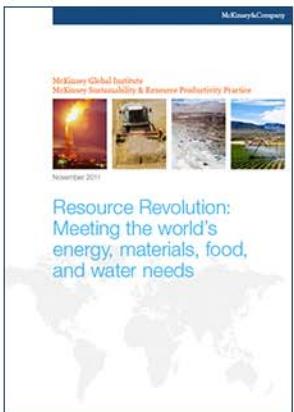
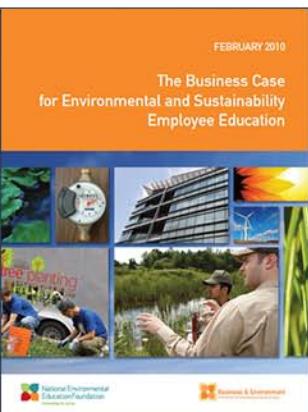
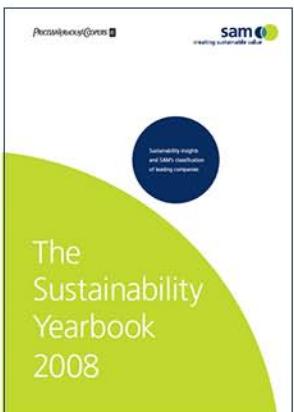
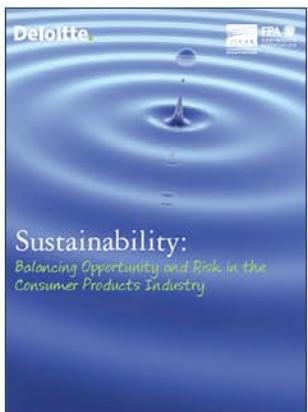
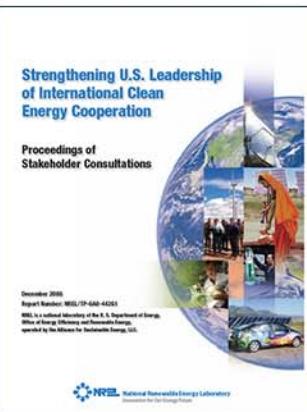


SUSTAINABILITY PAYS

Studies That Prove the Business Case for Sustainability



A project by:

NATURAL CAPITALISM SOLUTIONS

May 2012



SUSTAINABILITY PAYS

STUDIES THAT PROVE THE BUSINESS CASE FOR SUSTAINABILITY

When those wild-eyed environmentalists at Goldman Sachs tell you that the companies that are the leaders in sustainable, social and good governance policies have 25% higher stock value than their less sustainable competitors, there's a business case for behaving in ways that are more responsible to the planet and to people.

This annotated list describes the ever-growing number of studies, most by conventional management consulting houses, academic institutions and similar establishment entities that prove this assertion.

As climate change, natural resource constraints, rapid development in emerging economies, and a host of other factors drive unprecedented changes in business, this will only grow stronger.

This document is a resource to help you understand how business leaders can profit by integrating sustainability into their strategy and value-chain while securing a competitive advantage.

Leading companies increasingly will evaluate their performance using an *integrated bottom line*. This new measure places financial performance in the context of a firm's environmental and social impacts to gauge its competitiveness in the marketplace more holistically. It recognizes the interdependent relation between business, environment, and society and emphasizes that businesses gain by identifying shared opportunities to support all three.



Businesses can improve short- and long-term profitability through the adoption of sustainable practices in the following areas:

Natural Resource, Energy, and Operational Efficiency

Reduce input and overhead costs, mitigate regulatory sanctions, hedge exposure to volatile prices and supply chain disruptions, and mitigate environmental degradation, and conserve capital for implementing a long-term growth strategy.

See studies. Goldman Sachs, Deloitte, Interface Inc., McKinsey, Pricewaterhousecooper, Center for American Progress

Human Resources Management

Retain experienced workers, prevent the loss of corporate knowledge, lower training costs, reduce employee absenteeism, improve worker productivity, and recruit the best talent. Goldman Sachs, Gallup, Economist Intelligence Unit, IBM, NEEF

Financial Operations

Increase market capitalization and stock growth, improve investor relations, lower insurance premiums, decrease borrowing costs, and Improve access to capital.

