# 物流英语 ogistics English

郝卓主编

NEW BENCHMARK

# 物 流 英 语 Logistics English

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## 出版说明

"新基点 (New Benchmark) 全国高职高专院校商务英语系列规划教材"是对外经济贸易大学出版社联合全国重点职业学院的骨干教师推出的一套全新的商务英语系列教材。本套教材适用于全国高职高专院校英语专业商务/应用/外贸英语方向以及财经类专业的学生。

目前高职教育提出了"工学结合、项目为中心、案例驱动教学、边讲边练"为核心的理念。本套教材就是贯彻这个理念,着眼于提高学生实际操作能力和就业能力的目的,采取了模块化、多案例、互动式、重实训的编写方式,让学生在理论够用的基础上,在实训环节上有所突破。

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本套教材包括《商务英语综合教程》(1-4 册)、《商务英语听说》(1-2 册)、《商务英语口语》(1-2 册)、《国际商务报刊选读》、《商务英语写作》、《商务英语翻译》、《国际商务函电》、《国际商务谈判》、《国际商务制单》、《国际商务英语模拟实训教程》、《商务礼仪》、《英语应用文》、《跨文化交际》、《英美概况》、《旅游英语》、《酒店英语》、《物流英语》、《财经英语》、《文秘英语》、《会计英语》、《餐饮与服务英语》、《劳动与社会保障英语》等。本套教材不是封闭的,而是随着教学模式、课程设置和课时的变化,不断推陈出新。

本套教材的作者不仅具有丰富的商务英语教学经验,而且具有本专业中级以上职称、企业第一线工作经历、主持或参与过多项应用技术研究。这是本套教材编写质量的 重要保证。

此外,本套教材配有教师用书或课件等立体化教学资源,供教师教学参考(见书末赠送课件说明)。

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## 前 言

随着市场经济的发展,各行各业都在发掘新的利润源泉,物流和供应链管理得到了越来越多的关注,人们开始要求了解物流的概念,学习物流的管理方法,企业纷纷设立物流部门,第三方和第四方物流蓬勃兴起,国际物流也随着全球化发展进入了新的阶段。新兴的物流管理理念、管理方法和管理技术大多产生于发达国家,而经济全球化的浪潮也促使我们更快的与国际接轨,因此我们应以英语为工具不断学习国外最前沿的物流知识。

由于国外英文原版或影印版物流书的理论性较强,对于刚接触物流的入门读者来讲比较深奥难懂。本书以深入浅出的英语语言全面介绍了现代物流理论和供应链管理的基础概念和基本环节,辅以丰富生动的图示照片,具体详实的图表,旨在为中国读者搭起一座与原版教材之间的桥梁,提供一本英文版的物流及供应链管理的教材。简言之,它可以为有一定英语基础的读者提供学习物流知识的渠道,为有贸易、运输、管理相关背景的读者提供进修英语的平台。

本书尽可能的涉及广而全的内容,使读者可以对物流学有一个清晰而全面的了解。本书贯彻了高职教育"工学结合,项目为中心,案例驱动教学,边讲边练"为核心的理念,着眼于提高学生分析解决问题的能力。全书共分 18 个单元,第 1 单元介绍了现代物流学的起源、定义、组成部分,以及演变发展成为供应链管理的过程。第 2 单元则从物流支持的角度重新诠释了客户服务,赋予其具体的量化的内涵。第 3 到 15 单元系统介绍了物流和供应链管理的具体内容,包括采购和定单管理、JIT 适时原则、仓储和配送中心、库存、包装、运输、成本管理、第三方物流、相关信息系统。中间穿插的第 7、10、15 单元为模拟训练,既贴合物流理论,又有一定的趣味性和挑战性,在寓教于乐中激发学生对物流概念的思考。第 16 单元简要介绍了网络零售业中的物流管理以及其未来发展趋势。第 17、18 单元分别介绍了物流管理中的两个新兴概念:反向物流和绿色物流。

