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Triple Bottom Line: A Business Metaphor for a Social Construct

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INTRODUCTION

Organizational management is specifically granted fiduciary responsibility over society's economic resources, which consist of natural and human resources. Because of their privileged status, organizational management and the associated business professions play a central role in the long-term viability of a democratically governed society grounded in justice, equality, and trust. Acting in the public interest requires consideration of natural, social, and economic systems. Natural systems provide the context and sustenance for social systems and, therefore, must be respected, nurtured, and sustained. Social systems provide the context and purpose of economic systems. Business professionals, such as accounting and other information providers, analysts, and monitors, and regulatory agencies, such as the Securities and Exchange Commission,[1] Environmental Protection Agency, and Food and Drug Administration, facilitate and scrutinize organizational management in carrying out their fiduciary responsibility.

By accepting the right to control society's economic resources, organizational management accepts the responsibility to be held accountable for their use of these assets. Upon exercising the right to grant organizational management control over its economic resources,

[1] In the USA.

society accepts the responsibility to hold organizational management accountable for their use of these assets. Corporate accountability[2] represents the lynch pin for motivating responsible behavior. Throughout the world, publicly held corporations control and transform natural and social resources into economic goods and services. Publicly available information is a necessary, though not sufficient, prerequisite for responsible resource stewardship and management. Thus, the relevance and integrity of information contained in, and made available by, measurement and accountability systems holds a place of central importance in our ability to hold accountable those granted the responsibility for society's resources.

The triple bottom line is emerging as a popular conceptualization and reporting vehicle for articulating corporate social, environmental, and economic performance and is receiving significant attention in connection with its efficacy and sufficiency as a means for reporting the extent to which an organization meets its societal responsibilities. By preparing and disseminating triple bottom line statements, an organization conveys an image of concern and sensitivity to the three dimensions of societal responsibility: economic, environmental, and social. However, as currently conceived and operationalized, we question whether the triple bottom line reports actually provide information relevant to accessing corporate responsibility and enforcing accountability, particularly social sustainability. In addition, we discuss the efficacy of using the bottom line as a metaphor to help determine the metrics and measures relevant to social sustainability. Our conclusion is that triple bottom line reporting, although a step towards increasing the awareness of multiple, competing, simultaneous objectives for

[2] We consider this term to be inclusive of the economic, environmental, and social responsibilities of organizations.

organizations, is an inadequate, and perhaps detrimental, representation of organizational sustainability. While our primary concern is social sustainability, the associated issues cannot be adequately addressed without considering the natural and economic systems. This work is part of an ongoing program of research concerned with the developing an enabling accounting.[3]

In the following discussion, we explicitly consider the concept of the triple bottom line report that has been generally set forth in the accounting and reporting literature as a significant step forward in the quest for enhanced social and environmental corporate responsibility. The triple bottom line statement purports to render corporate actions more understandable and transparent in areas not covered under current reporting conventions. Within a democratically governed society, information provides the basis upon which citizens and their representatives stipulate and regulate the parameters within which organizations are required to operate. If managers are held accountable for the social and environmental impact of their decisions though the external reporting of results in these areas, they will of necessity more fully incorporate them into their decision processes.

Following this introduction, we consider the origins of the triple bottom line report. The third section explains the meaning of the metaphorical bottom line. In the next section, we consider whether the triple bottom line can sustain social sustainability. Brief closing comments conclude our discussion.

THE ORIGINS OF THE TRIPLE BOTTOM LINE

[3] See Dillard, et al. (2005), Brown, et al. (2005). Also, Broadbent, et al. (1997).

Whence the triple bottom line? The term 'triple bottom line', is often attributed to John Elkington, a co-founder and chair of SustainAbility, a sustainable business consultancy (Elkington 2004). Elkington explicitly chose the language to resonate with business managers. As it evolved, triple bottom line reporting has been employed by organizations for a plethora of purposes. Some argue that the primary application is no more that a means for enhancing the organization's public image (Schilizzi, 2002). Others (Cheney, 2004) argue that it is a method for the organization to show its engaging in legitimate environmentally and socially responsible activities. A third application is an acknowledgement and representation of trade offs made among the three components (CICR, 2004). The reporting formats range from providing a "dashboard" of measures (Epstein and Weiser, 1997) to attempts to monetize all three perspectives (Richardson, 2004). Schilizzi (2002) points out the difficulties in attempting to quantify the environmental and social dimensions of organizational performance and as an example of one possible solution, recommends "real options" valuation techniques.