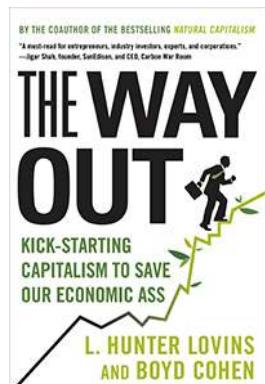
Goldman Sachs, Economist Intelligence Unit, Ethisphere, Gallup, IBM, Innovest, Johannes Kepler University, SAM, University of California

Marketing and Communication

Expand customer base, differentiate products, improve brand image, and secure customers that are less sensitive to price, have greater brand loyalty, purchase more and more frequently. Goldman Sachs, Accenture, Deloitte

Collaboration with NGOs and Government

Gain access to new markets, better supply-chain management, strengthen regulator and community relations, improve brand image, mitigate risks to brand reputation, militate government sanction. Goldman Sachs, Accenture, Economist Intelligence Unit, IBM



The field was created by the seminal work *Natural Capitalism: Creating the Next Industrial Revolution*, Hawken, Paul, Lovins, Amory, Lovins Hunter, Little Brown 1999.

It's sequel, *The Way Out: Kickstarting Capitalism to Save Our Economic Ass*, Lovins Hunter, Cohen Boyd, Farrar Straus, Giroux, brings the argument up to date, 2012.



Goldman Sachs (2007)

“GS Sustain”

Goldman Sachs Sustain investing framework incorporates 25 quantifiable, environmental, social, and corporate governance (ESG) indicators to identify investment opportunities. The firms on the list outperformed the MSCI world index between 2005 and 2007 by 25% with a success rate of 72%. Key findings of this report:

- There is “dramatic increase in the number of investors seeking to incorporate” ESG factors into their investment portfolios”
- ESG indicators are “a good overall proxy for the management quality of companies relative to their peers”
- To attract and retain Generation-X employees companies “need to provide rewards beyond financial gain”, by aligning corporate values with employee values”
- Increasing numbers of consumers identify themselves as “being socially responsible” and firm’s ESG is a major factor influencing brand loyalty (35%)
- There is unprecedented transparency in the operating environment of firms, and consequently firm’s ESG programs are receiving increased scrutiny



Accenture (2010)

“A New Era of Sustainability: UN Global Compact-Accenture CEO Study”

This is an extensive study on CEO’s perspectives of sustainability issues, totaling 766 respondents from 26 countries and a wide array of industries. It was the largest and most extensive survey ever conducted on the topic of sustainability. The study examined how CEOs’ strategies are evolving, and the conditions necessary to shift the market, toward greater social and environmental responsibility. Key findings include:

- Over 93% of CEOs see sustainability as crucial business success, with 88% stating such issues are fully embedded into their strategy and operations
- 72% of CEOs believe strengthening brand reputation and trust among consumers and governments is the “strongest motivator for taking action on sustainability”
- Greatest barrier in implementing sustainability occurs in a company’s supply chain and subsidiaries. While 91% and 88% (respectively) agreed that sustainability should be incorporated into each, only 59% and 54% acknowledged it had been.
- Many CEOs believe the investment community is not supporting corporate efforts to create value through sustainable products and services by failing to factor sustainability performance into valuation models. However, others such as Goldman Sachs disagree (see [GS Sustain](#)).





Accenture (2011)

“The Chief Executive Officer’s Perspective”

As sustainability concerns increasingly arrive at the desks of CEOs, many business leaders are debating how to manage and lead their organizations strategy and initiatives. Some CEOs have decided to grant sustainability a position in the C-Suite with the creation of a new position: chief sustainability officer. Others, however, have pursued a decentralized approach and have allocated various sustainability responsibilities throughout departments and levels of management. This report examines how CEOs are managing sustainability, and how to ensure successful integration of sustainability throughout an organization.



