Business Strategy and the Environment
Bus. Strat. Env. **19**, 177–191 (2009)
Published online 19 December 2006 in Wiley InterScience
(www.interscience.wiley.com) **DOI**: 10.1002/bse.564

Measuring Organizational Performance: Beyond the Triple Bottom Line

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ABSTRACT
Measuring organizational performance is difficult, especially when what has to be measured keeps changing. Sustainability concepts have dramatically widened the scope of measurement options and leading organizations are grappling with sustainability reporting, but there is no sign of consensus on a common reporting standard and the competing frameworks are impossibly complex. This paper recognizes that measuring sustainable performance has to be conceptually based but simplified to be practically useful. It proposes a stakeholder-based, Sustainable Balanced Scorecard (SBSC) conceptual framework coupled with a single-measure Organizational Sustainability Performance Index to integrate the measures in the SBSC. The Index helps make sustainable organizational performance measurable and accessible to stakeholders. Copyright © 2006 John Wiley & Sons, Ltd and ERP Environment.

Received 20 April 2006; revised 29 September 2006; accepted 16 October 2006
Keywords: sustainability; organizational performance; measurement

Introduction

Imagine trying to rank the performance of the organizations described in these three scenarios:

Scenario 1. Shareholders have been enjoying consistently high returns for the last five years, but the organization's relationships with its employees are far from healthy. Absenteeism and turnover are high. The organization is not popular in the local community or with regulators, as it is perceived to sail close to the wind on all legal and environmental issues.

Scenario 2. The organization has won a prestigious 'Best Employer' award three times in the last decade, but its financial performance is tenuous. The investment community largely assumes that the company is run for the benefit of employees and has consigned it to their 'social responsibility' portfolios.

Scenario 3. This firm is well known for being 'green', but, behind the publicity campaign, meeting self-imposed environmental standards has seriously compromised the company's manufacturing process efficiencies and increased its costs. The company is losing money and employee morale is rapidly falling as job cuts loom.

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Difficult? These scenarios clearly demonstrate the multi-faceted nature of organization performance, and measuring performance is likely to become even more complex in the future as stakeholder expectations about companies' economic, social and environmental responsibilities change. The Dow Jones Sustainability Global World Index has been developed to help an increasing number of investors find socially responsible investment opportunities. Sustainability reporting is compulsory on the Paris and Johannesburg stock exchanges and UK fund managers require the top 200 listed organizations in the UK to publish sustainability reports (Elias, 2003). *The Economist* Intelligence Unit (Anonymous, 2004) found that almost 75% of large international organizations were under pressure to come up with non-financial measures of performance, describing existing measures as mediocre or poor. Notably, the same study also found that there is no evidence yet of a causal relationship between these measures and organizational financial performance. Nevertheless, today's reality is that firms are under tremendous pressure to monitor and report on more than just their economic performance.

In this paper, we develop a conceptually based model for measuring organizational performance that responds to these increasing pressures for wide and inclusive, but simple, measures of organizational performance. It builds on the well established, stakeholder-theory-based, Balanced Scorecard. It widens that stakeholder base by adding factors specifically designed to capture a firm's social and environmental performance to create a Sustainable Balanced Scorecard (SBSC). Further, it is refreshingly simple because it develops an Organizational Sustainable Performance Index (OSPI), a single indicator that is invaluable for communicating organizational performance simply to non-expert, but nonetheless critical, stakeholders.

The paper is organized as follows. First, we summarize the evolution of organizational performance measures over the last 25 years, from shareholder theory to sustainability. We describe the stakeholder-based Balanced Scorecard and Triple Bottom Line approaches. Second, we consider the recent shift to a wider stakeholder perspective to address sustainability performance. Third, we look at how organizations are attempting to measure sustainability in practice. We note the wide variety and complexity of current approaches that exists, which limits the usefulness of current proposed processes. Fourth, we consider conceptual alternatives to measuring sustainability. We conclude that a Sustainable Balanced Scorecard (SBSC) provides a conceptually sound, yet practical, base for developing future measurement practice. Finally, we develop an Organizational Sustainable Performance Index (OSPI), as a solution for simplifying the measurement process and to assist in comparing performance over time.

Recent Developments in Organizational Performance Measuring Systems

The field of organizational strategy is dominated by case studies of 'high-performing' firms. Their business strategies are put under the microscope so that others can try to emulate their success. However, to assess the merit of a particular strategy, we need to be able to measure 'high' performance. The last two decades have seen a dramatic shift in the way this is done.

From Shareholder Value to Stakeholder Theory

There are several ways to think about the theory of the firm and each has different implications for reporting organizational performance. The key ways are shareholder theory and stakeholder theory (Owen, 2006; Brown and Fraser, 2006). In the 1980s, the firm was viewed as belonging to the shareholders, so shareholder theory, which uses shareholder return to measure overall firm performance, dominated organizational performance measurement systems (see, e.g., Porter, 1980).

