Overview

Sustainability is one of the most over-used words in business in the present time. And the meanings attached to its use are so varied and vague as to render it effectively meaningless. In this chapter therefore we start by identifying an appropriate meaning for the concept before considering how sustainability can be applied in business. In doing so we set the concept within the current debates about sustainability and sustainable development. We then extend this to develop our definition of sustainability and its four aspects. This is further extended then to show that sustainability must be applied in a global environment to both the operational activities of a company and to the distributional decisions which are made.

Introduction

One of the most used words relating to corporate activity at present is the word sustainability. Indeed some would argue that it has been so heavily overused, and with so many different meanings applied, to it that it is effectively meaningless. Thus the term sustainability currently has a high profile within the lexicon of corporate endeavour. Indeed it is frequently mentioned as central to corporate activity without any attempt to define exactly what sustainable activity entails. This is understandable as the concept is problematic and subject to many varying definitions – ranging from platitudes concerning sustainable development to the deep green concept of returning to the ‘golden era’ before industrialisation – although often it is used by corporations merely to signify that they intend to continue their existence into the future.

The ubiquity of the concept and the vagueness of its use mean that it is necessary to re-examine the concept and to consider how it applies to corporate activity. In this chapter therefore we do just this – examining what is meant by sustainability – and looking at the various aspects of sustainability. For us there are two aspects to this – corporate actions and their consequences; and the distribution of the benefits accruing from such corporate activity. Furthermore both have to be set not just within the sphere of the corporation itself, or even the wider context of its stakeholders but also within the widest geospatial context – that of the global environment.

Many people talk about the triple bottom line as if this is the panacea of corporate social responsibility and therefore inevitably concerned with sustainability. We regard it as self evident that corporations needs to be concerned with these three aspects of CSR and equally self evident that all corporations are so concerned. This is not new and is not really what CSR is all about. Instead we focus our concern differently and re-use the going concern principle of accounting to argue that what really matters for a corporation’s continued existence is the notion of sustainability. For us this is the cornerstone of both CSR and of corporate activity.
One problem is the fact that the dominant assumption by researchers is based upon the incompatibility of optimising, for a corporation, both financial performance and social/environmental performance. In other words, financial performance and social/environmental performance are seen as being in conflict with each other through this dichotomisation. Consequently, most work in the area of corporate sustainability does not recognise the need for acknowledging the importance of financial performance as an essential aspect of sustainability and therefore fails to undertake financial analysis alongside—and integrated with—other forms of analysis for this research. We argue that this is an essential aspect of corporate sustainability and therefore adds a further dimension to the analysis of sustainability.

The Social Contract

A growing number of writers over the last quarter of a century have recognised that the activities of an organisation impact upon the external environment and have suggested that such an organisation should therefore be accountable to a wider audience than simply its shareholders. Such a suggestion probably first arose in the 1970s and a concern with a wider view of company performance is taken by some writers who evince concern with the social performance of a business, as a member of society at large. This concern was stated by Ackerman (1975) who argued that big business was recognising the need to adapt to a new social climate of community accountability, but that the orientation of business to financial results was inhibiting social responsiveness. McDonald and Puxty (1979) on the other hand maintain that companies are no longer the instruments of shareholders alone but exist within society and so therefore have responsibilities to that society, and that there is therefore a shift towards the greater accountability of companies to all participants. Implicit in this concern with the effects of the actions of an organisation on its external environment is the recognition that it is not just the owners of the organisation who have a concern with the activities of that organisation. Additionally, there are a wide variety of other stakeholders who justifiably have a concern with those activities. Those other stakeholders have not just an interest in the activities of the firm but also a degree of influence over the shaping of those activities. This influence is so significant that it can be argued that the power and influence of these stakeholders is such that it amounts to quasi-ownership of the organisation. Indeed Gray, Owen and Maunders (1987) challenge the traditional role of accounting in reporting results and consider that, rather than an ownership approach to accountability, a stakeholder approach, recognising the wide stakeholder community, is needed. Moreover Rubenstein (1992) goes further and argues that there is a need for a new social contract between a business and its stakeholders.