Numerous consultancies, organizations, and researchers are working to develop metrics that can, in some way, capture the relevant "values" of the components of the triple bottom line in a way that can allow users of reports to "understand the full, blended value" of the organization (Emerson 2003, Lingane and Olsen 2004). For example, Howes (2004) presents a statement of "environmentally sustainable adjusted profit." While the final determination of what the triple bottom line may look like is not yet completed, Richardson (2004) notes the most commonly held conception presumes that each of the three components can be calculated in monetary terms.

Advocates of the triple bottom line argue that since an organization's long term viability is dependent on sustaining "profitability" over all three dimensions, they should be measured,

reported, and assessed on a periodic basis, in a manner conceptually similar to the current financial reporting model. Further, stakeholder groups, such as socially responsible investors, non-governmental organizations, green consumers, and governmental regulators and agencies are increasingly calling for information related to the social and environmental dimensions. Responding to the increasing desire for both financial and nonfinancial information related to a broader conceptualization of corporate responsibilities, all of the major accounting consultancy firms, along with a host of others, offer dedicated services to assist companies in developing triple bottom line reporting tools (Tschopp 2003). The proponents allege that these tools assist in enhancing the organization's reputation as well as reducing the risk profile and aligning managerial and stakeholder needs (Group of 100, 2003). Next, we consider how the measures of the triple bottom line report developed and how they relate to social sustainability.

The Road to Social Sustainability

In the 1960's and 1970's there was a widespread, although by no means dominant, recognition that human activities, including corporate activities, had great and potentially disastrous impacts on the natural environment. Although the root of the world's sustainability problems may well be cultural and political (Hart 1997), corporations and their activities have a significant impact on the environment. As society began to demand cleaner water, cleaner air, fewer toxins, and the other benefits of environmentally thoughtful stewardship, corporations, however reluctantly, initiated improvements in their environmental behavior (Hoffman 2000). As we moved into the 1990s leading thinkers in the environmental movement as regards corporations began to talk about environmental sustainability. Without addressing the reality or sincerity of the sustainability initiatives undertaken by corporations, it is significant that many corporations began to acknowledge at least the notion of environmental sustainability.

However, in the early and mid 1990's it became increasingly apparent to a variety of thinkers and organizations that environmental sustainability was unlikely to be achievable without addressing issues of social sustainability as well. For example, The Natural Step introduced social awareness as an integral component, identifying four "system conditions" required to achieve a sustainable society: 1) nature must not be subjected to systematically increasing concentrations of substances extracted from the Earth's crust, 2) nature must not be subjected to systematically increasing concentrations of substances produced by society, 3) nature must not be subjected to systematically increasing degradation by physical means, and 4) the ability of humans to meet their needs worldwide must not be systematically undermined (Robèrt 2003). A casual reading of the four conditions presents a picture of three rigorously conceived (although not necessarily rigorously implementable) environmentally related conditions and one vague condition relating to social issues. The first three state that "nature must not be subjected to…" followed by specific, if complex, requirements. It is possible, from the conditions themselves, to determine whether an action, if sufficiently understood, violates the condition. The fourth, dealing with social systems, states that the object of the condition is not impaired…without any real reference to what that may mean. To know whether an action violates the condition, we must not only understand the action but also must come to some common agreement about what it means to impair the ability of humans to "meet their needs." This leads to concern that the issue of social sustainability is either weakly conceived or has been attached to the framework as an afterthought. Alternatively, perhaps the social systems are so fundamentally different from environmental systems such that we cannot create social system conditions analogous to the environmental system conditions.

The centrality of the corporation's public interest responsibility is reflected in the legitimating arguments for their initial chartering (Bakan, 2004). In the eighteenth and nineteenth centuries, corporations were chartered to undertake public works projects such as building bridges, roads, and canals and had an explicit duty to operate in and for the public's interest (Champlin and Knoedler 2003). As corporations grew and as absentee owners (shareholders) became the primary corporate stakeholders, the public interest dimension became subordinate to the goal of maximizing shareholder (owner) wealth. Ultimately, in most capitalist societies, not only did the corporations abdicate any pretext of acting in the broader public's interest, but also their responsibility to shareholders has been effectively outsourced to regulators and auditors, not the least of which were Certified and Chartered Accountants. This explicit assignment of protection of the public (at least protection of shareholders) to entities completely outside the organization represents the nadir of corporate social responsibility. It might be argued that any organization that relies on regulations and verifiers/enforcers of the public interest cannot be thought of as a "socially responsible" business.[4]

Updating this conversation within the current vernacular, social sustainability represents the social dimension of the public interest. For businesses, the idea of social sustainability, if recognized at all, is narrowly and conveniently conceived and likely to be interpreted as the ability to continue to stay in business through good relations with supply-chain partners,