Stakeholder Theory: the Balanced Scorecard

Since the early 1990s, a more stakeholder-based view has gradually come to prevail. The firm is seen as having responsibilities to a wider set of groups than simply shareholders (e.g. Freeman, 1984; Reich, 1998; Post *et al.*, 2002; Brown and Fraser, 2006; Steurer, 2006). Other stakeholders can include employees and their representatives, customers, suppliers, governments, industry bodies, local communities and so forth.

DOI: 10.1002/bse

Financial		Internal processes	
Sales growth	3%	Productivity	3.8%
Return on sales	6.8%	Labour turnover	12%
Return on assets	5.1%	Ave. unit production	4 days
Return on equity	15.5%	Working capital/sales	10%
Gearing	73%	Capacity utilization	73%
Customers/market		**Learning and development**	
Market share	32%	New products developed	1
No. of new customers	12,350	New markets entered	2
Product return rate	1.5%	R&D spend/sales	2.5%
Defects	2.8%	Training spend/sales	5.5%
Order cycle time	7 days	Investment/total assets	10%

Table 1. A hypothetical example of a Balanced Scorecard for measuring the annual performance of a manufacturing firm

Stakeholder theory assesses organization performance against the expectations of a variety of stakeholder groups that have particular interests in the effects of the organization's activities. Its perspective of organizational performance incorporates shareholder value, but recognizes that shareholders are just one group of stakeholders, and only relevant to those organizations that issue shares.

The Balanced Scorecard (BSC) performance measurement system by Kaplan and Norton (1992) is based on stakeholder theory. Our consulting and teaching experiences suggest that it is gradually becoming the dominant internal process for measuring performance in most large organizations. The BSC incorporates financial, customer/market, short-term efficiency and long-term learning and development factors.

Table 1 shows a typical BSC with four quadrants, each relating to an aspect of organizational performance. Many organizations customize the BSC to their own unique circumstances; so, for example, a professional services firm may measure performance in the customer/market quadrant by billable hours/project rather than order cycle time. Others use their own nomenclature, for example labelling the quadrants 'financials, clients, operations and people', but the underlying principles of the model remain the same.

Although BSCs are common, they are primarily a tool for measuring external and internal economic value. The original BSC model does not incorporate employee, supplier or community perspectives on firm performance (Mooraj *et al.*, 1999). Kaplan and Norton originally suggested that a BSC should have a total of 14–16 performance measures, with no more than four to six in each of the four quadrants. They argued that these measures should be integrated and linked via cause and effect (Figge *et al.*, 2002). However, most organizations have not reached this level of sophistication. They have not developed causal links between the factors nor have they found a systematic and consistent way of incorporating either new or less tangible organizational performance measures, such as those associated with environmental responsibility or community relationships. Table 1 shows how a BSC can be used to neatly summarize the annual performance of an imaginary manufacturing firm. This BSC is consistent with the original model by Kaplan and Norton but, like most BSCs in use in organizations today, its measures are not linked.

Stakeholder Theory: the Triple Bottom Line

Around the same time that firms began adopting BSCs, public, media and community groups began to pay more attention to the impact of organizations on the natural environment and on society as a whole. In many countries, there was a groundswell of public opinion that firms were responsible for more than just creating economic value and, in 1997, the Triple Bottom Line (TBL) (Elkington, 1997) emerged as a new tool for measuring organizational performance.

DOI: 10.1002/bse

	This year	Target
Economic		
Sales growth	5.3%	5.0%
Profit growth	5.8%	5.2%
Return on equity	13.6%	15.0%
Return on assets	3.0%	3.5%
Gearing	55%	55%
Social		
Lost time injury frequency	3.8	5.5
Reliability of supply (1–10 scale)	8.7	8.5
Responsiveness (1–10 scale)	7.5	7.8
Overall customer satisfaction (1–10 scale)	8.1	8.5
Sponsorship	$0.4m	$0.3m
Education	20 classes	20 classes
Environment		
EMS plants certified	19	17
Spillages	109	68
Nitrogen discharge	1500 tonnes	1400 tonnes
Suspended solids discharge	2100 tonnes	1700 tonnes
Wastewater reuse	19.7%	20.0%

Table 2. A hypothetical example of a Triple Bottom Line performance measurement system

The TBL is also based on stakeholder theory, but it takes a much wider perspective of the stakeholders affected by the organization than does the BSC. It is based on the idea that a firm should measure its performance in relation to stakeholders including local communities and governments, not just those stakeholders with whom it has direct, transactional relationships (such as employees, suppliers and customers).

The TBL is an unsettling concept for many organizations because it implies that the firm's responsibilities are much wider than simply those related to the economic aspects of producing products and services that customers want, to regulatory standards, at a profit. The TBL adds social and environmental measures of performance to the economic measures typically used in most organizations (see Table 2). Environmental performance generally refers to the amount of resources a firm uses in its operations (e.g. energy, land, water) and the by-products its activities create (e.g. waste, air emissions, chemical residues etc.). Social performance generally refers to the impact a firm (and its suppliers) has on the communities in which it works. Measuring performance against these measures is not a straightforward task. Shareholder value, market share, customer satisfaction, even employee well-being, are relatively easy to quantify and measures developed by one organization are readily transferable to others, but social and environment performance are almost certainly unique to each organization, or at least each industry, and they are often very difficult to quantify.