每单元附有英文词汇表以及有关术语的中文注释,以帮助中国读者在涉及原版教材时能从容应对。课后附设的思考题多为富于总结性或挑战性的题目,帮助读者检测自己的理解程度,引发思考和研究。每一单元均配有相应的案例或补充阅读材料,对课文中所涉及的理论从实践角度进行进一步的阐述,以体现本书的实用性,也可用于教师课后讨论所用。本书的编写始终贯彻商务英语教学的基本思路,使学生在提高英语语言技能的同时了解有关商务知识,造就学生"两条腿走路"的本领, 培养以商务知识为底蕴、语言技能为依托的新时代复合型、实用型人才。

#### 2 物流英语

本书适用于高职高专院校英语专业商务/应用/外贸英语方向以及财经类专业的学生,也可满足三资企业管理层和商务人士自学的需要。本书配有教学 PPT 课件供教师教学参考,请登陆 www.uibep.com 下载。

由于编著时间有限,书中难免存在错误与不足,请广大读者指正。

编著者 2012 年 2 月

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# An Introduction to Logistics and Supply Chain

#### **Study Aims**

- To introduce the concept of logistics and supply chain
- To differentiate the scopes and implications of logistics and supply chain
- To show the evolution of logistics
- To know about categories of logistics
- To understand the relationship of logistics and business
- To describe various careers in logistics

#### **Preview Questions**

- 1. Study about Council of Logistics Management which is very authoritative in the field of logistics study.
- 2. How important is logistics to the modern society and individuals according to your common knowledge?

Logistics management has become a heated topic in the society since the 1990s. The famous management guru Peter Drucker called logistics the last profit frontier. Many enterprises have noticed that competitive advantages result from catering to customers' demanded products and services in the shortest time at the lowest cost. Therefore, logistics management has become a sharp edge to reduce cost and boost profits as well as to obtain competitive advantages. Depending on its sound logistics management, Wal-Mart, the world's largest chain retailer, has decreased its selling cost by 2%-3% compared against the industry average, tripled its growth rate within the industry, and made a profit more than twice of its competitors. The company's turnover ranked the first in the world in as short as 40 years. Other companies, such as Dell, Carrefour and Acer, also attribute their success to the good

logistics management system. Therefore, both the manufacturing industry and retailing business should put great priority on logistics management, and understand how to run logistics system with high efficiency.

The development of logistics results from the coactions of social productivity, science and technology. It is both an advanced technology and sophisticated management conception. The development level of logistics has become a showcase of the general economic strength of a nation or region.

#### I. The Concept of Logistics in Early Days

In the 1921 publication, "Some Problems in Market Distribution", Arch Shaw, the author, brought up the concept of distribution. He quoted in his book, "Distribution is a different system from creating the demand, and value is added to the goods moved." While in his analysis, market distribution refers to goods flow, the transfer in time and space, that is, logistics happens in sales. Lord Latham set up a delivery company in 1918, aiming to efficiently channel the goods in Britain to wholesalers, retailers and consumers. It is believed to be one of the earliest logistic operations in the recorded history.

In the early 1930s, a textbook on marketing gave rise to "Physical Supply", a terminology involving transportation and storage of goods. And "Marketing" was defined as operations that affected the transfer of both tangible goods and ownership. In the year of 1935, "Physical Distribution" was first defined by American Sales Association as "material object distribution". It means every kind of economic activities that has taken place in the process of material object and service flowing, which is included in selling.

At the Twenty-Sixth Boston Conference on Distribution of Boston Trade Board in 1954, Paul D. Coverse issued a speech called "The Other Half of Marketing", which pointed out both academic and business community should attach emphasis to and investigate the distribution in marketing. This speech enhanced people's understanding of distribution. Edward W. Smykay published *Physical Distribution Management* in 1961, which laid the theoretical basis for the development of distribution.

