

A Series of New Century International Business
新世纪国际商务丛书

Elements of International Logistics

国际商贸物流精要

LONG Jiang 龙 江 主编



浙江大学出版社

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About the Series Compiler

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Mr. WENG Fengxiang is a Guest Professor of the Business School of University of Central England, Birmingham, and of International College Britain, Edinburgh, and an Associate Professor of Shanghai Maritime University. He is the author of 10 books of international business and of a number of theses which include:

Mastering Cambridge Business English (Fudan University Press, 1996)

International Business English Translation (Zhejiang University Press, 2002)

A Dictionary of Commonly-Used Words in International Business English with Both English and Chinese Definitions and Examples of Usage (Hunan Literature and Art Publishing House, 1998)

Detailed Interpretation of International Business Graphs and Tables (Zhejiang University Press, 2002)

Cambridge Business English Vocabulary and International Business English Synonyms (Shanghai Jiaotong University Press, 2003)

Functional Equivalence and Translation of Maritime Rules and Regulations (Shanghai Journal of Translators for Science and Technology, Issue No.5, 1996)

Having been engaged in teaching and making researches on international business/business English for a long time, Prof. WENG Fengxiang is a consultant of some influential companies and a supervisor of postgraduate. Once working for companies, Prof. WENG Fengxiang has much experience in international business practice, especially in international trade. He worked as a visiting professor in the Business School of University of Central

England, Birmingham for one year. He is the academic team leader of his discipline in the university. During his stay in the United Kingdom, Prof. WENG Fengxiang finished PhD courses and worked as a supervisor of MBA and MSc. Prof. WENG Fengxiang holds a Master degree in international business translation. The courses which he teaches include: International Business, International Trade, MBA Business English, etc.

Preface

Opportunities for careers in International Business have increased tremendously especially since China joined the World Trade Organization. As a result, the need for current knowledge about international business practice and terminology is crucial. Although there are many reference books available, some are published abroad and therefore can be very difficult to understand, while those published in China lack the necessary international business terminology and expressions in English. *A Series of New Century International Business*, edited by Professor WENG Fengxiang, solves these problems. The series consists of four books written in simple English, but it also includes explanations of the more difficult points written in Chinese. Readers are sure to benefit from his explanations of English international business expressions. Professor WENG makes a great contribution to the teaching and learning of international business.

Professor WENG Fengxiang, having worked as a consultant for international companies, is very experienced in current international business practice. Currently, he is an Associate Professor of International Business at Shanghai Maritime University. As well as teaching International Business English, Professor WENG also teaches International Trade and International Payments. As a leading expert in his discipline, Professor WENG is among the supervisors of International Business Translation postgraduates. Having conducted academic research in the UK, he has been invited to be a Guest Professor at the Business School of University of Central England, Birmingham.

Professor WENG is the author of a number of books on International Business English. Changes in international business happen quickly, and keeping up with international issues and their impact on international business can be difficult. The series addresses both the instructors' and the students' needs for current information. I highly recommend the series to the International Business and Business English learners.

Han Zhonghua (韩忠华)

Professor of English & Translation
Shanghai Maritime University
January 28, 2004

Preface

One of the most important developments of today's world is the international expansion of economy. International Logistics is not only a new and big business, but also has the close relationship with the development of international business.

Elements of International Logistics approaches the topic from a perspective of international business. The organization of this book tries to cover all the functions of international logistics. Each chapter mainly introduces the basic terms, concepts and principles that are useful for management decision-making of international logistics.

The purpose of this book is to describe the framework within which international logistics are made in order to meet students' increasing demand for knowing something about international logistics. Reading this book, students can have a brief but clear picture of international logistics. The Chinese version in each chapter is designed to help students to clear up what puzzles them.