Unlike the BSC, the TBL has not been successful in penetrating organizational performance systems. It has been seen as too complex and perhaps too confronting for managers mired in economically dominated ways of thinking.

Stakeholder Theory: Towards Sustainability

The emergence of the concepts of 'sustainable development' and 'sustainability' reflect a seminal change in global thinking, which is forcing firms to again re-evaluate their approach to measuring organizational performance. At the macro level, the World Commission on Environment and Development defined sustainable development as development that 'meets the needs and aspirations of the present without compromising the ability of future

DOI: 10.1002/bse

generations to meet their own needs' (WCED, 1987, p. 43). Sustainable development embodies three inextricably connected principles: environmental integrity, social equity and economic prosperity. Performance in one area has effects on the other two areas.

At the organizational level, a sustainable business has been defined as one that 'meets the needs of its stakeholders without compromising its ability also to meet their needs in the future' (Hockerts, 1999, p. 32). Introducing the concept of sustainability into organizational thinking has implications for business strategy, which, in turn, affects how firms measure performance. 'Sustainability' can mean many different things to organizations. Indeed, many organizations do not distinguish between environment and sustainability while other organizations equate sustainability with *economic* sustainability, that is, with consistent levels of economic growth (Bansal, 2002). Strategically, organizations can see sustainability as a compliance issue (something that has to be done because it is law), a cost to be minimized (something to spend the minimum amount on) or an opportunity for competitive advantage (something that leads to opportunities). There is some evidence that organizations follow an evolutionary path in their attitudes and behaviours – from compliance to competitive advantage (Hart, 1995; Florida, 1996): a path that mirrors their responses to environmental management issues.

Current Sustainability Reporting Practice

So far, the most common organizational response to reporting on sustainability performance has been to publish a sustainability report, either in conjunction with, or separately from, the company's annual report (Jones *et al.*, 2005; O'Dwyer and Owen, 2005). This is an encouraging trend, but several major concerns have emerged. First, sustainability reports are not often integrated with conventional economic reports. This is inconsistent with the holistic nature of sustainability and it represents a backwards step from the integrated framework of measurement approaches such as the BSC, especially for firms that have been using the BSC for the last decade.

Second, these reports tend to focus on the positives (Jones *et al.*, 2005; O'Dwyer and Owen, 2005), partly because they are written for a readership of existing or potential customers, employees and investors. For instance, a recent survey of 40 large organizations listed on the Australian stock exchange found evidence of bias in TBL reporting (Newson, 2002). Only 34% of the information analysed was neutral and only 15% was related to society's most important expectations (as defined by the survey). In one case, up to 96% of each area of the material presented the firm in a favourable light.

Third, the reports tend to focus on descriptive outcomes, with little benchmarking. Marshall and Brown (2003) found that 82% of measures were descriptive, with only 13% having targets and only 5% being efficiency based. Other research has found that methodologies are unclear, relativities are not explained and even poor performance is reported favourably (Jones *et al.*, 2005). Hence, the performance information in such reports is often of little value to other interested (but non-pecuniary) stakeholders.

Fourth, the frameworks used to collect, analyse, report and audit the information are oriented to management needs, and other stakeholders are rarely involved in the process. Several researchers have argued that stakeholder involvement is critical for implementation success (Florida, 1996; Rondinelli and Vastag, 1996; Maxwell *et al.*, 1997; Litten, 2005). Also, the information is rarely audited with the same rigour as financial information (recent corporate accounting scandals notwithstanding).

Fifth, the few cases studies that are reported (e.g. Ball *et al.*, 2006; Taplin *et al.*, 2006; Fowler and Hope, 2006) rarely go into the detail of what is reported, or how, or why, focussing more on testing concepts and theories than assisting practising managers. 'Best practice' reporting is not yet being developed through these cases.

Sixth, sustainability reports have focussed on *environment* issues and have not considered *social* sustainability, which is lagging well behind in conceptual and practical development (Sharma and Ruud, 2003). Ehrenfeld (2005) concludes that new corporate sustainability reports do not in any way come close to representing the requirements of true social sustainability.

However, some companies are taking a more sophisticated approach. Hewlett-Packard's sustainability strategy has evolved from pollution control and prevention to product stewardship and sustainable design. The company now takes responsibility for all stages of its product life cycle, from suppliers to final disposal and recycling (Preston, 2001).

