

Chapter 16

Building a Strategic Framework for Retail Supply Chain Analytics

Kumar Subramani

Eataly Foods Private Limited, India

ABSTRACT

This chapter attempts to answer the question, “Why investments in analytics haven’t always improved the performance?” The concept of strategic fit between retail analytics and retail supply chain is established. It argues that a strategic framework blending analytics and supply chain is imperative for superior performance over time. Such a framework helps to clarify goals of supply chain analytics and identify managerial actions that can improve supply chain performance in terms of desired goals. It also describes major obstacles that retailers need to overcome for making supply chain analytics a source of competitive advantage. This chapter is expected to provide a strategic understanding of retail supply chain analytics.

INTRODUCTION

Supply chain management is defined as the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole. In this context of supply chain management, supply chain analytics can be expected to play a significant role in the purpose of improving long term performance (Mentzer et al., 2001). Supply chain analytics can provide insights that will drive effective supply chain management.

Supply chain analytics has been used by retailers to enable right decision making across the supply chain. Analytics has been extensively used for ordering the right product quantities, identifying the distribution centre location and network alignment, decreasing transportation costs, decreasing inventory carrying costs and maximizing stock availability. Operations research based approaches for optimizations

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of locations, inventory levels, and supply routes were the fields where retailers adopted analytics in its initial days (Davenport, 2009). With advancements in analytics, various techniques can be used not only to reduce costs but also to maximize revenue opportunities.

Smith (2000) defined supply chain analytics as the process by which individuals, organizational units, and companies leverage supply chain information through the ability to measure, monitor, and forecast and manage supply chain related business process. Supply chain analytics as a concept promised to extract and generate meaningful information for decision makers from the enormous amounts of data generated and captured by supply chain systems (Sahay & Ranjan, 2008).

In this chapter, we will discuss supply chain analytics and its importance for a retailer's success. We will define how creating a strategic fit between company's supply chain and analytics affects performance. We will also explain the major obstacles a company has to overcome for successful supply chain analytics and discuss the importance of having an analytics value chain that is aligned with the supply chain.

Specific Learning Objectives

After reading this chapter you will be able to:

1. Discuss the goal of supply chain analytics and explain the impact of analytics on the success of the retailer.
2. Explain why achieving strategic fit is critical for retailer's overall success.
3. Describe ways for a retailer to achieve strategic fit between its analytics capability and supply chain strategy.
4. Describe major obstacles that must be overcome for successful supply chain analytics.
5. Explain the significance of decision making for the three key supply chain decision phases.
6. Classify analytics for the macro processes in the retailer.

BACKGROUND

What Is Supply Chain Analytics?

Supply chain analytics uses supply chain data to provide business managers with the right insight at the right time. Data that supply chain systems are generating is increasing. Retailers who are able to take advantage of this phenomenon and apply the latent insights to supply chain operations are able to achieve both top line and bottom line growth. Retailers are striving to create supply chains that are global, flexible and optimized. In the pursuit of striving for excellence in supply chain, it is vital to invest in supply chain analytics. Analytics has become a source of competitive advantage for many retailers.

Consider a typical retail supply chain where a customer walks into a Tesco store and purchases 2 liters of Coca-Cola. The supply chain begins with the customer's want for Coca-Cola. To satisfy this want, the customer walks into a Tesco store. Tesco stocks its shelves using the inventory that it had in the backroom or from the distribution centre. The distribution centre in turn received the inventory from Coca-Cola distribution centre. Coca-Cola stocked its distribution centre from its manufacturing plant which in turn received the ingredients from various suppliers and the 2 liter bottle from its bottle supplier.

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