

# The Sustainable Business Case - Establishing a sound research base for the development of a case-building tool

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# The Sustainable Business Case

## 1 Definition

The business case is not a generic argument that corporate sustainability strategies are the right choice for all companies in all situations, but rather something that must be carefully honed to the specific circumstances of individual companies operating in unique position within distinct industries. Successes in whole industries and at other companies are useful examples, but the case still has to be applied to one company at a time. (Reed 2001)

According to Freeman's stakeholder theory (1984), corporations have responsibilities to their shareholders and other interest groups. Although there is disagreement over the prioritization of those "stakes", theorists agree that respect for other than economic issues is necessary<sup>1</sup>. However, what is the financial pay-off?

Businesses, NGOs and academia have approached the **sustainable business case**<sup>2</sup> in many ways, trying to prove or disprove that valuing the social and environmental side of business activities has a positive impact on the bottom line, i.e. that the "enlightened self interest" of companies in **decreasing the environmental and improving the social impact creates economic value, or an economic advantage over social and environmental laggards**.<sup>3</sup>

To clarify: Sustainable business strategies may lead to positive financial outcomes but also to a relative economic disadvantage if, for example, the increase in profitability through less responsible business activities is greater. → Is this question (of absolute vs. relative economic advantage) valid for managers generally making decisions under high levels of uncertainty?

In the following two chapters, the two non-financial dimensions of the business case will be briefly discussed.

### 1.1 Environmental Dimension

In theory and practice, the development of the environmental dimension is probably at least 10 years ahead of the social one (also due to the soft and complex issues that are much more difficult to handle), as can be seen from the dissemination of management and certification systems, reporting practices etc. Five approaches to "reconciling economic and environmental performance" can be identified:

- internal cost reductions
- product differentiation
- managing the rules of the game (by setting private standards or lobbying for tighter regulation)
- redefining markets (cost reduction and increase in willingness to pay)
- management of environmental business risk (Forest Reinhardt 2001)

The basic underlying concept is an increase in **eco-efficiency**, i.e. creating more value with less environmental impact through de-materialization, closing production loops, functional extension, etc.

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<sup>1</sup> Social "demands" and social activists' theories go beyond that overview (Brummer 1991: Corporate responsibility and legitimacy).

<sup>2</sup> Unlike businesses and NGOs, the academic community does not appear to use the term "sustainable business case" at all, but refers to the linkage of financial and social or environmental performance.

<sup>3</sup> According to Reed (2001) along these lines, corporate sustainability refers to "business strategies that are intended to add social and/or environmental value to external stakeholders while increasing value to shareholders."

ABB's sustainable business case comprises the following aspects: Manage risk and opportunity, reputation, license to operate, capital access and financial guarantees, right to grow and trade, contribute to increase shareholder value, attract and maintain talented staff (CSM Forum, April 2002).

## 1.2 Social Dimension

By way of contrast, social issues such as employee and community relations are much more **difficult to capture**. This is also reflected by a somewhat "foggy" terminology, e.g. a lack of terminological differentiation between the social and environmental dimension. For instance, corporate social responsibility (CSR) relates to the environmental and/or the social dimension of sustainability (*refer to Exhibit 1 for the terminology of the social dimension*).

Wood (1991) also correctly points to the significance of the environmental dimension of CSR. I plead for clearly differentiating between the two dimensions.

## 2 The Challenge – why managers disbelieve

The reasons for skepticism can be systemized as follows (Weiser and Zadek in "Conversations with disbelievers", November 2000):

1. **Information type:** Opinions are the least credible. More convincing are case studies and correlation studies showing that actions were successful, even if cause and effect can be still difficult to demonstrate.
2. **Relevance** comprising the following elements:
  - a. **Accuracy:** The first correlation studies, particularly, were seriously flawed (inconsistent measures, sampling, etc.).
  - b. **Materiality:** The positive link may be statistically significant but marginal in practice (→ catch-22: "If it really were that good, why isn't everyone doing it?"). The economic value of sustainable business strategies appears more long than short term (e.g. greater customer loyalty, less regulation leads to increase in shareholder wealth; short-term benefits, decreasing costs through waste reduction) and primarily attached to intangible assets.
  - c. **Applicability:** Case studies in particular, are often applicable only to a single company or sector.
3. **Source:** Managers tend mainly to believe information from their peers and point to potential research bias to which studies may have been subject.
4. **Underlying attitudes:** Managers need to be able to rationalize their action using business rather than moral or ethical arguments. However, this "undercurrent" of caring and ambition to make a social contribution can sometimes be a significant motivational factor.

Weiser and Zadek additionally provide a tool for assessing the strength of individual evidence (such as a detected significant and positive link between CSR and financial performance) according to the criteria mentioned above: "The disbeliever's scorecard".

## 3 Approaches to build the case

Existing evidence is being presented through:

1. **Qualitative approaches** such as story telling case studies. These are dominated by stories about successful **pollution prevention** projects (e.g. 3M's claim to having saved \$810 million since 1975) and **cost savings** in mature, commodity and extremely price-sensitive sectors such as chemicals, but also refer to other issues such as:
  - a. **Risk avoidance:** Companies respond differently, however, to negative and positive stimulus. The motivational effect without quantifying the risk appears to be limited.
  - b. **Corporate sustainability as part of excellence:** This argument is only modestly backed up by research: e.g. Graves and Waddock (1999) showed that companies who financially outperformed their peers also displayed better employee and community relations, diversity measures, etc.

Overall, going beyond anecdotal evidence, there is still a lack of comparability and cross-sectional applicability. Moreover, evidence of the financial results is limited.

2. **More analytical, quantitative approaches**, based on:
  - a. Proving **statistical relationships**
  - b. Estimating the **expected financial results** of a strategy: This approach has rarely been used by companies<sup>4</sup>, and seldom at the corporate level.

