

Corporate Sustainability Metrics

Guidelines for Design and Implementation

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General Requirements

- Must express the non-financial performance of an organization (e.g., triple bottom line performance)
 - Environmental
 - Social
 - Economic (not the same as financial performance)
- Should be expressed at the level of an organization, or some subset thereof
- Should support the need to know whether an organization's operations are sustainable in absolute terms, not just relative 'more or less' terms

Technical Specifications

- Solution should make quantitative analysis and scoring possible
- Solution should be context-based (metrics should express performance relative to actual social, environmental, and economic conditions in the world)
- Solution should refer to organizational activities or operations as the thing(s) being measured
- Solution should be grounded in human well-being (i.e., an organization's operations are sustainable or not depending on their impacts on human well-being)

Technical Specifications (cont.)

- Solution should measure performance against *standards of performance* derived from the human well-being criterion (above)
- Solution should not necessarily require prior specification or existence of such standards of performance
 - Such as social standards of human well-being...
 - Environmental standards of some kind...
 - And Economic standards
- Solution should support customized standards of performance for individual organizations

The Solution

- “Sustainability Quotients”
 - Denominators express standards of performance
 - Numerators express actual performance
- Scoring convention
 - If denominators express not-to-exceed levels of impact, quotient scores of >1.0 are unsustainable
 - If denominators express not-to-fall-below levels of impact, quotient scores of <1.0 are unsustainable
- General formulation:
$$\text{Sustainability Performance} = \text{Actual Impacts} / \text{Normative Impacts}$$

The Solution (cont.)

- Impacts on What?
 - Vital (non-financial) capitals in the world that people rely on for well-being:
 - Natural Capital
 - Human Capital
 - Social Capital
 - Constructed (built) Capital
- Organizational impacts that have the effect of creating or preserving vital capitals in the world at levels required to ensure human well-being are sustainable; impacts that have the opposite effect are unsustainable

Examples

- Let's look at it from a triple bottom line perspective
- Sample metrics for the environmental bottom line:
 - Greenhouse gas emissions (numerator) measured against the assimilative capacity of the atmosphere to absorb such emissions (denominator)
 - Fresh water use (numerator) measured against the availability of renewable fresh water supplies (denominator)
 - Fossil fuel use (numerator) measured against the rate of use, or production of, renewable alternatives (denominator)
 - Solid waste emissions (numerator) measured against the availability of landfill capacity (denominator)

Examples (cont.)

- Sample metrics for the social bottom line:
 - Impacts on healthcare institutions (numerator) measured against standards for what such impacts ought to be in order to ensure human well-being (denominator)
 - Impacts on educational institutions (numerator) measured against standards for what such impacts ought to be in order to ensure human well-being (denominator)
 - Impacts on social services institutions (numerator) measured against standards for what such impacts ought to be in order to ensure human well-being (denominator)
 - Non-ecological impacts on contributing to climate change mitigation (numerator) measured against standards for efforts required to reverse global warming (denominator)

Examples (cont.)

- Sample metrics for the economic bottom line:
 - Impacts on vocational training scholarships or grants (numerator) measured against standards for what such impacts ought to be in order to ensure human (economic) well-being (denominator)
 - Impacts on the incidence of child labor (numerator) measured against standards for what such impacts ought to be in order to ensure human (economic) well-being (denominator)
 - Impacts on fair trade practices (numerator) measured against standards for what such impacts ought to be in order to ensure human (economic) well-being (denominator)

Summary

- Sustainability metrics must express performance relative to standards of performance
 - i.e., they must include sustainability *context!*
- Quantitative quotients can be used to do so
 - Numerators express actual impacts
 - Denominators express normative impacts (standards)
- The impacts of interest here are those on vital capitals.....
- As required to ensure human well-being
- Sustainability metrics should be designed, accord'ly

Thank you!

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