LONG Jiang 龙江
May 25th, 2004



Contents

Chapter 1 Introduction of International Logistics (国际物流概述)	(1)
1.1 Definition of International Logistics (国际物流的定义)	(1)
1.2 International Logistics Activities and Functions (国际物流的活动与功能)	(6)
1.3 Integrated Management of International Logistics (国际物流整合管理)	(11)
1.4 Advantages of International Logistics (国际物流优势)	(14)
Summary of Chapter 1 本章概要	(18)
Discussion Questions 思考题	(18)
Glossary 词汇	(18)
Case Study: Dow Chemical Company (Dow 化学公司)	(19)
Chapter 2 International Supply Chain Concepts (国际供应链概念)	(21)
2.1 Concept of Supply Chain (供应链的定义)	(21)
2.2 Globalisation Trend of Supply Chain (供应链的全球化趋势)	(23)
2.3 Challenge of International Supply Chain Management (国际供应链管理的挑战)	(28)
2.4 International Supply Chain Decisions (国际供应链决策)	(32)
2.5 International Supply Chain Modelling Approaches (国际供应链建模)	(34)
2.6 Processes of International Supply Chain (国际供应链流程)	(37)
2.7 International Supply Chain Strategies (国际供应链战略)	(41)
Summary of Chapter 2 本章概要	(45)
Discussion Questions 思考题	(45)
Glossary 词汇	(46)
Case Study: Global Supply Chain Partnerships (全球供应链伙伴)	(47)

Chapter 3 International Purchasing (国际采购)	(49)
3.1 Challenges of International Purchasing (国际采购面临的挑战)	(49)
3.2 Performance Impact of International Purchasing (国际采购的影响)	(50)
3.3 International Production (国际生产)	(55)
3.4 Transition Process to International Purchasing (国际采购的交易流程)	(59)
3.5 Options of International Purchasing (国际采购选择权)	(65)
Summary of Chapter 3 本章概要	(77)
Discussion Questions 思考题	(78)
Glossary 词汇	(78)
Case Study: Shanghai to Build International Purchasing Platform (上海建设国际采购平台)	(79)
Chapter 4 Packaging of International Logistics (国际物流包装)	(80)
4.1 Importance of Packaging in International Logistics (包装在国际物流中的重要性)	(80)
4.2 Export Packaging (出口包装)	(86)
4.3 Packaging Materials (包装材料)	(96)
4.4 Bar Coding (条形码)	(99)
Summary of Chapter 4 本章概要	(110)
Discussion Questions 思考题	(111)
Glossary 词汇	(111)
Case Study: Cisco Systems, Inc. Implementation of Korrvu® Packaging for SOHO Products (思科系统公司对 SOHO 产品的包装)	(113)
Chapter 5 International Transport System (国际运输系统)	(115)
5.1 Management of International Transport System (国际运输系统管理)	(115)
5.2 Sea Transport (海洋运输)	(123)
5.3 Railway Transport (铁路运输)	(142)
5.4 Air Transport (航空运输)	(152)
5.5 Road Transportation (公路运输)	(158)
5.6 Pipeline Transport (管道运输)	(163)
Summary of Chapter 5 本章概要	(166)

Contents

Discussion Questions 思考题	(167)
Glossary 词汇	(167)
Case Study: FedEx (联邦快递公司)	(169)
Chapter 6 Warehouse and Inventories (仓储与存货)	(171)
6.1 Nature of Warehouse (仓储属性)	(171)
6.2 Warehouse Design (仓库设计)	(180)
6.3 Effect of Palletization on Warehouse Design (托盘化对仓库设计的影响)	(185)
6.4 Warehouse Receipts (仓库收据)	(192)
6.5 Inventories (存货)	(194)
Summary of Chapter 6 本章概要	(206)
Discussion Questions 思考题	(207)
Glossary 词汇	(207)
Case Study: Managing Inventories with Virtual Warehousing in the Netherlands (荷兰虚拟仓库存货管理)	(209)
Chapter 7 International Distribution (国际分销)	(211)
7.1 The Nature of International Distribution (国际分销属性)	(211)
7.2 International Distribution Channels (国际分销渠道)	(215)
7.3 Agents and Distributors (代理与分销商)	(227)
7.4 Road Transport Information Systems of International Distribution (国际分销中的公路运输信息系统)	(231)
7.5 International Distribution Strategy (国际分销策略)	(237)
Summary of Chapter 7 本章概要	(244)
Discussion Questions 思考题	(245)
Glossary 词汇	(245)
Case Study: Compaq-Distribution Centre Europe (DCE) (康柏欧洲分销中心)	(246)
Chapter 8 International Outsourcing and TPL (国际外包与第三方物流)	(249)
8.1 Outsourcing (外包)	(249)

