Chapter 79
Performance Improvement in Cloud Based Supply Chains

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ABSTRACT

This chapter summarises the findings on how improvement in the performance of the supply chain processes could assist the company becoming innovative. Through this report it is consistently held that improvement in the performance of the supply chain processes assists the company in becoming innovative.

INTRODUCTION

Some supply chain companies are more globalized than they were in the 1970's. According to (Chopra & Meindl 2007), a *Supply Chain* consists of all stakeholders who are involved, directly or indirectly, in satisfying a customer request. Supply chains consist not only of the vendors and producers, but also transporters, warehouse keepers, retailers and even customers themselves (Chopra & Meindl 2007). Supply chains are not pertained only within the organization, but also extends to cover sub-suppliers and their sub-sub suppliers and so on.

In general a Supply Chain includes all such processes responsible in receiving and fulfilling a customer order. These functions may involve and are not limited to, new product development, marketing, operations, logistics, and funding and customer service. Supply Chains are dynamic and involve the constant flow of information, product and funds between the various stages within the supply chain. Maximizing the overall value generated within a supply chain is the objective of every Supply Chain. The *value* a supply chain generated is considered as the difference between what the final product is worth to the customer and the costs the supply chain incurs in fulfilling the customer's orders. The strategies that organizations adopt to maximize the value are reliant on the organizations supply chain operations and processes.

DOI: 10.4018/978-1-5225-9273-0.ch079

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Alignment of Cloud Systems With the Supply Chain Goals

Mobile technology has enabled workplaces to work at faster speeds. Fleet management has historically been at a desk job, limiting companies in their productivity and communication. The new cloud systems technology has enabled modernization of fleet operations so that they can become faster, smarter, more accurate and more accessible to customers. This change in fleet management culture starts with the right devices that can support that management style.

DRIVERS OF SUPPLY CHAIN PERFORMANCE

Porter (1986) emphasized the concept of value chain to ascertain the significance of each of the supply chain operations. According to Porter, there are a number of Supply chain drivers that need to be coordinated in a harmonious manner to optimize the value a supply chain generates. Some of these key supply chain drivers are:

1. **Facilities:** They are the actual physical locations in a supply chain network where products are stored, assembled and/or fabricated. Decisions regarding the role, capacity, location and flexibility of amenities have a significant impact on the supply chain's performance.
2. **Inventory:** The inventory in an organization encompasses all raw materials, work in progress, finished goods within a supply chain. Optimizing the inventory management strategies can drastically alter the supply chain's efficiency and responsiveness.
3. **Transportation:** The transportation function in an organisation involves moving inventory from point to point within the supply chain. The choice in mode of transport and monetary expenditure can play a significant role in either making the supply chain more responsive or more efficient.
4. **Information:** Information consists of the data and analysis concerning facilities, inventory, transportation, prices and customers throughout the supply chain. Information within a supply chain directly affects each of the other drivers and thus is the largest driver of performance in a supply chain.
5. **Sourcing:** Sourcing does not only refer to the procurement of raw materials. Sourcing in a supply chain refers to the management decisions as to the accountability to perform a supply chain activity such as production, storage, transportation, or the management of information.
6. **Pricing:** The pricing of a product or service in a supply chain determines the behaviour of a customer in his/her decision to purchase the product.

Designing a Sustainable Supply Chain Programme

In designing a sustainable supply chain programme it is important to determine the scope of the programme. The objective of determining the scope of the programme is to identify which suppliers should be engaged with and to what extent, noting that programme boundaries tend to change over time as companies become more sophisticated and capable to manage supply chain sustainability more effectively.

In addition, there could be some entities in the supply chain, requiring immediate attention because of the high level of risk. However, many companies and industries have found that sub-tier suppliers

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