to a business but has its incremental additional benefits.

As more academia have published and the concept of employee engagement has developed, remuneration and business ethics are increasing becoming more apparent that may however in fact also have positive effects on engagement (rather than just preventing disengagement). An example is Seijts & Crim (2006). They describe the credibility and confidence constructs which link directly to increasing employee engagement. Credibility comes from having high ethical standards in the company to ensure employees feel proud to associate themselves for with the company. Confidence comes from leaders being the examples and role models in the company, which is done by ensuring both high ethical standards and high performance standards.

Holme (2008) further describes the advantages of having an ethical business including improving employee satisfaction through fair management decisions and processes. The perceived ethical business values, formed by management behaviours, can make the difference between employee satisfaction and frustration with the consequent impact on financial results. This relates to the definition of employee engagement discussed earlier. This idea of ethical leadership and ethical ideologies in a company effecting engagement levels is also reiterated in Demirtas (2013).

Lakshmi (2012) also describes that financial incentives such as attractive bonus schemes are important to getting more employee engagement and the perceptions of company

ethics is also highlighted as an employee engagement factor. Economist Intelligence Unit Limited (2013) more recently also describes the rewards and recognition, including a pay raise as contributing to increased levels of employee engagement. These recent literature provide a greater view that in fact perceived company ethics and remuneration package satisfaction are more than just hygiene factors.

Hypotheses

The literature reviewed discussed the positive influencing power of perceived company ethics on employee engagement. Given that the perceived ethics is considered weak in the financial services industry (Holme (2008), Roth (2009), Earle (2009) and Edelman (2013)), a statistical test shall be performed to confirm whether perceived company ethics is in fact an influencing force of employee engagement in the financial services industry.

Hypothesis 1: In the financial services industry, there is a positive relationship between employee engagement and perceived company ethics.

The literature reviewed also discussed the positive influencing power of remuneration package satisfaction on employee engagement. Gregg, Jewell, & Tonks (2012) discusses exorbitant remuneration incentive levels for employees in the financial services industry and the resultant unethical behaviours that arise as a result. This influencing power thus needs to be confirmed to effect employee engagement to justify these exorbitant levels. A statistical test shall thus be performed to confirm whether remuneration package satisfaction is in fact an influencing force of employee engagement in the financial services industry.

Hypothesis 2: In the financial services industry, there is a positive relationship between employee engagement and remuneration package satisfaction.

Should these two hypothesis successfully prove that perceived company ethics and remuneration package satisfaction are influences of employee engagement, the leading question is should financial services rather focus on perceived company ethics versus the current focus of remuneration package satisfaction to achieve better employee engagement. A statistical test shall thus be performed using the financial services respondents to quantify the predictive relationship between employee engagement & perceived company ethics versus the predictive relationship between employee engagement & remuneration package satisfaction.

Hypothesis 3: In the financial services industry, the relationship between employee engagement and perceived company ethics is stronger than the relationship between employee engagement and remuneration package satisfaction.

Research Design

The research was done in a quantitative nature using primary data received from an online survey questionnaire. This survey questionnaire captured the data required to quantify perceived ethics of the company, remuneration package satisfaction and employee engagement levels. The questionnaire was voluntary to respondents and anonymity is maintained by the storage of data without identifying characteristics and using aggregate data for the results. The analysis of the results enabled the quantification of the various relationships by using different statistical techniques. Pilot surveys were distributed for testing purposes and to apply amendment comments as to the content, wording and format of the survey. The pilot survey results were not used for inference purposes.

Population and Sample Data

Employed workers in the financial services industry are the universe that inferences are to be extended to.

The sampling frame consists of the following two segments:

- Part-time executive MBA students who have full-time employment; and
- Employees from two major companies in the financial services industry.

An anonymous online survey questionnaire was completed to serve as the primary data that was used in this paper. Online surveys allowed for easier data integration for data analysis and inference purposes. The survey was open for a month after which point the survey automatically closed and data was exported for analysis. The researcher checked on the storage of data throughout the data collection period and ensured the volume of responses was more than sufficient.

The qualitative response options of the questionnaire dealing with employee engagement, perceived business ethics and remuneration satisfaction was coded into numeric measures and standardised for regression analysis purposes.

Overall, 446 survey responses were received, of which 369 indicated that they were employed in the financial services industry (82.7%). The sample is also split 55% female and 45% male, whilst the mean age of the sample is 37 years with a median age slightly lower at 35 years. The largest group of respondents by education level are those that have not gone beyond a high school education (i.e. 34%).

The majority of responses work for a bank (i.e. 55%) followed by employees in the short term (property & casualty) insurance work area (i.e. 12%). The large portion of banking and insurance responses is as expected, mainly due to the researcher's target for obtaining employees in the financial services industry.

The largest category of respondents are those that have worked between 6 and 10 years at the current company (i.e. 43%), which is also the median response.

The largest category or respondents in the sample is middle management (38%) and in an administration role (23%). Only 5% of the respondents are at an executive level.

The respondents were filtered by sector with only financial services respondents used in the regression analysis (i.e. 369 observations).

Results

The Cronbach Alpha test was conducted to determine the reliability of the data used via consistency tests within each construct. Tavakol & Dennick (2011) discuss the common use of this test for reliability tests and how this statistic looks at the amount of measurement error. A higher Cronbach statistic means that there is higher inter-relatedness of the items within the test. The results of the Cronbach test are shown in the table.

{Insert Table 1 – Cronbach Alpha Test}

The employee engagement questions test statistic has the highest reliability statistic of 0.92. This compares well with the UWES employee engagement reliability statistics of 0.93 in Knox-Davies (2010), 0.95 in Huhtala, Feldt, Lamsa, Mauno, & Kinnunen (2011), 0.93 in Hamman (2012), 0.9 in Clercq, Bouckenooghe, Raja, & Matsyborska (2013) and 0.94 in Roof (2014).

The Cronbach alpha for the perceived company ethics questions statistic was 0.87, but the remuneration package satisfaction question Cronbach alpha statistic is lower at 0.78.

Bland & Altman (1997) mention that a test statistic higher than 0.7 is considered the levels that should be acceptable for this statistical test. All Cronbach Alpha statistics for the data

received are well above 0.7, the acceptable level of reliability suggesting a low measurement of error of the responses and high scale reliability. There is thus strong evidence to support that the data is reliable and consistent to use for inference purposes.

A regression analysis was performed on the employee engagement score. This was done to test the significance of each of perceived company ethics and remuneration package satisfaction and the relative strength of these to employee engagement compared to each other. The variables gender, age, highest qualification, tenure at the company and role in the company were included in the regression analysis of employee engagement as control variables. The following regression test statistics were obtained

{Insert Table 2 – Multiple Hierarchical Regression of Employee Engagement on Predictors}

A five percent significance level is used for statistical significance as this is the norm level of confidence used in the social sciences area (Stigler (2008, p. 12)). One can conclude from the multiple regression that in the financial services industry the beta coefficient is significant for both perceived company ethics (0.346, p = 0.000) and for remuneration package satisfaction (0.271, p = 0.000). The null hypotheses 1 and 2 may thus be rejected.

The beta coefficient from the multiple regression is also notably higher for perceived company ethics (0.346) than for remuneration package satisfaction (0.271), which means null hypothesis 3 may thus be rejected. A conclusion is that in the financial services industry, the relationship between employee engagement and perceived company ethics is

demonstrated to be stronger than the relationship between employee engagement and remuneration package satisfaction.

The results of the Pearson Correlations Test also show that employee engagement and perceived company ethics in the financial services sample are correlated with a factor of 0.5 (1dp), whilst employee engagement and remuneration package satisfaction in the financial services sample are correlated with a factor of 0.4 (1dp). The correlation results by demographic factor also show consistently higher correlations between perceived company ethics and employee engagement.

From the control variables used in the multiple regression, the beta coefficients are also notably significant for the factors of age (0.111, $p = 0.038$) and role in the company (0.117, $p = 0.017$), thus demonstrating their predictive influences on employee engagement.

Demographic Observations

By assessing the survey data by demographic category, negligible differences of the employee engagement category scores are observed by gender. Older employees do however tend to show higher engagement and perceived company ethics scores.

Negligible employee engagement category scores are observed by education qualification level; however employees with lower qualifications do show slightly higher levels of remuneration package satisfaction, a relationship which could be for future research.

Employees in the financial services do however show higher scores in all the categories of employee engagement, perceived company ethics and remuneration package satisfaction.

Negligible differences of category scores are observed by tenure at the company; however employees working for the company longer show slightly higher engagement levels. The

more senior staff members also have higher levels in all categories of employee engagement, perceived company ethics and remuneration package satisfaction.

Recommendations

Both perceived company ethics and remuneration satisfaction have been demonstrated to be predictive in terms of assessing the employee engagement levels of an employee in the financial services area, which is in line with the literature before (Kataria, Garg, & Rastogi (2013) and Lakshmi (2012)). The regression analysis has shown however that perceived company ethics is a more significant influencing force on employee engagement than remuneration package satisfaction. This is a substantial finding which suggests that no matter what someone is paid, if employees are not satisfied with the company's moral approach to business, employees will become disengaged, thus leading to reductions in their productivity levels and the company experiencing higher levels of staff turnover.

Companies that only focus on paying their staff well and rewarding staff for unethical behaviours may thus find themselves coming short in maximising employee engagement. Without adequate ethics in the company, the company risks not getting the most out of their employees, the company also risks suffering high staff turnover and having low productivity rates.

These findings are relevant today to the financial services industry as concerns have been raised as to the low perceived ethics in the financial services industry (Holme (2008), Roth (2009), Earle (2009) and Edelman (2013)) and the exorbitant remuneration incentives in the financial services industry (Gregg, Jewell, & Tonks (2012)). This is important as the literature demonstrated the need to focus on improving perceived company ethics as this would lead to increased levels of engagement and an increase in competitive advantage (Kataria, Garg, & Rastogi (2013)).

The notion of making profits no matter how they are made is something that appears to not be sustainable and employees are increasing becoming aware of this. There is a need to build a company brand that is worthwhile, with a sound value system and an ethical approach to business and in turn the company will succeed. Companies that ignore the ethical aspects will find their staff will not be engaged and will eventually leave them for a better more ethical competitor out there. As Ralph Waldo Emerson has said “Your actions speak so loudly I cannot hear what you are saying” and so companies should embed ethical behaviours in their actions and reap the rewards.

Limitations and Areas for Future Research

It is recognised that engaged employees may select more to take part in the online survey of this research than disengaged employees, i.e. there may be a non-response bias. This may result in a higher level of employee engagement noticed from the survey results than is actually inherent in the population.

The survey was sent to South African employees in the financial services industry. South African employees may exhibit a different culture to other employees in different countries. This may be due to various factors including different work cultures. A similar test would thus need to be done in other countries to infer results back on those respective country’s populations, which is an area for future research.

A demographic observation was that employees with lower education qualifications showed higher levels of remuneration package satisfaction. This observation was based on average scores calculated from the sample observations and highlights the potential for future research in terms of whether there is in fact an inverse predictive relationship between the more education qualifications an individual has obtained and the employee’s remuneration package satisfaction level.

The scope of this research is notably limited to cover only a few of the many influencing forces of employee engagement. There are other influencing forces on employee engagement, as mentioned in this paper, and an assessment of the predictive strengths of these other forces on employee engagement is an area for future research.

Appendix: Survey Questionnaire

What is your gender?

Choice: Male; Female

What year were your born in?

Choice: Prior to 1950; Individual years from 1950 to 1995, After 1995

Highest qualification obtained from the list

Choice: Did not complete matric; Matric ; Diploma ; Undergraduate degree ; Postgraduate degree; Masters; Doctorate

Which sector do you primarily work in?

Financial Services Options:

Banking; Consulting (Financial Services); Insurance (Long term); Insurance (Short term); Investment; Other - Financial Services

Non-Financial Services Options:

Aerospace & Defence; Automobiles; Beverages; Chemicals; Construction & Building; Materials; Consulting (Non-Financial Services); Electricity; Electronic & Electrical Equipment; Engineering & Machinery; Food Producers & Processors; Healthcare; Industrial; Information Technology; Media & Photography; Mining; Oil & Gas; Pharmaceuticals & Biotechnology; Real Estate; Support Services; Telecommunication Services; Transport; Other - Non-Financial Services

In which year did you start at the company you currently work for?

Prior to 2000; Individual years from 2000 to 2014; Not applicable;

In the list below, what is the closest match to your role in the company?

Temporary / Contract worker/ Other; Administration Role; Recent Graduate / Junior Staff; Middle Management; Senior Management; Executive

Employee Engagement Questions - Utrecht Work Engagement Scale (UWES)

Select the degree of frequency for the following using the scale: Never (0), Almost Never (1), Rarely (2), Sometimes (3), Often (4), Very Often (5) or Always (6)

Vigour

- At my work, I feel bursting with energy
- At my work, I feel strong and determined
- When I get up in the morning, I feel like going to work
- I can continue working for very long periods at a time
- At my job, I am very resilient mentally in that I feel I can recover from difficult conditions
- At my work I always persevere, even when things do not go well

Dedication

- I find the work that I do full of meaning and purpose
- I am enthusiastic about my job
- My job inspires me
- I am proud of the work that I do
- To me, my job is challenging

Absorption

- Time moves quickly when I am working
- When I am working, I forget everything else around me
- I feel happy when I am working intensely
- I am absorbed in my work
- I get carried away when I'm working
- It is difficult to detach myself from my job

Perceived Company Ethics Questions

Please complete the scale below relating to the degree of agreement you have related to each statement. Please answer these questions with respect to your own company's work environment.

Scale: Strongly disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly agree (5).

- The company has a good work ethic embedded
- The working environment is safe, free from theft and the environment is kept clean
- Employees do not receive gifts/favours in exchange for preferential treatment
- Employees give credit to those that deserve credit and take responsibility for errors they have made.
- Employees can report violations of organisation policies freely and anonymously
- Employees are honest in their absenteeism and take sick leave only when they are sick
- Employees do not do their own personal business on organisation time, unless they are able to work that time back to the business
- Employees avoid using organisation services for their own personal use
- I believe that the recruitment, promotion and pay in the company is free from harmful discrimination
- The company trains its employees to the best of its abilities to ensure success of its staff
- I feel that privacy is maintained and that employees do not disclose any confidential information to unauthorised recipients
- Employees in the company are expected to always be courteous and free from arrogance especially when dealing with customers

Remuneration Package Satisfaction Questions

Select the degree of agreement that you have related to the following

Scale: Strongly disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly agree (5).

- My current remuneration package is acceptable to me given my qualifications, role and experience
- My performance measurement involves me working towards improving the company's revenue
- If I outperform expectations in my work, I expect to receive a good performance bonus or salary increase
- I feel that I am remunerated in line with or better than my colleagues at the same level
- I would not consider leaving my current job for another company primarily for increased remuneration
- I have received above or in line with the average company remuneration package increase for my position in my last salary increase
- I believe there is a positive relationship between the company's financial performance and my remuneration package

End of Survey Questionnaire

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Tables

Table 1 – Cronbach Alpha Test

Items	Cronbach Alpha	Std. Alpha	G6(smc)	Average R
All Questions	0.9312	0.9304	0.9496	0.2709
Employee Engagement Questions Only (UWES)	0.9243	0.9243	0.9322	0.4181
Perceived Company Ethics Questions Only	0.8702	0.8703	0.8784	0.3587
Remuneration Package Satisfaction Questions Only	0.7772	0.7745	0.7791	0.3291

Table 2 – Multiple Hierarchical Regression of Employee Engagement on Predictors

Model		Standardized Coefficients Beta	t	p
1	(Constant)	4.140	101.061	0.000
	Gender	-0.014	-0.327	0.744
	Age	0.113	2.079	0.038
	Highest Qualification	0.048	0.989	0.323
	Tenure at current company	0.019	0.342	0.732
	Role in the Company	0.117	2.398	0.017
	Perceived Company Ethics Score	0.346	7.578	0.000
	Remuneration Package Satisfaction Score	0.271	5.939	0.000

ANOVA Summary

	Model	Sum of Squares	df	Mean Square	F	p
1	Regression	123.386	7.000	17.627	28.458	0.000
	Residual	223.596	361.000	0.619		
	Total	346.981	368.000			

Appendix: Additional Literature Review for MBA Research Purposes

This report was written considering the submission requirements of the Journal of Business Ethics. As such the literature review sections have been shortened. This section provides additional information that was considered in the production of the research report.