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<sup>4</sup> e.g. Georgia Pacific's analysis of a purchase of conservation lands as a habitat for a particular bird species

The following review will focus on empirical and quantitative studies. Case studies are excluded because of their limited cross-sectional applicability, even if the significance of a collection of robust case studies has to be acknowledged.

## 4 Review of existing research

Research in the sustainable business case has focused on the following areas:

1. **Normative research** in the moral obligation of companies and managers – also excluded from this review (→ What should managers do?)<sup>5</sup>.
2. **Instrumental perspective** on the outcome of different behaviors: How do different levels of sustainability performance (SP) affect financial performance (FP)?
3. **Descriptive studies** of the perception and behavior of companies, and their managers. How do companies/managers act and why?

### 4.1 Instrumental research

Empirical research in this area has been directed along two lines:

1. The **direction** of the relationship (positive, neutral, negative) between SP and FP.
2. The **causation**, i.e. the **lead-lag relationship** (the “chicken-and-egg” question).

N.B. Most studies assess the relationship between social and financial performance. The environmental dimension is often part of the social performance measurement.

#### 4.1.1 Theoretical frameworks

Preston and O'Bannon developed (1997) the following typology for social-financial performance relationship<sup>6</sup>

	Theoretical frameworks	
Causal sequence	Positive link	Negative link
Social performance leads to FP	Social impact hypothesis	Trade-off hypothesis
FP leads to social performance	Available funding hypothesis	Managerial opportunism hypothesis
Social performance and FP are synergistic	Positive synergy	Negative synergy

It should be noted, that the typology does not specifically allow for nonlinear results such as the inverted U relationship discovered by Bowman and Hire (1975) and Sturdivant and Ginter (1977), according to which moderate social performers performed best financially.

N.B. More complex SP-FP relationships or optimum levels of SP should not be ruled out in advance.

The most important frameworks are described in more detail in the following table:

<sup>5</sup> Given our research objectives, normative research is somewhat irrelevant. Key drivers of corporate sustainability management are laid out extensively in Tomorrow's markets (published jointly by WRI, WBCSD and UNEP, 2002)

<sup>6</sup> See also Ullmann 1985, Wood 1991, and Moore 2001 p. 300

#### 4.1.1.1 Negative link

Framework	Description	Empirical evidence
<b>Trade off hypothesis:</b> <i>Higher SP leads to lower FP</i>	Reflects Friedman's neoclassical argument that firms have only one social responsibility, which is to increase profits. By increasing social performance, they unnecessarily incur costs and reduce their profitability.	Supported by findings of Vance (1975): good CSP associated with decline in stock prices relative to market average. See also Aupperle et al. (1985)
<b>Managerial Opportunism Hypothesis</b> (Preston and O'Bannon, 1997): <i>Higher FP leads to lower SP</i>	Managers will reduce expenditures on social performance when FP is strong in order to maximize the personal compensation (which is tied to short-term FP). Poor FP leads to diversion of funds from social programs.	supported by survey research conducted by Posner and Schmidt (1992) Alkhafaji (1989)

#### 4.1.1.2 Neutral link

Framework	Description	Empirical evidence
<b>Supply and demand theory of the firm</b> (McWilliams and Siegel, 2001): <i>No link between SP and FP</i>	Companies supply a demanded and unique level of social performance to maximize their profits. In equilibrium, the amount of CSP produced by the firm will be different but profitability will be maximized and equal.	Some studies found no or inconclusive correlations: Anderson and Frankle (1980), Freedman and Jaggi (1986), Aupperle, Carroll, and Hatfield (1986)

N.B.: One could still assume that a simple, direct relationship does not exist due to the complexity.

#### 4.1.1.3 Positive link

Framework	Description	Empirical evidence
<b>Social impact hypothesis</b> (Cornell and Shapiro 1987, Alexander and Buchholtz 1987) <i>Higher SP leads to higher FP</i>	Meeting the needs of various non-owner stakeholders increases financial performance. Failure to meet less explicit needs of stakeholders generates market fears (i.e. affects company reputation) thus increasing a company's risk premium and affecting FP. Actual SP costs are minimal compared to the potential benefits.	Pava and Krausz (1996), Preston and O'Bannon (1997)
<b>Available funds hypothesis or slack resources theory</b> <i>Higher FP leads to higher SP</i>	Superior financial performance enables companies to devote more resources to SP.	McGuire et al. (1988), Kraft and Hage (1990), partially by Preston et al. (1991) and Moore (2001)
<b>Positive synergy: "Virtuous circle"</b> (Waddock and Graves, 1997)	Simultaneous relationship combining slack resources and good management  Good management does most things well, including both social and financial performance. Good management and good SP are the same thing when SP is defined in terms of the stakeholder relationships considered important to the performance of the firm and not discretionary activities, e.g. philanthropy.	Empirically supported by Preston and O'Bannon (1997), Pava and Krausz (1996), Stanwick and Stanwick (1998), Verschnoor (1998)

### 4.1.2 Methodologies

The following methodologies are used (Repreto and Austin 2000, Steed 2000):

Approach	Limitations
<p><b>Multivariate analysis:</b> aimed to detect significant association between:</p> <ul style="list-style-type: none"> <li>- Measures of SP:               <ul style="list-style-type: none"> <li>o measuring performance and exposure through a set of performance indicators and checklists (e.g. Toxic Release Inventory, Corporate 500 Directory of Corporate Philanthropy, Exhibit 2), also supplemented by measures of the quality of environmental management</li> <li>o rating system constructed from (weighted) indicators referred to above</li> </ul> </li> <li>- Measures of FP</li> </ul> <p>Refer to chapter 4.1.3 for further details</p>	<ul style="list-style-type: none"> <li>- not valid across several industries</li> <li>- lack of direct linkage to financial performance; parallel measurement rather than integrated evaluation</li> <li>- retrospective</li> </ul>
<p><b>Portfolio analysis:</b> Comparing constructed model portfolios with benchmark index.</p>	<ul style="list-style-type: none"> <li>- ambiguous results depending on time period, risk-adjustments, re-weighting of portfolio</li> <li>- retrospective</li> </ul>
<p><b>Event studies:</b> looking at the effects of good and bad news on the share price: showed that new information regarding environmental performance and liability affects share prices.</p>	<ul style="list-style-type: none"> <li>- although results show reactions of share prices, studies are short-term and sometimes limited to only a few days.</li> </ul>
<p><b>Valuation methodologies</b></p>	<p>See next table</p>