Central to this social contract is a concern for the future which has become manifest through the term sustainability. This term sustainability has become ubiquitous both within the discourse globalisation and within the discourse of corporate performance. Sustainability is of course a controversial issue and there are many definitions of what is meant by the term. At the broadest definitions sustainability is concerned with the effect which action taken in the present has upon the options available in the future (Crowther 2002). If resources are utilised in the present then they are no longer available for use in the future, and this is of

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1 Although philosophers such as Robert Owen were expounding those views more than a century earlier.

2 The benefits of incorporating stakeholders into a model of performance measurement and accountability have however been extensively criticised. See for example Freedman & Reed (1983), Sternberg (1997, 1998) and Hutton (1997) for details of this ongoing discourse.
particular concern if the resources are finite in quantity. Thus raw materials of an extractive nature, such as coal, iron or oil, are finite in quantity and once used are not available for future use. At some point in the future therefore alternatives will be needed to fulfil the functions currently provided by these resources. This may be at some point in the relatively distant future but of more immediate concern is the fact that as resources become depleted then the cost of acquiring the remaining resources tends to increase, and hence the operational costs of organisations tend to increase.3

Sustainability therefore implies that society must use no more of a resource than can be regenerated. This can be defined in terms of the carrying capacity of the ecosystem (Hawken 1993) and described with input – output models of resource consumption. Thus the paper industry for example has a policy of replanting trees to replace those harvested and this has the effect of retaining costs in the present rather than temporally externalising them. Similarly motor vehicle manufacturers such as Volkswagen have a policy of making their cars almost totally recyclable. Viewing an organisation as part of a wider social and economic system implies that these effects must be taken into account, not just for the measurement of costs and value created in the present but also for the future of the business itself.

Such concerns are pertinent at a macro level of society as a whole, or at the level of the nation state but are equally relevant at the micro level of the corporation, the aspect of sustainability with which we are concerned in this work. At this level, measures of sustainability would consider the rate at which resources are consumed by the organisation in relation to the rate at which resources can be regenerated. Unsustainable operations can be accommodated for either by developing sustainable operations or by planning for a future lacking in resources currently required. In practice organisations mostly tend to aim towards less unsustainability by increasing efficiency in the way in which resources are utilised. An example would be an energy efficiency programme.

Sustainability is a controversial topic because it means different things to different people. Nevertheless there is a growing awareness (or diminishing naivety) that one is, indeed, involved in a battle about what sustainability means and, crucially, the extent (if at all) it can be delivered by MNCs in the easy manner they promise (United Nations Commission on Environment and Development (Schmidheiny, 1992). The starting point must be taken as the Brundtland Report (WCED, 1987) because there is explicit agreement with that Report and because the definition of sustainability in there is pertinent and widely accepted. Equally, the Brundtland Report is part of a policy landscape being explicitly fought over by the United Nations, Nation States and big business through the vehicles of the WBCSD and ICC, (see for example, Beder, 1997; Mayhew, 1997; Gray and Bebbington, 2001).

There is a further confusion surrounding the concept of sustainability: for the purist sustainability implies nothing more than stasis – the ability to continue in an unchanged manner – but often it is taken to imply development in a sustainable manner (Marsden 2000; Hart & Milstein 2003) and the terms sustainability and sustainable development are for many viewed as synonymous. Ever since the Bruntland Report was produced by the World Commission on Environment and Development in 1987 there has been a continual debates

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3 Similarly once an animal or plant species becomes extinct then the benefits of that species to the environment can no longer be accrued. In view of the fact that many pharmaceuticals are currently being developed from plant species still being discovered this may be significant for the future.
concerning development (Chambers, 1994; Pretty, 1995) and this has added to the confusion between sustainability and sustainable development. For us we take the definition as being concerned with stasis; at the corporate level if development is possible without jeopardising that stasis then this is a bonus rather than a constituent part of that sustainability.