Understanding Employee Engagement

Kahn (1990) discusses the idea behind the theory of employee engagement relates to the identification of three psychological conditions that impact on an individual's engagement, namely psychological meaningfulness, psychological safety, and psychological availability.

Kahn (1990) further describes these three conditions as:

- Psychological meaningfulness refers to 'a feeling that one is receiving a return on investment of one's self in a currency of physical, cognitive or emotional energy';
- Psychological safety entails feeling able to show and employ one's self without fear of negative consequences to self-image, status or career; and
- Psychological availability indicates whether the individual is ready and/or confident to engage in their work role given the fact that people are also engaged in many other life activities.

Gatzert, Schmit, & Kolb (2014) also discuss how it could be the unfair treatment to staff or where companies source their goods or just their deceptive sales practices, however these operational loss events can impact on whom wants to associate themselves with such an entity.

Seijts & Crim (2006) describes the 10 Cs which explain employee engagement in a company. This 10 C's that can be assessed as constructs for employee engagement, which are shown below:

Connect: To show leaders value their employees, they must work on the interpersonal relationship between employees and their own boss

Career: This is about providing challenging and meaningful work with opportunities for career advancement.

Clarity: This is about communicating a clear vision to employees regarding what the company stands for, what the company seeks to achieve and how people can contribute to the success of the company.

Convey: A need to clarify expectations from employees and provide feedback on their functioning in the organization.

Congratulate: Leaders that are exceptional give recognition and they do so frequently to their employees.

Contribute: Leaders need to ensure that there people know that their input matters and that they are contributing to the success of the organization in a meaningful way.

Control: Leaders shall ensure that their employees can control the flow and pace of their jobs and create opportunities to exercise this control.

Collaborate: Employees that work in teams and have the trust and cooperation of their team would be expected to outperform their individuals and teams which do not have that relationship.

Credibility: Maintain a company's reputation and demonstrate high ethical standards. This is to ensure that employees are proud of their jobs, proud of their performance and proud of their organization.

Confidence: Leaders should strive create confidence in a company by setting the example for their employees is having high ethical and performance standards.

Golding (2007) describes the negatives of not having employee engagement being a high staff turnover, a drop in customer satisfaction levels, a drop in levels of innovation in the company and higher absenteeism of staff.

Beames (2007) states that there is empirical research to conclude that commitment and job satisfaction is achieved through employee engagement. Engaged employees are described as one of the constructs to increasing human capital which creates a competitive advantage for a company. The factors are shown in the diagram below:

It is however stated that there is no conclusive evidence to yet link engagement to staff retention and performance in the workplace. This poses an interesting dilemma in that companies may get there employees satisfied about being at work, but further motivation is required to ensure that employees are performing at their best.

Beames (2007) discusses the costs of staff turnover in terms of finding adequate replacements and training these replacements tend to outweigh the costs a company can invest to keep an employee engaged. A business case for engaging and retaining staff summarised is provided in the diagram below.

The Business Case for Engaging and Retaining

The Turnover Cost Iceberg

Marais (2011) further extend this to describe a two-way relationship between the employer and employee that exists to create better organisational performance.

Of recent years more literature has focused on the benefits of employee engagement and what forces drive employee engagement instead of just exploring the general concept, such as Xu & Thomas (2011), who further describes employees that are engaged as

feeling psychologically safe in the presence of colleagues to apply themselves in their role performances. Employees also have sufficient personal resources available to devote to their performances and their work is sufficiently meaningful that such personal investment is perceived as worthwhile. The definition is also linked to the additional effort of employees, such as assisting other employees and having a willingness to make the workplace a productive and satisfying place to work in.

Kataria, Garg, & Rastogi (2013) describe the benefit of having engaged employees is that they are focused, energetic and fully involved in their jobs. They are also highly motivated to direct their focused energy towards meeting the organisation's goals. Engaged employees experience greater attachment to their work and they are more likely to do things that augment organisational effectiveness.

Temkingroup (2014) provide their view of the virtuous cycle which explains the benefits of employee engagement. These include lower staff turnover, prouder employees and finally long-term better expected financial results.

Storey, Ulrich, Welbourne, & Wright (2009, p. 313) provide a very interesting cautionary note on employee engagement. They state that in the human resources academic research field, there is a search for the 'holy grail', which will improve performance in a company overnight. They caution that employee engagement has the potential to be another human resources fad. A reason is that since no clear, actionable definition has been set, it thus encompasses a lot of concepts all into one creating the lack of direction in the industry on the concept. They further state that not all staff need to be retained, trained, motivated and engaged at the same time. Organisations that implement the

concepts of employee engagement should also start thinking about what are these employees engaged in and how can we use this to add value to the organisation.

Quantifying Employee Engagement

There are several methodologies that have been used to attempt to quantify employee engagement. In this section various methodologies and suggested quantification methods shall be described.

Gallup (2014) describes the Gallup's Q12 Employee Engagement metric which includes 12 questions (referred to as the 12 Elements of Engagement). The questions are:

- Do you know what is expected of you at work?
- Do you have the materials and equipment to do your work right?
- At work, do you have the opportunity to do what you do best every day?
- In the last seven days, have you received recognition or praise for doing good work?
- Does your supervisor, or someone at work, seem to care about you as a person?
- Is there someone at work who encourages your development?
- At work, do your opinions seem to count?
- Does the mission/purpose of your company make you feel your job is important?
- Are your associates (fellow employees) committed to doing quality work?
- Do you have a best friend at work?
- In the last six months, has someone at work talked to you about your progress?
- In the last year, have you had opportunities to learn and grow?

The calculations involve calculating an Engagement Ratio using a rating scale that divides respondents to Engaged, Not Engaged and Actively Engaged employees. There however does not appear to be any evidence of reliability of their metric.

Temkingroup (2013) describes the Temkin Employee Engagement Index (TEEI). This index is a more simplified one and is based on three questions, i.e.

- I understand the overall mission of my company;
- My company asks for my feedback and acts upon my input; and
- My company provides me with the training and the tools that I need to be successful.

For each question, respondents rate their level of agreement on a 1-7 scale. The overall metric is the summed across all three questions. The measure appears simplistic and there is no evidence of reliability of using this metric.

Beames (2007) describes employee engagement as being not a traditional academic construct. The empirical quantifiable research into this field is thus much less than other academic constructs.

Marais (2011) summarise eight questions in assessing an employee's level of engagement which relate to:

1. Amount it would take for me look for another employer;
2. The strong belief in the goals and objectives of the company I work for;
3. The support in the values for which my company stands;
4. Recommending my company as a good place to work;
5. Being proud to be part of my company;
6. The company inspiring me to exert extra effort in my work;

7. Being presently seriously considering leaving my company ; and
8. Willingness to work beyond what is required in my job in order to help my company to succeed.

Ali & Ali (2011) summarise the quantification of employee engagement levels using five more subtle questions, that is:

1. The job I have makes me enthusiastic;
2. I like to work intensively;
3. I often become absorbed in the job I am doing
4. The job gives me energy and
5. I persevere when I encounter challenges.

Langford (2009) also has questions that can be leveraged off which cover organisational commitment, job satisfaction and intention to stay subsections.

Understanding Company Ethics

Egels (2005) provides a review of the many definitions and concepts there is of business ethics. He describes that ethical issues of business are classified into: Stakeholder Theory, Corporate Social Responsibility, Corporate Citizenship, Corporate Social Performance, Sustainable Development and Business Ethics. The definitions in each of these categories appear to vary and sometimes the terms are used interchangeably, possibly carrying an ambiguous meaning. This paper aims to looks at business ethics at a broader level and not just a shareholder perspective, as employees are not shareholders and employee engagement is not necessarily inherent if the shareholder is maximising profitability.

Egels (2005) explains the business ethics concept by describing the differences between shareholder and normative perspectives which dominate research in the ethical area. The

shareholder perspective demands managers to make investments in ethical actions only if this helps the company to maximise long term profitability. The normative side however looks at a much greater diversity view. This goes beyond just maximising profits but also touch on environmental protection, upholding human rights, inclusive decision making and embracing diversity in the workplace. This paper shall thus focus on the normative perspective, to consider a more holistic view and an employee perspective instead of a shareholder perspective.

Over more recent years, IOD SA (2009) defined ethics in the King III code of governance as that which is good or right in human interaction. Ethics therefore involves three key interlinked concepts of self, good, and other. An individual's conduct is ethical if this gives due consideration not only to that which is good for the individual, but also good for others. Business ethics refers to the ethical values that determine the interaction between a company and its stakeholders

Crosbie (2008) survey results however concluded that a large portion of people state that they are willing to behave in an unethical manner, such as lie or cheat, in order to succeed in the business world. A large portion of people surveyed also recognised the necessity to lie or cheat in order to succeed. She raised concerns that generally people would be less inclined to admit to dishonest actions in these types of surveys, which they thus expect the survey results to be even worse than is shown.

Marsh (2013 p. 547) provide a framework for ethical leadership to better explain the underlying behaviours of ethical leaders. She provides a framework for ethical leadership to better explain the underlying behaviours of ethical leaders. The diagram below summarises the framework which includes authenticity, mindfulness, sustainment and engagement.

Marsh (2013) further explains that ethical leaders ensure the company is authentic in its goals, mindful of each of its employees, sustainable in its vision and embraces diversity by engaging with the staff. These factors influence the levels of employee motivation, job satisfaction and employee engagement.

Mele (2014, p. 463) describes ethics in a company using the human quality treatment level assessment. The five levels from least to best are maltreatment, indifference, justice, care and development, which are described further below.

Mele (2014, p. 463) describes that companies at the bottom level of maltreatment have the worse treatment of their employees. As the company moves to the ideal state of development, so it requires improved business ethics and treatment of staff.

Quantifying Perceived Company Ethics

Ncongwane (2010) looks at constructs for measuring perceived company ethics which assess whether:

- Hiring practices are fair,
- There is sufficient training & fair promotions,
- The environment is free of harassment,
- Disciplinary measures are consistently applied,
- Confidentiality is maintained,

- Corporate Social Responsibility is inherent in the company,
- The company has an ethics policy for which training is provided and
- The company looks beyond performance.

Illinois Executive Ethics Commission (2009) detail questions that assess the level of business ethics in departments in the state of Illinois. Questions cover topics including awareness, communication, leadership, training and overall ethical culture to assess their level of ethics.

Black & Anderson (2013) describes questions which assist in quantifying the level of business ethics in the organisations including:

1. The pursuit of profit at the expense of everything else including reputation;
2. Behaviours inherent that are marked by integrity, fair dealing and acting in the best interests of clients;
3. Commitment to and delivery of technical excellence;
4. Prioritising good ethics over the instructions of clients where they conflict;
5. Looking beyond the question of what is legal, that is being prepared not to act in a certain way on the basis that is unethical, even though the act is legal; and
6. Consistent application of positive ethical behaviour across the industry.

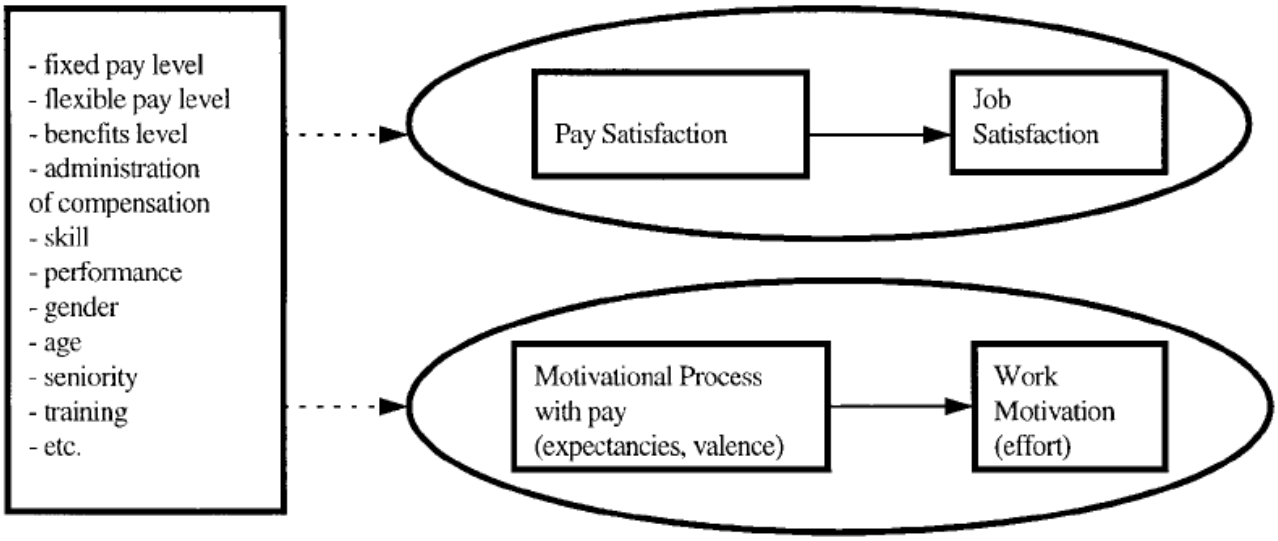
Perryer & Scott-Ladd (2014) further use three broad constructs to measure ethics in terms of deceit, misuse and favours covering questions that assess using company property, claiming credit for other people's work, responsibility for actions, concealing of errors, gifts and confidential information protection.

Understanding Remuneration Package Satisfaction

Industrial Management & Data Systems (2007) describes remuneration package as being something more than just the fixed salary. This includes various additional perks such as pension, medical benefits, bonuses and other perks that the company offers. There is also increased importance to focus on the perks aspect as these are just as important as the fixed salary part to get employees engaged and motivated. Employees also tend to use overall remuneration packages including perks when comparing the pay between companies.

Scarpello & Carraher (2008) found that individuals tend to rate the system of pay with a greater rating of fairness than to their own satisfaction. Having a fair remuneration system thus does not equate to having the same level of pay satisfaction. They suggest this could be due to career progress desires. People may also tend to feel they may be worth more or could do with more pay. They provide an alternate to measuring pay satisfaction and suggest that pay fairness measurements may serve just as well for relative comparisons, as some researchers are using. They also suggest that pay fairness may look at things from a purely organisational pay structure perspective instead of the individual employee perspective, which would be a different way of viewing things.

The interactions between compensation, work motivation and job satisfaction are shown in Igalens & Roussel (1999, p. 1009):



Ghazanfar, Chuanmin, Khan, & Bashir (2011) on the contrary also found that flexible pay (including incentives, overtime and bonuses) do not have a significant impact in motivating the employees. This is in contrast to expected behaviours in the financial services industry where companies primarily use these to motivate their staff and get them more engaged in the company.

Quantifying Remuneration Package Satisfaction

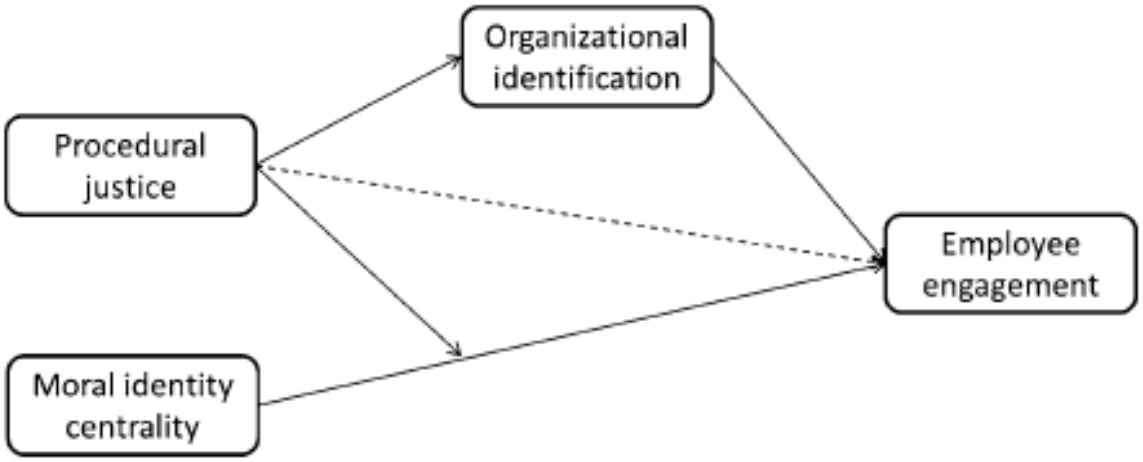
Langford (2009) describes the assessment of the satisfaction of rewards and recognition using the following simple types of questions:

- The rewards and recognition I receive from this job are fair ;
- This organisation fulfils its obligations to me;
- I am satisfied with the income I receive; and
- I am satisfied with the benefits I receive (pension, medical, lunch and leave).

