

Preface

Logistics is an integral part of our everyday life. Today it influences more than ever a large number of human and economic activities. In this book, authors try to illustrate some advanced logistics and supply chain management topics, recently mentioned by academic and industrial personnel. This book has been organized in 12 chapters such that the reader can study each chapter not only independently as shown in Fig. 1; but also as part of a whole. If someone wants to study the book more deeply, the suggested approach for this study is shown in Fig. 2.

So the readers of this book may be divided into at least two groups: (1) students in Master's courses or higher, who can use this book in their courses as a whole, and (2) experts who want to learn more about a new topic in logistics and supply chain management; this group may want to read a chapter about a special topic that is found in this book.

In the context of global competition, the more latent topics in logistics supply chain management are fast growing. This book falls within this perspective and presents 12 chapters that well illustrate the variety and complexity of these topics. This book is organized as follows:

Chapter 1 introduces logistics and supply chain management and contains some primal definitions about these two concepts; some obstacles, prerequisites and infrastructures of modernized logistics and supply chain management and global supply chain management are illustrated.

Chapter 2 concentrates on performance measurement scales and indicators. Performance measurement is the process of quantifying the effectiveness and efficiency of action. Performance measurement systems are described as the overall set of metrics used to quantify both the efficiency and effectiveness of action. After demonstrating the importance of performance measurement, SCOR indicators and taxonomy, as well as balanced scorecards are presented as more popular approaches.

Chapter 3 is about the global supply chain management system. "Global" refers to transactions involving individuals or firms in more than one country. Supply chain management includes integration and coordination activities such as logistics, marketing, sourcing, etc. This chapter focuses on globalization and its challenge;

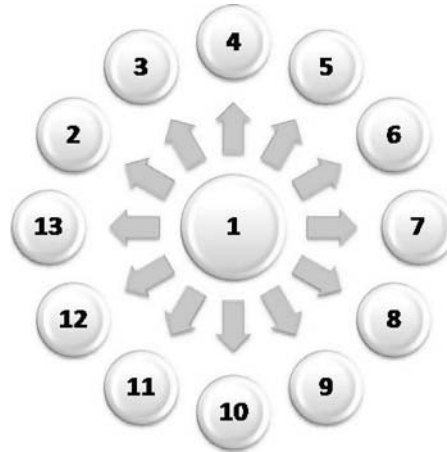


Fig. 1 Sequencing the chapters independently

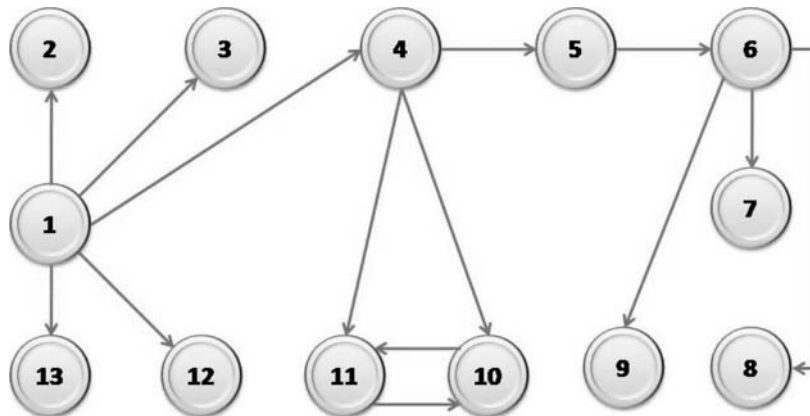


Fig. 2 Sequencing the chapters dependently

we assume that you have enough knowledge of SCM and explain the difference between domestic and global supply chains.

Chapter 4 is about national logistics cost. Logistics cost measurement is a proper indicator of the past and the future. As a lead indicator, Logistics cost measurement would support national policy making and the targeted deployment of operational and capital resources. This chapter demonstrates the importance of calculating logistics cost, its complexity and major components. At the end, this chapter illustrates some calculating methods and their results.

Chapter 5 focuses on spatial planning. One of the key parts of development planning for the economic sector is planning for the geographical and spatial development of economic activities, which is crucial in achieving balanced and sustainable development. Spatial planning includes methods that the public sector

utilizes to influence the future distribution of the activities in the space. When speaking about the spatial aspects of logistics activities, we are concerned about the geographical and location characteristics of the logistics industry and the consequences of those locations. This chapter introduces Core Geographical Dimensions of Logistics, The Role of Public Sector in Spatial Planning and Spatial Planning for Logistics.

Chapter 6 is about supply network design. It is important to know the essentials in a distribution network design. To achieve this, this chapter has a general overview of distribution networks and some of their models. Then, in the next parts, it focuses more on the national and international parts of this story and the theoretical points mentioned here are illustrated in three case studies.

Chapter 7 contains some useful concepts in outsourcing and privatization. Privatization has gained worldwide acceptance in the past decade. This chapter tries to gather some privatization definitions and related literature. After that, some steps, methods, results, management, monitoring and challenges are illustrated. At the end, some case studied are demonstrated to exhibit theories in practice.

Chapter 8 concentrates on export clusters. Industrial clusters, especially export-oriented clusters, are the new and emerging strategies for companies and countries to achieve export development throughout the world. A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementaries. This chapter introduces clusters, especially export ones, and one of its famous models, cluster structure and success factors. At the end of this chapter, the theoretical aspects are illustrated by some case studies in practice.

Chapter 9 discusses some of the fundamental aspects of Green Supply Chain Management (GrSCM). First, it discusses GrSCM, its origins, advantages, barriers, and initiatives. Next, it reviews green design, green operations, green procurement, and GrSCM frameworks. The chapter ends with a description of the role of governments and international organizations in promoting and developing green supply chain practices.

Chapter 10 is about logistics and supply chain management in times of disaster. This chapter provides an overview of the growing significance of disasters and the role of logistics in improving the humanitarian response. Second, it discusses relief logistics and its differences from commercial logistics. Finally, it reviews relief logistics subsystems and describes some of its critical subsystems.

Chapter 11 tries to demonstrate military logistics and supply chain. This chapter explains the fundamental differences between corporate and army supply chain management and investigates the supply chain management in The United States Department of Defense (DoD). This chapter ends with concepts in practice by depicting a case in Finland.

Chapter 12 is about logistics and supply chain management information systems. In order to improve agility, many companies have decentralized their value-adding activities by outsourcing and developing virtual enterprise (VE). This fact highlights the importance of information technology (IT) in integrating suppliers/partnering firms in virtual enterprises and supply chain. Supply chain management (SCM) is

an approach that has evolved from the integration of these considerations. So this chapter concentrates on this important reality and illustrates developing IT in SCM and related literature. This chapter continues with e-government concept and its related issues.

This manuscript ends with Chap. 13, presenting some case studies related to supply chain management in different countries.

We express our appreciation for editorial who managed to edit successfully the manuscripts that were characterized by a great variety of individual preferences in style and layout, and to Alice Blanck, Werner A. Müller from Springer Publishing, Dr. Niels Peter Thomas, Springer, Editor, Business/Economics and also Kumar Athiappan SPi Technologies India Private Ltd. for their support.

Tehran, Iran
March, 2009

Reza Zanjirani Farahani
Nasrin Asgari
Hoda Davarzani

Supply Chain and Logistics in National, International
and Governmental Environment

Concepts and Models

Zanjirani Farahani, R.; Asgari, N.; Davarzani, H. (Eds.)

2009, XVIII, 316 p. 57 illus., Hardcover

ISBN: 978-3-7908-2155-0

A product of Physica-Verlag Heidelberg