

# Management of Logistics Planning

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## ABSTRACT

*Logistics problems are gradually becoming more complex and a better understanding of logistics management as a subject is a key to deal with the new challenges. A core element of logistics management is logistics planning, which substitutes for low customer service levels, high waste, and the use of buffers and slacks in the execution of logistic activities. Furthermore, the availability of information and problem-solving capabilities are established as the core parts of logistics planning. Based on this, in this paper, a conceptual model for the management of logistics planning is proposed and discussed. In this regard, the model is built on ideas from microeconomics.*

*Keywords: Information Availability, Logistics Management, Logistics Planning, Problem-Solving Capability, Production Theory*

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## INTRODUCTION

Over the last few decades, developments in business life and business management in general, have led to changed and more complex logistics problems. This has made it harder for managers in organizations where logistics is important to be consistent in relating to and dealing with the many logistics management activities that arise.

Our practical experience from working with many different companies for a number of years is that many managers have rather low formal logistics competence. Further, that mastering quantitative logistics management activities is challenging since they focus on methods and techniques which are difficult to learn through

experience. Nonetheless, such methods have often yielded large savings and are frequently promoted by commercial logistics companies. Hence, sound knowledge about such logistics management activities is necessary for logistics managers.

Quantitative logistics management covers activities such as routing, inventory management, and production planning necessary to create plans for executing logistics activities mainly at an operational level. Such plans will represent value since they improve the execution of logistics activities which again usually will create cost savings or other positive effects. In the literature, such planning, which is a core activity in most quantitative logistics management activities, is often called “logistics planning”.

In order to conduct logistic planning it is necessary to have access to relevant logistics

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information and a capability to transform this information into an intelligent plan. However, these issues could be challenging and demanding in terms of resources. A logistics manager will have to trade off costs and benefits (more details later) and make sure that the necessary premises for efficient execution at the desired level are fulfilled. We regard these as important strategic or tactical (situation dependent) logistics management activities which concern the efficient allocation of scarce resources. Further, we believe that understanding these aspects of logistics management is of great importance for logistics managers as well as for academics.

Remark that management of logistics planning differs from logistics planning as such, since the focus now is on how to organize the ability to perform logistics planning.

In our opinion, management of logistics planning is presently given too little attention in research and education and we agree with Ghiani et al. (2004, p. xiv) who claim that "logistics planning tends to be treated either integrated and qualitative, or mathematical and very specific".

When taking the latter approach, all necessary logistics information is usually assumed to be available and the focus is on problem solving to obtain solutions. Managerial aspects beyond the obligatory chapters of why the logistics management activity in question is important are not given much attention, see e.g., Silver et al. (1998) and Nahmias (2005).

Similarly, these issues are not given much attention in logistics research and textbooks that take a more integrated and qualitative approach, whether they declare themselves as supply chain management-founded or not. Information availability and problem-solving capability are widely regarded as being important since they are assumptions for being able to exercise logistics planning. However, trade-off issues are rarely mentioned and in particular, not much attention is paid to the related costs of information collection and problem solving, and how they should be balanced relative to each other, e.g., Christopher (1998), Chopra and Meindel (2001), and Ballou (2004).

There are also several contributions that focus on information technology and information systems and their importance for enhancing the competitiveness of logistics. However, the focus is generally on the information aspect, and the problem-solving capability is not emphasized, e.g., Hammant (1995), Gustin et al. (1995), and Closs and Goldsby (1997).

A consequence of this divided and detached research and presentation of quantitative logistics management activities is that it becomes difficult for logistics managers to get a full picture of what logistics planning includes on strategic or tactical levels. Furthermore, it becomes difficult to see the common features, and subsequently common management issues which exist across the different logistics management activities.

This article will focus on the area of logistics management that is related to the management of efficient logistics planning using quantitative logistics management tools. More specifically, this means that we will explore the general objective of logistics planning and the coherence between this and its two main components; problem solving and information collection. In doing this we will propose a conceptual model that covers these issues.

The conceptual model is used as a tool to reach the main purpose of this article, namely to contribute to a greater understanding and awareness of what management of efficient logistics planning entails with respect to quantitative logistics tools.

Our aim is to contribute to a further development of logistics management as a subject and subsequently, in the long run, contribute to increased quality of logistics planning in organizations.

The article is conceptual and based on a review of relevant literature and builds on our experience from participating in numerous industry projects.

The rest of this paper is organized as follows. In the following section we review the background of our research. Thereafter, in the two subsequent sections, we present and discuss our conceptual model. Conclusions and

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