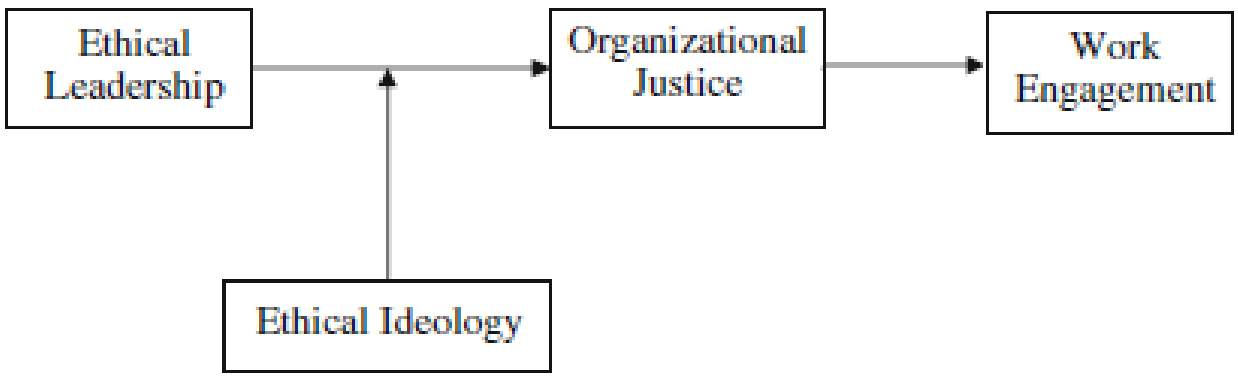
Bouwmeester (2011) assess the different remuneration plans and surveyed employee engagement levels related to their remuneration package. The constructs of the questions focused on the incentives, performance and market remuneration rates.

Influences on Employee Engagement

He, Zhu, & Zheng (2014, p. 683) describes a business ethics topic known as procedural justice. This refers to employees' perception of whether they are fairly treated by the organisation. It involves transparent, inclusive and valid decision-making processes. They find that procedural justice has an indirect effect to organisation identification and together with an employee having a moral identity leads to increased levels of employee engagement. The relationship can be summarised as per the diagram below.



This idea of ethical leadership and ethical ideologies in a company effecting engagement levels have been reiterated in Demirtas (2013). The relationship can be summarised below.



Corporate Social Responsibility in companies is described as an emerging and increasingly important driver of employee engagement. This has been further described by Mirvis (2012), who states that companies in the US are doing many different things to engage their employees through corporate social responsibility. Furthermore, over the last decade or so, increasing numbers of employees want more to their job than just the pay cheque. They want to feel part of a great company and cares about the community. Employees want to associate with companies that are not only in business for profits, but think about how they do things and why they do things.

Pierce & Snyder (2014) provide a different perspective of ethics and suggest that in certain circumstances employees engaging in unethical work practices may lead to them enjoy increased rewards and have less likelihood to leave the company. This may be due to the employees being able to benefit more from the company because of their position and leaving their role may lead to a reduced ability to gain these unethical rewards/relationships elsewhere. This different perspective does go against some employee turnover theories; however the key thing to note is that whilst unethical employees may stay within a company, the honest hardworking ethical individuals are the ones that are not satisfied, disengaged and tend to leave the company. The decision to either retain the unethical or the ethical employees is however a debate beyond this paper. The sustainability of the company using continued unethical behaviours needs to be questioned mainly due to potential company reputational damage.

Additional Summary of Literature Review

The literature review shows that both the remuneration package satisfaction and perceived company ethics contribute to greater employee engagement. The question arises as to

whether having more business ethics or whether optimising remuneration incentives will result in better employee engagement.

Ethics remain a concern in the financial services industry. Excessive remuneration has been linked to people in the financial services industry.

The UWES scale shall be used for quantifying employee engagement due to its frequent use in the industry and proof of its reliability. Adapted questions from the literature reviewed have been developed to assess the perceived level of company ethics and remuneration package satisfaction questions.

Additional Results

The results of the employee engagement scale include three subcategories as Vigour, Dedication and Absorption as discussed earlier. The results overall and per subcategory (out of 6) shows the:

- Mean Vigour Score at 4.14;
- Mean Dedication Score at 4.19;
- Mean Absorption Score at 3.96; and
- Overall Mean Employee Engagement Score at 4.09.

The key detailed employee engagement observations of the results per demographic category include:

- Vigour, dedication and absorption rates are all higher in financial services companies than non-financial services companies;
- Vigour, dedication and absorption rates are all much higher for employees that have worked longer at their current company.

- Overall females show more vigour and absorption rates in their work than males, with dedication levels similar across gender;
- Dedication and absorption rates appear to increase for older employees;
- Vigour rates appear to be more sparsely distributed, though employees older than 50 show higher rates of vigour;
- The higher qualified individuals in the company show slightly higher levels of dedication, whilst vigour and absorption rates differ by less across the qualification levels; and
- More senior staff members also appear to exhibit higher levels of engagement across the vigour, dedication and absorption levels.

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Appendix: Supervisor Approval Letter meets Journal of Business Ethics Requirements

From: **Gavin Price** (priceg@gibs.co.za)
Sent: 09 November 2014 03:29:54 PM
To: Riyadh Mayet (rmayet@live.co.za)

Letter of supervisor's approval

To whom it may concern:

I am satisfied that the paper: The Relative Effects of Perceived Company Ethics versus Remuneration Package Satisfaction on Employee Engagement meets the standards of the selected journal and I am happy to submit the article for its consideration and review.

Gavin Price

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Founded in 2000, the University of Pretoria's Gordon Institute of Business Science (GIBS) is an internationally accredited business school, based in Johannesburg, South Africa's economic hub. As the business school for business, we focus on general management in dynamic markets to significantly improve individual and organisational performance, primarily in the South African environment, through the provision of high quality business and management education. In May 2014 the annual UK Financial Times Executive Education rankings, a global benchmark for providers of executive education, once again ranked GIBS as the top South African and African business school. This is the eleventh year running that GIBS has been ranked among the top business schools worldwide. In October 2013 the GIBS MBA was ranked among the top 100 business schools globally in the prestigious Financial Times Executive MBA Rankings. Ranked in 70th position, GIBS is the only business school in Africa to appear in this ranking.

Appendix: Example of recently published Journal of Business Ethics Article

Reference:

Chang, K., Kim, I., & Li, Y. (2014). The Heterogeneous Impact of Corporate Social Responsibility Activities That Target Different Stakeholders. *Journal of Business Ethics*, *125*, 211–234. doi:10.1007/s10551-013-1895-8

J Bus Ethics (2014) 125:211–234
DOI 10.1007/s10551-013-1895-8

The Heterogeneous Impact of Corporate Social Responsibility Activities That Target Different Stakeholders

Kiyoung Chang · Incheol Kim · Ying Li

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Abstract We aggregate different dimensions of corporate social responsibility (CSR) activities following the stakeholder framework proposed in Clarkson (Acad Manag Rev 20(1), 92–117, 1995) and present consistent evidence that CSR strengths targeting different stakeholders have their unique impact on firm risk and financial performance. Institutional CSR activities that target secondary stakeholders are negatively associated with firm risk, measured by total risk and systematic risk. Technical CSR that target primary stakeholders are positively associated with firm financial performance, measured by Tobin's *Q*, ROA, and cash flow returns. Our results, based on a sample of S&P 500 component firms over the period of 1995–2009, are consistent with the risk management view of "altruistic" CSR activities and with the stakeholder salience theory. We also show that the impact of CSR activities on risk varies with the ethical climate, as proved in our subsample analyses on pre- and post-Sarbanes–Oxley periods. Our empirical analyses mitigate possible omitted variables and endogeneity concerns that are often overlooked in previous research. Our findings are robust to alternative CSR measures, to alternative risk and performance measures, and to alternative estimation methods.

Keywords Institutional CSR · Technical CSR · Firm risk · Financial performance

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As researchers, managers, and investors try to understand the changing ethical environment and the increasing emphases on corporate social responsibility (CSR) and thrive therein, a large and growing literature has emerged over the past several decades on the links between CSR and firm risk, as well as CSR and firm financial performance. The empirical literature has been trying to establish the business case for CSR by providing consistent evidence that there is either a positive relationship between CSR and firm financial performance or a negative relationship between CSR and firm risk, or both (McGuire et al. 1988; Brammer and Millington 2008; Godfrey et al. 2009). While there are more consensuses over the negative relationship between CSR and firm risk (Orlitzky and Benjamin 2001), evidence for the positive relationship between CSR and financial performance remain inconclusive (McWilliams and Siegel 2000; Margolis and Walsh 2003). A number of meta-analyses have attempted to identify a number of data and methodological issues in CSR research related to risk and financial performance: lack of meaningful aggregation of different CSR dimensions, short and small data sample involving multiple industries without considering time sensitivity, less-than-perfect econometric techniques, as well as a size effect that may cloud may findings in CSR research (Orlitzky and Benjamin 2001; Orlitzky et al. 2003; Godfrey and Hatch 2007; Udayasankar 2008).

We attempt in this study to examine both the CSR-risk and the CSR-financial performance links, while taking

good care of the data and methodological concerns. Our main contribution is that we aggregate different dimensions of CSR activities following the stakeholder framework proposed in Clarkson (1995) and present consistent evidence that CSR strengths targeting different stakeholders have their unique impact on firm risk and financial performance. Stakeholders are persons or groups that have, or claim, ownership, rights, or interests in a firm and its activities (Freeman 1984). As firms and their managers manage relationships with their stakeholders (Clarkson 1995), it is important to keep the targeted stakeholders in mind when considering the CSR–corporate financial performance (CFP) link. Primary stakeholders, including employees, consumers, shareholders, etc., have direct economic exchange with a firm and the firm cannot survive as a going concern without continuing participation of primary stakeholders. Secondary stakeholders, on the other hand, are those who influence or affect, or are influenced or affected by the firm, but who do not have direct economic exchange with the firm. The firm is not dependent for its survival on secondary stakeholders (Clarkson 1995). Despite the wide variety of CSR activities that may be used to target primary and secondary stakeholders, there are shared features that distinguish the two: primary stakeholders possess power, legitimacy, and urgency so that managers would prioritize the relationships with primary stakeholders over those with secondary stakeholders (Mitchell et al. 1997). Hence, we believe the aggregation based on targeted stakeholders provides both a meaningful and a parsimonious framework to investigate the CSR-risk and CSR-financial performance links. We further hypothesize a heterogeneous impact of CSR activities with different targeting stakeholders on the CSR-risk and CSR-financial performance links. To test our hypothesis, we follow the Mattingly and Berman (2006) construct and we differentiate CSR activities as institutional CSR (ICSR hereafter) that target secondary stakeholders and technical CSR (TCSR hereafter) that target primary stakeholders.

We then conduct a longitudinal analysis using a large sample of S&P 500 component firms over the period of 1995–2009. We construct size-adjusted CSR measures and industry-adjusted performance measures to capture the difference in risk and financial performance across firms with similar size and in the same industry but different engagement in CSR activities. We also conduct time sensitivity test and hypothesize a change in the CSR-risk link after 2002, when Sarbanes–Oxley (SOX) came into effect. Finally, we estimate the heterogeneous impact of CSR activities with different targeting stakeholders using ordinary least squares regressions that adjust for firm and time clustering effect as well as firm fixed effects regressions for our unbalanced panel data that alleviate biases from time-invariant firm-specific unobservable factors. We also conduct a number of robustness tests ranging from alternative regression techniques to using instrumental variables to mitigate endogeneity concerns.

We find consistent empirical evidence that there is a heterogeneous impact of CSR activities with different targeting stakeholders on the CSR-risk link and that such a link becomes more salient in post-SOX years. Only ICSR strengths are negatively associated with firm risk, measured by both relative stock volatility and *Beta*. Such negative CSR-risk link is more salient in volatile markets and for firms with no social impact and high intangible assets. We do not find any supporting evidence for a negative relation between TCSR strengths and the same firm risk measures. Instead, we find that TCSR strengths are positively associated with Tobin's *Q*, ROA, and cash flow return measures, while ICSR strengths are not. We further provide empirical evidence that there is a causal effect going from higher ICSR strengths to lower firm risk and we find no reverse causality.

Our empirical work on the heterogeneous CSR-risk and CSR-financial performance links expands the current literature. This is probably the first study that investigates both CSR-risk and CSR-financial performance links using a meaningful and parsimonious stakeholder framework and we find consistent evidence that only ICSR strengths are negatively associated with firm risk, while only TCSR strengths are positively associated with firm financial performance. Compared to Godfrey et al. (2009) who find a negative ICSR-risk link in times of firm-specific negative shock, this study identifies a negative ICSR-risk link when market-wide negative shock hits. Further, this study finds while ICSR satisfies secondary stakeholders through a "back door" mechanism that provides value-protecting benefit, TCSR pleases primary stakeholders through a value-enhancing "front door" mechanism that is captured by improved Tobin's *Q*, ROA, and cash flow return measures.

The article proceeds as follows: The first section reviews related literature and develops hypotheses. The second section describes data and variables. The third section reports empirical findings and conducts robustness checks. The concluding section discusses the limitations and interesting implications of the findings.

Literature and Hypothesis Development

Relate CSR to Firm Risk

Risk is defined as uncertainty about outcomes or events, especially with respect to the future (Bloom and Milkovich 1998; Brigham and Gapenski 1996). Firm risk measures the amount of financial performance fluctuations over time (Donaldson 1999). Anecdotal evidence and previous

studies have found a negative relation between CSR and firm risk. As Kalwarski (2008) shows by citing statistics for the period of the 2007–2008 market meltdown, do-good investments hold up better and suffer less economic loss than the general financial market's returns.

Stakeholder theory (Freeman 1984) suggests that firms could do well by doing good and satisfying their stakeholders. For example, high levels of CSR strengths can be negatively associated with firm risk through lower probabilities of suffering lawsuits and fines, less stringent regulatory controls, more stable relation with the government and the financial community (McGuire et al. 1988). Husted (2005) proposes a *real option theory-based view* of CSR and suggests that CSR participation should be negatively related to ex-ante downside business risk.

Godfrey (2005) presents a rigorous theory arguing that corporate philanthropy generates positive moral capital among communities and stakeholders, which will alleviate stakeholders' sanction against the firm when negative shocks hit. Godfrey et al. (2009) apply this *risk management view* of CSR to a sample of 178 firms and find that only participation in ICSR helps lower the impact of negative firm-level shock on stock price. They hence argue for the "insurance-like" benefit of CSR activities that target secondary stakeholders. Also built on Godfrey (2005), Luo and Bhattacharya (2009) show that CSR activities help build firm reputation and lower undesirable firm idiosyncratic risk. Oikonomou et al. (2012) analyze the relation between firm market risk measures and five individual dimensions of CSR strengths and concerns separately using a *utility-based analysis* and find that CSR is negatively related to systematic risk (*Beta*), especially during the down markets. Combining various theoretical arguments and empirical evidence, we believe that

Hypothesis 1: CSR is negatively associated with lower firm risk.

Stakeholder Characteristics, Firm Risk, and Financial Performance

As CSR activities are driven by firms, and in particular managers who manage relationships with various stakeholder groups, appropriate differentiation of stakeholder groups that the firm interacts with is of fundamental importance. Scholars have attempted to provide both meaningful and parsimonious categorizations (Clarkson 1995; Freeman et al. 2008). Clarkson (1995) shows that a stakeholder framework based on how firms manage their relationships with different stakeholders should be used to better assess the impact of CSR activities. He argues that an outsider may view CSR activities as socially responsible yet they are actually driven by market force and decided by managers who are only interested in results. Clarkson (1995) also shows that the differentiation of CSR activities into those targeting primary and secondary stakeholders captures managers' interest and enables us to examine whether managers accomplish their results by making socially responsible decisions. Even though the definitions vary slightly, primary stakeholders dominate secondary stakeholders in all three key attributes that describe stakeholder saliency—power, legitimacy, and urgency—as presented in Mitchell et al. (1997).