The valuation methodologies (described in more detail in the following table) are less known and hardly used in the business community, presumably for the following reasons:

- Approaches are new and demanding
- Possibly a lack of financial expertise among sustainability officers (→ to be verified through interviews)
- Lack of mechanism for gathering and organizing data
- Difficulty in isolating sustainability effects due to complex and possibly small effects.

The techniques may offer as yet unused potential for the business case (please refer to Steed 2001 for more details). Relative valuation is still prevalent in the investing world, although the more sophisticated DCF and related techniques are becoming increasingly important.

Approach	Techniques/Description	Critique
<p><b>1. Relative valuation</b></p>	<ul style="list-style-type: none"> <li>- Fundamental analysis: comparing ratios of certain markets and accounting figures for a company with peers or the market as a whole</li> <li>- Environment-related management accounting, i.e. monetized information in order to improve corporate environmental and economic performance. Few companies have gathered and organized data in such a way as to enable them to calculate ratios such as environmental contribution to operating margin or portion of operating profit from net environmental contribution (e.g. Baxter, 3M)</li> </ul> <p>N.B.: Environmental accounting initially focused on external accountability rather than internal managerial needs. In the US, it is more liability-, in Europe more opportunity-related (➔ The Green Bottom Line by Bennett and James)</p>	<ul style="list-style-type: none"> <li>- Does not explicitly deal with risk, cost of capital, time value of money</li> <li>- Biased through different accounting procedures</li> <li>- Large-scale effort to establish data base starting from plant level upwards</li> <li>- Retrospective measure</li> </ul>
<p><b>2. Discounted cash flow (DCF)</b></p>	<p>Moving from accounting data to information about building shareholder value</p> <p>See:</p> <ul style="list-style-type: none"> <li>- Figge and Schaltegger (1998): Environmental Shareholder Value, WWZ/Sarasin Basic Report</li> <li>- WBCSD (1997): Environmental performance and shareholder value</li> </ul>	<p>Difficult to:</p> <ul style="list-style-type: none"> <li>- incorporate risk, setting a discount rate</li> <li>- estimate future cash flows</li> </ul> <p>➔ Scenario-based Approaches (Repetto and Duncan (2000) for the US paper and pulp industry)</p>
<b>Emerging techniques</b>		
<p><b>3. Risk analysis</b></p>	<ul style="list-style-type: none"> <li>- Pricing environmental risks based on historical probability and cost information (not widely used outside the insurance industry)</li> <li>- Assess changes in insurance premiums</li> <li>- Assessing risk to loose "social license to operate" through scenario-based DCF</li> </ul>	<p>Selective application possible</p>



Approach	Techniques/Description	Critique
<p><b>4. Intangible assets</b></p>	<p>Valuing <b>knowledge assets</b> based on segregating out earnings from tangible and financial assets from overall earnings (Mintz (2000): A Knowing Glance: The second annual knowledge capital scoreboard)</p> <p><b>Reputation and brand:</b> Interbrand estimates brand value by</p> <ol style="list-style-type: none"> <li>1. estimating earnings from intangibles</li> <li>2. estimating the proportion of earnings from intangibles attributable to brands</li> <li>3. evaluating security of future brand earnings</li> <li>4. discounting the revenue stream by a factor that accounts for the differences in risks to the brands</li> </ol>	<p>Difficult to relate to corporate sustainability efforts</p> <p>No corporate efforts or studies available, which quantify the value of corporate sustainability strategies to brands            → Applying Interbrand approach to different scenarios</p>
<p><b>5. Real options</b></p>	<p>Valuing <b>competitive advantage</b> through sales-driven franchise value model:</p> <ul style="list-style-type: none"> <li>- analyzing excess returns and</li> <li>- the length of the competitive advantage period (CAP)</li> </ul> <p>N.B.: Margins and lengths of the CAP are more easily estimated than specific impacts on future earnings or cash flows</p> <p>Two different techniques:</p> <ul style="list-style-type: none"> <li>- <b>Black-Scholes model</b> using information on publicly traded instruments (commodities, stock)</li> <li>- <b>Binomial model</b> of expected values of the strategy at specific future times in order to calculate the value of an option today. Values could be derived from DCF based on appropriate assumptions for the conditions</li> </ul>	<p>Still in its early stages, but taken up by several prominent investment banks</p>
		<p>Useful (e.g. to understand implications of new technologies and risk hedging) for:</p> <ul style="list-style-type: none"> <li>- contingent investment decision</li> <li>- dynamic complexity, i.e. value from possible future growth for which estimates of DCF difficult or impossible to make</li> <li>- decisions under great uncertainty (→ flexibility a key criteria)</li> </ul> <p>but complicated (46% of companies of North American sample have experimented with real options analysis but gave up)</p>

### 4.1.3 Instrumental studies

As pointed out in several empirical research reviews<sup>7</sup>, 25 years of instrumental research in this area have not revealed a simple correlation between SP and FP. In addition to the complexity of the issue under consideration, the inconclusiveness of the results was attributed to the following shortcomings in the methodologies:

1. Use of a wide variety of sometimes poor **SP measures** (*for more details, refer to Exhibit 2 – SP measures*).  
Since its introduction, the Fortune Corporate Reputation Index has been increasingly used as a data source leading to more consistency with respect to SP measures (Stanwick and Stanwick 1998). Fryxell and Wang (1994) warned against its heavy weighting of the financial position of firms.
2. Lack of effort to empirically test **definitions and concepts**.
3. Lack of **significance testing and control for interaction with other variables** (particularly in the early studies) (*refer to Exhibit 3 for control variables used*).
4. Inadequate **sampling techniques**, also due to limited data availability.

