Journal of Business and Economics, ISSN 2155-7950, USA
May 2016, Volume 7, No. 5, pp. 815-827
DOI: 10.15341/jbe(2155-7950)/05.07.2016/009

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The Corporate Sustainability Performance — Financial Performance Link Revisited

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Abstract: Ever since the mid-1970s a multitude of studies linking corporate sustainability performance[1] (CSP) measures and financial performance measures have been conducted. Studies accentuating the CSP-FP link indicate that high CSP not necessarily results in high FP; overall, the results are inconclusive and ambiguous at best. Until today a plethora of corporate sustainability performance measures have been developed, yet a universally accepted CSP construct does not (yet) exist. Furthermore, these measures lack sufficient theoretical underpinning. Consequently, any CSP measure should be considered conceptually flawed. This paper posits that CSP measures signal organizational culture, suggesting that a values-driven organizational culture results in high CSP and FP simultaneously. If so, managers should not focus on increasing CSP to boost FP, but create a "high" culture for sustainability. The investment community can also improve its decision making processes by including CSP measures that reflections of a "high" organizational culture for sustainability.

Key words: corporate sustainability performance; corporate sustainability measures; organizational culture; corporate values

JEL codes: M29; G39

1. Introduction

Today, the business-society relationship ranks high on corporate agendas. The reasons why business(es) are interested in this relationship can be manifold; companies may be interested for risk-management purposes, or because their stakeholders expect them to. Reciprocity may be another reason, meaning that companies allegedly owe something to the communities they are part of, but also guilt about compensating stakeholders unfairly may be a reason for articulating the business-society relationship (Margolis et al., 2007).

Another reason for businesses to go sustainable is that it pays off to do so — this is at least what the MIT Sloan Management report "Sustainability: The 'Embracers' Seize Advantage"[2] claims. In this 2011 report the authors claim that companies that are highly into sustainability financially outperform companies that are only slightly supportive to the sustainability cause. This outcome may be an incentive for companies to improve their sustainability performance in order to boost their financial performance. But are claims made by organizations

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[1] In literature the business-society relationship is expressed in a variety of concepts and constructs. In this paper the term *corporate sustainability performance* will be used to generically denote the business-society relationship.
[2] Source: http://sloanreview.mit.edu/reports/sustainability-advantage.

like MIT supported by scientific research?

Research on the CSP-FP link started in the mid-1970s. One of the first to research the relationship was Milton Moskowitz, but many researchers followed suit and hundreds of studies accentuating the CSP-FP link have now been carried out so far.

In 2003 Margolish and Walsh published are view study covering the 1970-2002 period. Of a sample of 109 studies using CSP measures as independent variables, 7 studies (almost 6.5 percent) indicate that CSP has a negative impact on FP. However, of the other 102 studies, 54 resulted in a positive relationship (49.5 percent). Of the remaining 48 studies 28 (25.7 percent) showed a non-significant relationship and for 20 (18.3 percent) studies mixed results were found.

In a later study Margolis et al. (2007) counted 16 of these review studies, that had been conducted from 1978 until 2006. Overall, these studies show that corporate misdeeds are costly to companies, and that CSP does not systematically destroy shareholder value, suggesting that increasing FP would be an unlikely rationale for pursuing CSP.

In the same year that Margolis and Walsh published their first overview study, Orlitzky (2003) meta-analyzed 52 studies linking CSP (independent variable) and FP (dependent variable), and found that CSP and FP are positively linked, suggesting that companies that show superior CSP also show superior financial performance.

Overall, the conclusion should be that the results of CSP-FP studies are inconclusive and ambiguous at best.

According to Ullmann (1985), one the main reasons for finding inconsistent results is a lack in theory on the subject, meaning that the findings are not backed by robust theoretical frameworks. He states that:

> "What should be looked for is the missing element that, when included in the model would help explain the varying nature of the relationships among social disclosure and social and economic performance, thereby making it possible to forecast the circumstances under which correlations and their directions can be expected. This missing element is strategy" (pp. 551-552).

