

The Manufacturing Flow Management Process

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Overview

Manufacturing flow management is the supply chain management process that includes all activities necessary to obtain, implement, and manage manufacturing flexibility in the supply chain and to move products through the plants.¹ Manufacturing flexibility reflects the ability to make a variety of products in a timely manner at the lowest possible cost and respond to changes in demand. To achieve the desired level of manufacturing flexibility, planning and execution must extend beyond the four walls of the factory. In this chapter, we describe the manufacturing flow management process in detail to show how it can be implemented within a company and managed across firms in the supply chain. We examine the activities of each sub-process; evaluate the interfaces with corporate functions, processes, and firms; and provide examples of successful implementation.

Introduction

Manufacturing, the conversion of raw materials and components into finished goods, represents one of the most value-adding activities in the supply chain.

Manufacturing, the conversion of raw materials and components into finished goods, represents one of the most value-adding activities in the supply chain. In fact, the economic health of entire nations can be tied to a nation's ability to produce an assortment of finished goods desired by the home market as well as markets abroad. The ability to design, engineer, and produce products on a cost competitive basis is a keystone of developed nations. While fewer people might be employed in the manufacturing sector in the world's most developed economies, manufacturing continues to drive an estimated 70 percent of exports, as well as a disproportionately large share of innovation and R&D spending.² Yet, manufacturing is essential in service supply chains, too. Consider the provision of food service at a restaurant. Most food ingredients will undergo some form of processing and packaging by vendors. The supplies essential to maintaining a clean and sanitary food preparation environment will be manufactured, as will the kitchen equipment, tables and chairs, and business equipment. In fact, each

¹ This chapter is based on Thomas J. Goldsby and Sebastián J. García-Dastugue, "The Manufacturing Flow Management Process," *The International Journal of Logistics Management*, Vol. 14, No. 2 (2003), pp. 33-52.

² McKinsey Global Institute, *Manufacturing the Future: The Next Era of Global Growth and Innovation*, McKinsey & Company, 2012.