Empirical studies focused mainly on large, cross-sectional studies, which may have masked industry-specific differences such as unique internal competencies, external pressures, degree of public visibility, stakeholder configurations, level of regulation, etc. Single industry analysis would allow for more specific and accurate measurement (Griffin and Mahon, 1997) thus increasing internal rather than external validity.

5. Use of a variety of **FP measures**, presumably for reasons of convenience - as Griffin and Mahon (1997) argued.

There appears to be an ongoing argument about the appropriate FP measures. Both accounting and market-derived measures focus on different aspects of performance and are subject to particular biases. Whereas accounting measures can be confounded by different accounting procedures and asset allocations across different industry sectors, market-derived measures may reflect more than just financial performance (*for more details, refer to Exhibit 4 – FP measures*).

The following **conclusions** are drawn:

- The SP-FP relationship appears to be complex and contingent on situational and company-specific factors that are difficult to detect through most analytical approaches. The “chicken-and-egg” question cannot yet be put aside.
- There is a need for multidimensional SP measurement (empirically supported by Ullman 1985, Wood and Jones 1995)<sup>8</sup>. Multiple sources of information produce a more comprehensive SP measure (perceptual and factual-based measures). However, data availability limits the sample size.
- The “overwhelming preponderance” of the evidence indicating that good SP is associated with good FP (Pava and Krausz (1996)) will not convince skeptics for the following reasons:
  - a. potential research bias
  - b. variability and inconsistency of results
  - c. ambiguity regarding the causality.
- The wide majority of studies appear to be focused on multi-industry US samples leaving a vast research area of single industry sectors and geographical areas such as Europe widely untouched.
- Issues such as sample size, control variables and measurement will probably always be subject to "reasonable and unreasonable" criticism.

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<sup>7</sup> Arlow and Gannon 1982, Cochran and Wood 1984, Frooman 1994, Ullmann 1985, Pava and Krausz 1996, and particularly by Griffin and Mahon 1997

<sup>8</sup> See also Carroll, 1994; Freedman and Jaggi, 1982; Homes, 1977; Kedia and Kuntz, 1981; Waddock and Graves, 1994; Griffin and Mahon, 1997; Ullmann 1985

## 4.2 Descriptive research

### 4.2.1 Perceptions and attitudes

In a study carried out by the **Ashridge Business School** (1996), 32 senior environmental executives in leading companies - mainly located in Europe (G, NL, UK, US) - were interviewed on the changing nature of corporate environmental management. The study identified 8 basic roles (environmental policy, coordination, etc.) of the "European environmental executive" as well as key competencies and critical challenges.

**Maignan and Ferrel** surveyed 210 American and 120 French marketing managers across various industry sectors in terms of their perception of corporate citizenship. Different field surveys and discussions detected only cultural differences. Data obtained from questionnaires supported their proposed theoretical definition of corporate citizenship as a "construct made of the four correlated dimensions of economic, legal, ethical and discretionary citizenship". The study does not claim cross-cultural validity (due to being limited to two countries).

**Quazi and O'Brien** (2000) tested a two-dimensional model of corporate social responsibility (CSR span: narrow to wider perspective; range of outcomes: cost to benefit driven perspective) in a cross-cultural study. They examined the CSR attitudes of CEOs of the food and textile sector in Bangladesh and Australia. In both countries, their cluster analysis detected two distinct groups of managers representing the two (narrow and broad) views on CSR. Similarly, the results suggested that differing cultural and market settings may have little impact on the ethical perception of managers.

**Trevino et al.** (1997) randomly surveyed 10,000 employees in 6 large US companies from various industries. They examined:

- the outcomes of ethics/compliance programs, i.e. possible misconduct (e.g. lying to customers, falsifying financial reports, stealing from the company, violating environmental regulations),
- the different approaches and how they affected the outcome (i.e. the effectiveness) of the programs.

The study focused on a narrow notion of ethics, primarily based on the US Sentencing Guidelines (implemented in late 1991 to contribute to the development of compliance approaches). Findings were:

- ethics programs should be based on shared organizational values. Value-based approaches can be supplemented with an orientation towards legal compliance and satisfying external stakeholders.
- program characteristics turned out to be far less important than a sound ethical culture. Leadership, fairness perceptions, ethics discussion and incentive systems most significantly influence programs' effectiveness.

**Morris** examined the effects of stakeholder management devices (SMD, e.g. codes of ethics, public affairs office, ethics committee, etc.) on US managers'

- expectations regarding corporate social performance
- attitudes about corporate social responsibility and/or
- perceptions about the organization's moral climates.

Although the devices were primarily focused on external stakeholders, the following internal effects were detected:

- The more well-implemented the devices, the more supervisors and middle managers expected good CSP to have positive effects (e.g. increase in long-term profitability, public image)
- SMDs unrelated to attitudes about CSR
- SMDs positively related to the perception of ethical climate.

It is concluded that research has been largely focused on:

- the nature and desirability of CSR<sup>9</sup>. The issue of internal barriers appears to be neglected.