According to Ullmann, "strategy" might be the missing link between high (low) CSP and high (low) FP, suggesting that superior financial performance is the result of a successful CSP strategy, and that inferior financial performance is the result of an unsuccessful CSP strategy. Correlating CSP and FP measures does add to the vast amount of studies that have been conducted so far, but it does not contribute to understanding the CSP-FP relationship.

This paper is of an exploratory nature; it takes the reader on a journey to explore the nature of CSP measures and the CSP-FP relationship. The underlying premise is that there is a hidden message underlying CSP measures that have been used thus far. If so, what is that message, how does this affect the CSP-FP relationship, and what are the implications for corporate managers, and the investment community?

Therefore, the research questions guiding this paper are: (1) what do CSP measures signal, and (2) how can the CSP-FP relationship be explained?

This paper is organized as follows: in section 2, constructs articulating the business-society relationship will be explored. In the third section, some CSP measures will be discussed and examined whereas section 4 the topic of what CSP measures are measuring will be dwelled upon. The link between culture and financial performance be discussed in section 5. In section 6 some (tentative) conclusions will be drawn, and in section 7 some implications for managers and investors are discussed.

2. What is Corporate Sustainability Performance About[3]?

To date, a variety of constructs articulating the business-society relationship exist. Table 1 presents a classification of 12 of these constructs.

Table 1 Classification of Business-Society Constructs

Constructs	Categorization	Level of analysis
Corporate Social Responsibility	Normative (Instrumental)	Organizational
Corporate Social Responsiveness	(Normative) Instrumental	Individual Organizational
Social Issues Management	Descriptive	Organizational
Corporate Social Performance	Normative (Descriptive)	Institutional Organizational Individual
Sustainable Development	Normative	Institutional
Corporate Sustainability	Descriptive Normative	Organizational
Business Ethics	Normative	Individual Organizational
Corporate Social Policy Process	Descriptive	Individual Organizational
Sustainable Corporate Performance	Descriptive	Organizational
Stakeholder Management, Consultation and Dialogue	Descriptive Normative Instrumental	Individual Organizational
Corporate Citizenship	Normative	Organizational
Triple Bottom Line	Normative (descriptive)	Organizational

Source: Dommerholt (2009).

The CSP constructs mention in the first column range from fairly well known, such as Corporate Social Responsibility, Corporate Sustainability, Business Ethics and Triple Bottom Line to those are less well known, such as Corporate Policy Process and Sustainable Corporate Performance. Most of these constructs have in common is that they are divergent, indicating that various definitions exist of one and the same construct and that these are interpreted differently by different scholars.

Furthermore, all constructs are multi-dimensional implying that they accentuate (combinations of) social, environmental and economic issues. Many of the constructs are also multi-faceted, meaning that they are about including and balancing interests of multiple stakeholders (Dahlsrud, 2008).

However, it is not clear beforehand if the multitude of constructs is indicative of a definitional chaos or an evolutionary process; signs of both can be observed.

In the second column the constructs are categorized according to Donaldson and Preston's (1995) typology. According to this typology a construct can be categorized as:

- Descriptive (these constructs tend to describe and/or explain business behavior)
- Normative (constructs tend to focus on the moral rightness/wrongness of actions: do (don't do) this because it is the right (wrong) thing to do).
- Instrumental (constructs are aimed at reaching certain goals)

Judged by their nature, most of the constructs can be classified as either instrumental or descriptive.

The third column represents the levels of analysis: individual, organizational and institutional. The individual

[3] This section is based on Dommerholt (2009), pp. 46-49.

level focuses on individual managers managing stakeholder issues. The organizational level articulates the relationship between companies and their stakeholders, whereas the institutional level accentuates the relationship between business and society in general. Table 1 shows that most of the constructs focus at the organizational level.

Summarizing, Table 1 shows there is quite some variety in business society constructs. However, a single universally agreed upon construct does not (yet) exist. Moreover, business-society constructs appear to be complex in the sense that they cover multiple dimensions. Furthermore, most business society constructs are descriptive or instrumental by nature and are organization-centered.