DOI: 10.1002/bse

Measuring Sustainable Organizational Performance

Obviously, measuring organizational performance in the future will be far more complicated than developing and communicating the simple BSC we saw in Table 1. Robins (2005) estimates that there are already more then 60 different codes of practice worldwide that an organization *could* try to adhere to; Leipziger (2003) has identified 32 different sets of standards. Table 3 summarizes three of the more commonly used measurement systems: (1) the SustainAbility framework, developed by an international consulting firm; (2) the Global Reporting Initiative (GRI), developed by a United Nations affiliate organization, and (3) the Environment Sustainability Index, developed by the World Economic Forum. Table 3 also presents the performance criteria developed in recent academic research by Figge *et al.* (2002). Table 3 clearly shows that the range of issues that can be addressed is extremely broad. At the moment, it also does not indicate any clear or consistent approach in theory or in practice for measuring an organization's sustainability performance – the items suggested are not well justified from a conceptual perspective.

Conceptual Approaches to Measuring Sustainable Organizational Performance

Table 3 clearly demonstrates that the field lacks a standard for measuring sustainable performance, but not for want of trying. In this section, we outline four main conceptual approaches to measuring sustainable organizational performance. These are (1) adapting a macroeconomic system model (Robert, 2000), (2) the quality approach, (3) the Triple Bottom Line and (4) expanding the Balanced Scorecard.

The System Model

Robert (2000) has developed a hierarchical, five-level system model for thinking conceptually about how to link the macroeconomic aspects of sustainable development to the specifics of what organizations should measure (see Table 4). In Table 4, we have applied Robert's model at the organizational level to show how firms could systematically choose appropriate sustainability performance measures, based on the decisions they make at level 1 (the boundaries of their particular 'system') and level 2 (the degree of sustainability they seek to achieve).

The system approach means that every organization would define its system uniquely and so would measure different activities. This is a significant departure from current shareholder value and BSC approaches, which imply that all firms use similar measures (e.g. return on equity, market share, employee satisfaction etc.). However, these individual differences seem essential. It is hardly appropriate for a retailer to try to measure its toxic chemical emissions or for an oil producer to simply report on its paper recycling program. Empirical research has consistently found that industries and organizations focus on different measures because their context and issues are different (e.g. Jones *et al.*, 2005). (N.B.: we have chosen to illustrate the model with an environmental issue, but we could have also used a social issue, such as global sourcing or employment diversity.)

The problems with the system model, as with all systems thinking, are the inherent complexity of the approach, the highly conceptual nature of the model, the process focus of the model rather than having an outcome focus and the difficulty of comparing or benchmarking any measures obtained.

The Quality Approach

The essence of the quality approach is its focus on integrating the sets of largely internal processes and systems that the organization uses to ensure that alignment and consistency occur across the organization and with respect to the organization's strategy and aims. The quality approach is based on system theory, and national and supranational bodies have emerged to promote the quality process approach to organizational practice. For instance, the European Federation for Quality Management has developed an integrated quality management system, recently renamed the Business Excellence model.

Some researchers are working on a sustainability measurement system that complements these quality management system principles. The European Corporate Sustainability Framework (van Marrewick and Hardjono, 2003) aims to expand the Business Excellence model to consider wider perspectives outside the organization. It is

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SustainAbility	Global Reporting Initiative		Environmental Sustainability Index		Figge *et al.*
Ethics, values and principles	Materials, energy and water used	Child labour	Air quality	Reducing vulnerability to environment-related natural disaster	Emissions (air, water and soil)
Accountability and transparency	Biodiversity	Disciplinary practices	Water quality and quantity	Environmental governance	Waste
Commitment to Triple Bottom Line	Emissions, effluents and waste	Security practices	Reducing air pollution	Eco-efficiency	Material input/material intensity
Focus on environmental processes	Suppliers	Indigenous rights	Biodiversity	Private sector responsiveness	Energy intensity
Focus on environmental products	Products and services	Community impact	Land	Science and technology	Noise and vibrations
Socio-economic development	Compliance	Bribery and corruption	Reducing ecosystem stresses	Participating in international collaborative efforts	Waste heat
Human rights and workplace conditions	Transport	Political contributions	Reducing population growth	Greenhouse gas emissions	Radiation
Engaging business partners	Employment	Competition and pricing	Reducing waste and consumption pressures	Reducing transboundary environmental pressures	Direct interventions on nature and landscape
Engaging non-business partners	Labour/management relations	Customer health and safety	Reducing water stress	Environment health	Direct and indirect internal stakeholders
	Health and safety	Advertising	Natural resources management	Basic human sustenance	Direct and indirect stakeholders in the value chain
	Training and education	Respect for privacy			Direct and indirect stakeholders in the local community
	Employment diversity and opportunity	Freedom of association and collective bargaining			Direct and indirect stakeholders in society

Table 3. Some examples of proposed sustainability performance measuring systems

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Level One What are the dimensions of the system being studied?	A firm might define its system as its own ecosystem of activities and operational locations; the activities and locations of its suppliers and its human economic and social systems.
↓	↓
Level Two What is the desired level of sustainability?	A firm might consider the renewable and non-renewable inputs to its system (e.g. chemical additives, land use) and system 'leakages', which have no organizational value, but some ecological costs (e.g. wastes, chemical residues).[1]
↓	↓
Level Three What processes have to be undertaken to achieve these levels?	A firm might decide it needs to review its purchasing policies (e.g. considering its price/environmental impact trade-off) and its manufacturing systems (e.g. where are the leakages occurring and why?).
↓	↓
Level Four What practical actions are in line with these processes?	The firm might include environmental impact as a purchasing criterion and take specific action to change its manufacturing processes to reduce leakages.
↓	↓
Level 5 What tools and metrics should be used to measure success of these actions?	The firm might apply specific targets, such as the amount of a particular toxic chemical that could be used per unit of production or emitted and yet absorbed by the ecosystem.