In Japan the concept of logistics was firstly brought up in 1964. Japan used to name all the transactions related to commodity circulation "Distribution Technology", before the use of the technical term "Logistics". In 1956, a seven-member delegation on Distribution Technology led by Masao Uno, the professor of Waseda University, was dispatched to the United States by Japanese Productivity Center. This delegation made it clear that the so-called "Distribution Technology" in Japan was equivalent to "Physical Distribution" in the United States. From then on, "Distribution Technology" was called P.D. for short following the American term. Henceforth, the technical term P.D. has been widely used. In 1964, when

Five-Year Plan Formulation Team of Ikeda Cabinet spoke of the technical term P.D., they commented that "Physical Logistics" was better. In 1965, Logistics, short for "Physical Logistics", was officially adopted by the Japanese Government.

#### II. The Development from "Physical Distribution" to "Logistics"

During World War II, American military first employed the word "Logistics Management" in the wartime to refer to the supply of munitions and other materials for the comprehensive management of transportation, provision and stock of munitions. From then on, logistics gradually formed an independent subject and developed into Logistics Engineering, Logistics Management and Logistics of Distribution.

Logistics Management was later introduced into the sector of commerce, called Business Logistics. It was defined as "lots of business activities including the circulation of raw materials, the distribution of goods, transportation, procurement, control of inventory, stock and customer services."

During the 1950s and 1970s, the main study object was "logistics" in a narrow sense. It was logistics activities concerning the sales of commodities, and was known as the physical movement in the process of circulation. So the phrase "Physical Distribution" was widely used.

In 1986, National Council of Physical Distribution Management was changed into the Council of Logistics Management, CLM for short, because "Physical Distribution" was regarded as a narrower expression of the commodity circulation sector than "logistics" which was considered more extensive, consistent and cohesive. CLM defined "logistics" as "the process of planning, implementing, and controlling the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption for the purpose of conforming to customers' requirements". This definition includes inbound, outbound, internal, and external movements, and return of materials for environmental protection purposes.

#### III. The Meaning of Logistics

#### 1. The Definition of Logistics

Compared with the concept of "Physical Distribution", "logistics" breaks through the range of commodity circulation, enlarging the logistics activity to production area. Logistics starts when the products' going out of the factory, and includes the whole physical distribution process of raw material purchase, manufacturing, sales, after-sale service, and waste recycling. That is because along with the development of productivity, social division of labor is more and more detailed, and large-scale manufacturers usually outsource the end product's

components and parts to other professional manufacturers whose labor is relatively cheaper. They themselves just assemble and package the products. Under this condition, logistics has a close relationship not only with distribution system, but also with production system.

Logistics is the universal thread or pipeline that plans and coordinates the delivery of products and services to customers all over the world. Logistics professionals manage and coordinate activities in this global pipeline to ensure an effective and efficient flow of materials and information from the time a need arises until it is satisfied and beyond. Some of the many activities involved in logistics include: customer service; warehousing; inventory control; transportation; materials handling; forecasting; purchasing; strategic planning. The goal of these logistics activities is to satisfy the needs of the ultimate consumer. Simply stated, logistics managers ensure that the right product, in the right quantity and in the right quality, is delivered to the right customer at the right place, at the right time, and at the right cost.

A more comprehensive definition of logistics adopted by Council of Logistics Management includes inbound, outbound, internal, and external movements. Logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point of origin to the point of consumption to meet customers' requirements.

From all the above, we can know that, the conception of logistics includes a broad sense and a narrow sense. In a broad sense, logistics refers to controlling the whole process of raw materials, including origin of materials supply—producer—seller—final consumer. In a narrow one, logistics is the management of the logistics in sales process of final products, that is, delivery—seller—final consumer.

The extension characteristics of logistics are more than those of logistics in sales because it enlarges the start point to the production field; less than those of business logistics because it does not include raw material logistics. It is consistent with the extension of the supply chain, so it can be called supply chain management.