[4] There is less than a little irony in the fact that in 2002, as a result of the Sarbanes-Oxley Act, the primary guardian for third party interests, the accounting profession, in the US, lost the right of professional self monitoring and regulation with respect to its public interest responsibilities to the SEC as a result of the widespread misconduct and conflicts of interests that took place during the late 1990s and early 2000s that culminated in historic corporate failures.

employees, and unions, an interpretation that is rather limited, and possibly destructive. Rather than expanding the scope of their public interest responsibilities, managers focus on reducing social resources to monetary terms, measuring, and maximizing it. Hawkins, et al. (1999) attempt to broaden this perspective they refer to as human or social capital by including it as one of four primary "types" of capital: natural, manufactured, financial, and human. When the stocks and flows of these objectified concepts are managed effectively, organizations become sustainable. Social capital, by implication at least, represents another factor of production and a profit generator for the organization.

Elkington accurately, and in some respects prophetically, articulates the subordinate position of the social dimension in his initial conceptualization of the triple bottom line. "We felt that the social and economic dimensions of the (environmental) agenda…would have to be addressed in a more integral way if real environmental progress was to be made" (Elkington 2004: 1). The interesting issue here is that the social (and economic[5]) issues are subordinate to the environmental agenda. Not surprisingly, researchers find that issues relating to reporting social aspects of corporate responsibility generally lag behind the reporting of environmental issues, in terms of both timing and quality (Kolk 2003, Adams 2002, KPMG 2002).
Thus, one might conclude that the road to social sustainability reflects more of a meandering and awkward afterthought (e.g. The Natural Step Framework), an objectification through mechanistic management (e.g., social capital), and a subordinated and imprecise objective within an enhanced reporting initiative (e.g. triple bottom line). We now consider more explicitly how the

[5] Given their current overwhelming dominance, it is difficult to conceive of the economic well being subordinate.

accounting and reporting dimensions of social sustainability have culminated in the current rendering of the triple bottom line.

The Road to Accounting for Social Sustainability

Using the history of accounting as a guide, [6] we can see that as business organizations were conceived, developed, and matured they required and created new ways to address the issues of concern to their stakeholders. Initially, accounting was developed to meet the needs of business owner-managers to address the day to day concerns of running a business by making the processes and their effects more transparent. As the owners delegated the tasks of managing to others, accounting methods were developed to communicate the important business characteristics, predominantly the effects of operations and the status of the business, to the owners. Though the scope of concern, and the concerned, has changed, the process continues to evolve along the same trajectory. The needs of affected constituencies needs continually develop and change, and accounting methods, rules, and regulations evolve to meet these ever-changing information needs.

Information needs regarding organizations' environmental and social impacts are an example of the expanding scope of concern. Unlike the efforts associated with the conception of triple bottom line reporting described above, relatively early on accounting recognized the importance of human capital and attempted to measure and report its attributes previous to and separate from environmental capital. Social accounting arose in the 1970s but never gained purchase, partly due to the inability of relevant stakeholders to agree on an acceptable method for

[6] The history of accounting is well detailed in books and articles galore. See Johnson and Kaplan (1987), Chandler (1977), and Previts and Merino (1998).

quantifying and reporting the relevant attributes. Social accounting, to most businesses, was an attempt to capitalize the "value" of the employees, management skills, and business acumen that generated wealth for shareholders. For some social activists, social accounting was an attempt to expand the recognized benefits and costs that businesses created for society. The significant measurement problems coupled with the financial community's skepticism thwarted the attempt to recognize the previously ignored (unrecorded) social and human capital. Insufficient political will and waning public demand thwarted the move toward enhanced social impact reporting by corporations. At the time, acceptable measurement systems were not available to companies for achieving their goals of recognizing unrecorded assets, and there was insufficient public demand for reporting the social impacts of companies. Thus, the concept of social accounting faded away (Gray 2001), only to be resurrected in the waning of the 1990s. Next, we consider this resurrection as it has culminated in the metaphorical bottom line manifested in triple bottom line reporting.

THE METAPHORICAL BOTTOM LINE

The "bottom line" is a metaphor arising from within the business lexicon that confers the ability to capture in a unique representation (a number) the effect of a multitude of separate actions (transactions) by systematically representing these actions using a common metric and summing the contributions (benefits) and detriments (costs). The quintessential symbol of the bottom line is the net income (earnings) reported on the financial statements of publicly held corporations. Net income is the difference between the revenues of a period generated by selling the products or services, capturing the organization and the costs of producing and selling those

products or services and purportedly captures the organization's inflows and outflows in a single figure.[7] As a metaphor, the bottom line (net income) represents information capture of a collection of activities enabling the synthesizing of the effects in a concise representation. The requisite unit of measure is presumed to be compensatory, additive, inclusive, and, to be useful, relevant. The "triple bottom line" is a reporting technique that applies the bottom line metaphor to the social and environmental aspects of a business organization. The legitimacy of such an application depends on the extent to which the characteristics of the application domain (social and environmental) conform to those of the initiating domain (economics/accounting).

