The impact of the pursuit of sustainability on the financial performance of the firm

Michael Adams
Jacksonville University

Barry Thornton Jacksonville University

Mohammad Sepehri Jacksonville University

ABSTRACT

Sustainability is currently a "hot topic" in the world of business. In addition to environmentally sound production methods, sustainability is also taken to mean that attention is paid to other important social and cultural goals, such as diversity in leadership. This paper explores how companies define sustainability, how they manage it, why they engage in activities related to sustainability, and how they assess as well as communicate this engagement. The purpose of this paper is to examine the impact that the pursuit of sustainability has on the financial performance of a firm. Corporate sustainability is thought to have the potential not only for shareholder value creation, but in addition, the intangible nature of sustainability efforts, makes the replication by competitors considerably more difficult to accomplish. This paper seeks to determine if firms with relatively high sustainability metrics are better able to achieve superior stock performance.

Keywords: sustainability, sustainability products and services, sustainability and corporate strategy

Introduction

Until the late 1980s, business leaders typically employed the term 'sustainability' to mean a company's ability to increase its earnings steadily. Today, the concept of corporate sustainability encompasses every dimension of the business environment, including the social, economic and natural resource utilization by the firm. The term has become widely accepted in its current sense after it appeared in an 1987 UN report by Norway's former prime minister Harlem Brundland, who defined sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (UN Report, 1987).

Perhaps one potential reason so many firms don't actively address sustainability despite the attention paid to it by the media and some consumers, is that many chief executives have no clear definition of sustainability. Corporate sustainability can be narrowly thought of not only as the management of environmental, social, and governance issues, but more broadly as a business approach or paradigm that seeks to "enhance long-term shareholder value by addressing opportunities and managing the associated risks that derive from the economic, environmental and social developments facing the modern corporation" (Esty and Winston, 2008). At the heart of current corporate sustainability movement, is the claim that it increases long-term shareholder value i.e., maximizes stock price. It is hypothesized that the companies which are ranked as the leaders in sustainability should demonstrate superior financial performance coupled with favorable risk/return profiles. It is posited that corporate sustainability leaders should be able to achieve superior financial performance by focusing their sustainability strategies to develop sustainability products and services by successfully either avoiding or decreasing key sustainability costs and risks to the firm.

For inclusion in this study, a U.S. firm must be publicly traded and displays a significantly higher level "of competence in addressing global/industry challenges in the following five functional areas" (Morvay, 2008).

Strategy: The explicit demonstrated capability of these engaged companies to successfully fully integrate social responsibility and environmental aspects into their strategic business strategies, while maintaining "a global competitiveness and building key brand reputation" (Vittorio, 2008).

Financial: Satisfying shareholders' requirements for shareholder wealth maximization by pursuing long-term economic growth opportunities. These firms also maintain transparent financial accounting and have open communication between management and the stakeholders.

Customer & Product: Demonstrating the ability to achieve consumer loyalty by investing heavily in developing customer relationship management (CRM) systems. This is accomplished by capital investment in R&D innovation by focusing on disruptive technologies and management information systems (MIS).

Corporate governance and stakeholder engagement: These firms demonstrate the highest degree of transparency in their corporate governance activities and financial reporting activities (such as complying with regulations, maintaining ethical practices, and meeting accepted industry standards). Diversity in the Board of Directors, including both insiders and outsiders.

Human: Managing human resources to increase employee satisfaction and reduce turnover through the firm's remuneration and benefit programs. In addition, the firm's

organizational learning and knowledge management practices are considered 'state of the art'.

According to a recent McKinsey survey, (which was conducted in February 2010 and received responses from 1,946 executives representing a wide range of industries and regions), more than 50 percent of CEOs surveyed considered corporate sustainability either "very" or "extremely" important in a wide range of areas including: not only new-product development, reputation building, but overall corporate strategy. It should be noted that energy companies, which are overall more engaged in sustainability activities vis-à-vis companies in other industries (likely as a result of potential regulation and natural-resource constraints), were excluded from this survey.