Primary stakeholders make legitimate claims on the firm and its managers, and they have the power and urgency to enforce these claims. CSR activities targeting primary stakeholders are likely to result in exchange capital, which would be consumed in the exchange as primary stakeholders recognize their power and the nature of such exchange. With their power, primary stakeholders could demand superior financial and social performance, and their demand is likely to receive immediate attention. Even though the theory and empirical evidence for the CSR-financial performance link is inconclusive (Margolis and Walsh 2003; McWilliams and Siegel 2000), we expect to observe more immediate and observable results from managers' dealing with their primary stakeholders by way of CSR activities.

Secondary stakeholders, on the other hand, have little power and urgency in pressing their legitimate claims on the firm and its managers. Therefore, ICSR strengths, which are CSR activities that target secondary stakeholders, are unlikely to be viewed as purely self-interested actions by managers designed to enhance exchange capability. Godfrey et al. (2009) point out that ICSR are more likely to be viewed as voluntary acts of social beneficence and reflect the firm's moral characteristics. As secondary stakeholders recognize the "altruistic" and pure nature of ICSR, they grant moral capital, which belongs to reputational capital for doing social good, to the firm for its engagement in CSR activities. Positive moral capital will provide "insurance-like" benefits when the firm is subject to negative events and face sanctions from stakeholders (Godfrey 2005).

We therefore have the following hypotheses:

Hypothesis 2a: ICSR strengths are associated with lower firm risk.

Hypothesis 2b: TCSR strengths are associated with better firm performance.

Characteristics of the ICSR-Risk Link

If moral capital provides "insurance-like" benefits, the protection will be more salient during harsh times, when it is most needed. Existing literature supports such a conjecture. For example, Bansal and Clelland (2004) suggest that CSR can help protect and decouple the illegitimate activity

from the rest of the organization in a crisis. Peloza (2009) notes that "social responsibility actions act as an insurance policy that can provide safety nets and mitigate harm from negative events." Godfrey et al. (2009) show that 'CSR strengths' are associated with less negative abnormal stock returns when a firm is hit by legal/regulatory shocks.

Depending on the macroeconomic conditions, as an aggregation of all the stocks, the market could exhibit high volatility and low volatility itself. In a highly volatile market, higher uncertainty and vulnerability is expected for each firm. If moral capital provides insurance-like protection, we have:

Hypothesis 3a: ICSR strengths are associated with lower firm risk, and more so in volatile markets.

When a firm faces degradation in value of its relational wealth, moral capital accumulated at the firm will mitigate stakeholder propensities for negative sanctions against the firm (Godfrey 2005). Further, because moral capital provides protection for relationship-based intangible assets (Godfrey et al. 2009), firms with higher intangible assets should benefit more from it.

Hypothesis 3b: ICSR strengths are associated with lower firm risk for firms with high intangible assets.

While stakeholders impute ethical value to ICSR activities and grant moral capital to such social beneficences, they also determine whether such activities are a genuine manifestation of the firm's intentions, motivations, and character. The greater the level of consistency between the ethical values from the two parties, the more pure the firm's intention to engage in corporate philanthropy, the more moral capital could be generated (Godfrey 2005). On the other hand, participation in CSR activities may not resolve problems for a firm with negative social impact because stakeholders may see an inconsistency between moral behavior history and CSR (Godfrey et al. 2009). Combining the above arguments, we arrive at:

Hypothesis 3c: ICSR strengths are associated with lower firm risk for firms with no negative social impact.

Ethical Climate Change and the ICSR-Risk Link

In the past decade, ethical climate has undergone major changes. More than ever before, firms must provide evidence of their adherence to ethical principles and guidelines (Martin and Cullen 2006). In the wake of the Enron scandal, investors learned a good lesson and regulators passed Sarbanes–Oxley Act in 2002, which requires public firms to adopt and to disclose publicly their ethical codes of conduct (Paine et al. 2005). Corporate social performance has become a key measure for overall corporate performance. For example, S&P 500 component firms and Fortune 500 firms that report their annual social performances have increased from close to zero in 2000 to 53 % in 2012. According to the G&A Institute 2012 report, the percentage has jumped in just 1 year: from 19 to 53 % for S&P 500 firms and from 20 to 57 % for Fortune 500 firms, in 2012. This suggests the increasing salience of ethics and CSR to stakeholders. As pointed out in Barnett and Vaicys (2000), the ethical climate influences stakeholders' imputation of ethical values and ethical judgments. The changing ethical climate, together with changing views of ethical value and CSR activities may well influence the function of moral capital.

Media, especially social media, which barely existed 10 years ago, now plays an important role in our daily life. Media is capable of generating more attention now than ever before. As documented in Zyglidopoulos et al. (2012), media attention leads to increase in CSR strengths. On the other hand, media attention on CSR concerns could be viral and stir immediate sanction.[1] The drastic change in the social environment and how it influences stakeholders are also likely to lead to time-varying function of moral capital.

Finance literature documents that investors' risk aversion varies over time. Ortiz-Ruiz and Benjamin (2001) argue that after the burst of the dot.com stock market bubble, investors were more focused on the underlying risk associated with equity investments and less mindful of capital gains and dividends. Abel (1999), Constantinides (1990), and Campbell and Cochrane (2000) present models consistent with a counter-cyclical relationship between aggregate risk aversion and risk premium change. Following the above arguments, we have

Hypothesis 4: The negative relation between ICSR strengths and firm risk varies over time.

Data

Our sample covers all S&P 500 index component firms, excluding those in regulated industries,[2] over time period 1995 to 2009.[3] Since S&P 500 firms are both a representative group and one with high visibility compared to the firm universe, using this sample helps alleviate biases due to size effect, which have been discussed in CSR research

[1] "In the Internet era, even a 64-year-old retired math teacher can become a threat to a large company." Wall Street Journal (C1, Feb 19, 2013).

[2] Financial (SIC 6000-6999) and regulated utility firms (SIC 4900-4999) are not included in our sample.

[3] KLD used ticker as identifier for the firms it covered prior to 1995 and switched to CUSIP as firm identifiers since 1995. To minimize the possibility of misidentified firms when combining data with Compustat, which uses CUSIP as firm identifiers, we work with data starting from 1995.

(Brammer and Millington 2008). We use Kinder, Lydenberg, and Domini's (KLD) Socrates data for corporate social performance, Compustat for financial variables, Center for Research in Security Prices (CRSP) for volatility and *Beta* of stock return information. There are 5,289 total firm-year observations with no missing information based on 583 unique firms for this study.

CSR Variables

KLD database has covered thousands of firms on their environmental, social, and governance performances since 1991. KLD has always covered S&P 500 firms and it expanded its corporate social performance (CSP hereafter) rating coverage in 2003 to thousands more smaller firms in Russell 2000. KLD offers the advantage of multiple rating criteria for social performance (Vaidyanathan 2008) and has been used intensely by researchers in CSR-related studies (Godfrey et al. 2009; Mattingly and Berman 2006; Luo and Bhattacharya 2009; Oikonomou et al. 2012; Kabongo et al. 2013, etc.).

KLD assigns a qualitative indicator *zero/one* score to CSR strengths and CSR concerns for rating purposes on an annual basis, with CSR strengths representing positive social performance and CSR concerns representing negative social performance. Five major qualitative areas of social performance ratings in the data are widely used in empirical studies of the link between CSR and risk as well as CSR and financial performance: employee relations, product quality, community relations, environmental issues, and diversity issues. Mattingly and Berman (2006) find that four of the above five dimensions of CSR (except for the environmental issues dimension) could be linked to distinct constructs which either target primary or secondary stakeholders and define ICSR and TCSR accordingly. They also point out that CSR strengths and concerns are both empirically and conceptually distinct constructs that should not be combined. Following their insights, we construct our measure of ICSR strengths as the total strength score for diversity and community dimensions and the measure of TCSR strengths[4] as the total strength score for product and employee dimensions. Our measures of ICSR and TCSR concerns are calculated as the total concern scores for the corresponding KLD categories, respectively.

Size effect has been a major concern for using the KLD database for CSR studies, as larger firms tend to exhibit more CSR strengths and concerns, and the qualitative ratings do not reflect the dollar value of each CSR-related activity. Besides sticking to a sample with S&P 500 firms, we attempt a two-pronged approach in order to alleviate the size effect. First, we calculate the net strength scores by summing up the indicator variables for strengths and subtract the sum of the indicator variables for concerns of ICSR and TCSR, respectively. At the same time the net CSR measures mitigate size effect, they involve an implicit assumption that CSR strengths and concerns are similar constructs and could be combined. Such assumption may be unwarranted as argued in previous research (Mattingly and Berman 2006). To overcome such critique, we construct another set of ICSR/TCSR strengths variables that are adjusted by the mean ICSR/TCSR strengths of the quintile into which a firm's asset size falls. We also construct the size-adjusted ICSR/TCSR concerns variables in a similar fashion. This set of size-adjusted CSR variables measures the difference between a firm's CSR strength and the mean of its similarly-sized peers, which are more likely to capture the variation in ICSR/TCSR driven by factors other than firm size.

Panel A of Table 1 reports that on average, our sample of S&P 500 firms scores 2.8 on overall CSR strengths, 1.6 on ICSR strengths and 1.0 on TCSR strengths, with a large variation across firms. The scores on ICSR and TCSR concerns are 0.42 and 1.82, respectively. The net strength scores are 1.16 and −0.84 for ICSR and TCSR, respectively. The size-adjusted ICSR and TCSR strengths scores are both close to zero: 2.0E−9 for ICSR and 1.9E−8 for TCSR, but with a large variation, with standard deviation being 1.6 and 1.2. The correlation between the ICSR and TCSR strengths scores is positive at 0.4 for the raw measures and 0.3 for the size-adjusted measures.

Risk Variables

We use market-based risk measures in this study. We investigate the relation between ICSR/TCSR strengths and concerns and two market risk measures, relative stock volatility for total firm risk and *Beta* for systematic firm risk. Even though idiosyncratic risk can be diversified away in a large portfolio, as a measure for total market risk, stock volatility reflects the uncertainty in the stock and matters to the firm. We further conceptualize a firm's total risk as relative stock volatility to the market, which is essentially a measure for firm total risk net of market impact. By excluding the impact of market conditions, our relative volatility measures focus on the everyday relative total risk of a firm, which includes but is not limited to negative legal or regulatory shocks to the firm. Hence our risk measure is in the context of a market-wide environment, while Godfrey et al. (2009)'s risk measure is in the context of firm-specific negative shocks. We also include *Beta* as the measure of firm systematic risk, which is embedded in the

[4] Godfrey et al. (2009) include corporate governance dimension for TCSR as well. We construct an alternative measure for TCSR strengths and concerns following their approach and find qualitatively the same results, which are available upon request.

Table 1 Descriptive statistics

Panel A: summary statistics

	Obs.	Mean	Median	Std.	Min	Max
RelRetVol	5,281	2.648	2.299	1.385	0.424	12.335
Size-Adjusted RelRetVol	5,281	1.000	0.869	0.541	0.160	6.749
Beta	5,289	1.009	0.936	0.470	−0.395	3.767
NetCSStrength	5,289	0.678	0.000	2.932	−9.000	16.000
CSStrength	5,289	2.777	2.000	2.737	0.000	21.000
Size-Adjusted CSStrength	5,289	−0.000	−0.521	2.397	−5.230	15.770
CSConcern	5,289	2.099	1.000	2.159	0.000	13.000
Size-Adjusted CSConcern	5,289	0.000	−0.205	1.835	−4.124	8.876
NetICSStrength	5,289	1.164	1.000	1.900	−4.000	10.000
ICSStrength	5,289	1.579	1.000	1.839	0.000	11.000
Size-Adjusted ICSStrength	5,289	0.000	−0.230	1.627	−3.184	7.937
ICSConcern	5,289	0.415	0.000	0.640	0.000	4.000
Size-Adjusted ICSConcern	5,289	0.000	−0.313	0.615	−0.762	3.687
NetTCSStrength	5,289	−0.839	−1.000	1.825	−10.000	6.000
TCSStrength	5,289	0.982	1.000	1.216	0.000	8.000
Size-Adjusted TCSStrength	5,289	0.000	−0.660	1.162	−1.660	6.340
TCSStrength	5,289	1.821	1.000	1.563	0.000	10.000
Size-Adjusted TCSConcern	5,289	0.000	−0.238	1.346	−3.238	7.922
Log (assets)	5,289	8.717	8.613	1.201	4.751	13.081
Leverage	5,269	0.231	0.225	0.154	0.000	1.395
ROA	5,289	0.061	0.064	0.123	−4.583	0.933
ROA_E (ROA using EBIT)	5,289	0.122	0.114	0.090	−0.611	0.930
EBITDA/TA (Cash flow return)	5,272	0.167	0.160	0.089	−0.321	0.965
Q	5,286	2.442	1.836	2.313	0.628	78.565
PPE/assets	5,268	0.313	0.262	0.212	0.002	0.961
R&D	5,289	0.032	0.007	0.050	0.000	0.680
Firm age	5,289	3.387	3.611	0.627	1.099	4.094

Panel B: Pearson correlation coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) *RelRetVol*	1.00									
(2) *Size-Adjusted RelRetVol*	0.53	1.00								
	(0.00)									
(3) *Beta*	0.46	0.49	1.00							
	(0.00)	(0.00)								
(4) *NetCSStrength*	−0.02	−0.02	0.01	1.00						
	(0.13)	(0.27)	(0.38)							
(5) *CSStrength*	−0.10	−0.03	−0.02	0.71	1.00					
	(0.00)	(0.03)	(0.08)	(0.00)						
(6) *CSConcern*	−0.10	−0.02	−0.05	−0.46	0.30	1.00				
	(0.00)	(0.18)	(0.00)	(0.00)	(0.00)					
(7) *ICSStrength*	−0.12	−0.05	−0.05	0.64	0.87	0.24	1.00			
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)				
(8) *Size-Adjusted ICSStrength*	−0.03	−0.05	−0.05	0.69	0.73	−0.01	0.89	1.00		
	(0.06)	(0.00)	(0.00)	(0.00)	(0.00)	(0.70)	(0.00)			
(9) *TCSStrength*	−0.02	0.04	0.04	0.51	0.72	0.22	0.37	0.26	1.00	
	(0.24)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		

Table 1 continued

Panel B: Pearson correlation coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(10) *Size-Adjusted TCSStrength*	0.04	0.05	0.05	0.51	0.61	0.08	0.24	0.28	0.96	1.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
(11) *ICSConcern*	0.02	0.08	0.08	−0.34	0.11	0.60	0.08	−0.06	0.10	0.02
	(0.08)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.09)
(12) *Size-Adjusted ICSConcern*	0.07	0.08	0.10	−0.38	−0.02	0.48	−0.052	−0.06	0.02	0.03
	(0.00)	(0.00)	(0.00)	(0.00)	(0.10)	(0.00)	(0.00)	(0.00)	(0.09)	(0.07)
(13) *TConcern*	−0.08	0.04	0.00	−0.24	0.33	0.746	0.35	0.132	0.16	0.01
	(0.00)	(0.01)	(0.79)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.51)
(14) *Size-Adjusted TCSConcern*	0.033	0.043	0.06	−0.32	0.10	0.56	0.14	0.15	0.01	0.01
	(0.02)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.47)	(0.45)
(15) *ROA*	−0.14	−0.28	−0.15	0.10	0.05	−0.07	0.03	0.06	0.05	0.07
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)
(16) *ROA_E*	−0.15	−0.27	−0.15	0.12	0.02	−0.13	0.03	0.11	0.04	0.08
	(0.00)	(0.00)	(0.00)	(0.00)	(0.07)	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)
(17) *EBITDATA*	−0.14	−0.24	−0.15	0.13	0.04	−0.13	0.03	0.12	0.06	0.10
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
(18) *Q*	0.10	0.11	0.22	0.14	0.02	−0.17	0.03	0.10	0.06	0.10
	(0.00)	(0.00)	(0.00)	(0.00)	(0.15)	(0.00)	(0.06)	(0.00)	(0.00)	(0.00)
(19) *Log (assets)*	−0.244	−0.017	−0.11	0.056	0.496	0.554	0.461	0.072	0.293	0.042
	(0.00)	(0.22)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)