Representation

Figure 1 illustrates the resource and information flows associated with a business organization. The organization occupies the center of the diagram. The circle on the left represents the social system, and the circle to the right represents the natural system. The top portion of the figure shows actual resource flows into and out of a business organization. Both natural and social systems provide resource inputs to the organization and both are impacted by its resource outputs. These inputs from the natural and social world inform the "organization action space," the behaviors and activities of the business. In turn, the behaviors and activities of the business impact the natural and social world. The lower portion of Figure 1 shows information flows. The organization's information systems and measurements identify, filter,

[7] We realize, of course, that net income is a technical accounting term that includes many complex and sometimes convoluted ideas and activities. For purposes of this paper, we choose to provide a more intuitive and understandable description of net income. We feel the more simple description avoids unnecessary detail that will be more likely to obfuscate than illuminate. In addition, the metaphor of the "bottom line", which is the focus of this paper, is not burdened with the additional detail. The bottom line metaphor is a relatively simple metaphor addressed sufficiently by our description.

and measure inputs from the organization's actions, the natural system, and the social system. These inputs are then used to create, among other communications, triple bottom line reports.

(***** Enter Figure 1 here *****)

The information flows between the organization and the social and natural systems as well as throughout the organization itself. The "accounting" systems inform the organizational strategies that ultimately motivate changes in the organizational action space. So, ultimately, the process that produces organizational reports relies on information systems that collect information designed for, and are controlled by, the organization that takes a predominately economic perspective in collecting and analyzing information related to the natural and social systems. Next, we consider the basic characteristics that underlie each of the three dimensions of organizational activity.

Economic Systems

Exchange of (markets for) scarce resources provides the operational model upon which economics, and accounting, is predicated. The transaction represents the instantiating atomic unit. Measurement and accumulation systems reflect resource flows associated with exchange transactions consummated. It might be argued that the offsetting debit and credit system as currently articulated in US accounting presupposes an ends oriented perspective and implies a cost-benefit decision frame arising from a utilitarian foundation. That is, extant accounting systems are based on neoclassical economic theory. Neoclassical economic theory is philosophically based on utilitarianism. Utilitarianism is a teleological philosophy that assumes benefits and costs can be specified measured and aggregated. The greatest good for the greatest

number is presumed to be represented by the alternative that maximizes the net benefit.[8] The bottom line metaphor embodies this utilitarian base. We now must consider whether this metaphor is appropriate when considering the natural and social systems.

Natural systems

Ecosystems make up the environmental system. Ecosystems are interrelated natural systems that are in constant and symbiotic interaction. These complex, self organizing systems are studied and monitored by scientists and engineers using formal representations (equations/models) of the ecosystems. The elemental concept underlying natural systems is balance in the effective and efficient use of biomass, energy, resources, etc. within the context of the system boundaries. Balance, not maximization, represents the controlling decision rule. The means, or in this case the formula, is preeminent, not the outcome, which is the consequence. The inputs and the rules determine the outcome. The scientific method structures the fundamental decision framework. Representations of the natural system are predicated on, and attained through, the application of the scientifically specified relationships.

The underlying logic of the natural system is, generally, the natural laws that are perceived to underlie the physical world. The laws of physics represent the dynamics of the universe; the laws of thermodynamics represent the flow of heat or energy within an ecosystem. The "accounting system" for the environment is implemented by scientist and varies with the components being considered. For example, energy use is measured based on the laws of thermodynamics. The "accounting systems" such as electricity metering or heat loss calculations

[8] If a choice is required between alternatives, all of which evidence costs greater than the benefits, then the alternative with the lowest net costs would minimize the detriment.

are application specific with mechanical or chemical measuring devices calibrated in the appropriate units of measure such as kilowatt hours or degrees centigrade. The underlying philosophy reflects the cause and effect logic of science and the process is one of observation and experimentation.

Natural resources can be classified into the following three types (Gray and Bebbington, 2000: 307-308):

- Critical resources – resources without which the biosphere could not sustain life and must not be violated (ozone layer, critical biomass, etc.).
- Sustainable, substitutable, or renewable resources – resources which are renewable or which can substitutes can reasonably be expected to be found (fossil fuels).
- Artificial resources – resources created through the transformation of natural resources that are no longer in harmony with the natural ecosystems (machines, roads, products, waste).

