Chapter 9
Pharmaceutical and Life Sciences Supply Chain Management

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ABSTRACT

The pharmaceutical industry quite broadly encompasses a large and varied number of logistics and supply chain activities. The industry, as a whole, relies on some standard benchmarking indicators such as months of on-hand inventory and inventory turns; however, the existing metrics do not allow for idiosyncrasies of the industry or provide adequately detailed insight into the key factors that make a pharmaceutical supply chain excellence. Over 75% of the markup on pharmaceutical products takes place at the manufacturer. This causes inventory-carrying costs to increase dramatically once the distribution segments of the supply chain purchase the product. Wholesalers and large pharmacy chains suffer high carrying costs on the final product. Inside pharmaceutical supply chains, companies must also face issues of product expiration and limited shelf lives. Seasonal and short shelf life products such as flu vaccines leave companies without the opportunity to redistribute or reallocate product in order to meet demand.
INTRODUCTION

The supply chain of the future will be built on the basis of flexibility, responsiveness and reliability shifting the supply paradigm from a stock-based model to an order-based model. It is imperative that organizations carefully balance operational and financial efficiencies when designing supply chains. Manufacturing operations continue to invest in new technologies targeting cost savings and flexibility, to address historically inefficient, low yield batch processes, with inconsistent quality outcomes. With the increase in biopharmaceutical research, the importance of climate controlled supply chains and faster response times will continue to increase.

Inside pharmaceutical supply chains, companies must also face issues of product expiration and limited shelf lives. Seasonal and short shelf life products such as flu vaccines leave companies without the opportunity to redistribute or reallocate product in order to meet demand. In these instances the product placement must be accurate the first time; few second chances are available. With the increase in biopharmaceutical research, the importance of climate controlled supply chains and faster response times will continue to increase.

Supply Chain Management (SCM) has progressed toward becoming a key component of the present administration rehearses. Regularly, an inventory network comprises of various (creation) locales spread more than a few mainlands. Coordinating material streams among these locales is an extremely complex undertaking and for the most part, surpasses the “manual” limit of an individual (chief). Here, reasonable programming support is required, which is given by supposed Advanced Planning Systems (APS). A few exact investigations have been directed going for the disclosure of key achievement factors for a successful, prevalent store network. As one may expect, an extraordinary number of variables have been proposed and tried (Jayaram et al., 2004). There are diverse approaches to set up supply chains, each fit for accomplishing particular key and operational objectives of the organization. Update of associations and forms expands on key targets and on empowering data innovation. Execution Management needs to guarantee straightforwardness in operational control data, yet in addition, gives instruments and techniques to lead all workers to accomplish the vital objectives (Masteika & Cepinskis, 2015).

The endeavors of huge organizations and companies to outsource and globalize prompt a lasting change in calculated structures. Direct supplies anchors offer ascent to complex esteem chains with arranging attributes. Accomplices associated with the inventory network organize – providers, clients, and coordination specialist organizations – are incorporated more profoundly in the esteem including process. Alongside vertical coordination comes the accomplices’ reliance upon each other. Unforeseeable bottlenecks in coordination methods – or even their entire
B2B Relationships in Modern Times: Implications of Relation-Specific Information Systems on Governance Forms
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