However, it appears that the vast majority of non-energy related U.S. firms do not appear to take a proactive approach to managing corporate sustainability. For example, less than 30 percent of CEOs in the survey stated their companies actively seek out new opportunities to invest in sustainability projects or embed it in their current business practices. This raises the question as to whether sustainability is just another 'buzzword' to come down the "management pike" without any real long-term merits, much like MBO, sigma six, etc. Unless there can be a direct link between corporate sustainability and shareholder share price maximization, this paradigm will most likely prove to be transitory and short lived.

For purposes of this study, firms are defined as being most engaged with sustainability *if* their CEOs say that sustainability is a top-priority on their firm's agendas, and moreover that it is formally embedded in their current business practices. Finally, the firms have to be ranked as "extremely" or "very effective" at managing sustainability by common sustainability metrics. It follows then that these engaged companies are much likelier than others to reap shareholder value in the form of reputation building, cost savings, and growth opportunities accruing from their sustainability efforts.

Why companies engage or not engage in sustainability

One potential explanation as to why so many companies don't actively address corporate sustainability efforts, despite the attention paid to it by the media and some consumer groups is that many firms still have no clear understanding of sustainability. Among those CEOs that do, the definition varies significantly: 55 percent define sustainability as simply "the management of issues directly related to the environment" (for example the usual suspects of greenhouse gas emissions, energy efficiency, waste management, green-product development, and water conservation) (Morvay, 2008). Forty-eight percent of the 'engaged CEOs' say that sustainability should include the management of governance issues, while 41 percent of the CEOs say it should include the management of social issues (for instance, working conditions and labor standards). Fifty-six percent of all the respondents defined sustainability in more than one way. Even with this wide range of definitions, most surveyed CEOs saw sustainability as creating real value with seventy-six percent of executives saying that sustainability positively impacts shareholder value from a long-term perspective, while fifty percent also see short-term shareholder value creation.

The difference in views, both on the short- and long-term value creation, may be explained in part by the fact that the value of building reputation is somewhat illusive when compared with other more immediately financial reasons for engagement such as improving operational efficiency or alignment with the company's business goals. Indeed, 72 percent of the survey CEOs said they considered sustainability as "extremely" or "very important" for

managing corporate reputation and brands. In addition, 55 percent agree that investment in sustainability helps their companies build reputation, and 36 percent see building reputation as a top reason for addressing sustainability issues (Exhibit 1).

Results of previous research, suggests that strong corporate firm reputations may have considerable value to the firms that have built them (Dierickx and Cool, 1989; Weigelt and Camerer, 1988). Accordingly, these firms are expected to earn superior returns. It is hypothesized that those firms whose assets, both tangible or intangible, makes these firms too difficult to imitate and allows these firms to obtain an competitive advantage over other firms as a result (Feck, 2004, Barney, 1991; Grant, 1991). Intangible assets—such as high corporate sustainability are critical to the economic success of these firms "not only due to their potential for shareholder value creation, but also because their intangible character makes the replication by competing firms in the same industry considerably more difficult" (Roberts, 2002). Several previous empirical studies have also confirmed the financial benefits associated with strong firm reputations (Landon and Smith, 1997; and Podolny, 1993). However, there is a paucity of research to date that has examined the extent to which corporate sustainability not only allows superior firm financial performance but also the extent of the impact upon shareholder wealth maximization.

