

Chapter 13

A Corporate Perspective on Global Management and Development of Lean Production Systems: A Case Study

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ABSTRACT

The challenge for every multinational manufacturing company with the ambition to implement the lean production concept is how to implement it worldwide within its global manufacturing footprint. There are many decisions that need to be taken from a company group perspective when planning and implementing a lean program. These concern the level of standardization on principles and tools, how to structure and organize additional resources, how to share experiences within the organization, and how to sustain the effort. These factors are elaborated in this chapter from a factory perspective based on the presentation of the lean journey of Gyproc AB, a process industry company within the Gypsum part of the large Saint Gobain group. The company has worked for about ten years with implementing world-class manufacturing and has extensive experience of the issues of starting-up and sustaining the lean-based concept.

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INTRODUCTION

Today, many global manufacturing companies implement their own version of the lean production concept, sometimes presented as the XProduction System (XPS) where X stands for the company name, see e.g. the extensive summary of 30 XPS's made by Netland (2013). Some global companies on the other hand choose to build concepts similar to, or inspired by the Toyota production system - or lean production, but without strictly following the lean principles or using the whole lean tool box. Either way, the challenge for every manufacturing company managing a global manufacturing footprint, that is, a global network of own production facilities, is how to create and manage a structure and a system for worldwide implementation of the lean production concept. There are many decisions that need to be taken from a company group perspective by the board, the executive committee, as well as the managers on operations level during the planning, start-up and operation of a corporate lean program.

The last two to three decades, a number of companies within the manufacturing industry worldwide have started, or are in the process of implementing lean production. For several reasons, most companies start their journey by implementing 5S in their production, moving towards the use of other tools in the lean toolbox, such as value stream mapping, SMED etc. Although implementing lean at one site is a considerable challenge, implementing lean within a corporate network of production sites is even more challenging. Many companies today manage a global manufacturing footprint. Where and how do you start the implementation of lean production when managing a company group with a number of production sites at different locations or markets? Do you start by recruiting a Japanese sensei or expert in order to guide you through the initial and important first steps, or perhaps a western translator of the Toyota Production System? Or maybe the introduction is based on initiatives put

forward by a newly recruited manager with previous experience from companies working with lean, or perhaps by top managers of the company visiting lean companies or even Toyota sites (like many did 20-30 years ago). Either way, the challenge is how to plan and organize in order to prepare for successful implementation of lean within a number of production sites rather than just one site. Identifying what needs to be considered is a first step, from a corporate perspective, towards the creation of a strategy for lean implementation. From a corporate perspective, options are many and the decisions made should fit the specific context. However, it is easy to find a lot of theory on lean principles and tools, but when it comes to practical implementation it is much more difficult to find practical guidance supporting corporate decisions about organization, resources etc. In e.g. (Drew, 2004) relevant aspects on the management infrastructure for lean could be found, and in (Netland, 2013; Netland and Aspelund, 2013) the establishment of the Volvo Production System worldwide reflects upon this corporate perspective of implementing lean.

The objective of this chapter is to elaborate on some of the questions presented above, based on the presentation of Gyproc AB, a Swedish production facility within the Saint Gobain group and their experiences of implementing the lean based World Class Manufacturing concept.

BACKGROUND

Many researchers refer to the book "The machine that changed the world" by Womack *et al.* (1990) as a milestone for the early descriptions of lean production. This was made by translating the Toyota production system (TPS) into a generic model and was an early attempt to decode the DNA of TPS, as also made by Spear and Bowen in Harvard Business Review (1999). Liker's book "The Toyota Way" from 2004 is another TPS translation emphasizing, among other things, the

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