These categories cannot be combined or aggregated. Neither can they be evaluated using a cost benefit calculus because of their diversity and interrelatedness. The philosophical grounding tends to direct effort toward identifying and specifying the physical models that reflect the behavior of the individual system components as well as their interrelationships (e.g., see Gunderson and Holling, 2002). The classical scientific constructs associated with cause and effect underlie the undertakings and representations.

Environmental systems are less amenable to maximization, as there are considerable difficulties arriving at a currency that is fungible, agreed upon, and can be aggregated.[9] For example consider the environmental objective of achieving biological diversity, a commonly stated indicator of environmental health, stability, and resilience. Biological diversity refers to

[9] The mixed unit problem.

the possible ecological niches that must be occupied to achieve maximum energy captured and to support living organisms over long time periods. The system achieves biodiversity when no more renewable inputs are available. At that point, it is impossible to add to the biological store. In the environmental world, biodiversity can be defined as:

> The sum total of all the plants, animals (including humans), fungi and microorganisms, along with their individual variations and the interactions between them. It is the set of living organisms and their genetic basis that make up the fabric of the planet earth and allow it to function as it does, by capturing energy from the sun and using it to drive all of life's processes. (Rutgers University Biodiversity Initiative http://aesop.rutgers.edu/~biodiversity/whatis2.htm#DEFINE).

Here, we see that the input is the sun's energy, and the output is life's processes. Any addition to the ability to capture the sun's energy, and any increase in the genetic pool are increases in biodiversity. However, as opposed to "maximizing" an objective function, the system prospers only if a balance is maintained that incorporates a "sufficient", that is enough but not too much, amount of all the requisite component factors in the system. Balance arises as the objective. At the core, the actionable objective functions relate to achieving objective functions that represent a dynamic range of possible values, none of which are maximized or minimized.

There may be instances where sub-objectives may lead to maximizing, or minimizing, objective functions, but these are not the ultimate goal of the natural system, just a recognition that certain impacts have absolute benefit or detriment to the natural system. For example, consider the emission of greenhouse gasses from the production of human-useable energy from fossil fuels. A reasonable case can be made to absolutely minimize these emissions. At a broader level, we may be able to convert environmental measures to one currency. The concept of "ecological footprint", relating the impact of an individual human to the consumption of

naturally renewable resources is proposed (Pearce and Barbier 2000, Lenzen et al. 2003). Attempts to arrive at a single measure or index to allow maximization or minimization of one factor have not yet achieved universal, or even common, support.

Social System

Social systems are the "patterning of social relationships across 'time and space' understood as reproduced practices" (Giddens, 1984). These systems are highly variable in these representational patterns relative to the internal structural unity of biological systems. The elements of social systems are human relationships and interactions. The underlying logic of these systems is grounded in social integration and reflects generally a communitarian logic. Measurement systems are grounded in political, social, and psychological models[10] of social relationships and characteristics of human populations. The models are developed by sociologists, psychologists, and political scientists. The "accounting system" reflects the social structures as articulated by these particular models based on underlying social theory.

Social systems, in a broad sense, differ dramatically from systems that can be maximized (or minimized). Social sustainability attributes do not fit a scarcity (conservation/natural capital/limits-to-growth) mindset in that at least some of them will increase the more they are employed. For example, the quality of daily life is an attribute of social sustainability that many people could agree is important. Creation of a feeling of community might well be one of the

[10] We recognize the influence that these have on the specification of the economic domain. An adequate critique of the perceived neutrality of neoclassical economic theory is beyond the scope of this discussion. For a discussion of its influence on accounting see Tinker, et al. 1982, Dillard, 1991.

components of quality of life[11]. It seems likely that as a feeling of community increases, the *ability* to create a feeling of community increases. Some psychologists argue that feelings of self and feelings of community are recursive, and that they can enhance each other, creating reinforcing loops that, conceptually, have no limit (Stein and Edwards 1998).

MacGillivray (2004:121) conceptualizes social capital as "creative trust" and represents the "stock of networks, stakeholder relationships and shared rules that help organizations and their surrounding communities work more effectively." Creative trust, unlike economic or natural capital, is not inherently depleted when used. Using economic capital leads to a depletion of these assets. Using nonrenewable natural resources means that the natural system is permanently diminished. Using social resources, however, may often increase their stock. For example, showing and using trust in relationships results in more trust, not in the depletion thereof. Exchanging knowledge is more likely to result in additional sources and stocks of knowledge.