The strategic value of sustainability

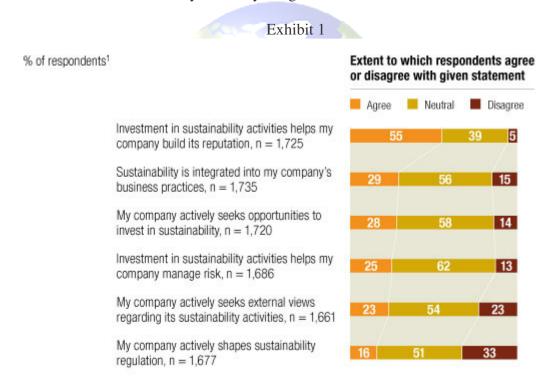
A strong sustainability reputation should allow a firm to achieve above average profitability and increased shareholder wealth maximization. Corporate sustainability efforts also serve to signal both the capital markets and consumer markets of the overall quality of a firm's products and services. As a result of this signaling hypothesis, not only consumers but the capital markets participants may be expected pay a premium for the shares of high-sustainability firms. This would be particularity true in markets that which are be "characterized by high levels of uncertainty" (Shapiro, 1983).

A firm with high sustainability metrics may also possess certain cost advantages vis-à-vis other less engaged firms. For an example, many employees who prefer to work for high-reputation firms are expected to not only work harder, but also for lower remuneration. Good corporate sustainability reputations should also lead to lower contracting and monitoring costs by suppliers and investors when transacting, since they should be less concerned relative to moral hazards in contracting with high sustainability firms. In addition to the direct benefits of sustainability, a number of ancillary benefits may also accrue to the firm. For example, an additional benefit is that recovery in the event of a corporate crises is usually enhanced (Dowling, 2001). British Petroleum will be a great case study in the future on how well BP recovers following the oil spill in the gulf.

A good example of the effects of sustainability on the firm is, as part of its groundbreaking "ecoimagination" campaign, GE set forth an ambitious list of corporate goals: reducing greenhouse gas emissions, ramping up R&D investments in environmental technologies, and more. The company monitored its campaign using scorecards to assess the environmental strengths and weaknesses of 17 key products it concluded were the best candidates to improve customer operating and environmental performance – from jet engines to solar panels (Felmate, 2008). As Esty and Winston (2003) note, "With a focus on specific

products, "ecoimagination" is as much a product play as a committed effort to go green: GE wants to sell those jet engines, not just have environmentalists admire them." Another example of corporate sustainability is Citigroup. In 2004, the financial services leader conducted a simple test in a small subset of its offices. It bought 30-percent-recycled paper for printers and made double-sided copies its default standard. The simple test reduced paper consumption by 10 tons and \$100,000 annually. The energy saved in the paper-making process reduced greenhouse gas production by 28 tons (Citigroup website, 2010).

Contemporary marketing research posits that a good reputation not only supports but actually enhances the effectiveness of the firm's sales force and leads to the development of more new products and services. It is interesting to note that CEOs in B2B firms are likelier than their counterparts in consumer companies to seek new growth opportunities through sustainability efforts (20%, versus 14%). According to the 2010 McKinsey survey, over 50% of the CEOs polled said that their investment in sustainability activities enhances their firm's ability to build its corporate reputation (Exhibit I). 25% of the corporate executives said that investment in sustainability activities also helps their companies better manage idiosyncratic risk. One third of the CEOs stated that sustainability was fully integrated into their firm's ethos.



¹Excludes respondents who answered "don't know"; figures may not sum to 100%, because of rounding.

These corporate CEOs also reported maintaining or improving corporate reputation was the top reason for addressing sustainability issues (Exhibit 2). Improving firm efficiency by lowering operating cost, and boosting the firm's competitive position also appeared to be strong reasons for these CEOs to address sustainability issues. Given the impact sustainability has on their business it is surprising that reporting practices are relatively poor, except among energy

companies. Particularly in light of the role sustainability plays in reputation-building efforts, it is surprising that firms do not take a more active approach in communicating their sustainability initiatives externally. For example, over 60% of the executives report that their companies do not inform investors of their firm's sustainability metrics or are totally unaware of their own firm's sustainability-reporting practices. This is especially interesting given that more than 50% of the CEOs report that they keep track of the value created by sustainability in terms of reputation building and cost savings according to the McKinsey survey.