Most analysis of sustainability (eg Dyllick & Hockerts, 2002) only recognises a two-dimensional approach of the environmental and the social. A few (eg Spangenberg 2004) recognize a third dimension which is related to organisation behaviour. We argue that restricting analysis to such dimensions is deficient. One problem is the fact that the dominant assumption by researchers is based upon the incompatibility of optimising, for a corporation, both financial performance and social / environmental performance. In other words financial performance and social / environmental performance are seen as being in conflict with each other through this dichotomisation (see Crowther 2002). Consequently most work in the area of corporate sustainability does not recognise the need for acknowledging the importance of financial performance as an essential aspect of sustainability and therefore fails to undertake financial analysis alongside – and integrated with – other forms of analysis for this research. We argue that this is an essential aspect of corporate sustainability and therefore adds a further dimension to the analysis of sustainability. Furthermore we argue that the third dimension sometimes recognised as organisational behaviour need to actually comprise a much broader concept of corporate culture. There are therefore 4 aspects of sustainability which need to be recognised and analysed, namely:

- **Societal influence**, which we define as a measure of the impact that society makes upon the corporation in terms of the social contract and stakeholder influence;
- **Environmental Impact**, which we define as the effect of the actions of the corporation upon its geophysical environment;
- **Organisational culture**, which we define as the relationship between the corporation and its internal stakeholders, particularly employees, and all aspects of that relationship; and
- **Finance**, which we define in terms of an adequate return for the level of risk undertaken.

These four must be considered as the key dimensions of sustainability, all of which are equally important. Our analysis is therefore considerably broader – and more complete – than that of others. Furthermore we consider that these four aspects can be resolved into a two-dimensional matrix along the polarities of internal v external focus and short term v long term focus, which together represent a complete representation of organisational performance this can be represented as the model below:

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4 Of course the fact that many researchers do not have the skills to undertake such detailed financial analysis even if they considered it to be important might be a significant reason for this.
In order to achieve sustainable development\(^5\) it is first necessary to achieve sustainability and there are a number of elements to this. What is important for sustainability is not just addressing each of these elements individually but also paying attention to maintaining the balance between them. It is the maintenance of this balance which is the most challenging – but also the most essential – aspect of managing sustainability. There are a number of elements which must be addressed but these can be grouped together into four major

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\(^5\) Many authors continue to assume both the possibility and desirability of sustainable development, hence our mentioning of it. For us however the achievement of sustainability is both a necessary precondition and sufficient in itself.
elements, which map exactly onto the model for evaluating sustainability outlined earlier. These four major elements of sustainability therefore are:

- Maintaining economic activity, which must be the central raison d’etre of corporate activity and the principle reason for organising corporate activity. This of course maps onto the finance aspect.
- Conservation of the environment, which is essential for maintaining the options available to future generations. This maps onto the environmental impact aspect.
- Ensuring social justice, which will include such activities as the elimination of poverty, the ensuring of human rights, the promotion of universal education and the facilitation of world peace. This maps onto the societal influence aspect.
- Developing spiritual and cultural values, which is where corporate and societal values align in the individual and where all of the other elements are promoted or negated; sadly at present they are mostly negated (see Davila Gomez & Crowther 2007; Crowther & Davila-Gomez 2006a, 2006b, 2006c). This maps onto the organisational culture aspect.

Often theorists attempt to prioritise these but our argument is that it is the balancing of them equitably which is essential to developing sustainability, and hence we maintain that most considerations of the concept are unworkably simplistic. It can therefore be seen that the representation of corporate activity is considerably more complex than simply managing the stakeholder v shareholder dichotomisation which is ever present in organisational theory.

The Conflation of Financial, Social and Environmental Performance

One view of good corporate performance is that of stewardship and thus just as the management of an organisation is concerned with the stewardship of the financial resources of the organisation so too would management of the organisation be concerned with the stewardship of environmental resources. The difference however is that environmental resources are mostly located externally to the organisation. Stewardship in this context therefore is concerned with the resources of society as well as the resources of the organisation. As far as stewardship of external environmental resources is concerned then the central tenet of such stewardship is that of ensuring sustainability. Sustainability is focused on the future and is concerned with ensuring that the choices of resource utilisation in the future are not constrained by decisions taken in the present. This necessarily implies such concepts as generating and utilising renewable resources, minimising pollution and using new techniques of manufacture and distribution. It also implies the acceptance of any costs involved in the present as an investment for the future.

