

Chapter 25

Internal Supply Chain Integration: Effective Integration Strategies in the Global Context

Virpi Turkulainen
Aalto University, Finland

ABSTRACT

Supply chain relationships and subsequent supply chain integration have received significant attention among both academics and practitioners over several decades. The majority of the prior research has focused on assessing the relationships between the focal manufacturing firm and its suppliers and/or customers. Recent research, however, suggests that successful management of external relationships requires effective integration of the internal supply chain within the focal firm. In this chapter, we focus on internal supply chain integration. The author starts with the assumption that integration is an investment and that the importance of it is context-dependent. By examining data collected in 210 plants in eight countries, the author exploratively examine internal supply chain integration strategies; using cluster analysis, they classify the plants into four groups based on their use of various individual integration mechanisms. In addition, the author assess the use of the four integration strategies under various task contexts and across countries.

INTRODUCTION

Due to recent developments in globalization, companies can be viewed as complex structural networks, which span across different geographical locations and number of businesses and partners.

In order to successfully manage those networks, complex managerial decision making structures are needed; in today's globalized environment, companies compete with their capability to integrate knowledge and information, both internally within the organization and externally with their suppliers, customers, and other stakeholders

DOI: 10.4018/978-1-4666-1945-6.ch025

(Galbraith, 2002). The results of prior research also suggest that problems companies are facing in the global economy are often not due to inappropriate strategic analysis but, in fact, are due to failure in designing the organizational structures and subsequent integration of internal and external parties (Bartlett & Ghoshal, 1989; Galbraith, 2000).

Integration of the supply chain has received significant attention among academic researchers and managers since the 1980s (Miles & Snow, 2007). Especially during the recent years, research addressing the management of supply chain relationships has been numerous (e.g., Bozarth, Warsing, Flynn & Flynn, 2009; Cousins & Menguc, 2006; Das, Narasimhan & Talluri, 2006; Germain, Claycomb & Dröge, 2008; Koufteros, Cheng, & Lai, 2007; Vachon & Klassen, 2008; Van der Vaart & Van Donk, 2007). Supply chain integration can broadly be divided into two parts (e.g., Chen & Paulraj, 2004; Fawcett & Magnan, 2002): management of the relationship between a firm and its suppliers and/or customers (external integration) and management of the cross-functional relationship within the manufacturing firm (internal integration).

In this chapter, we focus on internal supply chain integration in manufacturing organizations. The aim of the chapter is to set the stage for effective and efficient management of global supply chain relationships and integration in the global supply network. Integration is often assumed to provide wide benefits and is considered critical in order to survive in the global, constantly changing environment (e.g., Fine, 1998; Koufteros, Vonderembse & Jayaram, 2005). In this chapter, we present a somewhat contrasting view of integration. We build on the idea that integration can be considered as an investment requiring both financial and managerial resources (Adler, 1995; Lawrence & Lorsch, 1967b; O'Leary-Kelly & Flores, 2002). Hence, it is of fundamental importance to understand when integration is particularly relevant and how it can be effectively

managed in different contexts. We are especially interested in configurations of individual integration mechanisms, which we label as integration strategies. In this chapter, we address questions such as: How do companies manage the internal integration challenge? Is it possible to identify different integration strategies? Does the use of different strategies differ, depending on the characteristics of the organizational task? Does the use of integration strategies differ across countries? We approach these questions exploratively and analyze empirical data collected in 210 manufacturing organizations in eight countries across the world (Austria, Finland, Germany, Italy, Japan, Korea, Sweden, US).

LITERATURE REVIEW AND THEORETICAL BACKGROUND

Defining Supply Chain Integration

The idea of supply chain integration is not new; integrated supply chain relationships have long been encouraged among manufacturing firms and their supply chain partners (e.g., Lambert, Robeson, & Stock, 1978) and supply chain integration has received significant attention among academic researchers since the 1980s (Miles & Snow, 2007). Despite the long history of research on supply chain relationships and supply chain integration, the perceptions and definitions of it vary widely among scholars. The predominant approach to supply chain management has been to focus on the relationships between a focal firm and its partners (suppliers and/or customers) (Chen & Paulraj, 2004). Yet, others relate supply chain management to the management of both cross-functional relationships within the firm itself and relationships with external parties (e.g., Ballou, Gilbert, & Mukherjee 2000; Barki & Pinsonneault, 2005; Germain & Iyer, 2006; Pagell, 2004; Rodriques, Stank, & Lynch, 2004).

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/internal-supply-chain-integration/69296

Related Content

Performance Evaluation of a Dynamic Model of a Photovoltaic Module for Real-Time Maximum Power Tracking

M. S. Alamand A. T. Alouani (2012). *Handbook of Research on Industrial Informatics and Manufacturing Intelligence: Innovations and Solutions* (pp. 464-490).

www.irma-international.org/chapter/performance-evaluation-dynamic-model-photovoltaic/64733

Practitioner's View on the Future of Economic Decision-Making in Project Management: A Research Note

Brian J. Galli (2019). *International Journal of Applied Industrial Engineering* (pp. 33-55).

www.irma-international.org/article/practitioners-view-on-the-future-of-economic-decision-making-in-project-management/233848

Application of Multiple Regression and Artificial Neural Networks as Tools for Estimating Duration and Life Cycle Cost of Projects

Brian J. Galli (2020). *International Journal of Applied Industrial Engineering* (pp. 1-27).

www.irma-international.org/article/application-of-multiple-regression-and-artificial-neural-networks-as-tools-for-estimating-duration-and-life-cycle-cost-of-projects/263793

Digraphs

Alireza Bolooriand Monirehalsadat Mahmoudi (2013). *Graph Theory for Operations Research and Management: Applications in Industrial Engineering* (pp. 142-149).

www.irma-international.org/chapter/digraphs/73156

Process Optimization and NVA Reduction by Network Analysis and Resequencing

Anand Sunder (2019). *International Journal of Applied Industrial Engineering* (pp. 29-45).

www.irma-international.org/article/process-optimization-and-nva-reduction-by-network-analysis-and-resequencing/222794