3. How Is Corporate Sustainability Performance Measured?

Corporate sustainability performance measures can be divided into two categories: uni-dimensional and multi-dimensional measures (Dommerholt, 2009). Unidimensional measures consist of no more than one attribute. Examples of unidimensional measures are: pollution control (e.g., Spicer, 1978), CO_2-emissions (e.g., Saka & Oshika, 2014), product recalls (e.g., Bromley & Marcus, 1989), signing of the Sullivan Principles (Patten (1990), having a code of ethics in place (e.g., Webley & More, 2004), etc.

As mentioned earlier, CSP constructs are complex and encompass multiple dimensions and stakeholder interests (Carroll, 2000; Rowley & Berman, 2000). Therefore, unidimensional measures lack the necessary rigor to fully reflect CSP and must be considered conceptually flawed for that matter.

Multi-dimensional measures cover more than one attribute to measure CSP. Examples of such measures are reputational scales, screening instruments of sustainability rating agencies and content analysis classification schemes. These measures will now be briefly discussed.

3.1 Reputational Scales

Reputational scales measure a company's CSP reputation. These measures measure how companies' sustainability performance is perceived. However, performance perception not necessarily coincides with factual performance per se, implying that reputational scales not necessarily measure sustainability performance (Rockness, 1985; Lindblom, 1994).

The Fortune Survey is an example of a reputational scale.This survey covers the 8 attributes: Overall quality of management; Quality of products and services; Financial soundness; Value as long term investment; Use of corporate assets; Innovativeness; Ability to attract, develop and keep talented people and Community or Environmental Responsibility.

Reputational scales have been criticized for their lack of theoretical underpinning in the selection of attributes. Attributes are assumed equally important, although a theoretical substantiatingthis claim is missing (Wood & Jones, 1995).

3.2 Screening Instruments of Sustainability Rating Agencies (SRAs)

Sustainability Rating Agencies have been active in the sustainability arena since the mid-1990s. Many of these SRAs started as non-governmental organizations, religious organizations, part of a bank department, etc. (Shäfer, 2005). Assessing companies' sustainability performance is the core activity of SRAs. The obtained information is usually passed on to a variety of stakeholders, particularly the financial community (Shäfer, 2005). Some of these SRAs have even gone beyond providing information by launching, and maintaining, ethical and

sustainability indexes, like Sustainable Asset Management (SAM) and Kinder, Domini and Lydenberg (KLD[4]) — SAM launched and still maintains the Dow Jones Sustainability Index family. The KLD methodology lies at the basis of various products and indexes, such as the SOCRATES-database and the MSCI KLD 400Social Index.

The KLD screen comprises the following social issues: Community, Corporate Governance, Diversity, Employee Relations, Environment, Human Rights and Product. The screen also includes a number of controversial business issues: Abortion, Adult entertainment, Alcohol, Contraceptives, Firearms, Gambling, Military, Nuclear Power and Tobacco. To enter the Index, companies first have to pass an ethical screening, which means that companies that are involved in controversial business issues will not make it to the index. Companies that are eligible to be included in the index will subsequently be scored on the social issues mentioned.

The SAM screen includes a questionnaire comprising some 85 social, environmental and economic (mainly corporate governance related) criteria (Dommerholt, 2009). Although, SAM does provide some information on how the collected information is processed, the assessment procedure remains fairly opaque. For instance, it is not clear how scoring against criteria takes place, and it is also not clear how the various criteria are weighted. Furthermore, a theoretical underpinning of the contents of the screen and on how the data is processed cannot be discerned. However, this also applies to the KLD screening instrument (Dommerholt, 2009).

3.3 Content Analysis Classification Schemes

Content analysis can be described as a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity (Abbot & Monsen, 1979). This methodology is mainly, although not exclusively used for analyzing social and environmental disclosures in annual reports (Dommerholt, 2009). The methodology involves two activities: (1) the construction of a classification scheme, and (2) devising a set of rules about “what”and “how” to code (Milne & Adler, 1999).

Since the mid-1970s a variety of classification schemes have been developed. Bowman and Hair (1975) used prose devoted to social responsibility in annual reports as a classification scheme whereas Wiseman (1982) used a list of 18 information items for analyzing annual reports. She classified the attributes in four categories: Economic factors; Environmental Litigation; Pollution Abatement; Other Environmentally related information.

