Chapter 11
Sustainable Globally Integrated Enterprise (GIE)

Abstract In this chapter, we present the globally integrated enterprise (GIE) as an emerging business model with strong implications for how companies run and operate their global supply-and-demand chains. The GIE shifts the focus from an efficiency-driven model to a value-driven one which leverages and integrates global capabilities to deliver value speedily, seamlessly, and in a flexible way, while maximizing profits. A GIE is a complex organization that faces many challenges. The evolution of the supply chain in the last 20 years has paved the way for the Operation Research (OR)-enabled Sense-and-Respond Value Net that supports today’s GIE needs. We present a GIE case study of a business transformation journey. We then describe the next steps for GIEs to become more socially, economically, and environmentally responsible through the use of OR, business analytics, and IT.

11.1 Introduction

A Globally Integrated Enterprise (GIE) is an open, modular organization that is integrated into the fabric of the networked economy and operates under a business model that makes economic sense in the new global landscape [14].

Several fundamental changes in the last 20 years have caused multinational companies to rethink their approach:

1. The breakdown of economic nationalism caused trade/investment barriers to recede, accelerating the globalization trend.
2. Advances in technology and open standards have significantly improved the speed and reduced the cost of global communication.
3. Geopolitical changes opened up new markets and skill pools which had been unexplored by multinational corporations.

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These changes have caused companies to re-evaluate how they manage their business since where and how business value is created in this new environment is evolving. For example, sharing work across country or continent borders becomes possible, and outsourcing and global operations seem much more appealing. Many US and European companies have moved or outsourced some or all of their manufacturing or services to Asia, South America, and East Europe, with increasing speed. The multinational companies’ traditional approach of replicating themselves and building plants locally while maintaining some key corporate functions such as R&D and product design in their home countries is no longer sustainable. They need to create flatter, more efficient operating models while building new innovative capabilities globally to drive profitable growth. This new model has implications for how companies run and operate themselves and their global supply chains. Fundamentally, the focus has shifted from simply managing the supply chain for greater efficiency to leveraging it to drive revenue, profit, and customer satisfaction. In the 2008 IBM Global CEO study, CEOs indicated that they were embracing the global integration and unpredictability as the new routine [22]. They were also anticipating the need for their business to respond seamlessly and globally with unprecedented speed and flexibility. In his 2006 article in “Foreign Affairs,” Sam Palmisano, IBM’s CEO, coined the term “Globally Integrated Enterprise” (GIE) for this emerging business model [45].

In his article, Mr. Palmisano pointed out four major challenges for a GIE: (1) securing a supply of high-value skills; (2) creating sensible worldwide regulation of intellectual property; (3) determining how to maintain trust in enterprises based on increasingly distributed business models; and (4) managing requirements for long-term vision and continuous investment from business leaders. Recognizing the scale of these challenges, Mr. Palmisano called for the leaders in business, government, education, and civil society to learn the emerging dynamics of GIEs and to help GIEs mature in ways that would contribute to social, economic, and environmental progress around the planet. Two years later, in his 2008 speech to the Council on Foreign Relations, Mr. Palmisano discussed “A Smarter Planet: The Next Leadership Agenda” [46]. He described the IBM vision for a Smarter Planet and the way in which the world is becoming instrumented, interconnected, and intelligent. He laid out visionary scenarios that lead the way to transforming companies into GIEs and also pointed out a new direction toward sustainability, asking IBM, business, and civil leaders to jointly work on specific solutions.

The key motivations for the multinational companies to go global have remained the same: to improve revenue and profits by entering new markets, reducing production costs, and seeking skilled workers at low costs [24]. However, in the face of accelerating change brought about by globalization, technology advances, standardization, competition, and geopolitical evolution, as well as the skills evolution of both developing and developed countries, the operational model of the multinational companies is undergoing fundamental changes structurally, operationally, and culturally and at an unprecedented pace. The benefits of a well-run GIE are obvious: With the support of global skills and communication, the GIEs are able to strategically place their operations anywhere in the world that offers the lowest cost or the