In economic systems maximizing wealth may be appropriate. In natural systems maximizing (or minimizing) biological diversity (or greenhouse gas emissions) may be desirable, but does it really make sense to either maximize or minimize in the realm of social sustainability? However, when we talk of social diversity we talk of increasing the range of racial, gender, sexual preference, national heritage, religious affiliation, age, ethnicity, etc.

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[11] To further probe the meaning of "feeling of community" see a set of quotes relating to this concept at: http://ourworld.compuserve.com/homepages/hstein/qu-comm.htm (found on 11/13/2004).

diversity in a given community[12]. What is the input to a community that can be renewably consumed? How do we measure the diversity—by the gene pool? Do we really want to have the greatest possible amount of biomass exist in a particular volume of space when we are talking about humans and human social sustainability?

The core nature of the triple bottom line dimensions emerge from fundamentally different domains. The environmental system tends more toward an objective function that attempts to achieve interactive balance. The social system, we argue, tends to an objective function that values quality of ongoing integration and interaction. The fundamental differences in the attributes of social, economic, and environmental sustainability illustrate the inappropriateness of measuring, reporting, and conceiving of these three facets in the same ways.[13] Next we directly address the concept of the triple bottom line, using the ideas developed above.

THE TRIPLE BOTTOM LINE: CAN IT SUSTAIN SOCIAL SUSTAINABILITY?

Metaphor is a figure of speech used to describe one concept with attributes normally associated with another. Lakoff and Johnson (1998) identify metaphors as the primary medium by which humans gain an understanding and through which they communicate this understanding to others. Metaphorical structures are both enabling and constraining with respect to the ability to understand and communicate. As discussed above, the bottom line represents a simple and widely understood metaphor grounded in the cost-benefit calculus of neoclassical

[12] Here, community is a term that implies a coherent, bounded group of people, joined in this bounded group by some social institution.

[13] Note, we are not saying that all social systems constructs are nondiminishing. For example, a good reputation can be destroyed by behaviors in opposition to the reputation; a culture of trust can be lost by changing the leaders of an organization. Alternatively cultural variability may impact the effects on social sustainability attributes.

economics, conveying a facility to sum a vast array of (potentially disparate) attributes into a single, commoditized value, and excludes any representation of social (and environmental) well-being beyond a crude materialism. This is the metaphorical representation upon which we are to represent, communicate, and evaluate the social and environmental stewardship of business organizations using triple bottom line reporting. We consider the enabling and constraining capabilities of triple bottom line reporting with respect to measuring, reporting, and evaluating social sustainability.

The initial legitimating argument for triple bottom line reporting was to direct management's attention to the social dimension of overall sustainability. Drawing attention to economic sustainability was not a concern at this point, and the issues of environmental sustainability were being recognized, at least at the level of internalized costs and benefits. The bottom line metaphor provided a representation that resonates with business owners and managers, who see it as real, meaningful, and relevant; therefore, a using this terminology increases the likelihood of awareness and action by the target audience. Although certainly not universally accepted, the triple bottom line and its various derivatives such as Triple-E (economy, environment, equity) or 3P (people, planet, profit) are penetrating the traditional language of business.

Triple bottom line reporting represents an application of the bottom line metaphor to facilitate a more complete and transparent representation and, therefore, more prudent management of the actual stocks and flows affected by business operations. For example, in supporting the concept, MacGillivray (2004:121) states that the "economic, environmental and social balance sheets must all be in the black for a business to be sustainable". Wright et al. (2002) touts its inclusively and exhorts decision makers to look to the "triple bottom line from

which tradeoffs can be more clearly defined and simultaneous social, economic, and ecological benefits can be achieved and maintained over time". As illustrated in such directives, the metaphorical frame conveys an impression of compensatory relationships among the three dimensions implying a common currency and additivity. However, as discussed above, the lack of the requisite attributes is particularly apparent in the social sustainability domain.

Use of the bottom line as a common metaphor for these sustainability systems constrains our ability to see them as both different and interrelated and, therefore, inhibits the development of different approaches for representing, measuring, and understanding them. First, we consider the problem of specifying the systems as different when in fact they are interrelated, which is implied by the triple bottom line format. Second, we consider the problem of assuming the systems are interrelated, or at least compatible, by applying a common economic based metaphor to all three systems. Third, we consider the current weaknesses in how the reporting is being described and carried out.