Exhibit 2 % of respondents1 By type of company Consumer, n = 431 Top reasons for addressing Total, sustainability issues n = 1.749Business-to-business, n = 791 42 Maintaining or improving corporate reputation 36 Alignment with company's business goals 20 Improving operational efficiency and lowering costs 20 Meeting consumers' expectations New growth opportunities (eg. new markets, products) 17 Strengthening competitive position 17 Leadership's personal interest 14 Regulatory risk 14 Attracting, motivating, and retaining talented employees 11 Meeting the expectations of distributors, retailers, and others **5**

Pressure from nongovernmental organizations (NGOs)

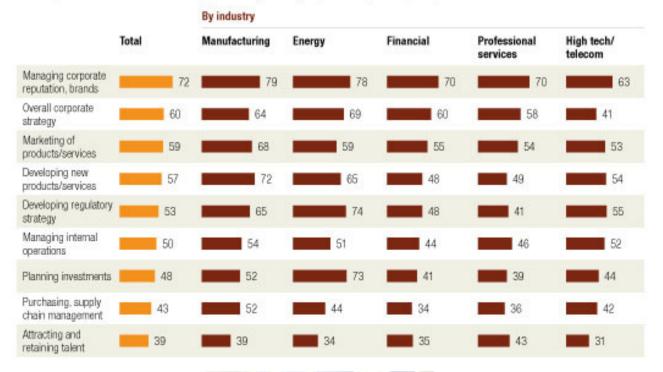
The greatest percentage of the CEOs surveyed considered sustainability issues in the management of corporate brands and company reputation to be of the highest importance. The development and marketing of new products and services associated with sustainability issues appears to be of considerable importance to the future growth of the firm (Exhibit 3).

3

¹Respondents who answered "don't know" are not shown.

Exhibit 3

% of respondents who consider sustainability issues 'very/extremely important' in given area, n = 1,749



Uneven management efforts

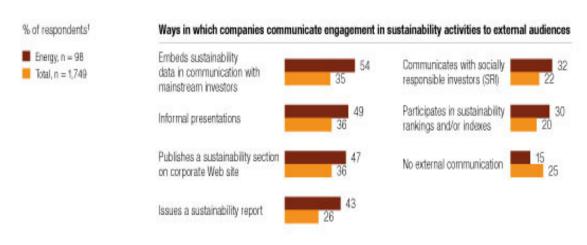
Despite sustainability's importance to various corporate activities, only 25% of CEOs said it's a top priority on their corporate agendas. The lack of weight in leadership's top agenda shows in the relatively small number of activities firms actually pursue related to sustainability: only 28 percent agree that their companies actively seek opportunities to invest in sustainability, while 29 percent indicate that sustainability is integrated into their companies' business practices, and only 16 percent say their companies actively shape relevant regulation (Exhibit 3). Companies where sustainability is a top priority on their CEOs' agendas are much more likely to pursue sustainability due to the alignment with business goals (38 percent) than for building reputation (27 percent).

By contrast, senior executives in the energy industry appear to take an more active approach to managing corporate sustainability, most likely due to the potential for government regulation coupled with the increasing natural-resource constraints. Indeed, 10 percent of energy executives say addressing sustainability is the top priority on their CEOs' agendas (versus 3 percent overall), and 31 percent say it's a top-three priority (versus 22 percent overall). Further, energy executives are much likelier than others to be active in seeking opportunities to (1) invest in sustainability (40 percent versus 28 percent), (2) to integrate it into their companies' business practices (43 percent versus 29 percent), and (3) to attempt to shape regulation actively (29 percent versus 16 percent).

With the exception of most energy companies, corporate sustainability reporting practices appear to be relatively poor, considering the impact these executives say sustainability has on their business. For example, it's surprising that companies do not take a more active approach to

communicating their initiatives externally, particularly in light of the role of sustainability in reputation-building efforts (Exhibit 4). Indeed, 62 percent of CEOs say their companies do not directly report sustainability metrics to investors or are unaware of their companies' sustainability-reporting practices—even though more than 50 percent keep track internally of the value created by sustainability in terms of reputation building and cost savings. This disconnect is a signal that perhaps there really is no true economic value to sustainability.