AT Kearney and Institute for Supply Management (ISM) Survey of 25 North American Fortune 500 Companies

“True” and Profitable Sustainability Management. How Supply Management is Key to Fulfilling a Profit”

This report highlights how 25 leading companies are engaging on sustainability and how, “management can use sustainability to improve profitability”. The survey revealed that a majority of companies recognize that addressing sustainability is a core business concern and needs to be integrated directly into business strategy. Yet, many lack the formal direction and processes necessary to implement sustainability such as tracking sustainability metrics, or a method for identifying supply-chain risks.



Atos Origin (2009)

“The Business Case for Environmental Excellence is Real”

This report is based on an extensive study of senior managers and executives at 165 European companies and trade association. It concludes that, “the business case for environmental excellence is real” and environmental sustainability “deliver[s] additional profits and competitive advantage” for companies. The authors effectively argue the business case for sustainability, outline a method for creating a profitable environmental program, and discuss the benefits and elements of such. In particular, this report provides detailed insight into sustainable business opportunities for the automotive, technology, chemical, consumer goods, and retail industries to mitigate supply-chain and regulatory risks while improving profitability.





Deloitte (2007)

“Sustainability: Balancing Opportunity and Risk in the Consumer Product Industry”

“Proactive sustainability initiatives are an opportunity for companies to differentiate themselves as leaders in the industry, the environment, and society”, secure “competitive, and operational advantages”, and “ensure long-term business success.” This report closely examines the drivers and implications of sustainability in the retail and consumer products industries; discussions of market leaders’ sustainability initiatives; an evaluation of current business models’ ability to adapt; and how to structure and execute a successful sustainability program. It also provides a discussion of the environmental, consumer, brand, governance, and compliance implications of sustainability. Lastly, it details how sustainability should be integrated into business strategy, operational process, an internal governance and employee engagement infrastructure, and supported by collaboration with NGOs, activist organizations, and governmental agencies.



Deloitte (2009)

“Sustainability Trends and New Shopper Insights”

This survey of over 6,000 retail customers focuses on the consumer product industry and how retailers can profit from integrating sustainability through their value-chain, with a specific focus on retail operations. It discusses how the sustainable consumer segment is evolving, and how firms wishing to capitalize on this “high-value” segment should form a strategy. Key highlights include:

- Green consumers shop more frequently, purchase more per trip, and are less price sensitive than the average shopper
- Green shoppers tend to become loyal to green products once they have tried them
- Sustainability considerations drive or influence the buying decisions of more than half the shoppers interviewed



Deloitte (2011)

“Sustainable Finance: The risks and opportunities that (some) CFOs are overlooking





Economist Intelligence Unit (2008)

“Doing Good: Business and the Sustainability Challenge”

This extensive survey of business leaders covers a wide range of topics pertaining to how businesses perceive, adapt, and implement strategies in response to sustainability concerns. Issues covered include:

- Business leader motivations for pursuing sustainability initiatives
- Implementing sustainability throughout a business
- How globalization is increasing stakeholder demands of business because companies in under-developed regions are often the only institution capable of solving pressing social and environmental problems
- Perspectives of sustainability and the role that government, institutions, and consumers play in supporting sustainable objectives
- Evolving relations between business and NGOs from confrontation to cooperation



Economist Intelligence Unit (2008)

“Corporate Citizenship: Profiting from a Sustainable Business”

If corporate citizenship were a frill and had no clear benefit it ought not survive in any economic climate, good or bad. But, if it is viewed as something tied to business strategy with a real, measurable and clear return on investment established over time, then it's not viewed as something you can or should do less of in a time of economic crises.”

Stan Litow, VP for corporate citizenship and corporate affairs at IBM

In September of 2008 the Economist Intelligence Unit conducted a survey of 566 US-based executives. The final report discusses the necessary foundations for creating profitable corporate citizenship (CC) initiatives and strategies. Some key findings include:

- Respondents who claimed CC is “very important” to their firm’s overall business strategy reported their profitability and revenue growth is “stronger” (57%) or “much stronger”(52%) than their closest competitor’s, compared to 41% and 38%, respectively, for those who do not see their strategy in this regard.
- Corporate citizenship must be driven from the top, but leadership from all levels is crucial because strategy is only as good as its execution.
- Successful companies find ways to channel the passion of their employees into corporate citizenship activities, which helps employee recruitment and lowers employee turnover.
- Financial returns are critical for convincing senior executives that CC is important. This requires solid measurements and metrics for tracking progress, and linking these to financials.
- Non-traditional partnerships with local, state and federal government, and NGOs are important for securing significant financial advantages.