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<sup>9</sup> See also Gupta 1996: Environmental Management and its Impact on the Operations Function  
 Hunt and Auster 1990: Proactive Environmental Management: Avoiding the toxic trap  
 Maignan, Ferrell and Hult 1999: Corporate Citizenship: Cultural antecedents and business benefits!!!  
 Roarty 1997: Greening Business in a Market Economy  
 Welford and Gouldson 1993: Environmental Management and Business Strategy

- the environmental dimension and narrow geographical areas (e.g. Ashridge: mainly Europe)
- narrow target groups, e.g. CEO's attitudes towards CSR in cross-cultural (Bangladesh, Australia) and -industry (food and textile) study (Quazi and O'Brien)

No descriptive study has so far

- focused on the barriers of building the sustainable (i.e. covering both social and environmental issues) business case internally
- focused on both major players of the business case "scene": the sustainability officers and their operational and functional counterparts
- aimed to cover Europe, US and Japan. N.B. As found in previous studies, cross-cultural differences may play a minor role.

#### 4.2.2 Behavior

There is clearly a lack of empirical studies examining managers' behavior (e.g. investment decision, equal opportunities). Studies primarily focused on indirect and self-reported measures (social disclosure, social and environmental auditing schemes)<sup>10</sup> as well as the outcomes of the behavior (attitudes of employees, unpolluted environment, civil cases brought against the corporation). For example, Steger (2000) reports that a significant number of companies have applied environmental management systems since the mid-nineties leading to more effective organization and information flows, higher degree of compliance, and a more comprehensive exploitation of the "win-win" potential of ecological and economic benefits (i.e. possible focus on the "long hanging fruit").

There was no empirical research on:

- incentive schemes (Do companies reward responsible behavior of their managers?)
- inconsistencies between perceptions of the sustainable business case and behavior.

## 5 Existing projects and tools related to the sustainable business case

The following projects and tools have been reviewed in terms of how much they contribute to the development of a tailor-made strategic tool to be used by sustainability officers in putting forward the sustainable business case within their specific industry sector.<sup>11</sup>

### 5.1 Conversations with disbelievers

**Weiser and Zadek** (2000) have reviewed almost exclusively quantitative evidence showing when corporate engagement (exclusively referring to the social dimension of sustainability) creates business as well as societal benefits. They directly address "people who seek to persuade skeptical managers and executives" providing an assessment tool for evidence collected, and a "data warehouse", based on mainly US and UK examples.

Evidence is systemized as follows

1. Measurements of benefits relating to the entire company (e.g. stock price and financial performance, reputation, risk, etc.)
2. Benefits specific to individual business functions (e.g. innovation and learning)

Ahmed, Montagno and Flenze 1998: Organizational performance and environmental consciousness. An empirical study

Orpen 1987: The attitudes of US and South Africa

Lewin and Sakano 1995: Corporate Citizenship in Japan: Survey from Japanese firms

Singhapakdi et al. 1995: The perceived importance of ethics and social responsibility on organizational effectiveness: A survey of marketers

<sup>10</sup> Gray et al. 1995 reported a general rise in social, particularly employee-related, and environmental disclosure.

<sup>11</sup> The strategic tool would include a **per sector** strategic planning approach for managing the operational rollout of the business case for sustainability, and the best possible argument for the business case **for individual sectors**.

3. Innovations expanding the market.

The authors assessed a comparably wide range of evidence, even if at the expense of the depth of the analysis (see Exhibit 5 for more details).

Comment:

- clear approach and methodology
- based neither on country- nor sector-specific approach
- environmental dimension ignored.

**5.2 Route Map towards the business case<sup>12</sup>**

The route map was designed to "guide senior managers as they work towards building their own business case". It comprises the following steps and tools, also stressing the need for involving equity market managers.

Step	Tool	Outcome
1. Identifying significant impact	Impact Assessment/Appraisal (e.g. AA 1000)	Register of company-level impacts
2. Identifying key issues	<ul style="list-style-type: none"> <li>- Issues/Stakeholder Matrix</li> <li>- Stakeholder dialogue (e.g. WBCSD criteria: legitimacy, contribution/influence and outcome)</li> </ul>	Customized register of present or future key issues (from an external perspective)
3. Establishing sources of potential threats and opportunities	Threat and Opportunity Analysis	Customized register classified by threat and opportunity
4. Identifying and prioritizing proposed actions	<ul style="list-style-type: none"> <li>- Porter's Five Forces Model (adapted): list of key issues prioritized according to their potential to create and conserve value</li> <li>- Correct strategic choice: test strategic fit</li> <li>- Rappaport's key drivers of shareholder value (adapted): assess potential of proposed action for creating additional value</li> <li>- cost-benefit analysis</li> </ul>	Short-list of issues and proposed actions
5. Highlighting actions with strategic implications	Strategic assessment (Macmillan and Tampoe)	Short-list of issues and proposed actions, highlighting those of strategic business concern
6. Determining preferred actions for inclusion in a business case	Financial measures to test anticipated pay-off: <ul style="list-style-type: none"> <li>- Return on capital employed (ROCE) impact</li> <li>- Economic value added</li> <li>- Discounted cash flow</li> </ul>	Optimal list of issues and preferred action for inclusion in a business case

Comment:

- Communicational, cultural and industry-specific issues neglected
- As close as it gets to our approach.

<sup>12</sup> WWF-UK (2001): To whose profit? Building a sustainable business case

### 5.3 *Assessing financial implications of environmental performance*<sup>13</sup>

The scenario-based methodology uses standard techniques of financial analysis to derive

- measures of expected environmental impacts on share values and
- financial measures of environmental risk.

The tool primarily targets the financial sector but also managers and CFOs enabling them to

- quantify their environmental exposures and risks
- benchmark against rivals
- identify investments that would be most effective (in financial terms) to reduce environmental risk.