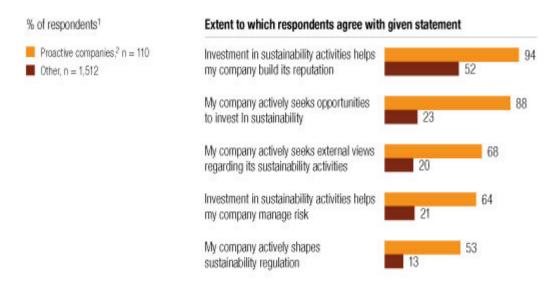


¹Respondents who answered "other" or "don't know" are not shown.

What the proactive do differently

For firms to be considered 'engaged' sustainability is (1) a top-three priority in their CEOs' agendas, (2) that it is formally embedded in business practices, and (3) that their companies are "extremely" or "very effective" at managing it. These engaged companies actively seek out opportunities to invest in sustainability: 88 percent of the respondents in this group say so, compared with 23 percent of all others (Exhibit 5). Further, a strong majority consider sustainability important in a wide range of areas: developing and marketing products and services, planning investments, managing internal operations, developing regulatory strategy, managing corporate reputation and brands, and overall corporate strategy. More importantly, among the group that is aware of what's being tracked, the engaged companies are far more likely to be monitoring relevant key sustainability indicators such as waste, energy and water use, and labor standards for their suppliers and consumers.

Exhibit 5

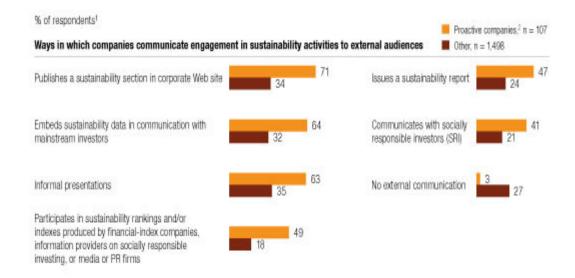


¹Excludes energy executives.

In addition, these engaged companies do substantially more than others to communicate externally the impact of their sustainability programs (Exhibit 6). Almost half of all proactive sustainability companies issue an annual sustainability report to the stakeholders of the firm. 71% of the proactive companies publish an sustainability section on their web; 64% embed sustainability data in communication with the shareholders, and almost 50% participate in external sustainability rankings by independent 3rd party sources.

²Companies where executives say sustainability is a top-3 priority in their CEOs' agendas, formally embedded in business practices, and their companies are "extremely/very effective" at managing it.

Exhibit 6



1 Excludes energy executives; respondents who answered "other" or "don't know" are not shown.

Methodology

The Dow Jones Sustainability US Index (DJSI US) captures the US companies out of the Dow Jones Sustainability North America Index (DJSI North America) which in turn includes the top 20% of the 600 biggest North American companies in terms of sustainability. The index is constructed according to a systematic corporate sustainability assessment developed by Dow Jones (see Appendix B). This sustainability assessment identifies the best-in-class sustainability-driven companies in 57 different industry sectors. With both general as well as industry-specific sustainability trends documented, they "evaluate corporations based on a variety of criteria including climate change strategies, energy consumption, human resources development, knowledge management, stakeholder relations and corporate governance" (Felmate, 2008)

The hypothesis to be tested is whether a company that actively engages in sustainability efforts increases shareholder value in the short-term. It is theorized that publicly traded companies that manage sustainability proactively are much likelier to seek and find shareholder value creation opportunities. The data covered the period 2008 and 2009.