Not only does such sustainable activity however impact upon society in the future; it also impacts upon the organisation itself in the future. Thus good environmental performance by an organisation in the present is in reality an investment in the future of the organisation itself. This is achieved through the ensuring of supplies and production techniques which will enable the organisation to operate in the future in a similar way to its operations in the present and so to undertake value creation activity in the future much as it does in the present. Financial management also however is concerned with the management of the organisation’s resources in the present so that management will be possible in a value creation way in the future. Thus the internal management of the firm, from a financial perspective, and its external environmental management coincide in this common concern for management for the future. Good performance in the financial dimension leads to good future performance in the environmental dimension and vice versa. Thus there is no
dichotomy (Crowther 2002) between environmental performance and financial performance and the two concepts conflate into one concern. This concern is of course the management of the future as far as the firm is concerned.\(^6\) The role of social and environmental accounting and reporting and the role of financial accounting and reporting therefore can be seen to be coincidental. Thus the work required needs be concerned not with arguments about resource distribution but rather with the development of measures which truly reflect the activities of the organisation upon its environment. These techniques of measurement, and consequently of reporting, are a necessary precursor to the concern with the management for the future – and hence with sustainability.

Similarly the creation of value within the firm is followed by the distribution of value to the stakeholders of that firm, whether these stakeholders are shareholders or others. Value however must be taken in its widest definition to include more than economic value as it is possible that economic value can be created at the expense of other constituent components of welfare such as spiritual or emotional welfare.\(^7\) This creation of value by the firm adds to welfare for society at large, although this welfare is targeted at particular members of society rather than treating all as equals. This has led to arguments by Tinker (1988), Herremans et al (1992) and Gray (1992), amongst others, concerning the distribution of value created and to whether value is created for one set of stakeholders at the expense of others. Nevertheless if, when summed, value is created then this adds to welfare for society at large, however distributed. Similarly good environmental performance leads to increased welfare for society at large, although this will tend to be expressed in emotional and community terms rather than being capable of being expressed in quantitative terms. This will be expressed in a feeling of wellbeing, which will of course lead to increased motivation. Such increased motivation will inevitably lead to increased productivity, some of which will benefit the organisations, and also a desire to maintain the pleasant environment which will in turn lead to a further enhanced environment, a further increase in welfare and the reduction of destructive aspects of societal engagement by individuals.

Thus increased welfare leads to its own self-perpetuation. In the context of welfare also therefore financial performance and environmental performance conflate into a general concern with an increase in welfare.

**The ownership of performance**

Agency theory suggests that the management of an organisation should be undertaken on behalf of the owners of that organisation, in other words the shareholders. Consequently the management of value created by the organisation is only pertinent insofar as that value accrues to the shareholders of the firm. Implicit within this view of the management of the firm, as espoused by Rappaport (1986) and Stewart (1991) amongst many others, is that society at large, and consequently all stakeholders to the organisation, will also benefit as a result of managing the performance of the organisation in this manner. From this perspective therefore the concerns are focused upon how to manage performance for the shareholders and how to report upon that performance (Myners 1998).

This view of an organisation has however been extensively challenged by many writers (eg Herremans et al 1992, Tinker 1985) who argue that the way to maximise performance for

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\(^6\) Financial reporting is of course premised upon the continuing of the company – the going concern principle.

\(^7\) See for example Mishan (1967), Ormerod (1994) and Crowther, Davies & Cooper (1998). This can be equated to the concept of utility from the discourse of classical liberalism.
society at large is to both manage on behalf of all stakeholders and ensure that the value thereby created is not appropriated by the shareholders but is distributed to all stakeholders. Others such as Kay (1998) argue that this debate is sterile and that organisations maximise value creation not by a concern with either shareholders or stakeholders but by focusing upon the operational objectives of the firm and assuming that value creation, and equitable distribution will thereby follow.

Adherents to each of these conflicting philosophies have a tendency to adopt different perspectives on the evaluation of performance. Thus good performance for one school of thought is assumed to be poor performance for the others. Thus performance maximising philosophies are polarised in the discourse and this leads to a polarisation of performance reporting and the creation of the dialectic considered earlier. Almost unquestioned within the discourse however is the assumption that good performance from one aspect necessitates the sacrificing of performance from the other, despite the ensuing distributional conflicts being hidden within the discourse. Indeed Kimberley et al (1983) have argued that some areas of performance which are important to the future of the business are not even recognised let alone evaluated. It is argued in this paper that the future orientation of performance management necessitates the creation of value over the longer term for all stakeholders and moreover that this value creation must be manifest in the way in which the value created in the organisation is distributed among the various stakeholders. It is only in this way that the continuing temporal existence of the organisation can be ensured.

