Chapter 16
Sustainability in Service Operations

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ABSTRACT

This paper aims to set the stage for the development of an index that measures progress towards sustainability in the service sector. A review of the academic literature reveals history and theories on the subject, while a look at the trade literature describes what is happening in each of 13 different service sector industries. A framework for the development of a sustainability index for a commercial enterprise is developed. This framework is aligned with triple bottom line corporate reporting, and measures progress towards sustainability in terms of profit, people, and planet on the principle of continuous improvement.

INTRODUCTION

The objective of this paper is respond to the need of measuring enterprise sustainability in the Service Sector. This happens at a time when public enterprises are also pursuing increased transparency and openness in their relations to the public, while the world is demanding accountability for resource use. The quest for better reporting to enterprise stakeholders is being made possible through the triple bottom line reporting, as this paper will show. The proposed measurements for enterprise sustainability are congruent with the triple bottom line approach, but may be unique for each Census Service Sector, as one size would not fit all. Such variations may lead to many demonstration research opportunities for each sector or trade association. Public enterprises would nevertheless monitor their own indices on a continuing basis, in line with sector standards and triple bottom line reporting. While developmental sustainability has been practiced throughout time as a matter of necessity, the modern interpretation started with the publication of Rachel Carson's book "Silent Spring" in 1962; hence the emphasis on environmental issues. The following decades

then produced The Club of Rome's "Limits of Growth" and the United Nations' "Our Common Future", which is also known as the Brundtland Report of 1987. That report defined sustainability as the term is used today. Subsequent guidance came from the United Nations' Conference of Environment and Development in 1992. This conference in Rio de Janeiro became known as The Earth Summit, and it produced "Agenda-21", which is a blueprint for sustainable activities across all dimensions of human activity on this planet. The Service Sector literature to date has rarely questioned its basic business model of selling more products; albeit, with fewer resources and higher delivery efficiency. As a result, constraints on consumption are not considered. The service industry and the end consumer, have to be drawn into the debate of a major cultural change to achieve a sustainable state in the not too distant future. But even that can't be meaningful, unless there is agreement on what "sustainable" means. There are many definitions and interpretations, some of which are contradictory.

The dictionary definition is to prolong, to keep in existence, or to maintain, but in business terms it could mean fit for the future. The best known definition comes from The Brundtland Report, (Brundtland, 1987). Brundtland was a former Norwegian prime minister who took on a United Nations commission to study global resource extraction and waste generation that were deemed unsustainable. He defined sustainable to be "development that meets the needs of the present generation, without compromising the ability of future generations to meet their own needs". Neither the word nor the concepts were invented in the mid 1980s. For example, in the field of forestry the term "sustainable yield" means harvesting a bounded forested area at a rate that equals its tree's growth rate, usually expressed in board-feet. What we take away from this, is that the popular usage of the term implies natural resources and their balance in the long term. MIT (2009) states that both human and natural systems need to be regenerative and balanced in order to last. Variations of this theme are the following:

A. **Sustainable Solutions:** Chorter (2001) refers to the minimization of negative impacts, and the maximization of positive impacts, such that the net effect is positive for all stakeholders. Stakeholders are people and institutions holding equity in an enterprise, their employees, its management, the community, clients, and suppliers.

B. **Sustainable Development:** Brundtland's (1987) edict of meeting the needs of the present generation without compromising the needs of a future generation is vague, but nevertheless sets the stage from which to develop specific applications. One can argue, for example, that sustainable development is an oxymoron in that development implies growth while our planet is finite, in which case development in the macro economic sense is not sustainable by definition.

C. **Sustainable Macroeconomic Measurement:** For industries and nations indices can be developed to measure progress as a time series. Other indices may deal with monetary valuation of environmental assets and damages on one hand, and social achievements on the other. A non-depleting capital stock implies sustainability.

D. **Sustainable Micro Economic Measurement:** For companies and households, measurements of greater specificity than the macro-economic ones are needed. The answer may lie in product life-cycle assessments that may be unique for each product category, where the question of sustainability should come up in the early planning phase. One may find for example, that production efficiencies and quality improvements lead to lower prices. Those lower prices, in turn lead to higher consumption, in which case the unintend-

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