8.2	Introductions of Third-Party Logistics (第三方物流)	(254)
8.3	Third Party Logistics Alliances (第三方物流联盟)	(258)
8.4	Contract of TPL (第三方物流合同)	(266)
8.5	Provider of Third Party Logistics (第三方物流供应商)	(268)
8.6	Collaborative Transportation Management in International TPL (国际第三方物流中的协同运输管理)	(275)
8.7	Fourth Party Logistics (第四方物流)	(281)
	Summary of Chapter 8 本章概要	(286)
	Discussion Questions 思考题	(287)
	Glossary 词汇	(288)
	Case Study: Cat Logistics Example (Cat 物流公司的例子)	(288)

Chapter 9 Strategic Management of International Logistics (国际物流战略管理)

9.1	The Strategic Position of International Logistics (国际物流的战略导向)	(290)
9.2	Trends in International Logistics Strategic Management (国际物流战略管理趋势)	(291)
9.3	Lean Launch Strategy (精益战略)	(302)
	Summary of Chapter 9 本章概要	(307)
	Discussion Questions 思考题	(308)
	Glossary 词汇	(308)
	Case Study: How Rich Products Went Global (“Rich Products”公司怎样走向全球)	(309)

References	(312)
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Acknowledgements	(316)
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Chapter 1

Introduction of International Logistics

1.1 Definition of International Logistics

Logistics and supply chain issues are more important today than ever before. Logistics has achieved greater prominence within business with increased awareness of its operational and financial impact.

1.1.1 Definition of Logistics

The Council of Logistics Management (CLM) defined logistics as follows: “Logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers’ requirements.”^①

Logistics was first appeared as a military term. In 1905, Major Chauncey B. Baker wrote, “That branch of the Art of War pertaining to the movement and supply of armies is called logistics.” During World War II, military forces made effective use of logistics models and forms of systems analysis to ensure that materials were at the proper place when needed.

It was not until the recessions of the 1950s that managers started to examine their logistics networks. The 1958 recession and profit squeeze created an environment in which business began searching for more effective cost-control systems. Almost simultaneously,

^① Source: <http://www.clm1.org/>.

many companies realized that logistics were activities whose cost had neither been carefully studied nor coordinated. A number of other trends were becoming apparent, and they made it necessary to focus attention on product distribution. Some trends can be identified.

(1) Transport cost increased rapidly. Traditional methods of distribution had become more expensive, and management became aware of the need to control these costs better.

(2) Production efficiency was reaching a peak.

(3) There was a fundamental change in inventory philosophy.

(4) Product lines proliferated, a direct result of the marketing concept of giving each customer the exact product he or she desired.

(5) Management of the logistics approach involved a tremendous amount of detail and data. Without the revolution in computer and communication technologies, logistics concepts would have remained interesting theories with few real applications.

(6) The recycling of products rose rapidly.

(7) There was a growth of several new, large retail chains, or mass merchandisers, with large demands and very sophisticated logistics service.

The term logistics gained popularity as a label for the comprehensive management responsibility for the strategic deployment of inventory from point of raw material acquisition to final customer destination. Logistics may integrate distribution, production, and supply in order to synchronize rhythms and flows; this system, known as integrated logistics, is often found within the leading consumer goods manufactures.