Patton (1995) used a classification scheme that was developed by Ernst & Ernst (one the predecessors of Ernst & Young). This scheme encompasses seven categories: Environment; Energy; Fair Business Practice; Human Resources; Community Involvement; Products; Other Disclosures.

Overall, a theoretical foundation for the contents of the various classification schemes and scoring procedures is lacking (Dommerholt, 2009).

Multi-dimensional CSP measures like the ones discussed in these sections 3.1-3.3 can be considered more robust than unidimensional measures. However, just like unidimensional measures, multidimensional measures should be considered conceptually flawed. Since a universally accepted CSP construct does not exist, it is not possible to produce a generally agreed upon CSP measure, which also entails that it is not clear which attributes a CSP measure should have and how these should be weighted or ranked.

In addition, multidimensional performance measures usually comprise a variety of attributes on which companies are scored. In most cases the scoring procedures are the very hallmark of sustainability rating agencies, implying that it is not clear what the rating process (including scoring procedure) looks like (Van den Brink, 2002;

[4] KLD Research & Analytics is part of MSCI, Inc.

Dommerholt, 2009). This also has implications regarding the reliability of the outcomes of the rating process (Chatterji & Levine, 2006). Besides, the "performance" component of CSP is also not unambiguously defined (Dommerholt, 2009).

4. What Do CSP Measures Measure?

To answer this question is quite a challenge. Ullmann (1985) states that the missing link in the CSP-FP discussion is "strategy". When CSP is an integrative part of a company's strategy aimed at gaining a competitive advantage, CSP will have a positive impact on corporate financial performance. However, is "strategy" really the missing link as Ullmann suggests?

This paper posits that not "strategy", but "organizational culture" is the missing link. Organizational culture is about the taken-for-granted assumptions and behaviors that make sense of peoples' organizational context (Johnson et al., 2011). These taken-for-granted assumptions and behaviors reflect the values and beliefs an organization endorses.

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The papers that will be used to elucidate that "organizational culture" and not "strategy" is the missing link are "A Look at the Financial-Social Performance Nexus when Quality of Management is Held Constant" by Graves and Waddock (1999) and "Corporate Social responsibility and Financial Performance: Correlation or Misspecification?" by McWilliams and Siegel (2000).

In "A Look at the Financial-Social Performance Nexus when Quality of Management is Held Constant" Graves and Waddock (1999) measured CSP by taking the community, product and employee and diversity attributes of the KLD measure discussed above. They particularly selected these attributes, because these are considered to be direct evaluations of stakeholder groups (i.e., community, customers and employees). Subsequently, these measures were averaged into a single unweighted CSP index.

For financial performance traditional accounting measures: ten-year total return to shareholders, as return on assets (ROA) and return on sales (ROS) were used. As control variables, they used the debt-to-asset ratio as a proxy for firm risk, total assets as a measure for firm size, and "quality of management" attribute of the Fortune survey.

The results show a strong correlation between the CSP index and all three financial performance variables. However, if "quality of management" is inserted as a control variable, this variable strongly and positively relates to all three financial performance variables, whereas the impact of the independent CSP variable on financial performance variables is negligible. Interestingly, the CSP index and the quality of management index highly correlate, suggesting that CSP measure measures "quality of management".

In "Corporate Social responsibility and Financial Performance: Correlation or Misspecification?", McWilliams and Siegel (2000) took a dummy variable as a measure of CSP, with a value of 1 if a firm is included in the Domini Social 400 Index (DSI 400) and 0 in case it is not — the DSI is an ethical index based on the KLD screening methodology mentioned above. When regressions are run using CSP as the independent and FP as the dependent variable, a strong and positive relationship appears to exist between these variables. However, if a "R&D intensity" variable (defined as R&D expenditures/sales) is inserted into the equation, this results in a strong and positive relationship between the "R&D intensity" variable and financial performance, and the CSP variable

has a neutral impact on FP. Interestingly, the CSP variable and the R&D variable appear to be highly correlating, suggesting that the CSP measure measures "R&D intensity".