Panel B: Pearson correlation coefficients

(1) *RelRetVol*									
(2) *Size-Adjusted RelRetVol*									
(3) *Beta*									
(4) *NetCSStrength*									
(5) *CSStrength*									
(6) *CSConcern*									
(7) *ICSStrength*									
(8) *Size-Adjusted ICSStrength*									
(9) *TCSStrength*									
(10) *Size-Adjusted TCSStrength*									
(11) *ICSConcern*	1.00								
(12) *Size-Adjusted ICSConcern*	0.96	1.00							
	(0.00)								
(13) *TConcern*	0.30	0.17	1.00						
	(0.00)	(0.00)							
(14) *Size-Adjusted TCSConcern*	0.19	0.20	0.66	1.00					
	(0.00)	(0.00)	(0.00)						
(15) *ROA*	−0.06	−0.05	−0.08	−0.06	1.00				
	(0.00)	(0.00)	(0.00)	(0.00)					
(16) *ROA_E*	−0.08	−0.05	−0.10	−0.03	0.65	1.00			
	(0.00)	(0.00)	(0.00)	(0.05)	(0.00)				
(17) *EBITDATA*	−0.05	−0.02	−0.13	−0.05	0.56	0.96	1.00		
	(0.00)	(0.14)	(0.00)	(0.00)	(0.00)	(0.00)			
(18) *Q*	−0.07	−0.05	−0.07	0.01	0.26	0.44	0.42	1.00	
	(0.00)	(0.00)	(0.00)	(0.47)	(0.00)	(0.00)	(0.00)		

Table 1 continued

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(19) *Log (assets)*	0.266	0.043	0.533	0.074	−0.07	−0.18	−0.19	−0.19	1.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	

This table presents descriptive statistics for the sample of 5,269 firm-year observations. Panel A provides mean, median, standard deviation, minimum, and maximum value of variables. Panel B provides the correlation matrix. The detailed definitions of the variables are reported in Appendix

p values are reported in parentheses

firm's business and cannot be diversified away even in a large portfolio. We lag all CSR measures by 1 year as we are most interested in the effect of CSR on future firm risk. Because each CSR rating is taken as of each fiscal year end, CSR activities may spread over any time of the fiscal year ($t-1$). We calculate stock volatility of the next fiscal year (t) for each firm using the 12-month returns of t (with no overlapping month from $t-1$). The relative volatility of a firm to the market (*RelRetVol*$_t$) is computed by dividing its stock volatility by the contemporaneous CRSP value weighted index volatility (year t). The size-adjusted relative volatility (*Size-Adjusted RelRetVol*$_t$) is computed by dividing the firm's stock volatility by that of a size portfolio, which contains all firms with sizes falling in the same quintile.

$$RelRetVol_t = \text{12-month stock volatility}_t / \text{12-month CRSP Value-Weighted Index volatility}_t \quad (1)$$

$$Size\text{-}Adjusted\ RelRetVol_t = \text{12-month stock volatility}_t / \text{12-month Size-Quintile portfolio volatility}_t \quad (2)$$

Beta is estimated from a market model using daily stock returns over the past 24 months as described in Eq. (3). We update the *Beta* estimates by including the next 12 months of returns for observations of the same firms in the next fiscal year.

$$R^i_{t-24,t-1} = R^f_{t-24,t-1} + Beta^i_t\left(R^M_{t-24,t-1} - R^f_{t-24,t-1}\right) \quad (3)$$

As we see from Panel A of Table 1, the relative volatility ratio calculated based on the CRSP value weighted index ranges between 0.4 and 12.3 with a mean of 2.7, and the relative volatility ratio calculated based on the matching size portfolio varies between 0.2 and 6.8 with a mean of 1. *Beta* ranges between −0.4 and 3.8 with a mean of 1.0 and a standard deviation of 0.5.

Financial Performance Variables

We use both market-based (Tobin's *Q*) and accounting-based measures (ROA_E and EBITDA/TA) for firm financial performance. Tobin's *Q* is calculated as a firm's market value relative to its book value, hence it reflects the market's perception of a firm's future profitability. ROA_E is a measure of return on assets (ROA), calculated as the ratio of earnings before interests and taxes (EBIT) to total assets. EBITDA/TA can be viewed as a measure of cash flow return, calculated as the ratio of earnings before interests, taxes, depreciation, and amortization (EBITDA) to total assets, which reflects cash flow based return and short-term profitability at the firm after stripping away the influence from using leverage. As all three financial performance variables vary widely across industries, we use industry-adjusted financial performance measures (industry-adjusted Q, ROA_E, and EBITDA/TA) to remove unobserved industry heterogeneity.

The mean financial performance measures are both positive, ranging from 12.2 % for ROA_E to 16.7 % for EBITDA/TA. The mean Tobin's *Q* is a healthy 2.4 with a standard deviation of 2.3, ranging between 0.6 for the minimum and 78.6 for the maximum. Panel A of Table 1 provides summary statistics for our main variables.

Control Variables

We include aggregated CSR concern score (*CSRconcern*), firm size (*Log(assets)*, measured in natural log of firm assets in million U.S. dollars) and other firm characteristics as control variables that have been shown in other studies to be associated with CSP: (1) Book leverage ratio (*Leverage*, total book value of debt/total book value of assets); (2) Measure of operating performance (*ROA*, calculated as ratio of net income to total assets); (3) Tobin's *Q* (*Q*); (4) Ratio of property, plant, and equipment to total assets (*PPE/assets*); (5) Research and development expenses (*R&D*, ratio of R&D expenses to total assets; if R&D is missing, this variable is set to 0)[5]; and (6) Number of years since firm inception (*Firm age*, measured in natural log of years). We also control for fixed year effects and Fama and French 12 industry (or firm) fixed effects to

[5] In unreported results, we show that our results on the relation of ICSR/TCSR with risk and performance still hold in a smaller sample when firms with missing R&D information are excluded. Results are available upon request.

account for the impact of any unobserved missing year effect and/or firm characteristics on our results.

Empirical Results

Univariate Analysis

As a first step, we compare firm risk and performance measures at firms with above-median as well as median and below levels of ICSR/TCSR, both strengths and concerns, using a simple two-sample *t* test on mean. A quick glance of results in Table 2 shows a negative relation between net CSR strengths and firm risk, consistent with previous literature by McGuire et al. (1988) and supports Hypothesis 1.

More interestingly, our results show that when CSR activities are differentiated into strengths and concerns as well as ICSR/TCSR with respect to their different targeting stakeholders, there is a heterogeneous relation between CSR activities and firm risk.

First, CSR strengths are associated with lower firm risk and CSR concerns are associated with higher firm risk, be it total risk or systematic risk.

Second, ICSR strengths and concerns are more likely to be associated with firm risk measures than TCSR strengths and concerns.

Third, TCSR strengths are more likely to be associated with firm performance measures than ICSR strengths.

Our univariate analysis suggests that CSR activities in general help reduce the firm's stock volatility and *Beta*, but such protection varies between ICSR and TCSR activities. ICSR strengths are associated with lower firm risk, while TCSR strengths are associated with better financial performance instead. Our finding that the negative relation only exists between ICSR strengths and firm risk is consistent with the evidence presented in Godfrey et al. (2009), who argue that only ICSR strengths generate moral capital which provides insurance-like benefits.

As we see from Panel B in Table 2, results based on size-adjusted CSR measures are consistent with those based on raw measures in most cases. But when we compare the impact of TCSR concerns on relative stock volatility, higher TCSR concerns are associated with lower relative volatility, which is counter-intuitive. Results from the same comparison based on the size-adjusted measures show higher risk at firms with higher TCSR concerns instead. The latter is also consistent with regression results when firm size is controlled. We believe that this is a piece of evidence that suggests size-adjusted CSR measures are more immune to size effect than the raw measures. In the reporting that follows, we will present results using both the size-based measures and raw measures as a cross robustness check.

Regression Analysis

We proceed with regression analyses to better understand the impact of ICSR and TCSR strengths on firm risk and financial performance. To test our hypotheses, we focus on the relation between ICSR strengths and risk, and the relation between TCSR strengths and financial performance, controlling for firm characteristics that are known to influence such relation. We start with an ordinary least squares regression with standard errors clustered at both firm and year levels, following Petersen (2009) and Thompson (2011). We examine the impact of ICSR/TCSR strengths using individual ICSR and TCSR strengths while controlling for overall CSR concerns and firm characteristics following Eq. (4):

$$\begin{aligned} RelRetVol_{i,t}/Beta_{i,t} = {} & \gamma_0 + \gamma_{1a} CSRstrengths_{i,t-1} \\ & + \left(or\ \gamma_{1b} ICSRstrengths_{i,t-1} + \gamma_{1c} TCSRstrengths_{i,t-1}\right) \\ & + \gamma_2 Log(Assets)_{i,t-1} + \gamma_3 Leverage_{i,t-1} + \gamma_4 ROA_{i,t-1} \\ & + \gamma_5 Q_{i,t-1} + \gamma_6 PPE/Assets_{i,t-1} + \gamma_7 R\&D_{i,t-1} \\ & + \gamma_8 Firm\,Age_{i,t-1} + \gamma_9 CSR\ Concerns_{i,t-1} + Year_t + \varepsilon_{i,t} \end{aligned} \tag{4}$$

The regression equations using net CSR strengths measures can be summarized as follows in (5).

$$\begin{aligned} RelRetVol_{i,t}/Beta_{i,t} = {} & \gamma_0 + \gamma_{1a} NetCSRstrengths_{i,t-1} \\ & + \gamma_{1b} NetICSRstrengths_{i,t-1} + \gamma_{1c} NetTCSRstrengths_{i,t-1} \\ & + \gamma_2 Log(Assets)_{i,t-1} + \gamma_3 Leverage_{i,t-1} + \gamma_4 ROA_{i,t-1} \\ & + \gamma_5 Q_{i,t-1} + \gamma_6 PPE/Assets_{i,t-1} + \gamma_7 R\&D_{i,t-1} \\ & + \gamma_8 Firm\,Age_{i,t-1} + Year_t + \varepsilon_{i,t} \end{aligned} \tag{5}$$

We are interested in how previous CSR activities affect a firm's stock volatility, so all the CSR variables are lagged by 1 year relative to the volatility measures.[6] We also lag all other control variables by 1 year to alleviate endogeneity concerns.

Panel A of Table 3 reports results from the above baseline regression equations and the expected signs of coefficient estimates. Theory and empirical evidence suggest that CSR concerns lead to higher firm risk, while CSR strengths, especially ICSR strengths, are negatively associated with firm risk (McGuire et al. 1988; Godfrey et al. 2009, among many others). They are however, muted on the impact of TCSR strengths on firm risk. The dependent variable is relative volatility ration in Columns (1)–(5) and is *Beta* in Columns (6)–(8) of Table 3—Panel A. Results in Columns (2) show that relative stock volatility is positively related to CSR concerns and is not related to CSR strengths. Results in

[6] We lose a number of observations due to the lagging. The sample size for regressions in Tables 3 and 4 drops to 4,599 firm-year observations.

Table 2 ICSR/TCSR strengths, firm risk, and financial performance

Panel A: Risk measure comparison by ICSR/TCSR strengths and ICSR/TCSR concerns

	RelRetVol by *ICSR strength*	*RelRetVol* by *TCSR strength*	*Beta* by *ICSR strength*	*Beta* by *TCSR strength*	*RelRetVol* by *ICSR concern*	*RelRetVol* by *TCSR concern*	*Beta* by *ICSR concern*	*Beta* by *TCSR concern*
Low	2.768	2.662	1.030	0.992	2.587	2.750	0.971	1.002
High	2.456	2.607	0.977	1.060	2.764	2.545	1.083	1.017
Difference	0.312	0.055	0.053	−0.068	−0.177	0.205	−0.112	−0.014
t-stat	8.015***	1.255	3.974***	−4.572***	−4.423***	5.391***	−8.296***	−1.119
z-stat	8.151***	0.717	2.339**	−5.758***	−4.959***	4.812***	−8.496***	−2.110**

Panel B: Size-adjusted total risk measure comparison by ICSR/TCSR strengths and ICSR/TCSR concerns

	Size-Adjusted RelRetVol by *Size-Adjusted CSRstrength*	*Size-Adjusted RelRetVol* by *Size-Adjusted ICSRstrength*	*Size-Adjusted RelRetVol* by *Size-Adjusted TCSRstrength*	*Size-Adjusted RelRetVol* by *Size-Adjusted CSRconcern*	*Size-Adjusted RelRetVol* by *Size-Adjusted ICSRconcern*	*Size-Adjusted RelRetVol* by *Size-Adjusted TCSRconcern*
Low	1.011	1.014	0.973	0.994	0.960	0.960
High	0.988	0.985	1.027	1.006	1.042	1.041
Difference	0.023	0.029	−0.054	−0.012	−0.082	−0.080
t-stat	1.532	1.939*	−3.619***	−0.803	−5.515***	−5.411*
z-stat	2.570***	3.478***	−2.714***	−0.208	−5.485***	−3.789***

Panel C: Risk measure comparison by net ICSR and net TCSR strengths

	RelRetVol by *NetICSRstrength*	*RelRetVol* by *NetTCSRstrength*	*Beta* by *NetICSRstrength*	*Beta* by *NetTCSRstrength*
Low	2.754	2.609	1.034	1.007
High	2.441	2.696	0.961	1.012
Difference	0.313	−0.086	0.073	−0.005
t-stat	7.830***	−2.253**	5.347***	−0.346
z-stat	7.865***	−2.348***	3.912***	−0.544

Panel D: Performance measure comparison by ICSR and TCSR strengths

	Industry Adjusted Q by *ICSRstrength*	*IndustryAdjusted Q* by *TCSRstrength*	*Industry Adjusted ROA_E* by *ICSRstrength*	*Industry Adjusted ROA_E* by *TCSRstrength*	*Industry Adjusted EBITDA/TA* by *ICSRstrength*	*Industry Adjusted EBITDA/TA* by *TCSRstrength*
Low	0.336	0.271	0.007	0.004	0.005	0.002
High	0.301	0.474	0.004	0.010	0.005	0.012
Difference	0.036	−0.203	0.003	−0.006	0.000	−0.010
t-stat	0.611	−3.129***	1.318	−2.311**	0.094	−3.916***
z-stat	−0.257	−4.424***	1.521	−2.217**	−1.166	−3.551***

Panel E: Performance measure comparison by Net ICSR and TCSR strengths

	Industry Adjusted Q by *NetICSRstrength*	*IndustryAdjusted Q* by *NetTCSRstrength*	*Industry Adjusted ROA_E* by *NetICSRstrength*	*Industry Adjusted ROA_E* by *NetTCSRstrength*	*Industry Adjusted EBITDA/TA* by *NetICSRstrength*	*Industry Adjusted EBITDA/TA* by *NetTCSRstrength*
Low	0.348	0.148	0.007	−0.005	0.005	−0.006
High	0.260	0.544	0.003	0.019	0.005	0.018
Difference	0.065	−0.399	0.004	−0.024	0.000	−0.024
t-stat	1.085	−7.031***	1.729*	−10.077***	0.014	−11.445***
z-stat	−0.725	−10.055***	1.267	−11.445***	−1.421	−11.900***

This table presents a comparison between relative stock volatility for firms with as- and below-median, as well as above-median ICSR/TCSR strengths and concerns. The detailed definitions of the variables are reported in Appendix

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table 3 ICSR/TCSR strengths, firm risk, and firm financial performance