The methodology was applied to 13 major US pulp and paper industry companies. It comprises the following steps:

1. Identifying salient future issues
2. Building corresponding scenarios (e.g. demand and supply influences combine to raise recycled prices by 2.25% per year in nominal terms)
3. Assigning probabilities to them
4. Assessing companies' exposures to the issues identified in step 1, taking into account location, product mixes, technologies, input and cost structures as well as different levels of pass-through of cost increases
5. Estimating financial impacts of the individual scenarios: changes in revenues, production costs, investment spending, and values of owned assets are estimated for all years of the forecast period. The net financial impact of the scenario is calculated as the discounted present values of those changes using a weighted average cost of capital, and then expressed as a percentage of the company's current market valuation.
6. Constructing the company's overall exposure to risk using worst, best and intermediate case scenarios. Companies are enabled to calculate spending necessary to eliminate certain business risks.

Findings:

Even though the underlying scenarios and probability assumptions are the same for all companies, risk exposure and financial implication differ significantly from company to company in terms of the most likely outcome (mean), the range of possible outcomes (variance) and their degree of imbalance towards negative and positive outcomes (skewness). Whereas companies differed substantially in their risk exposure, they displayed relatively similar price-earnings and price-to-book ratios, suggesting that the financial market may not have fully accounted for environmental risk.

Comment:

- valid tool for building the business case. N.B.: Juxtapositioning a "business-as-usual" scenario (from a company point of view) and a sustainability scenario would be more convincing
- focused on environmental issues
- presumably sophisticated methodology, thus applicability in the business community questionable.

### 5.4 *EarthEnterprise Tool Kit*

The tool kit aims to "help companies build new kinds of business". It primarily targets the North American entrepreneur in a small and medium sized green or sustainable enterprise. It provides "strategic advice and specific, action-oriented suggestions to deal with real business problems" in the areas of

- consumer market
- green procurement
- technology

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<sup>13</sup> World Resources Report by Repetto and Austin (2000)

- financing
- new business practices,

and includes a list of information sources for follow-up.

The tool kit is the result of the EarthEnterprise project comprising

- interviews with role models
- an interactive newsletter
- a working group on investment, and
- focus groups.

The project was carried out in a network of interested companies, and also identified barriers sustainable businesses are facing.

Comment:

- targets different geographical area and a narrow group
- little information in public domain, but CD available.

### 5.5 Sustainability Check<sup>14</sup>

The Sustainability Check facilitates an analysis of the status quo (essentially a SWOT-analysis). It is based on the Agenda 21. The questionnaire covers the three dimensions of sustainable development plus an additional fourth aspect: cooperation and participation as an essential part of corporate culture (*refer to Exhibit 6 for more details on the check*).

Comments:

- covers only one element of a needed toolkit
- research-basis?

### 5.6 COMPASS<sup>15</sup>

The COMPASS methodology was originally developed for product lines and regions. It comprises 5 elements.

1. COMPASS profile: drawing a company or sector profile consisting of
  - a. dialogue profile: setting system boundaries and objectives (who to engage)
  - b. knowledge profile
  - c. environment profile: e.g. regulatory, public pressure
2. COMPASS vision: formulating vision and milestones (essential: empowerment, consensus on a clearly defined and transparent strategy)
3. COMPASS analysis: data collection, performance assessment and benchmarking (using the COMPASS radar)
4. COMPASS management
  - a. building the business case internally
  - b. operational rollout: cost and resource management, stakeholder dialogue, conflict management, etc.
5. COMPASS report: transparent assessment of the system (use of indicators)

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<sup>14</sup> future e.V.

<sup>15</sup> Wuppertal Institute

It features a modular set up and is complemented by:

- a toolkit including means of communication, management, assessment, capacity building: the COMPASS radar as the central communication tool for mapping performance in different dimensions.
- actions connecting the elements: capacity building, selection, assessment and revision.

Comments:

- methodology for building the case internally without providing the evidence around it
- research basis is questionable (not originally developed for companies) – more material ordered.

## 5.7 Conclusion

Tools and resources examined differ considerably in terms of their methodologies chosen and their comprehensiveness. It is apparent that

- neither of them is based on cross-country and -industry research in the barriers of building the business case internally
- few provide appropriate evidence needed by the green standard bearers
- one of the two non-economic dimensions of sustainability is, sometimes, neglected.

## 6 Synthesis

Based on the challenges identified, the following issues appear to be key for the sound development of the strategic tool:

- Direct access to companies to provide skeptics with information from the peers, the most **credible source**
- Empirical research in the perceptions and attitudes of the two protagonists of the business case: the green “standard bearer” and his/her traditional "opponent"
- Focus on internal validity (country and industry).

There are probably more than a hundred instrumental and as many case studies already available. A descriptive study aimed at identifying existing bottlenecks will add much more to the case than following the “mainstream”.

Two final comments:

- Clearly, the toolkit must be either tailored or adaptable to different corporate sustainability situations that companies can be in (see Reed 2001), e.g.:
  - **The initial business case** (Does a corporate sustainability strategy generate and protect business value at an individual company?). This is often the most difficult task since companies lack necessary information (internal financial data and comparable external information). Similarly challenging is the justification of already pursued strategies (retrospective analyses are mostly left trying to determine the broad impact on reputation).
  - **Conceptual framework** for sustainable business strategy (How can a company use sustainability strategies to add more value?). Here, strategic options are to be identified and evaluated to enable companies to compare and refine alternatives and establish performance targets. Reed suggest a 4-step process:
    1. Carry out DCF analysis if estimation of figures is possible.
    2. If necessary, add different scenarios using probabilities
    3. Use real option analysis
    4. Consider precursors of financial value and how they eventually create it.
- So far, there has been a relative absence of financial quantification. It may be interesting to assess the future potential of financial analysis. The techniques (described in chapter 4.2.1) are available for individual corporate sustainability (CS) strategies (*For more details, refer to Exhibit 7 – Financial analysis and CS strategies*). Emerging techniques of competitive advantage and real options facilitate a more exact evaluation of future, uncertain and partly intangible values. Thus, the interface between the sustainability officer and the CFO may play a major role.