The studies by Graves and Waddock and McWilliams and Siegel both use CSP measures that are rooted in the same KLD screening methodology. Both measures apparently do not measure sustainability performance, but "quality of management" and "R&D intensity". If a company is guided and governed well by high quality managers, it makes sense to suggest that this will positively impact on its competitive edge and ultimately on its financial performance. It also makes sense to suggest that highly innovative companies outperform their competitors by developing new product-market combinations which will ultimately result in a competitive advantage and improved financial performance. Innovations may also result in more efficient production methods and material use, resulting in a lower cost profile.

If CSP measures that are rooted in the same screening methodology measure "quality of management" as well as "R&D intensity", then obviously the CSP measures measure a phenomenon overarching both concepts. If CSP correlates highly with "quality of management" as well as "R&D intensity", it makes sense to suggest that quality of management correlates positively with R&D intensity, implying that a high quality of management levels come with high R&D intensity levels, and vice versa.

If indeed quality of management and R&D intensity are both tokens of the same overarching phenomenon, it very well makes sense to suggest that this phenomenon is organizational culture. If so, it makes organizational culture a major driver of financial performance.

But do we have any prove that organizational culture indeed drives financial performance? The answer is "yes". The evidence is provided by a study conducted by Eccles et al. (2011) which will be discussed in the next section.

5. The Link between Culture and Financial Performance

In their study Eccles et al. (2011) distinguish between high sustainability and low sustainability companies. High (low) sustainability companies are companies that have voluntarily adopted a substantial number of social and environmental policies for a significant number of years. Low sustainability companies have adopted almost none of these policies (p. 5). The idea behind these measures is that companies that voluntarily adopt a substantial number of social and/or environmental policies can be considered to have embedded a high culture for sustainability. The means that companies that are highly value driven can be seen as sustainability embracers.

This study shows that sustainability embracers are more likely to outperform low sustainability companies in a number of ways. In Table 2 some of the key findings are presented.

Table 2 tells us that compared to their less sustainable counterparts, high sustainability companies are more successful financial performers in terms of market and accounting rates of returns. However, there is more. Not only do companies with a high sustainability culture financially outperform low sustainability companies, they also outperform their less sustainable counterparts in many other dimensions. For companies with a high culture for sustainability, sustainability is a core governance issue and they take their stakeholders more seriously by involving them in decision making processes. These companies also have a long time horizon (less short-termism), treat their employees better, and set higher demands on suppliers' sustainability performance.

Table 2 Some of the Key Findings by Eccles et al. (2011)

Domain	Results
Governance	• Most of the high sustainability companies have assigned formal responsibility around sustainability to the board • Senior executive incentives are more likely to be aligned with sustainability (perception) metrics.
Stakeholder engagement	• Adopt practices of stakeholder engagement • Identify stakeholders for long term success • Come to a common understanding with their stakeholders on relevant issues
Time horizon	• adopt a long time-horizon in communication with key capital market participants • attract dedicated rather than transient investors • have more long-term investors in their investor base
Employees	• More concerned about skills and working conditions • Are likely to have greater commitment towards employees
Customers	• Differences between “high” and “low” sustainability cultures are not very pronounced
Suppliers	• High sustainability performers are more likely to select and evaluate suppliers on environmental and social standards
Performance	• Investing $1 in the beginning of 1993 would have grown to $22.6 ($15.4) for high (low) sustainability companies • Annual abnormal performance is higher by almost 5% • Stock price volatility of high sustainability companies is lower (risk is lower) • Investing $1 in the beginning of 1993 would have grown to $22.6 ($15.4) for high (low) sustainability companies • Annual abnormal performance is higher by almost 5% • Stock price volatility of high sustainability companies is lower (risk is lower)

Treating employees and stakeholders well increases employee satisfaction an positively impacts financial performance (Edmands, 2012) by driving down cost through higher productivity rates, lower absentee rates, etcetera. Treating suppliers well, may result in innovative collaborations creating win-win situations for suppliers and their customers.

The study by Eccless et al. includes a limited number of domains. Imagine the number of domains would have been extended to, for example, ethical codes of conduct, carbon emissions and energy efficiency. Would companies with a “high” organizational culture distinguish themselves from their less sustainable counterparts on these domains? Although a hypothetical question, it does make sense to suggest that value driven companies that care about their employees, suppliers, investors and other stakeholders, also care about the natural environment. If so, high sustainability companies are likely to be more energy efficient and display greater sympathy for renewable energies, and have lower carbon emissions levels.