#### 2. The Importance of Logistics

Logistics has a huge impact on the domestic and global economy. Logistics facilitates market exchanges, provides a major source of employment, and is a major purchaser of assets and materials. In the process of these activities, organizations in the United States spend nearly \$800 billion on logistics each year—up from \$678 billion in 1990. That is nearly three times the combined annual revenues of General Motors, IBM, and Proctor & Gamble! Worldwide, more than \$1.4 trillion is spent annually on logistics and the amount will grow with the continued expansion of the global marketplace.

Logistics is of critical importance to human survival. The logistics system provides the continuous availability of food, water, medicine, and other key materials that you need to

survive. A prime example is the food you ate at your last meal. It is very likely that the materials used to prepare that meal came quite a distance—perhaps from the other side of the planet! In order for that meal to fulfill your needs, you were dependent on logistics professionals to provide safe storage and transportation of those items.

Logistics greatly impacts our quality of life. The logistics industry employs people worldwide, providing a cost-effective means of distributing goods locally and globally. The more affordable the goods are, the higher the standard of living is for you. Consider the last pair of athletic shoes that you purchased. They were probably manufactured in Southeast Asia, yet the exact pair (the right size, color, and style) that you wanted was available for purchase the day you walked into the store.

Logistics affects our success in a wide variety of endeavors. Logistics greatly impacts activities other than the flow of industrial and consumer products. Here are just a few examples: Relief organizations like the American Red Cross Disaster Service and the International Red Cross provide logistics support in life-threatening situations such as floods, hurricanes, and earthquakes. They operate like a huge mobile warehouse, setting up temporary facilities and shelters on a moment's notice to efficiently distribute food, supplies, and equipment to disaster victims. The U.S. military relies on logistics to determine the feasibility of a mission—whether it is military or humanitarian in nature. Logistics also provides the flexibility to move personnel, equipment, and supplies wherever they are needed in the world. Major productions like rock concerts and sporting events also require logistics. More than \$25 million was spent on logistics for the Summer Olympic Games in Atlanta, Georgia. During the Games, more than 1 200 logistics staff members were needed to receive, set up, resupply, and recover assets at 143 competition venues, training facilities, and other sites.

#### IV. The Emergence of Supply Chain Management

There is a difference between the concept of supply chain management and the traditional concept of logistics. Logistics typically refers to activities that occur within the boundaries of a single organization and supply chains refer to networks of companies that work together and coordinate their actions to deliver a product to market. Also traditional logistics focuses its attention on activities such as procurement, distribution, maintenance, and inventory management. Supply chain management acknowledges all of traditional logistics and also includes activities such as marketing, new product development, finance, and customer service.

In the wider view of supply chain thinking, these additional activities are now seen as part of the work needed to fulfill customer requests. Supply chain management views the supply chain and the organizations in it as a single entity. It brings a systematic approach to understanding and managing the different activities needed to coordinate the flow of products and services to best serve the ultimate customer. This systematic approach provides the framework in which to best respond to business requirements that otherwise would seem to be in conflict with each other.

Taken individually, different supply chain requirements often have conflicting needs. For instance, the requirement of maintaining high levels of customer service calls for maintaining high levels of inventory, but then the requirement to operate efficiently calls for reducing inventory levels. It is only when these requirements are seen together as parts of a larger picture that ways can be found to effectively balance their different demands.

Effective supply chain management requires simultaneous improvements in both customer service levels and the internal operating efficiencies of the companies in the supply chain. Customer service at its most basic level means consistently high order fill rates, high on-time delivery rates, and a very low rate of products returned by customers for whatever reason. Internal efficiency for organizations in a supply chain means that these organizations get an attractive rate of return on their investments in inventory and other assets and that they find ways to lower their operating and sales expenses.