Table 4. Five levels of conceptual measurement systems

[1] Daly (1990) argued that three rules of sustainability should be the following: (1) harvest rates of renewable resources should not exceed regeneration rates; (2) waste emissions should not exceed the assimilative capacities of ecosystems and (3) non-renewable resources should be depleted at no more than the rate of creation of renewable substitutes.

structured around four perspectives – constitutional, conceptual, behavioural and evaluative perspectives – to achieve a holistic assessment of the organization. The constitutional perspective sets the strategies and values that the organization seeks to achieve. The conceptual perspective covers the structures and processes that the organization aims to use to achieve its constitution. The behavioural perspective covers the procedures of the organization – what it actually does. The evaluative perspective covers the control and reporting systems for monitoring its progress.

However, even the system's developers acknowledge that their framework is complex and conceptual only at this stage. They provide no example to show how it might work and it is not directly clear that concepts of social and environmental sustainability are necessarily included, though the designers expect them to be. This approach is also process based rather than outcomes based, but it is outcomes in which we are fundamentally interested.

The Triple Bottom Line

Conceptually, by taking both the widest stakeholder perspective and by considering impacts on future generations, the TBL is a possible candidate for sustainable organizational performance measurement.

Some firms have tackled the challenge of measuring their TBL environmental performance by adopting internationally recognized, industry certified environmental management systems (EMSs). These systems help organizations develop, implement and communicate environmental policies, set objectives and targets for reducing environmental impacts and monitor performance against these targets. The leading EMS system, ISO 14001, was introduced in 1996, and by 2005 over 36.000 ISO certificates had been awarded to organizations operating in 112 countries. Moreover, the take-up of ISO certification appears to be accelerating; 14.000 certificates were issued in 2004 alone (Gonzalez-Benito and Gonzalez-Benito, 2005). Tyleca *et al.* (2002) found that firms standardized their

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environmental measurement systems (to, for example, ISO 14001) to meet the requirements of management accounting and reporting and to respond to community demands for more transparency.

ISO 14001 certifies that an organization has a certain type of EMS in place; it signals the firm's intention to manage its environmental impacts. But it does not say anything about how the system is performing (Bansal, 2002). In 1999, the ISO 14031 performance measurement system was introduced to complement ISO 14001, but there are no internationally recognized benchmarks for acceptable levels of performance (Dowell *et al.*, 2000; Litten, 2005). The quality and independence of audits is not assured because performance auditing is voluntary (Rowland-Jones *et al.*, 2005); auditors tend to report only to the managers who engage them, and they do not gather input from external stakeholder groups (O'Dwyer and Owen, 2005).

In contrast to measuring environmental performance, the social aspect of the Triple Bottom Line is far less understood and many firms struggle to articulate their social impacts and responsibilities. The term corporate social responsibility (CSR) has been coined to describe the firm's social activities, but it means many different things to different people. A firm's social performance might be measured by discrete activities such as donations or safety or by broad concepts such as 'strategic philanthropy' or 'corporate citizenship'.

For many firms, social performance measurement is triggered by legal obligations, such as employment standards, and then accelerated by community or customer pressure or, in some cases, by the personal values of the leadership group. However, at this stage there is no single, widely accepted standard for social management systems to parallel the ISO certifications. Various non-governmental organizations, investment groups and media outlets publish rankings of 'corporate citizenship', 'best employer' and so forth, but their raison d'être and methodologies are not always transparent. Although there seems to be widespread acceptance in the business world that firms have social responsibilities, a commonly accepted standard of measuring social performance is a long way off. Until then, firms using the TBL will continue to include a variety of internally and externally focused social measures, such as donations, sponsorships and community outreach; employee well-being programs; and sourcing and vendor standards.

The Sustainable Balanced Scorecard

Another approach, and in our view the most attractive approach, to measuring organizational sustainability is to include social and environmental issues in the existing Balanced Scorecard to produce a Sustainable Balanced Scorecard that integrates the TBL and BSC frameworks. Yongvanich and Guthrie (2006) considered the BSC as a base for doing just this. However, they developed their own 'extended performance reporting framework', which included the BSC, social and environmental reporting and 'intellectual capital', and their framework changed the well recognized BSC beyond recognition.