Economist Intelligence Unit (2011)

"Gearing for Growth: Future Drivers of Corporate Productivity"

This survey collected responses from 379 senior level managers in “all major industries” regarding their firm’s approach to improving corporate productivity.

Highlights include:

- 85% of companies believed that managing human capital was the most important method for improving productivity
- “Many leading companies” claimed that “engaging employees on sustainability” is a “powerful motivating tool”, and “improved customer satisfaction, increased productivity, and reduced employee turnover and absenteeism”
- Focusing too much on cutting costs rather than maximize existing resources and labor was cited as the most common strategic problem



Environmental Defense Fund (2008)

“Innovations Review: Making green the new business as usual”



Environmental Leader (2011)

“Does Corporate Social Responsibility Increase Profits?”



Ethisphere (2011)

“2011 World’s Most Ethical Companies”

This list of the world’s most ethical companies has been published annually since 2007. Since it began, companies that have comprised the list have consistently outperformed numerous equity indexes. On average, listed companies “outperformed the S&P 500 by delivering a nearly 27 percent return to shareholders since 2007, compared to the S&P’s negative 8.5 percent shareholder return during the same period.” The rating methodology includes such numerous quantifiable corporate citizenship measures, in categories ranging from reputation and litigation history, to its internal culture.



EU Environmental Business Awards (2006)

“Twelve European companies vying for European Business Awards for the Environment”





Gallup (2009)

"The Relationship Between Engagement at Work and Organizational Outcomes"

This scientific meta-analysis evaluated numerous studies linking employee engagement to key business units and finds that business can secure greater profitability by actively engaging employees. Comparing top-quartile to bottom-quartile engagement business units resulted in median percentage differences of

- 16% in profitability
- 18% in productivity
- 25% in turnover for high-turnover companies (those with 60% or higher annualized turnover)
- 49% in turnover for low-turnover companies (those with 40% or lower annualized turnover)
- 12% in customer loyalty
- 49% in safety incidents
- 27% in shrinkage
- 37% in absenteeism
- 41% in patient safety incidents
- 60% in quality (defects)



Gallup (2011)

"Majority of American Workers Not Engaged in Their Jobs"



Harvard Business Review (2006)

"Strategy and Society: The Link Between Competitive Advantage and Social Responsibility"



Harvard Business Review (2010)

"The Sustainability Imperative"

Executives are increasingly recognizing sustainability as the next megatrend (an "incipient societal economic shift", like globalization or the information technology revolution). Yet, as business leaders launch a, "hodgepodge of initiatives" to address sustainability they often fail to recognize the holistic, multi-stage strategy necessary to succeed in today's rapidly evolving marketplace. By researching numerous, past megatrends, the authors have identified four stages that firms who became market leaders progressed through:

- Stage 1: Reduce waste, risks, and costs
- Stage 2: Redesign products, processes, and functions to optimize performance
- Stage 3: Integration of sustainability with corporate strategy
- Stage 4: Differentiation and creating a new business model

Using this insight, the authors discuss in detail how; leadership, reporting and communication, methods for assessing value, strategy development and management integration are critical for creating a sustainability performance management system and how today's executives can help their firms *Capture the Eco-premium*.