It can readily be seen that the differing needs of different parties in the evaluation process causes tensions within the organisation as it seeks to meet its internal control, strategy formulation and accountability functions and produce a reporting structure to meet these needs. While the basic information required to satisfy these needs is the same organisational information, or at least derives from the same source data, the way in which it is analysed and used is different, which can lead to conflict within the organisation. Such conflict is exacerbated when a measure is adapted for one need but only at the expense of a deterioration in its appropriateness for another purpose. It is for this reason that accounting and information systems in organisations are in a constant state of development and enhancement as the systems are designed to meet perceived needs and adapted to meet newly identified needs. One such source of conflict in an organisation therefore is caused by the different stakeholders seeking to access and use information differently, and this conflict tends to have a dysfunctional impact upon organisational cohesiveness and ultimately performance. Performance therefore can also be viewed deterministically in that it can be considered to be as good as it is evaluated to be, and Fish (1989) argues that contextually, truth and belief are synonymous for all practical purposes.

One factor of importance in performance evaluation is the concept of sustainability as far as performance is concerned. It is therefore important for all stakeholders to be able to ascertain, or at least project, not just current performance but its implications for the future. Performance evaluation must therefore necessarily have a future orientation for all evaluations. The appropriate measures are likely to facilitate a better projection of the sustainability of performance levels and the future impact of current performance. This is because the addressing of the needs of all stakeholders is likely to reveal factors which will impact upon future performance and which might not be considered if a more traditional approach was taken towards performance evaluation. An example might be the degree to which raw materials from renewable resources have become significant to many industries
recently but were not considered at all until recently by any stakeholders of an organisation other than community and environmental pressure groups.

**Sustainability Reporting**

There have been many claims (see Crowther 2000) that the quantification of environmental costs and the inclusion of such costs into business strategies can significantly reduce operating costs by firms; indeed this was one of the main themes of the 1996 Global Environmental Management Initiative Conference. Little evidence exists that this is the case but Pava and Krausz (1996) demonstrate empirically that companies which they define as ‘socially responsible’ perform in financial terms at least as well as companies which are not socially responsible. It is accepted however that different definitions of socially responsible organisations exist and that different definitions lead to different evaluations of performance between those deemed responsible and others. Similarly in other countries efforts are being made to provide a framework for certification of accountants who wish to be considered as environmental practitioners and auditors. For example the Canadian Institute of Chartered Accountants is heavily involved in the creation of such a national framework. Azzone, Manzini and Noci (1996) however suggest that despite the lack of any regulatory framework in this area a degree of standardisation, at least as far as reporting is concerned, is beginning to emerge at an international level, one of the central arguments of this paper.

Growth in the techniques offered for measuring social impact, and reporting thereon, has continued throughout the last twenty-five years, during which the concept of this form of accounting has existed. However the ability to discuss the fact that firms, through their actions, affect their external environment and that this should be accounted for has often exceeded within the discourse any practical suggestions for measuring such impact. At the same time as the technical implementation of social accounting and reporting has been developing the philosophical basis for such accounting – predicated in the transparency and accountability principles – has also been developed. Thus some people consider the extent to which accountants should be involved in this accounting and argue that such accounting can be justified by means of the social contract as benefiting society at large. Others have argued that sustainability is the cornerstone of social and environmental accounting and that auditing should be given prominence.

An examination of the external reporting of organisations gives an indication of the extent of socially responsible activity. Such an examination does indeed demonstrate an increasing recognition of the need to include information about this and an increasing number of annual reports of companies include some information in this respect. This trend is gathering momentum as more organisations perceive the importance of providing such information to external stakeholders. It has been suggested however that the inclusion of such information does not demonstrate an increasing concern with the environment but rather some benefits – for example tax breaks – to the company itself. One trend which is also apparent in many parts of the world however is the tendency of companies to produce separate social and environmental reports\(^8\). In this context such reports are generally termed CSR reports or Sustainability reports, depending upon the development of the corporation concerned. This trend is gathering momentum as more organisations realise that stakeholders are both

\(^8\) Originally these were called environmental reports. Now they are normally known either as CSR reports or as sustainability reports.
demanding more information and are also demanding accountability for actions undertaken. Equally the more enlightened of these corporations are realising that socially responsible activity makes business sense and actually assists improved economic performance.