Saka and Oshika (2014) find that corporate carbon emissions have a negative impact on the market value of equity, suggesting that carbon emissions volumes and financial performance are negatively related. However, could this not be a misspecification? Could it not be that lower carbon levels and higher financial performance are both traits of companies with a high sustainability culture? If so, then these two variables are correlated, but not causally related.

Companies with a high sustainability culture obviously are more (explicitly) value driven than their less sustainable counterparts. Doesn’t it then make sense to assume that highly value driven companies also have ethical codes or corporate codes of conduct in place? If companies with high sustainability cultures also display superior financial performance as the study by Eccles et al. (2012) suggests, then it doesn’t it make sense to believe that companies with ethical or corporate codes of conduct display superior financial performance. This is exactly what Webley and More (2003) found. However, a causal link between having a corporate code of conduct in place and financial performance is highly unlikely, because simply drawing up a code of conduct will not by itself result in superior financial performance. This is supported by Verschoor (2003). He also finds that having a

corporate code of conduct in place and financial performance are positively associated, and comments that the "cause of superior performance relates to the nature of the values that management and the board of directors have infused into an organization over time. The resulting code of conduct is merely a reflection of these values" (p. 44).

6. Conclusion

This paper seeks to find an answer to the question: (1) what do CSP measures signal, and (2) how can the CSP-FP relationship be explained?

Today, a plethora of CSP definitions and constructs exist, some of these constructs are overlapping, and in some cases evolutionary processes exist, implying that constructs mature over time. However, a universally accepted construct does not yet exist for CSP. In order to measure CSP, a variety of uni- and multidimensional measures have been developed, but since we don't (exactly) know what CSP entails, measures of CSP cannot be valid for that matter. Unidimensional measures do not capture the full breath and complexity of sustainability and a major drawback of both types of measures is the lack of sufficient theoretical underpinning.

Based on a journey along a number of CSP studies, this paper posits that CSP measures are likely to signal organizational culture (for sustainability), which is very much values-driven, implying that social and environmental performance are thriving in companies with a "high" organizational culture (for sustainability). Companies with a "high" culture for sustainability also financially outperform the less sustainable counterparts. Therefore, CSP and FP can be considered two branches of the same "organizational culture" tree. A values-driven culture is likely to result in high corporate sustainability performance and high financial performance simultaneously. This also entails that corporate sustainability performance and corporate financial performance are not causally related, and that studies associating CSP and FP measures are spurious for that matter.

7. Discussion

In the mid-1980s, Ullmann (1985) already noted that the CSP-FP relationship is problematic in some ways. First of all, he sensed a lack of theory; there is no such thing as a CSP theory that can help us explain the CSP-FP relationship. Secondly, he also found that key terms were inappropriately defined for which he suggested that "strategy" might be the missing link. This paper suggests that not "strategy", but "organizational culture (for sustainability)" is the missing link, although it is obvious that "strategy" and "organizational culture" are related concepts. In turn, an organizational culture for sustainability is very much the result of an organization's values and beliefs system. If indeed "organizational culture (for sustainability)" is the missing link, then it is not CSP that drives financial performance, but organizational culture. That is, companies with a "high" organizational culture for sustainability are financially more successful than companies with a "low" sustainability culture. However, being financially successful not necessarily signals high moral corporate values, which is illustrated by companies like Enron and Ahold. Both companies were renowned for their sustainability standards, but were nevertheless involved in fraudulent affairs. It is astonishing to see that Enron ended up in the Forbes top 100 of most admired companies, which also reveals a severe weakness of the sustainability screening instruments.

If indeed organizational culture drives financial performance, then managers should start working on improving organizational culture to boost financial performance instead of focusing individual issues like improving energy efficiency. The culture very much represents the soul of the company; if improving energy

efficiency is not an engrained core value, improving it to reduce the cost and make more money may simply not work. All this of course is easier said than done and requires further research.

Investors are struggling to include non-financial CSP indicators in their decision making processes. However, a key issue is that this type of information must be provided in a "language" investors understand (Descano, 2001). They want to include CSP information as long as it is fundamental to a company's market value (Hummels & Wood, 2005).