1.1.2 Concepts of International Logistics

The globalization of business has had a tremendous impact on the way companies operate today. The scope of globalization runs the gamut from foreign sourcing in the procurement area and/or selective sales in other countries to multifaceted international distribution, manufacturing, and marketing strategies that encompass international production sites, multiple staging of inventory, counter trading in the sale of products, and so on. Whatever the situation, the cost of logistics as a percentage of total cost is greater for international ventures, and the complexity of logistics operations usually increases at a geometric rate in the international arena. Often if procurement is included, international logistics is the single most important factor for successful international ventures. Logistics, in particular, has been affected because of the distances involved both inbound to manufacturing from foreign sourcing and outbound for additional manufacturing or delivery to

Chapter 1 Introduction of International Logistics



customers.

International means that it will deal with transactions involving individuals or firms in more than one country or nation. International logistics means that huge array of shippers, carriers, forwarders, businessmen, and so on that facilitate international transactions, trades, and movement of goods and services.

It is difficult to keep separate the practices of domestic and international logistics. Many factors influence the flow of goods between countries.

Political situations are very important. Friendly countries negotiate treaties to increase the flow of business between them. On the other hand, wars and terrorism have a dampening effect. For example, Iraq war put more pressure on the world airline industry.

"Now that war in Iraq has started, the pressure on the airline industry will surely mount. The industry has been going through its worst crisis in its 100-year history, the International Air Transport Association (IATA) said, accumulating over US \$ 30 billion dollars of losses since September 11, 2001."^①

Economic conditions and relative economic strengths also influence trade patterns. Changes in relative values of two countries' currencies influence amounts and directions of trade and tourism between them. In addition, they influence the carrier's cost of doing business, as his revenues and costs are in several fluctuating currencies.

Since the mid-1970s petroleum and its price have had a significant impact on international logistics. Petroleum is the single largest commodity to move by sea; the demand for tankers has repercussions throughout all international shipping markets. Fuel represents a major cost item for both sea and air carriers. In times of high fuel prices, carriers often add a fuel surcharge to their freight rates, and this impacts on shippers as an added cost of completing the contract.

The rapidly changing technology influences international logistics, in particular, the changes in computer hardware and software. The most pronounced one in the last half of the 20th century has been the substitution of air for sea transportation. Virtually all passengers use air to cross the Atlantic and Pacific oceans. By value, about half of the U. S. international exports and imports also now move by air. Space exploration is just beginning; it will open up logistical opportunities and challenges of its own. The significant price

^① "Iraq war to put more pressure on ailing airline industry, says IATA." Source: <http://www.oia-global.com/news.php>, 3/20/2003.

reductions for powerful computer equipment have helped bring about better inventory control, better equipment scheduling, more efficient rating of transportation movements, and so on. The technological changes in communications (such as satellite global positioning systems to maintain contact with motor carrier fleets) have helped to improve service quality to the extent that motor carrier companies are now able to meet narrowly defined time windows for pickups and deliveries. They also speed up order processing, document flow and improve accuracy. The interface between communication technology and computers is another area that has tremendous potential for logistics. These items are just a tip of the iceberg; many other things could be included in this area, such as bar coding and robotics.

Environmental protection issues are also having an impact. Many nations are enacting more stringent packaging regulations in an effort to increase resource recycling. Aircraft engine noise restrictions are forcing airlines to retire aircraft from some markets (although they still can be used in some parts of the world). In Europe, pressure from the "Greens" (an environmental protection interest group) has caused truckers to use a ratings system, Euro I, Euro II, and Euro III, for their vehicles. Most new trucks are in the Euro II category, and soon there will be Euro III vehicles.

Cultural differences play major roles in selling and establishing ongoing relationships as well. The hard sell may be effective on the streets of Brooklyn but totally futile in Japan. The German businessman may be very direct and precise in price negotiations, whereas the Italian may be very deliberately and expertly coy. Indeed, insisting too much on legalisms may be offensive to a foreign businessman and cause the deal to collapse.

International logistics is more difficult than domestic logistics. And international logistics is also costly because of the longer transit way than domestic logistics. The international logistics costs range from 25 to 35 percent of a product's sales value.