Variables	Predicted sign	(1) RetMarVol	(2) RetMarVol	(3) RetMarVol	(4) Size-Adjusted RetMarVol	(5) RetMarVol	(6) Beta	(7) Beta	(8) Beta
Panel A: ICSR/TCSR strengths and firm Risk									
$CSRstrength_{t-1}$	(−)		−0.007						
			(−0.699)						
$ICSRstrength_{t-1}$	(−)			−0.020			−0.022***		
				(−1.362)			(−3.699)		
$TCSRstrength_{t-1}$	??			0.031			0.015		
				(1.288)			(1.532)		
Size-Adjusted ICSRstrength$_{t-1}$	(−)				−0.016**				
					(−2.908)				
Size-Adjusted TCSRstrength$_{t-1}$	??				0.015**				
					(1.983)				
$CSRconvers_{t-1}$	(+)		0.077***	0.056**			0.028***		
			(4.729)	(4.713)			(3.013)		
Size-Adjusted CSRconvers$_{t-1}$	(+)				0.023***				
					(4.318)				
$NetICSRstrength_{t-1}$	(−)					−0.031**		−0.005	−0.032***
						(−2.089)		(−0.513)	(−6.726)
$NetTCSRstrength_{t-1}$	??					−0.042***		−0.022**	−0.012***
						(−2.917)		(−2.445)	(−3.124)
$Log\ (assets)_{t-1}$	(−)	−0.157***	−0.214***	−0.216***	0.054***	−0.148***	−0.016	−0.026	−0.061***
		(−3.894)	(−4.256)	(−4.306)	(2.720)	(−3.705)	(−0.999)	(−1.410)	(−4.343)
$Leverage_{t-1}$	(+) or (−)	0.178	0.138	0.192	0.105	0.112	−0.218***	−0.206	−0.126**
		0.816)	(0.737)	0.883)	(1.391)	0.523)	(−2.732)	(−1.468)	(−2.361)
ROA_{t-1}	(−)	−1.492***	−1.312**	−1.336**	−0.574***	−1.313**	−0.346***	−0.451***	−0.089**
		(−2.592)	(−2.545)	(−2.562)	(−2.774)	(−2.527)	(−4.084)	(−2.654)	(−2.050)
Q_{t-1}	(+)	0.014	0.014	0.014	0.020**	0.016	0.019***	0.008	0.020***
		(0.580)	(0.617)	(0.595)	(2.038)	0.694)	(3.474)	(0.532)	(8.363)
$PPE/Assets_{t-1}$	(+) or (−)	0.074	0.014	−0.021	−0.020	0.118	−0.124	−0.113	−0.349***
		0.445)	(0.086)	(−0.129)	(−0.278)	0.711)	(−1.496)	(−1.062)	(−4.108)
MAD_{t-1}	(+)	3.801***	3.703***	3.997***	1.067***	4.071***	1.682***	2.131***	0.664***
		(3.365)	(3.442)	(3.365)	(3.123)	(3.614)	(3.413)	(2.888)	(2.877)
$Firm\ age_{t-1}$	(−)	−0.308***	−0.329***	−0.330***	−0.136***	−0.290***	−0.076***	−0.105***	−0.477***
		(−6.107)	(−6.446)	(−6.466)	(−5.436)	(−5.987)	(−3.542)	(−2.864)	(−9.435)
Constant		4.888***	6.278***	6.279***	0.831***	4.799***	1.494***	2.189***	3.163***
		(11.829)	(12.540)	(12.610)	(7.347)	(1.3022)	(8.236)	(10.861)	(16.883)

Table 3 continued

Variables	Predicted sign	(1) *RoARiskVol*	(2) *RoARiskVol*	(3) *RoARiskVol*	(4) *Size Adjusted*	*RoARiskVol*	(5) *RoARiskVol*	(6) *Beta*	(7) *Beta*	(8) *Beta*
Firm fixed		No	No	No	No		No	No	No	Yes
Industry fixed (FF12)		Yes	Yes	Yes	Yes		Yes	Yes	Yes	No
Year fixed		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Observations		4,999	4,999	4,999	4,999		4,994	4,999	4,994	4,999
R^2		0.383	0.392	0.392	0.444		0.388	0.385	0.269	0.215
Variables	Predicted sign	(1) Q	(2) Q	(3) *ROA_E*	(4) *EBITDA/TA*		(5) *Industry Adjusted Q*	(6) *Industry Adjusted Q*	(7) *Industry Adjusted ROA_E*	(8) *Industry Adjusted EBITDA/TA*
Panel B: *ICSRstrength* and firm financial performance										
$CSRstrength_{t-1}$	??	0.050**					0.022			
		(2.535)					(1.495)			
$ICSRstrength_{t-1}$	??		0.062**	0.015*	0.004**			0.002	0.001	0.001
			(2.059)	(1.692)	(2.380)			(0.089)	(0.774)	(0.785)
$CSRstrength_{t-1}$	(+)		0.056*	0.019**	0.005**			0.073**	0.035**	0.007***
			(1.845)	(2.424)	(2.551)			(2.499)	(2.537)	(3.216)
$CSRconcern_{t-1}$	(−)	−0.035	−0.024	−0.004***	−0.005***		−0.024	−0.026	−0.003**	−0.002**
		(−1.461)	(−1.467)	(−2.698)	(−2.855)		(−1.135)	(−1.231)	(−2.078)	(−2.078)
$Log(assets)_{t-1}$	(−)	−0.151*	−0.158**	−0.011**	−0.013***		−0.084	−0.082	−0.011**	−0.011***
		(−1.912)	(−2.002)	(−2.469)	(−3.013)		(−1.360)	(−1.346)	(−2.240)	(−2.802)
$Leverage_{t-1}$	(−)	−1.504***	−1.377***	−0.013	−0.014		−1.148***	−1.090***	−0.012	−0.012
		(−2.908)	(−2.842)	(−0.466)	(−0.496)		(−3.021)	(−2.856)	(−0.377)	(−0.513)
ROA_{t-1}	(+)	3.626**	3.615**				2.581**	2.764**		
		(2.106)	(2.106)				(2.014)	(2.039)		
Q_{t-1}	(+)			0.014**	0.014**				0.014**	0.011**
				(2.180)	(2.020)				(2.073)	(2.152)
$PPEintensity_{t-1}$	??	−0.637**	−0.629**	0.006	0.071***		−0.265	−0.303	0.019	0.062***
		(−2.459)	(−2.516)	(0.377)	(4.629)		(−1.173)	(−1.316)	(1.220)	(4.130)	
$R\&D_{t-1}$	(+)	8.835***	8.788***	−0.054	−0.012		7.288***	7.180***	−0.066	−0.016
		(5.462)	(5.428)	(−0.528)	(−0.114)		(5.298)	(5.238)	(−0.634)	(−0.197)
$Firm\ age_{t-1}$	(−)	−0.352***	−0.349***	0.011**	0.010**		−0.339***	−0.337***	0.010*	0.009*
		(−3.396)	(−3.374)	(2.124)	(1.985)		(−3.345)	(−3.310)	(1.911)	(1.835)
Constant		4.751***	4.774***	0.166***	0.214***		2.211***	2.213***	0.049	0.049
		(6.196)	(6.327)	(3.826)	(4.917)		(3.655)	(3.786)	(1.161)	(1.361)
Industry fixed (FF12)		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes

Table 3 continued

Variables	Predicted sign	(1) Q	(2) Q	(3) ROA_E	(4) EBITDA/TA	(5) Industry Adjusted Q	(6) Industry Adjusted Q	(7) Industry Adjusted ROA_E	(8) Industry Adjusted EBITDA/TA
Year fixed		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		4,999	4,999	4,999	4,994	4,999	4,999	4,999	4,994
R^2		0.325	0.326	0.287	0.281	0.167	0.169	0.302	0.177

This table presents results from OLS regressions where dependent variables are risk measures in Panel A and performance measures in Panel B. The detailed definitions of the variables are reported in Appendix. Fama and French 12 (FF12) industry and year dummies are included in the both in Panel A and B, but coefficient estimates are omitted for brevity. T-statistics are calculated using standard errors after clustering at the both firm and year levels following Petersen (2009), except for Model (8) in Panel A, which is a firm fixed effects regression. T-statistics are reported in parentheses

***, **, * Significance level at the 1, 5, and 10 %, respectively

Column (4) show that size-adjusted relative stock volatility is negatively related to ICSR strengths only and is positively related to TCSR strengths and CSR concerns. Based on estimates in Column (4) (*t*-stat = −2.4), a one standard deviation increase of ICSR strength level is associated with 4.8 % of a standard deviation decrease of relative stock volatility. Results in Column (6) show that only ICSR strengths are negatively associated with firm systematic risk, *Beta*. A one standard deviation of increase of ICSR strengths level is associated with 8.6 % of a standard deviation of decrease in *Beta*. A one standard deviation of increase in CSR concern is associated with of 7.8 % of a standard deviation increase of relative stock volatility. This suggests that impact caused by CSR concerns is larger in magnitude than that caused by CSR strengths. When using net CSR strengths measures, both net ICSR strengths and net TCSR strengths are negatively associated with firm risk. Because both CSR strengths and concerns influence firm risk, it is hard to differentiate whether ICSR or TCSR, whether strengths or concerns, are driving such negative relation. Combining results reported in Columns (4), (5), and (8) of Panel A, we see that the negative relation between *NetTCSRstrength* and firm risk is actually driven by *TCSRconcern*, not by *TCSRstrength*. Combining results in Panel A of Table 3 on the relation of CSR, ICSR, and TCSR strengths with firm risk, we conclude that only ICSR strengths are negatively associated with firm risk. The negative association between net TCSR strengths and firm risk may largely be driven by the positive relation between TCSR concerns and firm risk.

We expect that firm size (*Log(assets)*) would be negatively related to firm risk as larger firms tend to have less volatile stock prices and systematic risk. The coefficient estimates on *Log(assets)* are negative significant for all specifications in Table 3 Panel A. *Leverage* is positively related to relative stock volatility as higher leverage leads to more volatile cash flows at the firm. *Leverage* is also negatively related to *Beta*. Firms with lower business risk usually have lower *Beta*, and these firms usually use leverage to improve their performance, which is likely to result in a negative relation between *Leverage* and *Beta*. Firms with high ROA in the previous years have less volatility and lower *Beta*, as expected. Firms with higher Tobin's *Q* (*Q*) are more volatile as these firms are more likely growth firms that face more uncertainty. The ratio of a company's property, plant, and equipment over total assets (*PPE_TA*) is used as a proxy variable for asset tangibility, which may influence firm risk and financial performance. As firms mature, measured by *Firm age*, relative stock volatility and *Beta* both go down, as expected. The number of CSR concerns leads consistently to higher relative stock volatility and higher *Beta*, whether

the measure is adjusted for size effect or not, also as expected.

We next investigate the relation between ICSR/TCSR strengths and firm financial performance using the following empirical model and report results in Panel B of Table 3. The control variables are similar to those in Eqs. (4) and (5) while the dependent variables are either Tobin's *Q*, or ROA_E, or EBITDA/AT.[7]

$$\begin{aligned} \textit{Industry-adjusted Tobin's } Q\,(\textit{ROA\_E, EBITDA/TA}) = {} & \beta_0 \\ & + \beta_{1a}\textit{CSRstrengths}_{i,t-1} + \left(\textit{or } \beta_{1b}\textit{TCSRstrengths}_{i,t-1}\right. \\ & \left. + \beta_{1c}\textit{TCSRstrengths}_{i,t-1}\right) + \beta_2 \textit{Log(Assets)}_{i,t-1} \\ & + \beta_3 \textit{Leverage}_{i,t-1} + \left[\beta_4 \textit{ROA}_{i,t-1}\right] + \left[\beta_5 Q_{i,t-1}\right] \\ & + \beta_6 \textit{PPE/Assets}_{i,t-1} + \beta_7 \textit{R\&D}_{i,t-1} + \beta_8 \textit{Firm Age}_{i,t-1} \\ & + \beta_9 \textit{CSR Concerns}_{i,t-1} + \textit{Year}_t + \textit{Industry}_i + \varepsilon_{i,t} \end{aligned} \quad (6)$$

Columns (1)–(4) of Panel B of Table 3 show that CSR strengths and TCSR strengths in particular are always positively associated with Tobin's *Q*, ROA_E, and EBITDA/TA measures, whether they are raw measures or industry-adjusted measures. The relation between ICSR strengths and firm financial performance measures is positive, but not statistically significant when industry-adjusted performance measures are employed. As a control variable, CSR concerns are negatively associated with ROA_E and EBITDA/TA but not Tobin's *Q*. Other control variables all have the expected signs: Firm size (*Log(assets)*) is negatively related to ROA measures as it gets more difficult to accomplish higher ROA for larger firms; *leverage* is positively related to industry-adjusted Tobin's *Q* as leverage usage could provide tax shield for profitable firms, which results in improved firm value; high R&D expenses are associated with lower ROA measures (though insignificant) but with higher Q as investors value R&D's positive impact on future profitability; and *Firm age* is also positively associated with industry-adjusted Q, ROA_E, and EBITDA/TA.

Our findings in Table 3 provide convincing support for Hypotheses 2a and 2b that TCSR and ICSR strengths have heterogeneous impact on firm risk and financial performance. TCSR strengths target primary stakeholders who possess more power and urgency, and as a result TCSR strengths are associated with improved firm financial performance measures that are more immediate and directly observable. ICSR strengths target secondary stakeholders who lack the power and urgency and are associated with lower firm risk, which is less immediate and less directly observable.

[7] ROA is included as independent variables when dependent variables are ROA_E or EBITDA/TA. *Q* is not included as independent variables when dependent variable is Tobin's *Q*.

We next explore whether ICSR strengths' impact on firm risk is insurance-like and how it may differ with respect to different firm characteristics. To be insurance-like, the protection from ICSR strengths should come in times of need. We introduce a dummy variable *HighVol* to capture the more volatile years in the market, which are times such protection will be more valuable. *HighVol* is set to 1 if the year is during the great recession years (2007–2009) and dot.com bubble burst years (2000–2002), closely resembling those identified in Oikonomou et al. (2012). *HighVol* is set to 0 in other years of our sample period.

Firms with higher percentage of intangible assets usually have higher market to book value ratio, as well as higher Tobin's *Q*. We introduce a dummy variable *HighQ* that is set to one when a firm's Tobin's *Q* is higher than median and zero when it is below median. Because in general, the relationship-based intangible asset value at a firm is uninsurable, such protection should be more valuable for firms with higher percentage of intangible assets.

We then re-estimate the relationship between risk measures and ICSR, TCSR, as well as the interaction between ICSR, TCSR, HighQ and HighVol dummies, controlling for the same firm characteristics and firm fixed effects. Results reported in Table 4 show that ICSR strengths are negatively associated with size-adjusted relative volatility ratio in volatile markets and for firms with high intangible assets. ICSR strengths are negatively related to *Beta* for all firms in all times, whether it is in a volatile market or not, and whether the firm has high percentage of intangible assets or not. TCSR strengths do not have any significant relation with firm risk. Our findings support Hypotheses 3a and 3b.

Do ICSR strengths have a similar negative relation with firm risk for firms with negative social impact? Godfrey et al. (2009) and Jo and Na (2012) analyze different data samples in different periods and present empirical evidence supporting opposite answers. To identify firms with negative social impact, we follow Jo and Na (2012) and assign dummy variable *Sin* to one if the industry a firm belongs to is tobacco, gambling, weapons, alcohol, adult entertainment and other controversial firms and to zero otherwise. Our results in Table 5 show that in general, ICSR strengths are only associated with lower relative stock volatility and lower *Beta* for firms without negative social impact. Again, TCSR strengths are not associated with lower firm risk regardless of the firm's negative social impact status. Hence Hypothesis 3c is supported.