Perhaps the greatest disservice in applying triple bottom line reporting is the implication that there are three separate, assessable measures (or sets of measures). Returning to Figure 1, we see that there are multiple relationships among and within the three facets of the sustainability triad. It is important to note, however, the relationships among the systems. The organization affects, and is affected by, both the social and natural systems. The systems have different goals, objectives, and performance criteria, however, changes in one system impact the others. Even such careful observers as the Global Reporting Initiative (GRI) explicitly devise sets of indicators that conceptualize and measure each factor separately (GRI 2002). As such, the interactions among the components yield synergies and new complex relationships that would not be recognized, therefore, restricting the representations' validity. Masking the

interrelational complexity at best leads to misrepresentation and misunderstanding, culminating naïve responses on the part of managers, regulations, and stakeholders. These distortions go beyond merely not knowing what to measure, how to measure, or even how to define attributes. Implying that the attributes are separate conveys a dangerous illusion of noncompensatory precision.

The concept of triple bottom line, in fact, often turns out to be a "good old-fashioned single bottom line plus vague commitments to social and environmental concerns" (Norman and MacDonald 2004). Privileging the economic dimension not only obfuscates the interrelations among the factors at another level, but also adds unwarranted legitimacy and perceived accuracy to the resulting triple bottom line portrait. As previously discussed, the attributes of economic sustainability and environmental sustainability are functionally and fundamentally different from those of social sustainability. The economic bottom line, as the dominant bottom line frame, can project attributes of measurability and aggregation on to these systems that they do not possess. In this case, implying that the attributes are similar conveys an illusion of compensatory precision and validity.

The triple bottom line report purports to provide information about the status and progress on each of the three sustainability dimensions. However, most counsel associated with triple bottom line reporting in the professional literature represents little more than platitudes. Statements such as "implementing (the triple bottom line) would not be as demanding as one would think" (Tschopp 2003) are intermingled with statements that the triple bottom line helps "investors distinguish companies that are efficient now and well-positioned to protect their market competitiveness" (Cheney 2004). Companies that prepare sustainability reports, include (and exclude) a variety of social, environmental, and economic issues in them. By and large the

economic issues are related to traditional accounting and finance concepts which are, in general, comparable among companies and over time. However, as described in SustainAbility's 2004 report, even the top 50 corporate sustainability reporters provide a mixed bag regarding environmental and social reporting. GRI standards, currently the most developed standards for sustainability reporting, are rarely adhered to, and even the very few companies reporting in "accordance" with GRI standards produce only minimally comparable information. As yet, there are no generally accepted accounting or auditing standards, no public or regulatory requirements, and no uniform reporting format, rending comparability across organizations and over time difficult, if not impossible.

The bottom line is a disconnected and misconstrued metaphor when it is applied within the guise of triple bottom line reporting and provides little, if any, utility for organizations or their stakeholders. As argued above, the application of the bottom line metaphor, as currently construed, represents a limited and conceptually flawed application. It then follows that the resulting triple bottom line reporting would also be flawed as a portrait of the three categories of sustainability. The categorical reporting moves from the traditional economics based business-related concept of bottom line to broader, more ill-defined, and non-rigorous concepts of the environment and the social systems. The triple bottom line report gathers together the three legs of sustainability but provides no focus and fails to address, even at a high level, the need to arrive at some salient point, some essential value. The bottom line is a disconnected and misconstrued metaphor, with no real utility for organizations or their external stakeholders when operationalized within the triple bottom line statement.

CLOSING COMMENTS

An organization's bottom line is perceived as the ultimate measure of its performance for many managers, owners, investors, creditors, and other various constituencies. The "bottom line" carries a patina of finality, summary, and importance and is traditionally formulated in wholly economic terms. In the previous discussion, we explore whether the "bottom line" provides a suitable metaphor measure for representing sustainability, generally, and social sustainability specifically. In order to do so, we discuss the elemental properties of a bottom line. We argue that while strongly interrelated, the elemental dimensions for each of the sustainability systems are fundamentally different.

The triple bottom line report was developed to meet the needs of businesses engaged or interested in sustainable development. Adams et al. (2004: 17) call the triple bottom line "an inspiring metaphor that challenges contemporary corporations" to meet economic, environmental and social goals simultaneously. The idea of sustainable development addresses some businesses' desire to see the opportunity to engage and embrace environmental and social issues without giving up the desire to be economically prosperous. The triple bottom line report uses the bottom line metaphor from financial reporting as a template for the reporting of economic, social, and environmental sustainability.