1.1.3 International Trade Impacts on International Logistics

From the viewpoint of international trade, international logistics—the movement of goods across national boundaries—occurs in the following situations:

(1) A firm exports a portion of a product made or grown, for example, papermaking machinery to Sweden, wheat to Russia, or coal to Japan.

(2) A firm imports raw materials or manufactured products (such as motorcycles from Italy or Japan).

(3) Goods are partially assembled in one country and then shipped to another, where

Chapter 1 Introduction of International Logistics



they are further assembled or processed. For example, a firm stamps electronic components in the United States. It ships them to a free trade zone in the Far East, where low-cost labor assembles them, and then the assembled components are returned to the United States to become part of the finished product. Currently, there is great interest in China as a site for performing labor-intensive tasks, because wage rates there are relatively low.

(4) The firm is global in outlook and sees almost all nations as being markets, sources of supply, or sites for assembly operations. The trend is toward an integrated world economy. Firms are seeking, or have developed, global strategies where either their products are designed for a world market or they are produced wherever the low-cost raw materials, components, and labor can be found or they simply produce locally and sell internationally.

(5) Because of geography, a nation's domestic commerce crosses foreign borders, often in bond. Products shipped in bond are not subject to normal duties of the country through which they are passing.

Until World War II, concepts of international trade were simple. Industrialized powers maintained political and economic colonies that were sources of raw materials and markets for manufactured products. When dealing with colonies, manufacturers in the main country bought low and sold high. World War II brought an end to the colonial system; since then, emerging nations have attempted to develop their own political and economic systems with varying degrees of success. As emerging nations attempt to flex their political and economic muscles, they cause changes in the traditional ways of conducting international business.

Developing countries insist that an increasing proportion of assembling and manufacturing be conducted within their own borders.

Developing countries are also becoming more insistent that much of their foreign trade be carried on vessels or planes owned by companies headquartered within their boundaries. In addition, they want their local firms to have at least their "fair" share of revenues from the sale of freight-forwarding services, marine insurance, and other transportation and distribution functions.

Traditionally, the United States has been a major exporter of manufactured goods and agricultural products. Because of its wealth, the United States has also imported many consumer goods. The United States has been running trade deficits annually because of its large purchases of imported oil.

The fluctuating value of the U.S. dollar has an impact on the flow of both exports and

imports.

In the 1990s, several events changed the traditional patterns of how the United States conducts business overseas. The end of Soviet rule in Eastern Europe opened up the opportunity of engaging in much more trade with that major area of the world. In 1992, Western Europe achieved fuller economic integration, though there remained many barriers to the free movement of goods among all nations. In addition, environmentalists in Europe are attempting to maintain restrictions on truck traffic so that more freight is forced to use rail and waterways.

Not only has the trend occurred naturally by firms seeking to cut costs or expand markets, but it is also being encouraged by political arrangements that promote trade. For example, the North American Free Trade Agreement (NAFTA) came into being in the mid-1990s, and it is attempting to achieve closer economic integration among Canada, the United States, and Mexico.

Many firms have recently developed in international trade that can locate almost anywhere in the world and conduct commerce between any and all nations. The term international logistics is more applicable to the logistical challenges of these firms. Globalization and internationalization of industries everywhere will depend heavily on logistics performance and costs, as companies take more of a worldview of their operations. As this happens, logistics takes on increased importance within the firm since costs, especially transportation, become a larger part of the total cost structure.

1.2 International Logistics Activities and Functions

Logistics is a system or a process with many components or sub-processes. It is a network of related activities that have as a primary purpose to manage the orderly flow of materials and personnel within a firm, and the supply chain.

The followings are some logistics activities, although many firms do not include all of them among their logistics system:

Customer service; demand forecasting; documentation flow, handling returns; inter-plant movements; inventory management; parts/service support; production scheduling; protective packaging; purchasing; salvage scrap disposal; traffic management; and warehouse/distribution center management.

• 6 •