IBM Global Business Services (2008)

"Attaining sustainable growth through corporate social responsibility"

This report is based upon a survey of 250 business leaders worldwide and numerous interviews. It discusses the increasing importance CSR has on business strategy and covers three business dynamics that businesses need to understand when approaching CSR: its impact on business profitability and growth; the benefits of transparency; and the advantages provided by inter-organizational collaboration. Key findings include that companies that report they are substantially outperforming their competitors are more than twice as likely to:

- Be transparent about the sourcing, composition, and impacts of their products, services, and operations
- Engage all employees in CSR initiatives
- Place critical importance on aligning philanthropy and business priorities
- Consider themselves very effective at developing products and services with a positive societal or environmental impact



Innovest (2007)

"Carbon Beta and Equity Performance: Moving from Disclosure to Performance"

This report details an investment framework designed to hedge against climate change risks, specifically those associated with carbon emissions that affect investments' financial performance. It provides an explanation of the how, and what, certain companies' exposure to carbon emission in a carbon-restrained economy may be and how they would affect financial feasibility. It addresses risks that firms face both directly and indirectly, and specifically discusses the regional differences that exist across the globe. It concludes by providing various statistical analyses that demonstrate market leaders in reducing carbon risk have outperformed their peers in regards to stock growth and market capitalization.



Interface Inc.

"A Better Way, Try it. The business Case for Sustainability" Speech given by Ray Anderson, Chair of Interface – see also Interface website:

Ray Anderson, founder of Interface, is the author of this article covering how integrating sustainability throughout an organization provides a host of unanticipated, and profitable, benefits. This case study highlights Interface's success with how eco-oriented products not only lower costs and expand the customer base but also provides a platform for innovation. In pursuit of implementing a closed-loop manufacturing system, Interface significantly reduced waste, and energy and natural resource consumption at a profit.





Johannes Kepler University and Vienna University of Economics and Business Administration (2008)

“Does CSR Increase Firms’ Profits? Evidence from DJSI Firms”



McKinsey (2011)

“The Business of Sustainability”

This survey, the sixth conducted by McKinsey, discusses how executive “understand and manage issues related to sustainability”. This year’s results reveal that addressing sustainability is current rapidly evolving business trend. “More executives are reporting that sustainability initiatives are adding shareholder value” in both the short- and long-term. The report provides a discussion of how senior manager’s approaches to sustainability are changing, where their focus is, the barriers they are encountering, and the most achievable opportunities to add sustainable value.



McKinsey (2011)

“Resource Revolution: Meeting the world’s energy, materials, food, and water needs.”



MIT Sloan Management Review & Boston Consulting Group (2010)

“The Business of Sustainability”



Natural Capitalism Solutions

“The Economic Case for Climate Protection”

This paper sets forth the evidence that there is a suite of policy measures to help the market solve the climate crisis not at a cost but as an investment in a far better future for all of the world’s people. It describes how this future is already emerging remarkably rapidly despite Federal policy that restricts it at every turn. Finally it sets forth the economic policies that can unleash the new energy economy and set the country on the course to prosperity, security and stewardship.





National Environmental Education Fund (2010)

“The Business Case for Environmental and Sustainability Employee Education”

This study, conducted in conjunction with GreenBiz, provides a number of case studies on employee engagement (EE) through environmental and sustainability education (E&S). Key findings include:

- “Losing and replacing a good employee costs companies between 70%–200% of an employee’s annual salary” and that “employee engagement has resulted in increased employee loyalty, more company pride, and improved morale.”
- “Front-line employees are often in the best position to identify inefficiencies and propose improvements. E&S education of employees can improve profitability by supporting greater efficiency through less waste, water and energy usage”
- Companies that equip employees in sales, marketing and other customer-oriented positions with knowledge of the environmental attributes of offerings, and environmental issues to place those attributes in context, will strengthen relationships with customers who have similar values or interests.



Pricewaterhousecooper (2011)

“Minerals and Metal Scarcity: the ticking time bomb”

This thorough analysis of global mineral and metal scarcity demonstrates that significant drivers of sustainability principles relate to geo-economic and –political concerns. Key quotes include:

- “The risk of scarcity is expected to rise significantly, leading to supply instability and potential disruptions in the next five years, but this also creates opportunities for competitive advantage”
- “Economic and political drivers of scarcity are generally seen as much more important than physical drivers”
- “Efficiency is seen as most plausible response to scarcity”



Sustainable Asset Management (2008)

“SAM. Creating Sustainable Value”





Sustainable Asset Management (2008)