Analysis

Null Hypothesis to be tested: There is no difference in the mean percent change in stock price between firms in the Standard and Poor 500 and the Dow Jones Sustainability Index (in other words, sustainability has no impact on the percent change in stock price). The alternative Hypothesis to be tested: There is a difference in the mean percent change in stock price between firms in the Standard and Poor 500 and the Dow Jones Sustainability Index (in other words, sustainability has an impact on the percent change in stock price). The test will be conducted at the five percent level of significance:

²Companies where executives say sustainability is a top-3 priority in their CEOs' agendas, formally embedded in business practices, and their companies are "extremely/very effective" at managing it.

Table 1: Results of 2 Sample T-Tests (Weekly Data)

Group	Sample Size	Mean	Test Statistic	P-Value
DJSI	107	0.08%	0.19	0.852
S&P 500	107	-0.03%		

Results

Do not reject the null hypothesis. The evidence from the sample suggests that there is no statistically significance difference in the mean percent change in stock price between the two groups. The sample evidence supports the theory that the corporate sustainability label has no statistically significant impact on the financial performance of firms.

Conclusion

Albeit, seventy-six percent of the CEOs surveyed by McKinsey, said that engaging in sustainability contributed positively to shareholder value in the long term since these proactive companies are much more likely to not only seek, but also find shareholder value creation opportunities in sustainability. Based on the results of this study, it would appear that corporate sustainability efforts can be employed to build brand loyalty and corporate reputations in the long term which should be positively correlated to long-term shareholder wealth maximization. However, it is also clear that the sustainability efforts put forth by the publicly traded firm does not result in higher stock prices or enhanced returns to shareholders in the short run. A longer study covering 5-10 years appears to be warranted to gauge the long-term impact of sustainability on stock price performance. A first step to gain recognition and improve the impact of sustainability activities could be for firms to better communicate sustainability efforts with shareholders and other stakeholders of the firm. The call for further research into the linkage between corporate sustainability strategies and firm financial performance is called for.

References

- Barney, F "Resource-Based view of knowledge management for competitive advantage", *The Electronic Journal of Knowledge Management* Vol. 3, Issue 2, 1991, pp. 75-86.
- Bhamra, Ran "Competence understanding and use in SMEs: A UK manufacturing perspective", Internal Journal of Production Research, May 2010.
- Cesarotti, Vittorio "The Impact of Cultural Issues and Interpersonal Behavior on Sustainable Excellence and Competitiveness: An Analysis of the Italian Context", *Contributions to Management Science*, 2008.
- Dierickx, Ingemar and Karel Cool, "Asset stock accumulation and sustainability of competitive advantage", Management Science Vol. 35, No. 12, December, 1989, pp. 1504-1511.
- Esty, Daniel and Andrew Winston "Green to Gold: How Smart Companies use Environmental Strategy to Innovate, Create Value and Build Competitive Advantage", John Wiley publisher, New York, NY. 2008.
- "Exelon Recognized for Sustainability and Climate Change Leadership." Business Wire, Oct 5, 2009 Issue.
- Feck, Luke "Journalists' Evaluation of Corporate Reputations", *Corporate Reputation Review*, 07/01/2004.