We do not think it is necessary to take this step and we believe that there are several advantages to building on, and supporting, the existing BSC. For a start, the current BSC already incorporates the perspectives of internal and external stakeholders and it addresses both short-term and long-term issues. Thus, the BSC immediately lends itself to the potential to measure intergenerational sustainability. Second, the BSC is already recognized and in place. It is clearly easier to build on it pragmatically than to throw it out and start with another new model. Third, Figge *et al.* (2002) have argued that the BSC was always intended to be a top-down, integrated, causal and linked system of measures that helps an organization achieve its business goals, which is a key to aligning organizational behaviour with stakeholder-expected outcomes.

Figge *et al.* (2002) offer three alternatives for including sustainability in the BSC.

1. Integrating social and environmental measures within the existing four quadrants: for example, water use and energy efficiency could fall within internal processes; developing renewable, recyclable resources could be a financial measure or a long-term development target.
2. Developing a separate, but linked, sustainability scorecard, perhaps modelled on the templates that are emerging in corporate sustainability reports: for example, there could be social and environmental quadrants for energy use, waste, community impact, employee well-being and so forth.
3. Adding non-market elements to the scorecard: for example, adding environmental and social measures as separate 'quadrants' or 'spokes on the performance wheel'.

DOI: 10.1002/bse

In option 1, sustainability objectives have to either replace existing economic targets or each quadrant has to expand to accommodate more measures. There are several reasons why either option might be problematic. First, social and environmental issues are so complex that they could easily 'crowd out' existing economic measures. Second, the value (and, we assume, popularity) of the BSC is that it provides a relatively simple snapshot of firm performance. Significantly increase the number of targets and the BSC becomes difficult to communicate and unwieldy and expensive to administer and manage.

Option 2 is inconsistent with the holistic nature of sustainability and prey to many of the same problems as described earlier regarding corporate sustainability reporting.

Option 3 is our preferred model, conceptually and practically. Conceptually it includes the widest group of stakeholders who are affected by the firm's activities. Practically, by building on a well accepted performance measurement system in practice, the perceived change is incremental, and therefore easier to introduce. In the following section we develop a Sustainable Balanced Scorecard (SBSC) that embraces economic, environmental and social perspectives. The SBSC embeds the TBL approach within the familiar BSC framework, making it easier to communicate and implement.

The Sustainable Balanced Scorecard (SBSC)

The first step in developing a SBSC is to add non-market, environmental and social elements. As we saw in Table 4, the choices are myriad. We followed the 80/20 Pareto principle that the biggest impact will be made by emphasizing a small number of key indicators. This is consistent with the BSC philosophy of focusing on a small number of strategic measures and it also makes practical sense – the human brain simply cannot process too much complex information.

We chose four general areas in both the environment and social areas in which a firm could develop specific performance measures. In the environment section, we chose material use/unit – a measure of the efficient use of materials – an issue for all organizations. We chose energy use/unit and water use/unit as these are regarded by every scientist working on environment issues as areas where organizations must reduce usage. Finally, we chose 'emissions', as this is also an area on which there is no debate – emissions must be reduced. However, for each organization, the specific type of 'emission' would vary.

In the social performance area, we took a broad view of stakeholders, choosing one measure for employees, one for suppliers (upstream), one for community and one for philanthropy (to reflect the groups that the organization chooses to support and the amount of this support). We did not choose customers (downstream stakeholders) as they are covered elsewhere in the BSC. The choices and conceptual approaches are less well defined in the social area than in the environment area, as we have previously discussed. However, our aim here is not to define the *specific outcomes* but to define the *conceptual process*. We expect that every firm will also have at least one or two factors, not generally relevant, but critical for that particular industry and/or organization (Hubbard, 2004). For example, greenhouse gas emissions are particularly salient to oil and gas producers; micro-loans might be relevant for financial institutions.

Our SBSC also reports the prior year outcomes for each measure (a benchmark, industry standard or best practice target could also be used). It is not just a descriptive report, of which Marshall and Brown (2003) are so critical. Trend reporting enables managers, analysts and other stakeholders to come to an informed conclusion about the level and direction of organization performance. This is a simple step, but one that is often overlooked or omitted in current reporting practices.

Table 5 gives a hypothetical example of an SBSC. It includes 30 measures, in six different arenas, covering internal and external, short-term and long-term, environmental, social and economic, and a variety of different stakeholder perspectives. It includes current and prior measures (target measures could also be included but have been left out here to simplify). This is many more measures than the 14–16 recommended by the original conception by Kaplan and Norton of the BSC, yet very few measures given the complexity of the issues being measured. Moreover, in using a currently known and accepted reporting framework, we think the chances of acceptance in practice are much higher than if we propose a 'purer', more comprehensive or more complex framework.