## Bibliography and Websites

Only the main resources are listed below:

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- Preston and O'Bannon (1997): The corporate social-financial performance relationship. In: Business and Society, Vol. 36, No. 4, 419-429
- Moore (2001): Corporate social and financial performance: An investigation in the UK supermarket industry. In: Journal of Business Ethics 34: 299-315
- Reed (2001): Stalking the elusive business case for corporate sustainability
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- SustainAbility (2001): Buried Treasure: Uncovering the business case for corporate sustainability
- Trevino et al. (1999): Managing ethics and legal compliance. What works and what hurts. In: California Management Review, Vol. 41, No. 2, 131-151
- WBCSD (2002): The sustainable business case for sustainable development
- Weiser and Zadek (2001): Ongoing conversations with disbelievers
- Weiser and Zadek (2000): Conversations with disbelievers
- WWF-UK (2001): To whose profit? Building a sustainable business case
- Michael Kuhndt, Christa Liedtke (1999): Die COMPASS-Methodik, Wuppertal Paper Nr. 97

The following websites are recommended:

- [www.wbcsd.org](http://www.wbcsd.org)
- [www.wupperinst.org](http://www.wupperinst.org)
- [www.wri.org/business/](http://www.wri.org/business/)
- [www.sustainability.co.uk](http://www.sustainability.co.uk)
- [www.conversations-with-disbelievers.net](http://www.conversations-with-disbelievers.net)

## Exhibit 1: Terminology of the social dimension

This is just to illustrate the variance in terminology:

Term	Definition
Corporate Social Responsibility (CSR)	CSR is the commitment of business to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life (WBCSD)
Corporate Social Responsiveness	Monitoring and evaluating environmental conditions which focus on the demands of various stakeholders (Ackerman 1975)
Corporate Social Performance (CSP)	3 components: <ul style="list-style-type: none"> <li>- level of social responsibility</li> <li>- commitment to social issues</li> <li>- philosophies of social responsiveness of firms (Carroll 1979)</li> </ul>
	CSP based on the firm's integration of <ol style="list-style-type: none"> <li>1. the principles needed for social responsibility</li> <li>2. the processes used in developing social responsiveness</li> <li>3. the policies created to confront social issues (Wartick and Cochran 1985)</li> </ol>
	<ul style="list-style-type: none"> <li>- Corporate social responsibility, based on the legitimacy within society, public responsibility within the organization, and managerial discretion by each individual within the organization</li> <li>- Corporate social responsiveness through environmental assessment, stakeholder management and issues management</li> <li>- Corporate social impact as outcome of corporate behavior (social programs, social policies etc.) (Wood 1991)</li> </ul> <p>➔ points to the significance of environmental dimension</p>
Corporate Citizenship	Used interchangeably with CSR, also defined by Logon as: Meeting responsibilities to its stakeholders (employees, shareholders, customers, communities, etc.) comprising 4 levels of activities: (1) commercial self-interest, (2) expanded self-interest with immediate benefits: going beyond normal business concerns, (3) expanded self-interest with long-term benefits (support of community activities: education and training), (4) promoting the common good with no expectations of direct tangible benefits to the company (Logon 1997) N.B.: Sometimes also used as a generic term comprising corporate social responsibility, responsiveness, performance and stakeholder management,

## Exhibit 2: SP measures

Early studies

SP measures	Studies	Critique
Moskowitz's social responsibility ratings	Moskowitz (1972), Vance (1975)	Reputation ranking, limited information on methodology
Level of social responsibility and pollution issues contained in annual reports, i.e. social disclosure	Bowman and Haire (1975)	Social disclosure (PR influence) is poor proxy for actual performance
Pollution releases, e.g. Pollution Index of Council of Concerned Businessmen, pollution control index published by the Council of Economic Priorities	Bragdon and Marlin (1972 and 1976), Schlachter and Rockness (1986)	Ignoring social dimension

Later:

SP measures	Sample	Approach	Comment
Reputation scores (raw scores) of Fortune survey	Ten largest companies in their own industry	Expert evaluation: Perception of senior executives, outside directors, financial analysts on 8 attributes of reputation  Respondents are selected for their knowledge of a particular industry rather than for their specific knowledge of or interest in CSR	High correlation between overall reputation index and the individual attributes → overall perception of the firm and its image is the dominating factor, covers extensive time period (conducted since 1982), validated in several empirical studies (e.g. Crakravarthy 1986): All studies using the index found a positive link, criticized by Fryxell and Wang (1990) due to the high influence of the firm's financial position on the index
KLD index	All S&P 500 companies	Expert evaluation: Perception of financial analysts on 8 CSP dimensions: community relations, employee relations, environment, product, treatment of women and minorities, military contracts, nuclear power, South Africa involvement	<ul style="list-style-type: none"> <li>- third party, independent ranking</li> <li>- all dimensions weighted equally</li> <li>- dual rating of products allows nullifying adverse effects or benefits over a diverse product portfolio</li> </ul>
Toxic release inventory (TRI)	All US manufacturing facilities with workforce of at least 20 full-time employees	Factual based single indicator Self-reported discharges into the environment → percentage changes in waste produced, also reflecting inter- and intra-company transfers	<ul style="list-style-type: none"> <li>- ignores social dimension</li> <li>- weighting of release of different substances</li> </ul>
Corporate 500 Directory of Corporate Philanthropy		Factual based single indicators Assesses corporate philanthropic activities, difficulty of obtaining money from the firm	More weight given to smaller companies giving larger proportions of their earnings

