

Benefits of Global Sustainability

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Abstract: An increasing number of companies are rapidly adopting sustainability techniques. Sustainability is defined as lowering the environmental impacts of economic activity and buildings to a level which allows the indefinite maintenance of a given production level and lifestyle. Sustainable practices can also increase the quality of life. The implementation of sustainability practices requires the collaboration of suppliers, customers, organizational stakeholders and the society. This paper discusses the benefits and challenges of sustainability on a global scale, exemplified with the actions of specific companies.

Keywords: Global sustainability; supply chain sustainability; sustainable supply chain management; sustainability of SME.

Introduction

The problem of sustainable development became part of the public discourse in the early 1970s, when it became obvious that the rates of consumption of non-renewable resources coupled with the environmental degradation triggered by economic activity would soon encounter the limitations of the geologically available mineral and fossil resources as well as the natural ability of the environment to repair the effects of pollution and erosion. Computerized simulations of the projected trends for the period from 1970 to 2100 predicted a major collapse of the environment and economic activity in the mid-twenty first century. It became obvious that the coming environmental catastrophe can be averted only through a new approach for economic development. The 1987 report of the World Commission on Environment and Development "Our Common Future" sought to strike a balance between environment and development goals by defining sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" [1]. Sustainability, in other words, is the harmonious co-existence of the natural environment and humans, and allows present and future generations to fulfill their economic and social requirements, such as access to food, energy, water and other resources to protect human health [7].

Our understanding of sustainability continues to evolve, with one of the most visible changes in the recent years being the recognition that green logistics and supply chains are one of the most important factors in sustainability [2, 3, 4]. The global issue of climate change forced governments and businesses to reconsider long entrenched practices and operations. Climate change directly affects the logistics and supply practices as outlined in [5]. In particular, for retail operators, ideas of green logistics and sustainable distribution have emerged as "practical business concerns rather than fringe operational worries" [6]. The retail operators directly interact with large masses of customers – the plastic bags, disposable packaging, the trucks and air freight are representatives of unsustainable supply and distribution practices.

We can identify four essential aspects of sustainable development [8, 9, 10]:

Economic sustainability: the economic system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances which damage agricultural or industrial production.

Environmental sustainability: the system must maintain a stable resource base. Non-renewable resources must be used only to the extent that investment is made in adequate substitutes. Even renewable resources and environmental sinks must be treated with care to avoid their over-exploitation. Note that in this definition of resources we also include the maintenance of biodiversity, atmospheric stability and other ecosystem functions not ordinarily viewed as economic resources.

Social sustainability: the social system must achieve fairness in distribution and opportunity, adequate provision of social services including health and education, gender equity, and political accountability and participation.

Corporations need to be involved in all the above aspects of sustainability. Large corporations however, must particularly be focused on **supply chain sustainability** that is increasingly recognized as a major part of corporate responsibility. Companies must manage the social, environmental and economic impacts of supply chains, and combat

corruption. Sustainable supply chains are not only the right ethical choice, but in the long run they also ensure the stability and profitability of the business. Maintaining a sustainable supply chain is made difficult by the fact that they exist in continuously evolving markets and changing business relationships. In the following we will define more closely the term of supply chain sustainability and outline some concrete actions that companies can take towards their implementation. In our definitions, we will use as the starting point the principles of United Nations Global Compact.

“Supply Chain Sustainability: A Practical Guide for Continuous Improvement” [11] defines supply chain sustainability as the management of environmental, social and economic impacts, and the encouragement of good governance practices, throughout the lifecycle of goods and services. The objective is to create, protect and grow long-term environmental, social and economic value for all stakeholders involved in bringing products and services to market. Through supply chain sustainability, companies protect the long-term viability of their business and secure a social license to operate.

There are numerous definitions of the terms ‘Sustainable’ and ‘Supply Chain’. For this paper we used the definitions provided in [12]: “Management of raw materials and services from suppliers to manufacturer/ service provider to customer and back with improvement of the social and environmental impacts explicitly considered”. The supply chain considers the interactions between a business and its customers and suppliers. The greatest benefits are derived by extending the focus as far as possible upstream towards the raw materials, downstream towards the consumer and then back again as the product and wastes are recycled.

A different perspective on Sustainable Supply Chain Management (SSCM) is provided by Seuring and Müller [13] “The management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e., economic, environmental and social, into account which are derived from customer and stakeholder requirements. In sustainable supply chains, environmental and social criteria need to be fulfilled by the members to remain within the supply chain, while it is expected that competitiveness would be maintained through meeting customers’ needs and related economic criteria.”

Sustainability of Small and Medium Enterprises (SMEs)

Our discussion in the above paragraph might have given the impression that the sustainable supply chains are a concern of large companies, often large retailers who are in direct contact with the end customers. However, even in the case of large companies, the supply chain often involves many geographically distributed small and medium size companies (SMEs) as upstream supply chain partners. In fact, in many nations, SMEs are responsible for up to 70% of GDP, making them the most important players of most economies and supply chains. Thus, the process of enhancing sustainability in goods and services is just as much a concern of the SMEs as it is for large enterprises. On the other hand, SMEs often lack the resources and know-how of large enterprises. Large multinational companies and industry associations must engage in developing and implementing integrated technical and financial support programs aimed at assisting SMEs in improving their resource efficiency and reducing their environmental impacts.