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Financial			Internal processes		
	Current	Prior		Current	Prior
Sales growth	3.0%	2.0%	Productivity	3.8%	4.0%
Return on sales	6.8%	5.4%	Labour turnover	12.0%	16.5%
Return on assets	5.1%	6.1%	Ave. unit production	4 days	4 days
Return on equity	15.5%	16.0%	Working capital/sales	10.0%	10.0%
Gearing	73.0%	77%	Capacity utilization	73%	77%
Customers/market			**Learning and development**		
	Current	Prior		Current	Prior
Market share	32.0%	30.0%	New products	1	0
No. new customers	12350	10145	New markets entered	2	1
Product return rate	1.5%	1.4%	R&D spend/sales	2.5%	1.5%
Defects	2.8%	3.0%	Training spend/sales	5.5%	7.3%
Order cycle time	7 days	7 days	Invest./total assets	10.0%	10.0%
Social performance			**Environmental performance**		
	Current	Prior		Current	Prior
Employee satisfaction	4.1	4.4	Key material use/unit	12.0 kg	10.5 kg
Social perf. of suppliers	3.8	3.0	Energy use/unit	2.0 kW h	2.3 kW h
Community relationships	3.0	2.5			
Philanthropic investments/revenue or profit	1.0%	1.0%	Water use/unit	2.5 l	2.6 l
Industry-specific factor: e.g., community open days	2	1	Emissions, effluent & waste/unit or as a % of total resources used	3.0 t	4.0 t
			Industry-specific factor: e.g., GHG emissions	4.0 t	3.8 t

Table 5. A hypothetical example of a Sustainable Balanced Scorecard

Simplification: Developing the Sustainable Organization Performance Index (OPSI)

Even though it is more accessible than a 50-page sustainability report, the SBSC presents a detailed picture of organization performance that is difficult to communicate to non-expert stakeholders. How do you 'add up' the conflicting trends and performance on the variety of variables against benchmarks of the 'only' 30 individual variables included? Would it be a more valuable measurement system if the information reported were simplified and the measures made consistent across industries? Some researchers have argued that simplifying the SBSC as we propose will encourage firms to 'dumb down' their performance measures and undermine the importance of social and environmental criteria (Banuri and Najam, 2002; Lefebvre *et al.*, 2003). Further, the very existence and popularity of the BSC demonstrates that organizations are complex entities that need complex measures. On the other hand, the experience of the US forest and chemical industries highlights the effectiveness of simplicity. The environmental performance of organizations in these industries is measured (at least publicly) by their annual single-measure Toxic Release Inventory score. Major polluters are easily identified and this has had a significant impact on reducing emissions levels (Sharma and Henriques, 2005).

Atkisson and Hatcher (2001) have suggested a four-quadrant alternative to the BSC that incorporates social and environmental measures and sums them into a single indicator. Their approach is based on Daly's pyramid (1973) of four elements: Nature, Economy, Society and human Well-being. Each of the four elements in Daly's 'sustainability compass' is given an unweighted score and an overall score is calculated to produce a single, unweighted 'Overall Sustainability Index' number.

DOI: 10.1002/bse

	2000	2001	2002	2003	2004
N (Nature)	41	46	43	52	56
S (Society)	56	58	60	57	52
W (Well-being)	66	65	65	67	65
E (Economy)	74	74	71	78	80
Overall sustainable performance	59.3	60.8	60.5	63.5	63.3

Table 6. Orlando's index of sustainable organizational performance

A single sustainability indicator is intuitively attractive and consistent with single economic indicators for GNP or GPI. The approach has been trialed in the US city of Orlando, which selected six to eight indicators for each point of the compass: a number not significantly different from that of a general BSC (see Table 6).

We have followed the lead of Atkisson and Hatcher (2001) to develop a single indicator for our SBSC, as illustrated by the hypothetical example in Table 7. We began with a conventional, four-quadrant BSC, then added social and environment indicators to create a six-component SBSC. Next, we averaged each of the six components into a single rating. Finally, we averaged the overall ratings into a single Organizational Sustainable Performance Index score (shown in the middle of the table). Prior year data is also shown so we can assess 'Are we getting better or worse overall, and what areas of our performance are driving this change?'.

Implementation Issues

There are several important practical issues that will impact on the final OSPI score. We use the social and environment segments of the SBSC to illustrate these issues, but they are equally relevant to the other four factors.

What indicators to use? It is often difficult to choose a few indicators that capture the essence of performance, especially in geographically or functionally diverse organizations. One approach is to consider the organization's overall business strategy and ask 'What indicators will show how well we are achieving our strategy?'. Another is to try to cover the field. In the social segment of the SBSC in Table 7, we chose one indicator for each of the organization's major stakeholder groups, regardless of their strategic influence (a 'cover the field' stakeholder approach). The indicators we chose for environmental performance are well recognized, well accepted measures. We expect that many organizations will link this segment of their SBSC to their environmental management system.

Data collection. Most organizations that are considering an SBSC will find that not all the data they need to measure performance is readily available, particularly for the qualitative aspects of social performance segments. Moreover, the data collected needs to convert 'intangibles' into a quantitative score. This issue exists in conventional BSCs; we often see them referring to indicators such as 'innovation'. Some organizations have successfully adapted existing employee satisfaction survey methodology to other stakeholders to help quantify their social performance. Others will include data from the rankings described earlier or seek feedback from community forums and focus groups.