This realisation obviates any need for regulation and calls into question the standards suggested by such bodies as accountability. The more progressive corporations have made considerable progress in what they often describe as their journey towards being fully socially responsible. In doing so they have developed an understanding of the priorities for their own business – recognising that CSR has many facets and needs to be interpreted differently for each organisation – and made significant steps towards both appropriate activity and appropriate reporting of such activity. The steps towards CSR can be likened to increasing maturity as all organisations progress towards that maturity by passing through the same stages (see below), although at different paces. The most mature are indeed recognising that nature of globalisation by recognising that the organisational boundary is permeable (see Crowther & Duty 2002) and that they are accountable also for the behaviour of other organisations in their value chain.

All businesses⁹ recognise the business benefits of CSR activity in their reporting. Equally all business recognise that sustainability is important and it features prominently in their reporting. Indeed it is noticeable that extractive industries – which by their very nature cannot be sustainable in the long term – make sustainability a very prominent issue. Any analysis of these statements regarding sustainability however quickly reveals the uncertainty regarding what is meant by this sustainability. Clearly the vast majority do not mean sustainability as defined in this paper, or as defined by the Brundtland Report. Often it appears to mean little more than that the corporation will continue to exist in the future. Our argument is not just that this focus upon such a vague notion of sustainability is misleading and obfuscates the need for a rigorous debate about the meaning of sustainability. Our argument is that this treatment of sustainability is actually disingenuous and disguises the very real advantages that corporations obtain by creating such a semiotic of sustainability.

Sustainability and the Cost of Capital

It is recognised in the financial world that the cost of capital which any company incurs is related to the perceived risk associated with investing in that company – in other words there is a direct correlation between the risk involved in an investment and the rewards which are expected to accrue from a successful investment. Therefore it is generally recognised that the larger, more established companies are a more certain investment and therefore have a lower cost of capital. This is all established fact as far as finance theory is concerned and is recognised in the operating of the financial markets around the world. Naturally a company which is sustainable will be less risky than one which is not. Consequently most large companies in their reporting mention sustainability and frequently it features prominently. Indeed it is noticeable that extractive industries – which by their very nature cannot be sustainable in the long term – make sustainability a very prominent issue. The prime example of this can be seen with oil companies – BP being a very good example – which make much of sustainability and are busy redesignating themselves from oil companies to

⁹ We base our assertion regarding all businesses upon our study of the FTSE100 businesses, and so recognize that our claim may not have universal truth.
energy companies with a feature being made of renewable energy, even though this is a very small part\textsuperscript{10} of their actual operations.

Just as a company which is sustainable is less risky than one which is not then one which can claim sustainable development is even less risky and many companies mention this concept and imply that it relates to their operations. Such a company has a rosy future of continued growth, with an expectation of continued growth in profitability. An investigation of the FTSE100 for example shows that 70% make a feature of sustainability while 15% make a feature of sustainable development. So the cost of capital becomes lower as the certainty of returns becomes higher. We have shown in this article that the concept of sustainability is complex and problematic and that the idea of sustainable development is even more problematic. It is our argument that companies are not really addressing these issues but are merely creating an image of sustainability.\textsuperscript{11} The language of the statements made by corporations tends therefore to be used as a device for corrupting thought (Orwell 1970) by being used as an instrument to prevent thought about the various alternative realities of organisational reality. Significantly it creates an image of safety for investors and thereby reduces the cost of capital for such corporations. Such language must be considered semiotically (Barthes 1973) as a way of creating the impression of actual sustainability. Using such analysis then the signification is about inclusion within the selected audience for the corporate reports on the assumption that those included understand the signification in a common way with the authors. This is based upon an assumed understanding of the code of signification used in describing corporate activity in this way. As Sapir (1949: 554) states:

\textit{… we respond to gestures with an extreme alertness and, one might almost say, in accordance with an elaborate and secret code that is written nowhere, known by none and understood by all.}