#### V. Categories of Logistics

#### 1. Macro-logistics and Micro-logistics

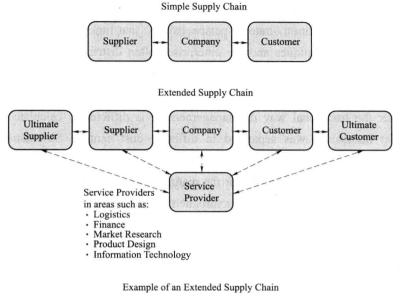
Macro-logistics refers to the logistics flow within a region, a country or across national borders. Macro-logistics mainly focuses on the operation model and the overall behavior of logistics activity from the social reproduction.

Micro-logistics refers to the practical and specific logistics activities which the customers and enterprises carry out. During the whole logistics activity, micro-logistics is only dealt with locally, within one process or one district.

#### 2. External Logistics and Internal Logistics

External logistics refers to the logistics which is beyond one family and at a category of the whole society on the purpose of facing to the whole society. This kind of logistics has strong sociality, and is usually accomplished by the professional logistics undertaker, i.e., the third party logistics (TPL or 3PL).

Internal logistics is viewed from the angle of enterprise, studying the logistics activities which are relevant to the enterprise. It is the typical area of particular and microscopical logistics activity. It contains enterprise-produce logistics, enterprise-supply logistics, enterprise-distribution logistics, enterprise-recycle logistics, and enterprise-garbage logistics.



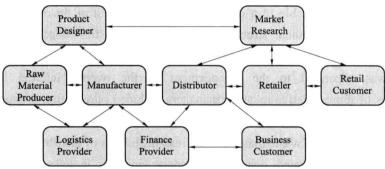


Figure 1-1 Supply Chain Structure

Source: Hugos, Michael. Essentials of Supply Chain Management. New Jersey: John Wiley & Sons, Inc. 2003.

#### 3. International Logistics and Regional Logistics

International logistics refers to an international transaction of doing physical transition with the materials, which is in order to overcome the special and chronological distance, in the condition that production and consumption are carried on independently in two or more countries.

Regional logistics takes place within the framework of a country, a city or an economic region. It is subject to the same laws, regulations as well as cultural, social and technological factors.

#### VI. The Proposal of Logistics Strategy

Before the 1980s, many enterprises carried out logistics activities such as transportation,

purchasing and storage separately according to their functions instead of regarding them as an overall concept, let alone from a strategic perspective. At that time, the logistics management focused on operational techniques and the enterprises often distributed the tasks to different functional departments. In the 1970s, with the deterioration of inflation and competition, enterprises began to be aware of the importance of logistics in terms of the operating costs. However, under the traditional way of management, it is difficult to calculate the accurate circulation cost because it was separated in different cost centers. Simultaneously, since transportation, storage of raw materials, materials recovery, import and export were reported to different departments, it was impossible for the managers to consider the cost reduction of the entire organization owing to the choppy structure, neither could efficient management achieved.

Therefore, many executives of American enterprises vehemently proposed to integrate the business of material management and distribution. Basically, they suggested establishing a cost system to trace logistics decisions. They also believed that the costs of the above business accounted for a large part of the total operating cost in the enterprise and that the centralized management was indispensable to a desired cost-effective control. In order to improve the efficiency of the organizational structure with separate logistics management, enterprises adopted, one after another, the integration strategy—the responsibility of the purchasing department was expanded to the management of the overall internal logistics; the responsibilities of representative material managers included purchasing, production control, internal transport, storage, MIS (Management Information System) control, stock plan and control, and the handling of waste materials; the responsibilities of distribution managers have also been enlarged. Integrated distribution department also includes many subordinate departments, such as transportation, equipments delivering, warehousing, plan controlling, and order service. In the 1970s, the concept of logistics integration has already been deeply rooted in the hearts of people. As more and more importance has been attached to the logistics service, the integrative management was desperately needed. Companies began to let the key decision-makers (often the level of vice president) lead the logistics service. A report shows that in the number of logistics vice presidents in 1972, there was a 60% increase compared to the number in 1962.