Finally, we examine whether the impact of ICSR and TCSR strengths varies with ethical climates. The passage of Sarbanes–Oxley in 2002 represents an implementation of higher ethical standards in the corporate world. We divide our full sample period into two: pre-Sarbanes–Oxley

Table 4 ICSR/TCSR-risk link for firms with high intangibles and in volatile markets

	(1) *Size-Adjusted RelRetVol*	(2) *Size-Adjusted RelRetVol*	(3) *Size-Adjusted RelRetVol*	(4) *Beta*	(5) *Beta*	(6) *Beta*
Size-Adjusted ICSRstrength$_{t-1}$	−0.004	−0.012*	0.002	−0.027***	−0.035***	−0.034***
	(−0.506)	(−1.698)	(0.195)	(−4.069)	(−6.045)	(−3.347)
Size-Adjusted ICSRstrength$_{t-1}$ *by HighQ*	−0.029***		−0.027***	−0.023***		−0.022***
	(−3.122)		(−2.902)	(−3.108)		(−2.938)
Size-Adjusted ICSRstrength$_{t-1}$ *by HighVol*		−0.019***	−0.017**		−0.012**	−0.010*
		(−2.712)	(−2.403)		(−2.061)	(−1.806)
Size-Adjusted TCSRstrength$_{t-1}$	0.015	0.001	0.007	−0.009	−0.007	−0.011
	(1.388)	(0.105)	(0.582)	(−1.052)	(−0.912)	(−1.155)
Size-Adjusted TCSRstrength$_{t-1}$ *by HighQ*	−0.006		−0.007	0.009		0.009
	(−0.521)		(−0.565)	(0.926)		(0.950)
Size-Adjusted TCSRstrength$_{t-1}$ *by HighVol*		0.019*	0.019*		0.004	0.003
		(1.925)	(1.917)		(0.522)	(0.441)
Size-Adjusted CSRconcern$_{t-1}$	0.023***	0.023***	0.023***	0.025***	0.025***	0.025***
	(4.420)	(4.453)	(4.391)	(5.952)	(6.010)	(5.922)
Log (assets)$_{t-1}$	0.140***	0.134***	0.136***	−0.064***	−0.067***	−0.066***
	(7.520)	(7.188)	(7.314)	(−4.316)	(−4.518)	(−4.420)
Leverage$_{t-1}$	0.227***	0.215***	0.225***	−0.140**	−0.146***	−0.140**
	(3.273)	(3.107)	(3.252)	(−2.512)	(−2.630)	(−2.515)
ROA$_{t-1}$	−0.119**	−0.125**	−0.120**	−0.097**	−0.100**	−0.097**
	(−2.201)	(−2.317)	(−2.223)	(−2.233)	(−2.319)	(−2.238)
Q_{t-1}	0.029***	0.029***	0.029***	0.020***	0.020***	0.020***
	(9.607)	(9.596)	(9.633)	(8.314)	(8.336)	(8.333)
PPEIntants$_{t-1}$	−0.005	−0.011	−0.010	−0.302***	−0.310***	−0.304***
	(−0.045)	(−0.106)	(−0.089)	(−3.530)	(−3.624)	(−3.545)
R&D$_{t-1}$	−0.053	−0.079	−0.048	0.649***	0.632***	0.654***
	(−0.185)	(−0.275)	(−0.166)	(2.820)	(2.744)	(2.841)
Firm age$_{t-1}$	−0.239***	−0.236***	−0.236***	−0.363***	−0.361***	−0.363***
	(−4.307)	(−4.264)	(−4.267)	(−8.191)	(−8.130)	(−8.179)
Constant	0.253	0.296	0.276	2.798***	2.819***	2.811***
	(1.171)	(1.369)	(1.280)	(16.187)	(16.294)	(16.250)
Firm fixed	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,599	4,599	4,599	4,599	4,599	4,599
R^2	0.410	0.410	0.411	0.217	0.216	0.217

This table presents results from firm fixed effect regressions with interaction terms between ICSR and TCSR strengths and *HighQ*, *HighVol*, respectively. The dependent variable is a firm's relative return volatility adjusted by size (*Size-Adjusted RelRetVol*) and *Beta*. The detailed definitions of the variables are reported in Appendix. Firm and year dummies are included, but coefficient estimates are omitted for brevity. *T*-statistics are reported in parentheses, calculated using standard errors clustered at the firm level

*** ** * Significance level at the 1, 5, and 10 %, respectively

(hereafter SOX, 1995–2001) and post-SOX (2002–2009) and test for the relation between CSR strengths and firm risk measures. As we see from the results in Table 6, the negative relation between ICSR strengths and firm risk is only significant in post-SOX years. In pre-SOX years, the above relation is negative but not significant. What is more, there is a positive relation between TCSR strengths and *Beta* in pre-SOX years and it turns negative and insignificant in post-SOX years. The sub-period analysis shows that the impact of CSR activities on firm risk is time-varying. As ethical value and code is more emphasized in our society, stakeholders and investors especially impute different values from CSR activities. Results in Table 6 also show that size-adjusted TCSR concerns are associated with

Table 5 ICSR/TCSR-risk link for firms with negative social impact

	(1) *Size-Adjusted RelRetVol* (*Sin* = 0)	(2) *Size-Adjusted RelRetVol* (*Sin* = 1)	(3) *Beta* (*Sin* = 0)	(4) *Beta* (*Sin* = 1)
Size-Adjusted ICSRstrength$_{t-1}$	−0.024***	−0.010	−0.045***	0.006
	(−3.120)	(−0.686)	(−7.656)	(0.533)
Size-Adjusted TCSRstrength$_{t-1}$	0.012	−0.011	−0.003	−0.006
	(1.292)	(−0.525)	(−0.429)	(−0.393)
Size-Adjusted CSRconcern$_{t-1}$	0.030***	−0.004	0.026***	0.003
	(4.854)	(−0.362)	(5.375)	(0.336)
Log (assets)$_{t-1}$	0.143***	0.113**	-0.061***	−0.057
	(6.935)	(2.260)	(−3.797)	(−1.431)
Leverage$_{t-1}$	0.175**	0.234*	−0.181***	−0.035
	(2.206)	(1.651)	(−2.929)	(−0.308)
ROA$_{t-1}$	−0.145**	0.308*	−0.079*	−0.440***
	(−2.478)	(1.952)	(−1.728)	(−3.487)
Q$_{t-1}$	0.027***	0.041***	0.019***	0.054***
	(8.156)	(2.918)	(7.309)	(4.794)
PPEfassets$_{t-1}$	−0.063	−0.006	−0.385***	0.470**
	(−0.530)	(−0.020)	(−4.178)	(2.045)
R&D$_{t-1}$	0.143	−1.311	0.784***	−2.483**
	(0.469)	(−1.030)	(3.295)	(−2.443)
Firm age$_{t-1}$	−0.263***	−0.248*	−0.367***	−0.171
	(−4.303)	(−1.744)	(−7.693)	(−1.507)
Constant	0.349	0.435	2.808***	1.915***
	(1.484)	(0.647)	(15.314)	(3.563)
Firm fixed	Yes	Yes	Yes	Yes
Year fixed	Yes	Yes	Yes	Yes
Observations	3,922	677	3,922	677
R^2	0.394	0.535	0.206	0.373

This table presents a comparison of results on the relation between firm risk and CSR strengths for firms with and without negative social impact, using firm fixed effects regressions. The dependent variable is a firm's relative stock return volatility adjusted by size (*Size-Adjusted RelRetVol*) and *Beta*. The detailed definitions of the variables are reported in Appendix. Firm and year dummies are included, but coefficient estimates are omitted for brevity. *T*-statistics are reported in parentheses, calculated using standard errors clustered at the firm level

*** ** * Significance level at the 1, 5, and 10 %, respectively

higher relative stock volatility in the post-SOX period. Such relation is positive yet insignificant in pre-SOX years. This provides another piece of evidence consistent with the consequence of higher ethical standards: it leads not only to more appreciation of CSR strengths, but also to more sanction against CSR concerns. All these findings support Hypothesis 4.

Granger Causality Test

It would be interesting to investigate whether there is any causal effect between ICSR and firm risk, as either direction seems plausible. ICSR strengths may generate moral capital that provides insurance-like protection which causes lower firm risk (Godfrey et al. 2009). Or as a firm grows in size, it is likely to face less uncertainty and have more resources to engage in more CSR activities. So the negative relation between firm risk and CSR/ICSR could be due to reverse causality. To address this concern that is related to size effect, we conduct a Granger causality test using size-adjusted CSR measures and report the results in Table 7.

The Granger causality test explores the direction of the causal relationship between relative volatility and ICSR strengths at the firm level. We regress the difference in size-adjusted relative volatility over year t and $t-1$ on the difference in size-adjusted ICSR strengths over year $t-1$ and $t-2$ as well as year $t-2$ and $t-3$. We also regress the difference in size-adjusted ICSR strength over year t and $t-1$ on the difference in size-adjusted relative volatility over year $t-1$ and $t-2$ as well as year $t-2$ and $t-3$. Both regressions have the same control variables as those in Eqs. (4) and (5). As we can see from Table 7, higher lagged ICSR activities Granger causes lower stock volatility, while lower lagged stock volatility does not Granger cause higher ICSR activities. Results from the Granger causality test confirm that ICSR strengths lead to volatility reduction, not the other way around.

Table 6 Sub-period analysis (before and after SOX)

	(1) *RelRetVol* Year ≤2001	(2) *RelRetVol* Year ≥2002	(3) *Size-Adjusted RelRetVol* Year ≤2001	(4) *Size-Adjusted RelRetVol* Year ≥2002	(5) *Beta* Year ≤2001	(6) *Beta* Year ≥2002
$ICSRstrength_{t-1}$	−0.016	−0.054**			0.004	−0.022***
	(−0.408)	(−2.225)			(0.521)	(−3.211)
$TCSRstrength_{t-1}$	0.015	0.027			0.050***	−0.001
	(0.282)	(1.010)			(4.128)	(−0.144)
Size-Adjusted $ICSRstrength_{t-1}$			−0.008	−0.032***		
			(−0.840)	(−3.088)		
Size-Adjusted $TCSRstrength_{t-1}$			0.014	0.028**		
			(0.961)	(2.405)		
$ICSRconcern_{t-1}$	0.119	−0.006			−0.003	0.021*
	(1.612)	(−0.154)			(−0.206)	(1.810)
$TCSRconcern_{t-1}$	0.068*	0.075***			−0.016*	0.028***
	(1.767)	(3.706)			(−1.901)	(4.885)
Size-Adjusted $ICSRconcern_{t-1}$			0.028	0.018		
			(1.417)	(1.009)		
Size-Adjusted $TCSRconcern_{t-1}$			0.007	0.042***		
			(0.710)	(4.744)		
$Log(assets)_{t-1}$	−0.254**	0.095	0.070**	0.272***	0.029	0.081***
	(−2.073)	(1.356)	(2.070)	(8.581)	(1.039)	(4.078)
$Leverage_{t-1}$	1.132**	0.245	0.206*	0.017	−0.092	−0.280***
	(2.640)	(1.043)	(1.765)	(0.165)	(−0.962)	(−4.247)
ROA_{t-1}	−0.280	0.070	−0.195	0.005	−0.302**	−0.136***
	(−0.405)	(0.495)	(−1.270)	(0.078)	(−2.383)	(−3.412)
Q_{t-1}	−0.043	0.057***	−0.015**	0.050***	−0.040***	0.038***
	(−1.543)	(4.592)	(−2.034)	(9.085)	(−6.383)	(11.031)
$PPEintensity_{t-1}$	−0.489	−0.673	−0.102	−0.17	0.211	−0.132
	(−0.784)	(−1.579)	(−0.603)	(−0.905)	(1.512)	(−1.106)
$R\&D_{t-1}$	0.766	0.004	0.305	0.176	0.111	0.099
	(0.405)	(0.005)	(0.596)	(0.473)	(0.263)	(0.417)
$Firm\ age_{t-1}$	−0.174	−0.677***	0.435***	−0.368***	0.229*	−0.579***
	(−0.329)	(−2.582)	(3.038)	(−6.654)	(1.945)	(−7.856)
Constant	6.602***	3.476***	−1.302***	1.385***	0.037	2.248***
	(3.564)	(3.437)	(−2.605)	(3.098)	(0.089)	(7.907)
Firm fixed	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,931	2,668	1,931	2,668	1,931	2,668
R^2	0.394	0.257	0.522	0.421	0.313	0.177

This table presents results from firm fixed effects regressions for both before and after SOX sub-periods. The dependent variable is a firm's return volatility (*RelRetVol* and *Size-Adjusted RelRetVol*). The detailed definitions of the variables are reported in Appendix. Firm and year dummies are included, but coefficient estimates are omitted for brevity. *T*-statistics are reported in parentheses, calculated using standard errors clustered at the firm level

*** ** * Significance level at the 1, 5, and 10 %, respectively

Further Robustness Checks

We conduct a number of robustness checks and the results confirm our findings. First, we use a set of alternative dependent variables and re-estimate Eq. (4). Similar to the construct of *RelRetVol* and *Size-Adjusted RelRetVol*, we form our alternative relative volatility measure based on 2-year-after monthly returns by calculating the 24-month volatility for the stock and market, respectively, in fiscal year t and $t+1$ when considering the impact of CSR

Table 7 Granger causality test

	(1) *Size-Adjusted RelRetVol*$_t$ − *Size-Adjusted RelRetVol*$_{t-1}$	(2) *Size-Adjusted ICSStrength*$_t$ − *Size-Adjusted ICSStrength*$_{t-1}$
Size-Adjusted ($RelRetVol_{t-1} - RelRetVol_{t-2}$)	−0.259***	−0.022
	(−7.063)	(−0.715)
Size-Adjusted ($ICSStrength_{t-1} - ICSStrength_{t-2}$)	−0.021*	−0.142***
	(−1.818)	(−6.960)
Size-Adjusted ($TCSStrength_{t-1} - TCSStrength_{t-2}$)	0.028**	0.005
	(2.339)	(0.177)
Size-adjusted ($CSRconcern_{t-1} - CSRconcern_{t-2}$)	0.004	−0.002
	(0.545)	(−0.169)
$Log(assets)_{t-1} - Log(assets)_{t-2}$	0.149***	−0.054
	(3.011)	(−0.736)
$Leverage_{t-1} - Leverage_{t-2}$	0.536***	−0.187
	(3.686)	(−1.063)
$Q_{t-1} - Q_{t-2}$	0.030***	−0.013
	(4.085)	(−1.312)
$PPEAssets_{t-1} - PPEAssets_{t-2}$	0.591**	−0.219
	(2.027)	(−0.633)
$ROA_{t-1} - ROA_{t-2}$	0.111	−0.133
	(1.061)	(−1.559)
$R\&D_{t-1} - R\&D_{t-2}$	0.301	0.347
	(0.953)	(0.655)
$Firm\ Age_{t-1} - Firm\ Age_{t-2}$	−0.345	0.009
	(−0.848)	(0.063)
Size-Adjusted ($RelRetVol_{t-2} - RelRetVol_{t-3}$)	−0.053***	0.038
	(−2.618)	(1.378)
Size-Adjusted ($ICSStrength_{t-2} - ICSStrength_{t-3}$)	−0.026**	−0.115***
	(−2.583)	(−5.898)
Size-Adjusted ($TCSStrength_{t-2} - TCSStrength_{t-3}$)	0.042***	−0.000
	(3.337)	(−0.016)
Size-Adjusted ($CSRconcern_{t-2} - CSRconcern_{t-3}$)	−0.004	0.009
	(−0.541)	(0.616)
$Log(assets)_{t-2} - Log(assets)_{t-3}$	0.284***	−0.141**
	(3.626)	(−2.304)
$Leverage_{t-2} - Leverage_{t-3}$	0.094	0.254
	(0.774)	(1.521)
$Q_{t-2} - Q_{t-3}$	0.039***	0.001
	(3.358)	(0.191)
$PPEAssets_{t-2} - PPEAssets_{t-3}$	0.329	0.131
	(1.441)	(0.435)
$ROA_{t-2} - ROA_{t-3}$	0.233***	0.069
	(5.420)	(1.182)
$R\&D_{t-2} - R\&D_{t-3}$	0.666*	0.969
	(1.832)	(1.601)
$Firm\ Age_{t-2} - Firm\ Age_{t-3}$	−0.105	0.444*
	(−0.318)	(1.662)
Constant	0.002	0.069***
	(0.124)	(3.385)
Year fixed	Yes	Yes

Table 7 continued

	(1) *Size-Adjusted RelRetVol*$_t$ − *Size-Adjusted RelRetVol*$_{t-1}$	(2) *Size-Adjusted ICSRstrength*$_t$ − *Size-Adjusted ICSRstrength*$_{t-1}$
Observations	3,463	3,463
R^2	0.112	0.035

The dependent variable is *Size-Adjusted RelRetVol*,*Size* − *Adjusted RelRetVol*$_{t-1}$ in Model (1) and *Size-Adjusted ICSRstrength*$_t$ − *Size-Adjusted ICSRstrength*$_{t-1}$ in Model (2). The detailed definitions of the variables are reported in Appendix. *T*-statistics are reported in parentheses, calculated using standard errors clustered at the firm level

***, **, * Significance level at the 1, 5, and 10 %, respectively

Table 8 Robustness tests using tobit regressions

Variables	(1) *RelRetVol*	(2) *Beta*	(3) *Industry Adjusted Q*	(4) *Industry Adjusted EBITDA/TA*
$ICSRstrength_{t-1}$	−0.028**	−0.024***	0.010	0.002
	(−2.304)	(−4.024)	(0.413)	(1.237)
$TCSRstrength_{t-1}$	0.055***	0.021***	0.051**	0.006***
	(3.810)	(2.623)	(1.979)	(2.926)
$ICSRconcern_{t-1}$	0.212***	0.082***	0.019	−0.002
	(7.592)	(6.191)	(0.472)	(−0.862)
$TCSRconcern_{t-1}$	0.055***	−0.004	−0.015	−0.003
	(3.603)	(−0.586)	(−0.608)	(−1.641)
$Log(assets)_{t-1}$	−0.215***	−0.003	−0.101**	−0.011***
	(−9.347)	(−0.290)	(−2.108)	(−3.110)
$Leverage_{t-1}$	−0.084	−0.314***	−1.133***	−0.015
	(−0.530)	(−3.555)	(−2.928)	(−0.591)
ROA_{t-1}	−1.555**	−0.480***	2.664**	
	(−2.285)	(−3.844)	(1.978)	
Q_{t-1}	0.009	0.017***		0.011***
	(1.229)	(4.972)		(8.794)
$PPEturnr_{t-1}$	−0.224	−0.175*	−0.006	0.064***
	(−1.234)	(−1.916)	(−0.031)	(4.473)
$R\&D_{t-1}$	4.333***	1.602***	4.358***	−0.066
	(5.962)	(2.769)	(3.870)	(−0.783)
$Firm\,age_{t-1}$	−0.358***	−0.089***	−0.341***	0.006
	(−7.729)	(−4.540)	(−4.798)	(1.467)
Constant	4.893***	1.490***	2.023***	0.047
	(7.610)	(9.523)	(4.309)	(1.388)
Industry fixed (FF12)	Yes	Yes	Yes	Yes
Year fixed	Yes	Yes	Yes	Yes
Observations	4,499	4,499	4,500	4,494
Lower bound	0.00	−1.00	−3.00	−1.00
Ln(Sigma	0.086	−0.962	0.334	−2.640

All the models in this table use Tobit regressions with two way clustering in both industry and year dimensions. Dependent variables are *RelRetVol* in Model (1), *Beta* in Model (2), industry adjusted Tobin's *Q* in Model (3), and industry adjusted EBITDA/TA in Model (4). Industry-adjusted numbers are calculated as the excess after subtracting Fama and French 12 industry (FF12) mean from the raw numbers. The detailed definitions of variables are reported in Appendix. Firm and year dummies are included, but coefficient estimates are omitted for brevity. *Z*-statistics are reported in parentheses, calculated using standard errors clustered at the firm and year levels, following Petersen (2009)

***, **, * Significance level at the 1, 5, and 10 %, respectively

activities in fiscal year $t-1$. We find similar results using alternative total risk measures: *RelRetVol2* and *Size-Adjusted RelRetVol2*, supporting our Hypotheses 1–5.