Ernst & Young (1997) examined 330 reports of sell- and buy side-analysts and concluded that analysts rely on a broad range of non-financial criteria and identified 39 indicators (see Appendix for an overview). The five highest ranking indicators are: *Execution of Corporate Strategy; Management Credibility; Quality of Corporate Strategy; Innovativeness and Ability to Attract and Retain Talented People*. The *Environment and Social Policies* indicator ranks 37th.

Based on the low ranking of social and environment policies indicator, one should be hesitant to conclude that investors do not care about CSP related information. Considering the above, Environmental and Social policies indicators do not signal relevant information, because these are not fundamental to a company's market value. Obviously, investors do not know how to link Environmental and Social policies indicators to financial performance. This also applies to having a corporate code of conduct, or an ethical code in place, CO_2 emissions and human rights indicators.

Having a code of conduct in place, may be an indicator of high corporate moral values, but it cannot be directly linked to a company's financial performance. However, if organizational culture for sustainability is a driver of financial of financial performance, and having a code of conduct in place is a token of a "high" culture for sustainability, then such an indicator may be of interest of investors, because it indirectly signals "high" financial performance.

Low CO_2 emissions rates, especially when these are below the industry average, may be negatively perceived because of the high costs and consequently the negative impact on financial performance (e.g., profitability and market value). On the other hand, low CO_2 emissions rates may also be a token of a "high" culture for sustainability, in which case these low rates may be indicative of an innovative workforce.

Normally, investors don't know how to deal with human rights indicators, because these cannot be linked to financial performance. However, if they are indicative of a "high" culture for sustainability, these may be relevant to investors, because they indirectly signal "high" financial performance. Conversely, high emission rates may signal a low organizational culture (for sustainability) and, consequently, "poor" financial performance.

In itself, the sheer presence of corporate human rights policies and programs cannot be unambiguously linked to financial performance. However, the quality of these policies and programs may be signaling high (low) organizational culture (for sustainability) and therewith strong (poor) financial performance. Of course further research is required to see which sustainability indicators signal a high (low) organizational culture (for sustainability) and if these indicators also signal high (low) financial performance.

Furthermore, the assumption underlying this paper that organizational culture is the missing link in the CSP-FP relationship is based on two studies that use KLD data. More research is needed to find out whether this assumption is likely to holds if more measures that have been applied in different studies are taken into account.

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Appendix 1 Non-Financial Performance Indicators Used by Sell-Side Analysts

Quality of management	**RANK**
Execution of Corporate strategy	1
Quality of Corporate strategy	3
Management Experience.	7
Quality of Organizational Vision	16
CEO Leadership Style	24
Effectiveness of new product development	
Research Leadership	9
New Product Development Efficiency	14
New Product Development Cycle Time	17
Percentage of Revenues Derived from New Products	20
Strength of market position	
Innovativeness	4
Market Share	6
Brand Image	13
Strength of Marketing and Advertising	21
Global Capacity	22
Strength of corporate culture	
Ability to Attract and Retain Talented People	5
Quality of Workforce	18
Quality of Incentive Performance Systems	23
Quality of Employee Training	28
Employee Turnover Rates	30
Environment and Social Policies	37
Use of Employee Teams	38
Effectiveness of executive compensation policies	
Alignment of Compensation with Shareholder interests	8
Performance-based Compensation policies	12
Ratio of CEO Compensation to Workforce Compensation	39
Quality of investor communications	
Management Credibility	2
Accessibility of Management	26
Quality of Guidance	29
Knowledge and Experience of Investors Relations Contact	31
Quality of Published Materials	34
Quality of products and services	
Quality of Major Business Processes	10
Customer Perceived Quality	15
Product Defect Rates-Service Failure Rates	25
Product Durability	27
Product Quality Awards	35
Process Quality Awards	36
Levels of customer satisfaction	
Customer Satisfaction Level	11
Repeat Sales Level	19
Number of Customer Complaints	32
Quality of Customer Service Department	33

Source: Ernst & Young, Measures That Matter, 1997. Available online at: http://www.corporatesunshine.org/measuresthatmatter.pdf.