Measurement scales and weighting. How do we aggregate employee satisfaction, community relationships, philanthropy and so forth to come up with an overall score for social performance? Likewise, how do we aggregate measures related to energy, water and emissions to come up with the overall environmental performance score? The same problem exists in conventional BSCs and the usual approach is to rate the performance of each element against expectations – have we done better or worse than expected – then add the ratings on a weighted or unweighted basis. 'Expectations' usually imply improvement, either against past performance, best practice or an industry average. Or, as we have done in Table 7, a very simple scale of 1 (bad) to 5 (good) can be used for each element, with a score of 3 representing 'average' performance.

We use an unweighted average for Table 7, but different weights could be applied to reflect organization or industry characteristics. For example, a coal-fired power generation plant may weight emissions more heavily than water use. Similarly, the six segments of the SBSC must be aggregated into a single overall OPSI score, and this

DOI: 10.1002/bse

Financial performance

Measure	Rating (1–5)
Sales growth	3
Return on sales	4
Return on assets	2
Return on equity	5
Gearing	2
Overall	3.2

Customers/market performance

Measure	Rating (1–5)
Market share	5
No. new customers	5
Product returns rate	4
Defects	4
Order cycle time	3
Overall	4.2

Internal process performance

Measure	Rating (1–5)
Productivity	4
Labour turnover	2
Av. unit production	4
Working capital/sales	4
Capacity utilization	3
Overall	3.4

Organizational sustainable performance index

Measure	Rating 2005	Rating 2004
Financial	3.2	3.0
Internal process	3.4	3.2
Customers/market	4.2	3.8
Learning & development	3.4	3.4
Environmental	2.4	2.0
Social	3.6	2.6
Overall Sustainable Performance Index	3.4	3.0

Learning and development performance

Measure	Rating (1–5)
New products	1
New markets entered	5
R&D spend/sale	3
Training spend/sale	5
Invest./total assets	3
Overall	3.4

Social performance

Measure	Rating (1–5)
Employee satisfaction	4
Social performance of suppliers	4
Community relationships	3
Philanthropic investments/revenue or profit	3
Industry-specific factor (e.g. Community Open Days)	2
Overall	2.6

Environmental performance

Measure	Rating (1–5)
Key material use/unit	3
Energy use/unit	1
Water use/unit	3
Emissions, effluent & waste/unit or as a % of total resources used	1
Industry-specific factor (e.g. GHG emissions)	4
Overall	2.4

Table 7. A hypothetical sustainable balanced scorecard (SBSC) and organizational sustainable performance index (OSPI)

can be weighted or unweighted. For instance, not-for-profit organizations may weight customer/market or social performance higher than financial performance.

Presentation. The City of Orlando developed high quality visuals that communicated their performance outcomes with graphs, anecdotes and colour, rather than just numbers (green for good, red for bad, yellow for caution). Many organizations have successfully adopted a similar approach for their conventional BSCs (Emerson, 2003).

Discussion and Conclusions

The SBSC and OSPI we have developed in Table 7 can be criticized for its brevity – there should be more indicators! Where are the trend lines? What are the cause–effect relationships? We acknowledge these criticisms, but offer several points in defence.

DOI: 10.1002/bse

First, the simplicity of the SBSC means that it can be easily understood by senior managers and analysts and will be more likely to be accepted as a performance measurement tool, much like the existing BSC. We recognize that the issues underlying social and environmental performance are complex. Nevertheless, this information needs to be accessible and comprehensible to the wide range of stakeholders who are interested in, and affected by, the operations of the organization. Complex, individualized reporting may be theoretically superior, but it will not be useful in practice, leaving social and environmental issues to languish at the periphery of organizational attention.

Second, conventional financial measures of performance, such as balance sheets, profit and loss and cash flow statements, only present a limited number of lines of summary data. However, they are supplemented with many pages of contextual and explanatory notes. This approach could also be applied here. The SBSC offers a high level, easy-to-communicate summary, while notes could provide the detail.

There are many competing frameworks for measuring and reporting social and environmental performance. Some are in rudimentary form; others are more sophisticated. However, the conceptually sound, stakeholder-based SBSC is the pragmatic choice because many firms are already familiar with the BSC approach. Moreover, the SBSC addresses a major problem with the conventional BSC. Often, managers and analysts cannot intuitively aggregate the disparate numbers from the existing four quadrants – the Organizational Sustainable Performance Index fills this gap.

Organizations are already under significant pressure to measure and report their social, environmental *and* economic performance. In the not-too-distant future they will be expected to report their sustainable performance, too. This will require firms to adopt a stakeholder view of value, and develop strategies that take into account more than simply shareholder performance. We have developed a Sustainable Balanced Scorecard and an Organizational Sustainability Performance Index to help them do just that. Further, the SBSC offers a glimpse into the future. Conceptually, SBSC reporting will vary from organization to organization and industry to industry. However, an approach that aggregates measures within each area and then across areas offers an opportunity for developing industry-wide or even national scorecards, similar to existing measures of national progress or well-being.

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DOI: 10.1002/bse