In Mattingly and Berman (2006), environmental strength loads on the factor "institutional weakness," which leads Godfrey et al. (2009) to include only two components: community and diversity strength for measure of ICSR. We construct two alternative ICSR measures (*Alt ICSRstrength* and *Alt Size-Adjusted ICSRstrength*) that include three components with the added environmental strength score and our results remain unchanged.

Corporate governance ratings from the KLD database have been questioned for their quality and many CSR-related studies exclude corporate governance ratings and focus on the remaining five categories only (Jo and Harjoto 2011, 2012, etc.). Others include corporate governance strengths for TCSR (Godfrey et al. 2009). We include in regression Eq. (4) two alternative TCSR measures (*Alt TCSRstrength* and *Alt Size-Adjusted TCSRstrength*) that include corporate governance strength score from the construct of TCSR and find qualitatively unchanged results. The results from robustness checks using alternative measures of firm risk and CSR are not reported for space consideration, and are available upon request.

As all of our dependent variables (*RelRetVol*, *Beta*, industry-adjusted Tobin's *Q*, ROA_E and EBITDA/TA measures) are bounded ratios, we re-estimate the relation between them and ICSR and TCSR strengths using Tobit regressions. The results are reported in Table 8 and are qualitatively the same as those from the OLS with two way clustering and panel firm fixed effects regressions.

Finally, we test for endogeneity concern for our regression since ordinary least squares estimators are inconsistent when endogenous explanatory variables exist. We introduce the following two instrumental variables for the two suspected endogenous variables—net ICSR and net TCSR strengths, and re-estimate the relation between ICSR/TCSR strengths and firm risk, as well as financial performance, using instrumental variable regressions.

- Annual average of in-state ICSR/TCSR net strengths for all other firms in the same state (*State mean NetICSRstrength* and *State mean NetTCSRstrength*)
- Average of ICSR/TCSR strengths for all other firms with same three-digit SIC codes (*Industry mean NetICSRstrength* and *Industry mean NetTCSRstrength*)

A valid instrumental variable requires meeting two criteria: it should affect the level of net ICSR/TCSR strengths, and it should not affect firm risk or financial performance through other channels except for its direct effect on net ICSR/TCSR strengths. Intuitively, mean net ICSR/TCSR strengths for all firms in one state should affect net ICSR/TCSR strengths at a specific firm because of certain shared statewide influence. The mean net ICSR/TCSR strengths for all firms with same 3-digit SIC codes should similarly affect net ICSR/TCSR strengths because of certain industry shared influence. The two instrumental variables explain over 30 % of variation in net ICSR/TCSR strengths and are unlikely to be weak instruments. We report the results from the instrumental variable regressions in Table 9. There is a positive significant relation between net ICSR/TCSR strengths and the two instruments. Along with higher explanatory power of two instruments, the insignificant Hansen's *J*-statistics show that instruments are valid. The GMM C-statistics for both *Beta* and Tobin's *Q* are insignificant with *p* values at 0.8 and 0.2, suggesting that net ICSR/TCSR strengths are likely not endogenous. This provides further relief that our findings on the heterogeneous impact of ICSR and TCSR strengths on firm risk and financial performance are not spurious.

Discussion and Concluding Remarks

Before discussing the findings of our study and considering its broader implications, we recognize the limitations of our work. Using KLD data as the source of CSP has its own critiques. For example, Entine (2003) notes several credibility problems as the data are stretched to meet the objectives of individual researchers as individual item scores get combined across dimensions into larger constructs. Even though we differentiate the five dimensions of CSR ratings of KLD based on a meaningful concept, the targeting stakeholders of the CSR activities, the aggregation of ratings across dimensions still subject itself to such criticism. Even though we study to use size-adjusted CSR scores to mitigate the size effect inherent in the KLD database, continuous CSR variable, if available, would be preferred to fully address such concern.

Theoretical Implications

We conduct a robust analysis of heterogeneous impact of CSR activities with different targeted stakeholders in this study by mending several major data and methodology drawbacks in previous studies as pointed out in Orlitzky and Benjamin (2001) and Orlitzky et al. (2003). First and foremost, we analyze the CSR-risk and CSR-financial performance links in the primary/secondary stakeholder framework as argued in Clarkson (1995) and document heterogeneous impact of ICSR and TCSR strengths. Second, we use a large panel dataset of representative S&P 500 index component firms over the period of 1995–2009. We also construct size-adjusted measures to alleviate the notorious size bias in CSR studies. Third, we attempt to capture the time sensitivity of such impact of CSR

Table 9 Instrumental variable regressions

Variables	First stage *NetICSRstrength*	(1) *Beta*	First stage *NetTCSRstrength*	(2) *Q*
NetICSRstrength		−0.026**		
		(−2.397)		
NetTCSRstrength				0.068
				(1.442)
$Log(assets)_{t-1}$	0.516***	0.009	−0.101*	−0.130***
	(9.36)	(0.734)	(−1.85)	(−2.599)
$Leverage_{t-1}$	−0.157	−0.272***	−0.887***	−1.661***
	(−0.50)	(−3.754)	(−2.85)	(−3.831)
ROA_{t-1}	0.611**	−0.501***	1.269***	4.240***
	(2.47)	(−3.148)	(3.74)	(2.653)
Q_{t-1}	0.020	0.039***		
	(1.45)	(4.951)		
$PPEassets_{t-1}$	0.715***	−0.102*	0.848***	−0.758***
	(2.86)	(−1.687)	(2.78)	(−3.114)
$R\&D_{t-1}$	2.683**	1.492***	0.418	8.712***
	(2.04)	(3.934)	(0.40)	(5.834)
$Firm\ age_{t-1}$	0.252***	−0.069***	0.054	−0.562***
	(2.93)	(−3.542)	(0.71)	(−4.908)
State mean NetICSRstrength	0.639*** (9.27)			
State mean NetTCSRstrength			0.708*** (11.34)	
Industry mean NetICSRstrength	0.782*** (14.39)			
Industry mean NetTCSRstrength			0.780*** (13.25)	
Constant	−6.251***	1.322***	0.981*	5.189***
	(−10.28)	(9.753)	(1.80)	(8.544)
Observations	5,143	5,143	5,143	5,143
R^2	0.497	0.394	0.378	0.267
GMM *C*-statistics (Endogeneous test)	0.039 (0.843)		1.515 (0.218)	
Hansen's *J*-statistics (Over-identification test)	1.580 (0.209)		0.843 (0.359)	

We use instrumental variables GMM regressions to explicitly test for endogeneity. Two instrumental variables are used for the possibly endogenous variable *NetICSRstrength*: State mean NetICSRstrength and industry mean NetICSRstrength. State mean *NetICSRstrength* is calculated using annual average of all Net ICSR strength scores of firms located in the same state. Industry mean *NetICSRstrength* is calculated using the average of all Net ICSR strength scores of firms with same three-digit SIC codes. The dependent variables are a firm's *Beta* in Model (1) and Tobin's *Q* (*Q*) in Model (2). The detailed definitions of the variables are reported in Appendix. Firm and year dummies are included, but coefficient estimates are omitted for brevity. *Z*-statistics are reported in parentheses, calculated using standard errors clustered at the firm level

*** ** * Significance level at the 1, 5, and 10 %, respectively

activities. Fourth, we apply firm fixed effects regression that addresses the concern of having missing variables. Our study provides relieving evidence that after SOX, stakeholders value ethics more as both ICSR and TCSR strengths have stronger impact on firm risk and financial performance, respectively, during the post-SOX period.

Our main contribution is that this may be the first study that investigates the heterogeneous impact of CSR strengths that target different stakeholders on CFP, addressing both the CSR-risk and CSR-performance links. We find that the impact of TCSR that target primary stakeholders is more immediate and easily observable: TCSR concerns are associated with immediate higher firm risk and TCSR strengths are associated with higher Tobin's *Q*, ROA_E, and EBITDA/TA. On the other hand, the impact of ICSR that target secondary stakeholders is less immediate and not as easily observable: ICSR concerns are not associated with immediate higher firm risk and ICSR strengths are associated with lower firm risk. The negative relation between ICSR strengths and firm risk is stronger in volatile markets.

Our findings also confirm the "insurance-like" benefit of ICSR for the CSR-risk link in the context of market-wide shocks. Such benefit is similar to those documented in Godfrey et al. (2009) in the context of negative firm-level shocks, but have a much broader coverage. Further, our findings provide more insight into the non-uniform CSR impact on both CSR-risk and CSR-return links, which

varies with targeted stakeholders. Such "insurance-like" protection is more salient in volatile markets for firms with higher proportion of intangible assets and firms without negative social impact. Such "insurance-like" benefit is also time-varying, becoming more salient in post-SOX period.

Finally, our empirical findings survive endogeneity tests and other robust checks with alternative risk measures, alternative ICSR/TCSR strengths measures, and alternative regression methods. This alleviates concern that our results may be driven by endogeneity, or the size effect, or a particular construct of ICSR and TCSR measures, or a particular regression method.

Practical Implications

Our study should be of great interest to policy makers and corporate managers. We show that the differentiation of CSR activities based on the targeting stakeholders is meaningful and that participation in ICSR and TCSR has different outcomes. It not only provides empirical evidence that supports what stakeholder theories suggest about the heterogeneous benefits of CSR activities, but also confirms that the outcomes from different CSR activities managers engage into manage relationships with different stakeholder groups match what they have hoped for. We provide empirical evidence for the "insurance-like" protection through ICSR strengths in the context of market-wide shocks, and for enhancing financial performance through TCSR strengths, which makes a solid business case for firms to participate in CSR activities. We show that higher ethical standard raised by the regulators guide stakeholders in their ethical judgment when imputing value to corporate activities.

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Appendix: Definitions of Variables

RelRetVol	12 month stock volatility/12 month CRSP value weighted index volatility,
Size-Adjusted RelRetVol	12 month stock volatility/12 month CRSP size quintile portfolio volatility,
RelRetVol2	24 month stock volatility$_{t-1}$/24 month CRSP value weighted index volatility$_{t-1}$
Size-Adjusted RelRetVol2	24 month stock volatility$_{t-1}$/24 month CRSP size quintile portfolio volatility$_{t-1}$
Beta	*Beta* is measured using the previous 2 years daily data
CSRstrength	A sum of the CSR strengths across community, diversity, environment, employee relation, and product quality [COMstrength + DIVstrength + ENVstrength + EMPstrength + PROstrength]
Size-Adjusted CSRstrength	CSR strengths adjusted by the mean value of CSR strength score in the size portfolio; size portfolio is determined by quintile of total assets
CSRconcern	A sum of the CSR concerns across community, diversity, environment, employee relation, and product quality [COMconcern + DIVconcern + ENVconcern + EMPconcern + PROconcern]
Size-Adjusted CSRconcern	CSR concerns adjusted by the mean value of CSR concern score in the size portfolio; size portfolio is determined by quintile of total assets
NetCSRstrength	CSRstrength − CSRconcern
ICSRstrength	ICSR strengths [COMstrength + DIVstrength]
Alt ICSRstrength	Alternative ICSR strengths [COMstrength + DIVstrength + ENVstrength]
Size-Adjusted ICSRstrength	ICSR strengths adjusted by the mean value of the ICSR strength score in the size portfolio; size portfolio is determined by quintile of total assets
Alt Size-Adjusted	Alternative size-adjusted ICSRstrength
ICSRconcern	ICSR concerns [COMconcern + DIVconcern]
Size-Adjusted ICSRconcern	ICSR concerns adjusted by the mean value of ICSR concern score in the size portfolio; size portfolio is determined by quintile of total assets
NetICSRstrength	ICSRstrength—ICSRconcern
TCSRstrength	TCSR strengths [EMPstrength + PROstrength]
Alt TCSRstrength	Alternative TCSR strengths [EMPstrength + PROstrength + COOVstrength]
Size-Adjusted TCSRstrength	TCSR strengths adjusted by the mean value of TCSR strength score in the size portfolio; size portfolio is determined by quintile of total assets
Alt Size-Adjusted TCSRstrength	Alternative Size-adjusted TCSRstrength

continued

TCSRconcern	TCSR concerns [EMPconcern + PROconcern + CGOVconcern]
Size-Adjusted TCSRconcern	TCSR concerns adjusted by the mean value of TCSR concern score in the size portfolio; size portfolio is determined by quintile of total assets
NetTCSRstrength	TCSRstrength—TCSRconcern
HighVol	If in volatile periods (2000–2002 and 2007–2009), takes 1, else 0.
Log (assets)	Firm size measured by book value of assets at fiscal year *t* [AT]
Leverage	Debt to assets ratio [(DLC + DLTT)/AT]
ROA	Net income divided by assets [NI/AT]
ROA_E	EBIT divided by assets [EBIT/AT]
Cash flow return	EBITDA divided by assets [BITDA/AT]
Q	Tobin's *Q*, measured by market value of assets divided by book value of assets [(PRCC_F*CSHO + AT − CEQ)/AT)]
HighQ	If size-adjusted Q > median(Q), takes 1, else 0.
Size-Adjusted ICSRstrength by HighQ	Size-Adjusted ICSRstrength* HighQ
Size-Adjusted TCSRstrength by HighQ	Size-Adjusted TCSRstrength* HighQ
Size-Adjusted ICSRstrength by HighVol	Size-Adjusted ICSRstrength* *HighVol*
Size-Adjusted TCSRstrength_HighVol	Size-Adjusted TCSRstrength* *HighVol*
PPE/assets	Property, plant & equipment divided by assets [PPENT/AT]
R&D	R&D expense [XRD/AT]
Firm age	Fiscal year minus the first year that the firm is reported in Compustat
State mean NetICSRstrength	Annual NetICSRstrength score average located in the same state
State mean NetTCSRstrength	Annual NetTCSRstrength score average located in the same state
Industry mean NetICSRstrength	Mean NetICSRstrength scores of firms in the same three-digit SIC codes
Industry mean NetTCSRstrength	Mean NetTCSRstrength scores of firms in the same three-digit SIC codes

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