- Feltmate, Blair W. "Eco-cents: sustainable development is good for business." *Alternatives Journal*, Sept-Oct 2008 Issue
- Grant, R. J., "The resource-based theory of competitive advantage; implications for strategy formulation", *California Management Review*, 33, 1991, pp. 114-135.
- Landon, Stuart and Constance Smith "Quality expectations, reputation and price" Southern Economic Journal 64, 1998, pp. 623-647
- Lee, Darren D. "Corporate sustainability performance and idiosyncratic risk: A global perspective". May, 2009. *International Journal of Productivity and Performance Management*, Volume 57, Issue 1, 2008.
- Lee, Darren David and Faff, Robert W., "The Corporate Sustainability Discount Puzzle" (July 2006). Available at SSRN: http://ssrn.com/abstract=921501
- McKinsey Quarterly www.mckinseyquarterly.com "How_companies_manage _sustainability", McKinsey_Global_Survey_results__2010.
- Morvay, Zoran "Introductory Chapter: Framework for Energy and Environmental Management in Industry", *Applied Industrial Energy and Environmental Management*, October, 2008.
- Peng, Yu-Shu. "Local Responsiveness Pressure, Subsidiary Resources, Green Management Adoption and Subsidiary's Performance: Evidence from Taiwanese Manufactures", *Journal of Business Ethics*, April, 2008.
- Podolny, Joel "A status-based model of market competition", *The American Journal of Sociology* 98, pp. 829-72, 1993.
- Podnar, Klement . "Friendly flexible working practices within the internal marketing framework: a service perspective", *Service Industries Journal*, 2010
- Roberts, Peter "Corporate reputation and sustained superior financial performance", *Strategic Management Journal*, December, 2002.
- "Pulte Homes Named to Dow Jones Sustainability North American Index." PR Newswire, Sept 20, 2006 Issue.
- "Quest Diagnostics Joins Dow Jones Sustainability World Index." PR Newswire, Sept 27 2004 Issue.
- Rumelt, Richard "Resource-based theory and strategic logistics research", *International Journal of Physical Distribution & Logistics Management*, September, 1997.
- Weigeit, Keith and Colin Camerer, "Reputation and corporate strategy: A review of recent theory and applications", *Strategic Management Journal*, Vol. 9, Issue 5 pp. 443-454, November, 2006.
- Yang, Yilun. "A template for assessing corporate performance: Benchmarking EHS organizations", *Environmental Quality Management*, 2004.

Appendix A Dow Jones Sustainability Index

The DJSI components are selected by a systematic corporate sustainability assessment and include only the leading sustainability companies' worldwide. The objective of Corporate Sustainability Monitoring is to verify a company's involvement and management of critical environmental, economic and social issues or crisis situations that can have a highly damaging effect on its reputation. In addition, the consistency of a company's behavior and management of crisis situations is reviewed in line with its stated principles and policies. The following issues are identified and reviewed in the monitoring process:

- Commercial practices; e.g. tax fraud, money laundering, antitrust, balance sheet fraud, and corruption cases.
- Human rights abuses; e.g. cases involving discrimination, forced resettlements, child labor and discrimination of indigenous people.
- Layoffs or workforce conflicts; e.g. extensive layoffs and strikes.
- Catastrophic events or accidents: e.g., fatalities, workplace safety issues, technical failures, ecological disasters and product recalls.

Sources

The monitoring of DJSI members is based on media reviews using full text database services (e.g. Factiva) as well as the analysis of stakeholder information and publicly available information.

Critical issues:

- · Commercial practices
- · Human rights abuses
- · Layoffs or workforce conflicts
- · Large disasters or accidents

Corporate Sustainability Monitoring

Impact Analysis Quality of Critical Issue Management

Index Design Committee

Monitoring Sources:

- Factiva
- · Internet / Other Publicly

Available Information

Stakeholder Analysis / Company Consultation

Appendix B DJSI- Key Facts

Components

- Number of Components 115
- Largest Component Weight 4.62%
- Smallest Component Weight 0.02%
- Top 10 Holdings Weight 36.92%
- Top 50 Holdings Weight 83.80%

Top Holdings

- Microsoft Corp. 4.62%
- Procter & Gamble Co. 4.34%

- International Business Machines Corp. 3.99%
- Johnson & Johnson 3.98%
- General Electric Co. 3.90%
- Chevron Corp. 3.75%
- JPMorgan Chase & Co. 3.65%
- Coca-Cola Co. 3.01%
- Cisco Systems Inc. 2.92%
- Merck & Co. Inc. 2.77%

Fundamentals

- Trailing P/E Incl. Negative 13.60
- Projected P/E Incl. Negative 10.92
- Trailing P/E Excl. Negative 12.54
- Projected P/E Excl. Negative 10.90
- Price/Book Value Ratio 2.01
- Dividend Yield 2.57
- Trailing Earnings per Share Growth 4.26
- Projected Earnings per Share Growth 11.41