After the 1980s, enterprises obtained a further comprehension towards the relationships of logistics activities, customer service and cost. The relationships indicate that a highly efficient logistics system would not only reduce the cost, but also better serve the customers and make more profits. However, in order to improve customer service, large scale inventory is needed, the cost of transaction has to be increased and multiple warehouses should be utilized. All these would possibly lead to the rise of logistics cost. Therefore, there is no logistics system which could solve the dilemma of providing the maximum customer service

and minimizing the cost at the same time. Companies have to make strategic decisions on their logistics goals and design the appropriate logistics system for the companies' development while inventory, warehousing and other factors should also be schematized reasonably. Thus, logistics management began to conduct integration to all the logistics process from the systematic point of view, and it gradually moved upwards to making decisions on company strategic issues.

#### VII. Decision-making Levels in an Enterprise

The strategies that a company applies have profound influence on its organization. Before knowing how to formulate the logistics strategies, one must acknowledge the relationships of the decision-making levels. For an organization, the decision-making levels are demonstrated in the following figure.

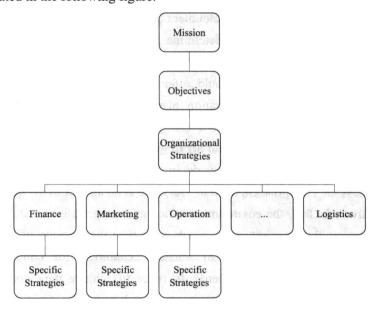


Figure 1-2 Planning and Decision-making Levels in an Enterprise

#### 1. Enterprise Mission and Objectives

The so-called mission is the purpose of a business to exist, that is to say, is to answer "what the business engages in". The enterprise mission is the foundation of the enterprise, and the reason for its existence. Missions vary according to their companies, and are decided by the nature of the business. For example, a hospital is to provide medical services; a construction company is to build houses. A non-profit organization is to serve the community, while a profit corporation is to gain profit for its business owners (shareholders and partners). A mission plays an instructive role in the formation of enterprise strategy and

decision-making of all levels. However, many current leaders and managers are not only lack of the knowledge of enterprise mission, but also even not aware of their mission. In fact, as for a business, if there is no clear mission, there will be no guiding direction of the strategic formation, let alone to make a great progress.

Mission can indicate the general direction for a corporation, as well as set corporation's goals that are the keynotes of the overall mission. For example, the goal of a corporation might be to achieve a certain portion of market share of a product, and the other goal might be to reach a particular profit level.

The ultimate goal of the corporation can be set up by the goals and the mission statement. For example, the mission statement of IBM is "We strive to lead in the invention, development and manufacture of the industry's most advanced information technologies, including computer systems, software, storage systems and microelectronics." We have two basic missions: Firstly, we strive to be the leader in research, development and manufacturing of the most advanced information technology. Secondly, we determine to be the largest information service company in the world and to convert the advanced technology into fortune. Our professionals spread out across the globe and they could offer their specialized knowledge to certain industry, consulting industry, system integration, plan development and technical backup and the other areas.

#### 2. Corporate Strategy and Functional Strategy

The general objective of an enterprise is determined by its mission, which also describes the scope of business the enterprise engaged in. But there is no answer to the question "how to realize the objective". In fact, the environment which an enterprise is in varies all the time. Since the 20th century, the competitors are much more than the capacity of this field could bear, and with the quick development of science technology, the competition among enterprises has become extraordinarily fierce. In order to achieve their goals, enterprises should consider not only the current competitive situation, but also the status of the future and then make development planning according to the actual situation of the enterprise itself. It means that managers must think in a strategic vision that how the evolution of new technologies will affect the company's business scope, changing customers' needs and expectations, the appearance of new markets and competitive environment and so on. Also they should have a forward-thinking on their future undertakings and development. In order to meet future changes in the environment, and to seek long-term survival and stable development, the overall development of the plan and long-term business the enterprise takes is called the corporate strategy. Strategies are intended to be the overall planning and guidance to war, but also now are the strategic thinking and theory in business management application. Generally speaking, if the target is an ultimate goal, the strategy is the way to achieve this