We conclude that the bottom line as a metaphor for measuring and reporting business' contribution to social sustainability is fatally flawed. The metaphor's application through current triple bottom line reporting protocols allows businesses to ignore critical sustainability concerns for several reasons. First, businesses attempting to legitimate themselves without actually addressing sustainability can use the reporting exercise to co-opt the external pressure for true sustainability. Due to the lack of mandatory standards, businesses freely pick and choose which characteristics they measure, derive their own metrics and standards for these characteristics, and

produce a report that reveals precisely what they wish to disclose. The bottom line metaphor implies rigor and objectivity that fail to exist in these situations. Second, businesses that start with a genuine commitment to enhancing their sustainability efforts can be distracted as the inter-relationships among the dimensions are masked by the apparent independence of the three "bottom lines". There is neither demand to analyze inter-relationships nor pressure to consider how the impacts from one dimension affect the others. The focus is an atomistic one, a (relatively) easy and uninformed perspective for addressing sustainability objectives. Third, the fundamental differences between the three the triple bottom line elements make using a single framework problematic. The major differences are in: the ability to identify, quantify, and measure these central constructs; the applicability of being metaphorically designated as capital; and the metaphorical representations and conceptual approaches to understand, quantify, and report the dimensions.

Our conclusions reflect the complexity and richness of the character of sustainability. To give credit, however, the triple bottom line metaphor does provide notice that sustainability includes social issues. This seemingly intuitive insight became real for most companies now embracing social sustainability only after the bottom line terminology became prominent in reporting discourses. The triple bottom line did yeoman's work in this arena. But it is time to move on to better, more thoughtful, more useful notions to drive sustainability. It is time to find a new metaphor for imaging sustainability. As a start, we propose the following. Accounting is the language of business. Triple bottom line reporting attempts to frame social sustainability in the language of business. Why can we not articulate business in the language of social sustainability? This should be our next metaphorical quest.

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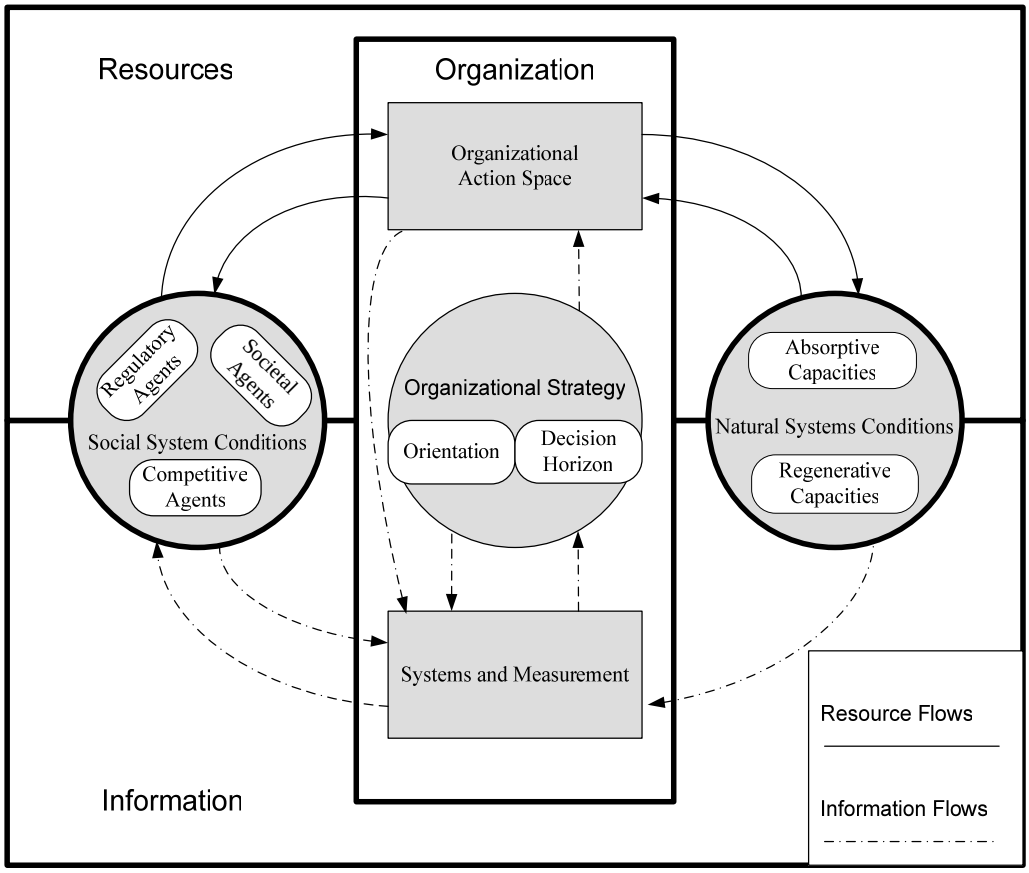

Figure 1. Resource and information flows among the economic, social, and natural systems.

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