Positive examples of sustainable supply chain management in large companies

A number of large multi-national companies have established internal initiatives to design and implement systems for sustainable supply chain management. The procedures developed by these companies often serve as a model for similar initiatives in their competitors as well. The companies taking these initiatives span a very large spectrum of different businesses and include companies such as Tesco, H&M, Levi Straus & Company, Ford Motor Company, Hewlett & Packard, Ikea, Nestlé, Patagonia and Timberland. The Renewable Choice Energy organization conducted a study spanning 24 large multi-national organizations, and found that scorecards expressed environmental concerns such as carbon emissions, energy consumption, waste and pollution, and use of resources such as water. At the same time many scorecards also took into account the social aspects of sustainability [14]. As the companies aim to improve their own publicly distributed scorecards, this also creates motivations for the downstream suppliers to improve their sustainability, which can become a competitive advantage.

IKEA

IKEA is a multinational group of companies whose main goal is the design, production and commercialization of ready-to-assemble furniture. The sustainability policy of the company aims to “bring the sustainability to the home” through an innovation-solution approach. Thus, the company not only aims to manufacture its products using a sustainable supply chain, but also to designing new products whose use encourages sustainability. For instance, the company designs home and kitchen furniture which helps reduce resource consumption and improve waste management. The company communicates with customers to understand their needs and being able to answer them through sustainability solutions. Some of the focus points of IKEA’s sustainability policy are:

- The use of solar energy systems (which aim to reduce CO₂ emissions and offer healthy places for employees).
- The use of sustainable raw materials in manufacturing, for instance by using less irrigation and fertilizers.
- Improving quality of life of employees and customers [15].

Wal-Mart

Wal-Mart is a multinational retail corporation and the world's largest company by revenue. As the world largest retailer, it is the endpoint of very large supply chains. Thus for Wal-Mart the sustainability of its supply chains is an essential ingredient for financial stability, as well as for the role it aims to play as a responsible member of the global community. To achieve this, Wal-mart has established Sustainable Value Networks (SVNs). Wal-Mart had defined its sustainability objectives in the form of three specific goals:

- Energy: Be supplied 100 percent by renewable energy.
- Waste: Create zero waste.
- Products: Sell products that sustain people and the environment[16].



Energy

working to become supplied 100% by renewable energy by examining every aspect of carbon footprint.



Waste

To create zero waste, rethinking processes, using smarter packaging, recycling and reducing plastic bag use.



Sustainability Index

Integrating a new retail standard that will assess and improve the sustainability of products.

McDonald's

The McDonald's corporation is the world's largest fast-food hamburger restaurant. The traditional objectives of MacDonald's supply chain management were quality, food safety and competitive prices. In recent decades, these objectives had been extended to include the holistic goal of global sustainability and social responsibility. The company's perspective is that the sustainability efforts will assure the continuity of the supply chain and help in retaining the customer trust in the McDonald's brand. Beyond these specific goals tied to business advantages, the company also believes that ensuring sustainability is "the right thing to do" independently of immediate business impact. One of the specific focus of McDonald's is to ensure the sustainability of its packaging materials.

Thus, the company developed a Sustainable Packaging Scorecard focusing on:

- Maximize recycled content
- Maximize "end of life" options
- Minimize the weight of packaging
- Minimize the use of harmful chemicals during manufacturing.
- Have a preference towards materials obtained from renewable resources
- Reduce CO₂ emissions [17]

Volkswagen Group

The Volkswagen Group is the second largest car manufacturer in the world, with more than 100 production facilities in 27 countries. Operating over such a large number of markets and production areas, the company views the issues of a sustainable supply chain, including issues such as human rights and environmental impacts as clearly related to other business factors, such as risk, quality and cost. As a guideline for its suppliers, the Volkswagen Group established a "Sustainability in Supplier Relations" program that recommends various measures organized by themes as follows [18]:

- The reducing of carbon dioxide emissions from fossil fuels.
- Reduce air pollution and help improve air quality
- Reduce water consumption or reduce the risk of water pollution
- Improve recycling and re-use, and reduce the amount of waste sent to landfill.
- Reduce the use of raw materials, especially those from threatened or nonrenewable sources.

CONCLUSIONS

In recent decades both large and small enterprises put a significant focus on the sustainability of their supply chains. This paper illustrated this by surveying the efforts of some of the largest corporations on the planet. There are multiple motivations behind this effort. A significant motivation is the need to ensure compliance with the laws and regulations of the different markets in which they operate. In addition to the laws and regulations, the companies also face pressure from their customers and the general public, and they need to maintain their prestige and image in the international business community. Finally, in many aspects, maintaining a sustainable supply chain makes a solid business sense, ensuring the stability of the company's business.

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