Other measurement approaches used: survey of managers, social disclosure

### Exhibit 3: Control variables

Variable	Measure	Theory	Positive relationship	Negative or no significant relationship
Firm size	Sales volume Total assets	Larger firms receive high level of attention from general public  N.B. Many studies biased towards large corporations, due to lack of data from smaller companies	Fombrun and Shanley 1990, Trotman and Bradley 1981, Arlow and Gannon 1982, Pava and Krausz 1996	Roberts 1992: no significant correlation between social disclosure and size
Age		Reputation and history of involvement in CSR Activities can become entrenched > raises expectations	Roberts 1992: age significantly associated with social disclosure	
Risk	Debt/assets, operating leverage standard deviation of operating income  Market risk: beta (measure of systematic risk), standard deviation of total return	<b>For positive relationship:</b> firms with low level of systematic risk (i.e. stable pattern of stock market return) are more likely to commit to CSR; firms with good CSP may be viewed as better managed and less risky (Roberts 1992), e.g. DuPont argues that its corporate sustainability strategy makes the company less correlated to the market, reducing financial risk to the shareholders – supported by Feldman et al. (1997), an ICF Kaiser study  <b>For negative relationship:</b> high systematic risk companies use CSR disclosure as means of risk reduction	Spicer 1978: positive <sup>16</sup> McGuire et al. 1988: beta values and social disclosure; Herremans et al. 1993: reputation and risk	Trotman and Bradley 1981: negative – beta values and social disclosure; insignificant – beta values and amount of CSR information
Gearing	Debt/equity ratio	The greater the degree to which a corporation relies on debt financing to fund projects, the greater the degree to which they are expected to respond to creditor expectations		Roberts 1992: not correlated with social disclosure

<sup>16</sup> N.B. “Positive relationship” means higher level of CSR associated with lower risk

## Exhibit 4: FP measures

### *Accounting measures*

Early studies using accounting measures generally found positive relationships between SP and FP. However did not control for other variables (Bragdon and Marlin, 1972; Bowman and Haire, 1975; Parket and Eibert, 1975). Since control variables were increasingly introduced, results became more mixed:

- Cochran and Wood (1984) controlled for age of assets and found a positive relationship.
- Aupperle et al. (1985) used adjusted ROAs (by firm's ranking in the Value Line Safety Index) and found no significant relationship.

Recognized measures differ between industry sectors, e.g.

- Banking: return on assets, loan losses
- Chemicals (capital-intensive): assets, asset age, RoA, RoE, 5-year return on sales

FP Measure	Definition	Measure reflects	Measurement issue
Net income			Dependent on accounting techniques and size
Return on equity	Net income / equity = return on assets x equity multiplier	Profitability by measuring investors' return	Can be increased through the use of more debt
Total assets			
Return on assets	Net income / assets = profit margin x asset turnover	Asset utilization	Asset book value dependent on asset age, degree of capitalization, industry, depreciation method
Natural logarithm of total assets		Size, not expected to change significantly from year to year	
Average age of all fixed assets		Amount and regularity of capital investments	
Sales growth			
Operating Income growth			
5-year return on sales (ROS-5)	Net income / unit sales	Average profit margin attained by product portfolio	

Davidson and Worrell criticized the use of accounting measures in multi-industry analysis (also discussed in Merchant and Burns 1980) since different levels of regulation, life cycles, accounting procedures, etc. may confound the relationship.

### *Market-derived measures*

They propagated the use of security market data overcoming many problems associated with accounting data, particularly industry and leverage differences. Nevertheless, they also feature disadvantages attached to every perceptual measure.

### Exhibit 5: Measurement assessment

Measurements	Conclusion	Potential improvements
Stock price and financial performance	<ul style="list-style-type: none"> <li>- difficult to distinguish causality</li> <li>- some evidence of a "virtuous" circle</li> <li>- limited sample size and retrospective nature of research subject to skepticism</li> <li>- lack of theory to improve design and conclusion</li> </ul>	<ul style="list-style-type: none"> <li>- more segmented data to track specific behavior and business strategies over time</li> <li>- account for intervening variables</li> </ul>
Corporate reputation	Lack of profitability measurements	Develop a standard definition of reputation
Risk management	Need for process measurements showing how and whether increased corporate engagement (CE) can help to improve risk management	<ul style="list-style-type: none"> <li>- develop a database of cases, in which CE has improved risk management</li> <li>- develop pilot programs to assess underlying mechanism of risk reduction</li> </ul>
Benefits to innovation and learning	Little evidence allowing sector comparison of how CE positively affects innovation and learning	Creating learning networks to share best practice

### Exhibit 6: Sustainability Check

- A. Ecology
  - i. resource management
  - ii. environmental impact associated with output
  - iii. handling of ecosystems
  - iv. risk for humans and environment
  - v. products and processes
  - vi. global responsibility
- B. Social issues
  - i. employee interests
  - ii. health and safety
  - iii. equal opportunities
  - iv. global responsibility
- C. Economy
  - i. long-term economic sustainability
  - ii. value creation and allocation
  - iii. orientation towards needs
  - iv. regional and global responsibility
- D. Cooperation
  - i. participation
  - ii. stakeholder dialogue
  - iii. transparency

### Exhibit 7: Financial analysis and CS strategies

CS Strategy \ Characteristics	Franchise Protection	Process Change	Product Change	New Market Development
<b>Business Value</b>	right to operate	cost & liability reduction	customer loyalty and reputation	new markets
<b>Focus</b>	compliance	efficiency	value chain	innovation
<b>Main Financial Impact</b>	reduces earnings reduces risks can open new markets	increases margins reduces risks often increases capital efficiency	increases competitive advantage	increases revenues increases competitive advantage diversification
<b>Tools for Valuing</b>	real options and scenario DCF	relative value, DCF, and scenario DCF	real options & competitive advantage analysis, DCF for sensitivity analysis	real options & competitive advantage analysis, DCF for sensitivity analysis

Source: Reed 2001