\section*{Risk Reducing}

It is our argument that the methodologies for the evaluation of risk are deceived by this rhetoric and are deficient in their evaluation of risk – particularly environmental risk. In order to fully recognise and incorporate environmental costs and benefits into the investment analysis process the starting point needs to be the identification of the types of costs and revenues which need to be incorporated into the evaluation process. Once these types of costs have been identified then it becomes possible to quantify such costs and to incorporate qualitative data concerning those less tangible benefits which are not easily subject to quantification. The completion of an environmental audit will enhance the understanding of the processes involved and will make this easier. In considering environmental benefits, as distinct from financial benefits, it is important that an appropriate time horizon is selected which will enable those benefits to be recognised and accrued. This may imply a very different time horizon from one which is determined purely by the needs of financial analysis.

Once all the data has been recognised, collected and quantified it then becomes possible to incorporate this data, in financial terms, into an evaluation which incorporates risk in a more consistent manner. It is important to recognise benefits as well as costs, and it is perhaps worth reiterating that many of these benefits are less subject to quantification and are of the less tangible and image related kind. Examples include:

\textsuperscript{10} It needs a very careful reading of the annual report to discover this.

\textsuperscript{11} See Crowther 2002 for a full discussion of image creating in corporate reporting.
- Enhanced company or product image – this in itself can lead to increased sales
- Health and safety benefits
- Ease of attracting investment and lowered cost of such investment
- Better community relationships – this can lead to easier and quicker approval of plans through the planning process
- Improved relationship with regulators, where relevant
- Improved morale among workers, leading to higher productivity, lower staff turnover and consequently lower recruitment and training costs
- General improved image and relationship with stakeholders

Many of these benefits are not just intangible but will take some time to realise. Hence the need to select an appropriate time horizon for the evaluation of the risk and associated effects. This time horizon will very likely be a longer one than under a traditional financially based evaluation. Obviously cash flows need to be considered over that period and an appropriate method of evaluation (e.g., a discounted cash flow technique) needs to be used in the evaluation. None of this will change with the incorporation of environmental accounting information, except for assessment of risk and its associated impact upon the cost of capital, which can be expected to rise as the true extent of the environmental impact is fed into the calculation.

The steps involved in the incorporation of environmental accounting into the risk evaluation system can therefore be summarised as follow:

- Identify environmental implications in terms of costs and benefits
- Quantify those costs and incorporate qualitative data regarding less tangible benefits
- Use appropriate financial indicators
- Set an appropriate time horizon which allows environmental effects to be fully realised

**The distributional problem**

It is apparent however that any actions which an organisation undertakes will have an effect not just upon itself but also upon the external environment within which that organisation resides. In considering the effect of the organisation upon its external environment it must be recognised that this environment includes both the business environment in which the firm is operating, the local societal environment in which the organisation is located and the wider global environment. This effect of the organisation can take many forms, such as:

- the utilisation of natural resources as a part of its production processes;
- the effects of competition between itself and other organisations in the same market;
- the enrichment of a local community through the creation of employment opportunities;
- transformation of the landscape due to raw material extraction or waste product storage;
- the distribution of wealth created within the firm to the owners of that firm (via dividends) and the workers of that firm (through wages) and the effect of this upon the welfare of individuals.
It can be seen from these examples that an organisation can have a very significant effect upon its external environment and can actually change that environment through its activities. It can also be seen that these different effects can in some circumstances be viewed as beneficial and in other circumstances be viewed as detrimental to the environment. Indeed the same actions can be viewed as beneficial by some people and detrimental by others.\footnote{See Child (1984) and Crowther (1996b) regarding the different dimensions of performance.} This is why planning enquiries or tribunals, which are considering the possible effects of the proposed actions by a firm, will find people who are in favour and people who are opposed. This is of course because the evaluation of the effects of the actions of an organisation upon its environment are viewed and evaluated differently by different people.

An organisation therefore is completely embedded into its environment as the actions it takes have such wide-ranging effects. Thus one of the key aspects of sustainability is concerned with distribution of the effects of its actions. The traditional approach to this was to record profit as internal to the organisation and treat everything else as an externality to be ignored. Thus the sole discussion was concerned with the distribution of the profit resulting from corporate activity: to owners as their return for bearing risk; to managers as their reward for creating profit; and to be retained for future profitability enhancement.