"The Sustainability Yearbook"

This annual publication, conducted in conjunction with PriceWaterhouseCooper, discusses sustainability trends within a wide array of corporate sectors. It covers consumer products companies' greater engagement with sustainable product design, and addressing the full life-cycle impacts of their products or services. It reviews an empirical analysis and implications of how sustainability performance effects financial valuations. It discusses the failure of water markets, and the investment opportunities that exist for firms in efficiency technologies. The report provides an "at a glance" review of the implications of sustainability for a wide array of industries. A few quotes include:

- "There is a positive, statistically significant, linear association between sustainability and corporate financial performance"
- "More and more companies consider the consequences of finite natural resources, climate change effects, impacts of emissions to air, water and soil and implications of unethical business behavior in their business models and embed their actions into consumer propositions to gain competitive advantage"



Sustainable Asset Management (2012)

"The Sustainability Yearbook"



University of California, Berkeley & University of California, Davis (2012)

"Going Green: Market Reaction to CSR Newswire Releases"

This study examines how shareholder valuations change following firms' voluntary disclosure of greenhouse gas emissions and management strategies. Key findings include:

- On average, disclosing carbon emissions, reduction targets, and relevant management strategies, increases firms' market capitalization
- Voluntary carbon disclosure produces positive returns to shareholders
- Small companies tend to receive relatively greater returns than larger companies.



Maine Sustainable Businesses and Programs (2005)





McKinsey (2007)

“A cost curve for greenhouse gas reduction”

This study provides valuable insights for business on the most cost-effective measures to reduce greenhouse gas emissions (GHG), and the potential strategies that policy-makers may adopt pertaining to GHG regulations. Finds include:

- Approximately 25% of initiatives discussed offer the potential GHG reductions with a zero or negative net life cycle cost, mainly in transportation and building efficiency.
- Power generation and manufacturing industries accounted for less than half of the low-cost potential for reducing GHG emissions, indicating regulations may target the transportation, buildings, forestry, and agriculture sectors
- Heightened GHG regulation will significantly impact the energy intensive industry's production economics, cost competitiveness, investment decisions and the value of various assets.



McKinsey (2008)

“How the world should invest in energy efficiency”

“The economic case for energy productivity investments has never been stronger.” This report recommends that \$170 billion be invested globally (\$57 billion in the US) in energy efficiency (EE) by 2020. It states that this investment would halve global growth in energy demand and curb GHG concentrations at 450ppm, while achieving attractive financial returns. The recommended investments average a 17% internal rate of return (IRR), and at minimum provide a 10% IRR. The report provides a general discussion of where EE investments should be made in industrial, residential, commercial, and transportation sectors; how financing may be secured; and the current barriers to investment.



Center for American Progress and the Political Economy Research Institute (2008)

“Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy”



Innovest and the World Wildlife Fund-UK (2007)

UK Power Giants Generating Climate Change





U.S. Department of Energy: Building Technologies Program (2011)

“Buildings R&D Breakthroughs: Technologies and Products Supported by the Building Technologies Program”

Buildings accounted for 40% of U.S. primary energy consumption in 2008. This report identifies and characterizes numerous energy efficiency technologies that are categorized into three groups: commercially available products, emerging technologies, and potential technologies. Specifically, the report focuses on four types of technologies: envelope materials, HVAC and water systems, lighting, and windows. It also found that private companies are driving investment in energy efficiency technologies for buildings, and are responsible for ~75% of all commercially available and emerging technologies.



National Renewable Energy Laboratory (2008)

“Strengthening U.S. Leadership of International Clean Energy Cooperation”



World Business Council for Sustainable Development (2002)

“The Business Case for Sustainable Development. Making a difference toward the Johannesburg Summit 2002 and beyond”



Florida’s Energy and Climate Change Action Plan (2007)

“A Report to Governor Charlie Crist, Phase 1”

Conducted by: Governor’s Action Team on Energy and Climate Change



Florida’s Energy and Climate Change Action Plan (2008)

“A Report to Governor Charlie Crist, Phase 2”

Conducted by: 2008 Center for Climate Strategies

