

## Chapter 8

# Strategic Role of Information and Information Technology in Shop Floor Control in Footwear Industry Sector

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### **ABSTRACT**

*This chapter presents an approach to the strategic role of information and information technology in the shop floor control in footwear industry sector, pointing and tracking through the various stages of the production process. Discusses the importance of industries perform monitoring of production processes, with the goal of identifying information needs, actions and solutions that will contribute to the improvement and efficiency of the production process. The chapter also discusses the contribution of information technology to the information systems of companies, through the resources and solutions available today, such as Enterprise Resource Planning - ERP, Manufacturing Resource Planning - MRP and Shop Floor Control - SFC. The research method is the case study conducted in firm located in an industrial Brazilian footwear. This study examines the use of a solution called GradeSFC tracking and pointing of the production process.*

### **INTRODUCTION**

We are in the XXI century and living in a knowledge society, where business is changing rapidly and where success and survival depend on the organization's ability to adjust to dynamic business environment. In this context, some questions arise: How can we develop the best strategy for business? How information systems can contribute to the strategy? What is the contribution of information technology to the existing information systems in business?

The purpose of this chapter is to seek to understand the importance and strategic role of information and information technology in the shop floor control in the footwear industry sector. After the main themes

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of literature related to the subject as: systems and enterprise production process, shop floor control, the strategic role of information and the contribution of information technology for information systems, we defined the following research questions, which will be key to the development of this research:

- How to identify the need for information, solutions and actions needed that will contribute to the improvement and efficiency of the production process?
- How to identify the need and contribution of resources and solutions currently available through information technology.

The research will be conducted, with company of an industrial Brazilian footwear, aims to raise and analyze the degree of maturity of these companies in tracking and pointing the various stages of the production process and identify how these industries identify needs information, actions and solutions that will contribute to improvement and efficiency of the production process. The importance of effective control of production processes and the use of information technology industries in Brazil have been meeting the expectation of growth that emerging countries like Brazil, has shown in recent years. In the case study, we will analyze a solution called GradeSFC tracking and pointing of the production process.

## **BACKGROUND**

### **The Strategic Role of Information and Information Technology**

#### **Systems and Enterprises**

The concept of systems lead to understanding the complexity of modern business as a whole. It is considered system a set of interdependent elements or an organized or interacting parts forming a unitary whole and complex. However, we must distinguish closed systems, such as machines and watch open systems, such as biological and social systems: the man, the organization and society (Laudon & Laudon, 2007). A system is closed if no material enters or leaves it is open if there is import and export and, consequently, changing components. The open system can be understood as a set of parts in constant interaction, constitute a whole geared for certain purposes and in permanent interdependent relationship with the external environment. A system may be composed successively of subsystems (also set of interdependent parts) that relate to each other, forming the larger system. Open systems involve the idea that certain entries are entered into the system and processed, generate certain outputs. The company draws on material resources, human and technological, whose processing resulting goods or services to be supplied to the market, as illustrated in Figure 1.

Another important concept is the information and information systems. Information can be considered as the result of data handling and provided with relevant purpose. Good information has significant value for organizations. Information systems are defined as a set of interrelated components that collect (retrieve), process, store and distribute information to support decision making and organizational control. According to Oliveira (2011), can approach an information system with a subsystem of the company, which owns the activities of inputs, processing and outputs as shown in Figure 2.

The components of an information system may be defined, according to O'Brien (2004):

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