Such an approach of course ignores two aspects of corporate activity:

(i) it is possible to earn an increase in profit (as recorded by accounting) simply by externalising costs

(ii) it is not realistically possible to earn profit without the co-operation – active or passive – of the other stakeholders to the organisation

Thus the social accounting approach is to recognise all costs and benefits resulting from an organisation’s activities and to focus upon a distribution of these to ensure that all stakeholders are satisfied – a satisficing approach common within the social accounting literature.\footnote{See for example Crowther (2000); Gray & Bebbington (2001)} The underlying principle is that is all stakeholders are satisfied then conflict between them will cease and all will cooperate for mutual benefit.

Thus the performance of businesses in a wider arena than the stock market and its value to shareholders has become of increasing concern. Fetyko (1975) considered social accounting as an approach to reporting a firm’s activities and stressed the need for identification of socially relevant behaviour, the determination of those to whom the company is accountable for its social performance and the development of appropriate measures and reporting techniques. Klein (1977) also considered social accounting and recognises that different aspects of performance are of interest to different stakeholder groupings, distinguishing for example between investors, community relations and philanthropy as areas of concern for accounting. He also considered various areas for measurement, including consumer surplus, rent, environmental impact and non-monetary values. While these writers considered, by implication, that measuring social performance is important without giving reasons for believing so, Solomons (1974) considered the reasons for measuring objectively the social performance of a business. He suggested that while one reason is to aid rational decision making, another reason was of a defensive nature.
Unlike other writers, Solomons not only argued for the need to account for the activities of an organisation in terms of its social performance but also suggested a model for doing this, in terms of a statement of social income. His model for the analysis of social performance is as follows:

**Analysis of Social Performance**

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<tbody>
<tr>
<td>Value generated by the productive process</td>
<td>xxx</td>
</tr>
<tr>
<td>+ unappropriable benefits</td>
<td>xxx</td>
</tr>
<tr>
<td>- external costs imposed on the community</td>
<td>XXX</td>
</tr>
<tr>
<td>Net social profit / loss</td>
<td>XXX</td>
</tr>
</tbody>
</table>

**Fig 2 Analysis of Social Performance**

This approach however still fails to recognise the realities of the global environment (see Aras & Crowther 2007a; 2007b) insofar as the company is firmly embedded into a global environment which necessarily takes into account the past and the future as well as the present. This effectively makes a stakeholder out of everything and everybody both in the present and in the future. This is illustrated in Figure 3.
Sustainability therefore requires a distribution of effects – positive and negative – in a way which eliminates conflict between all of these and pays attention to the future as well as the present. Thus a short term approach is no longer acceptable for sustainability and Figure 4 represents such an approach to sustainability.

Fig 4: MODEL OF SUSTAINABLE DISTRIBUTION

**Conclusion**

Sustainability is of course fundamental to a business and its continuing existence. It is equally fundamental to the continuing existence not just of current economic activity but also of the planet in a way which we currently understand. It is a complex process, as we have discussed. Moreover it is a process which must recognise not just the decision being made in the operational activity of the organisation but also the distributional decisions which are made. Only then can an organisation be considered to be sustainable.
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Güler Aras is Professor of Finance and Director of the Graduate School at the Yildiz Technical University (Istanbul/Turkey). She received a Ph.D. degree in Banking and Economy with high honor and previously obtained her MBA and bachelor degrees also with the first rank. Güler has taught a number of courses in the area of corporate finance at undergraduate, graduate and doctorate level. She serves as visiting professor at different universities and as advisor to a number of government bodies. She is the recipient of best scientific work award of Association of Institutional Investors Board in Turkey and is a founder and member of various associations and research centers. She is also a member of a number of international editorial and advisory boards.

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David Crowther is a qualified accountant who worked as an accountant, systems specialist and general manager in local government, industry and commerce for 20 years. After a number of years in the financial services sector, including a spell in which he set up and ran a store credit card scheme, he decided to leave the business world and become an academic. In 1994 he joined Aston University as a lecturer in accounting and there obtained a PhD in 1999 for research into corporate social performance and reporting before leaving to join the University of North London. He is now Professor of Corporate Social Responsibility at De Montfort University.

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