Chapter 3 Logistics for Retail Management

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Text I　Retail Logistics Transformation

The Influence of Retailers in Logistics

Retailers are concerned with product availability

Retailing and distribution are concerned with product availability. Retailers must be concerned with the flows of product and information and through their companies to make products available to consumers. The concern is with the structure and management of logistics channels. A lot of effort has to go into retail logistics.

Retailer-led model

Retailers have extended their influence into logistics management. A lot of concepts are becoming increasing important, such as integrated distribution, just-in-time (JIT) distribution, electronic data interchange (EDI), quick response (QR) and efficient consumer response (ECR), reflecting the scope and power of the retailers and the drive to service and integration. Nowadays, the old inefficient, manufacturer-led and supplier-led practices have been swept away by the modern, technological rich, retailer-led and customer-focused ways of ensuring product availability.

Retailers became the channel captain and focus on the efficiency of the channel

The situation today is totally different, as retailers have dominated in structural, conduct and performance aspects. There are battles over a long period between the retailers and the suppliers/manufacturers, such as the fight over price and supply of cornflakes between Kelloggs *vs* Shoprite, perfume between Channel *vs* Superdrug, and price-fixing in the electrical retailing market through recommended retail prices. There are strong trend of retailer channel conquest, and retailers are the channel captains and set the pace in logistics. Having extended their channel control and focused on efficiency and effectiveness, retailers are now attempting to engender a more co-operative and collaborative stance in many channels. Their efforts to undertake distribution and logistics functions have dramatic influence on stock holding. Fig.3-1 shows the reducing of inventory in Tesco.

Trends of Retail Logistics

The transformation in retail logistics can be identified with the following six trends, all of which are “closely inter-related and in most cases, mutually reinforcing”:

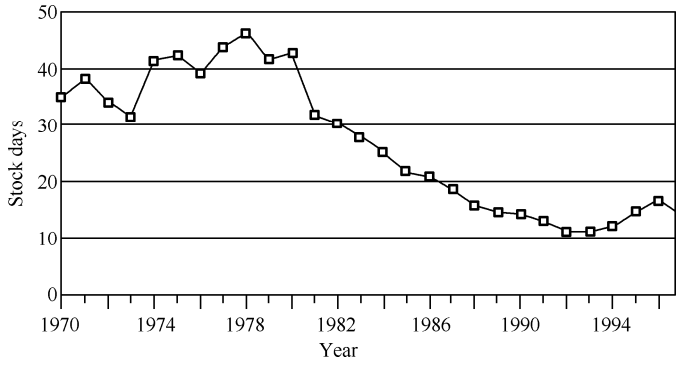

Fig. 3-1 Tesco inventory 1970—1997

Retailers control distributions

1. Retailers increasing their control over distributions (especially in warehouse to shop) by getting more and more supplies through distribution centers (DCs). In some sectors such as grocery this process is now virtually completed. British retailers have much tighter control over supply chain, through heavily depending on IT.

Resctructuring logistics systems

2. Restructuring of retailers' logistical systems to reduce inventory and generally improve their efficiency through the development of "composite distribution" and centralization of slow moving stock.

Quick response

3. Adoption of "Quick Response" (QR), again with the aim of cutting inventory levels. This involves reducing order lead-times and moving to a more frequent delivery of smaller consignments both internally (between DC and shop) and on external links with suppliers.

Retailers control upstream

4. Rationalization of upstream distribution (ie factory to warehouse). Retailers have been extending their control upstream, as a result of QR pressures and competition.

Adoption of SCM and ECR

5. Adoption of Supply Chain Management (SCM) and Efficient Consumer Response (ECR). SCM and ECR provide a management framework within which retailers and suppliers can more effectively co-ordinate their activities.

Increasing recycling flow

6. Increasing return flow of packaging material and handling equipment for recycling/re-use. Retailers are becoming much more involved in "reverse logistics" operation. Germany is much advanced in this field in using re-usable container and new reverse logistics systems.

Flow Management in Retail Logistics and Its Changes

The channel of modern retailing now consists basically of three main actors-consumers, retailers and manufacturers. They are fundamental in driving change. The links between the channel members take a variety

Three actors drive the changes of the four flows of products, risk, finance, and information

of forms. In particular, the links involve flows of various kinds:

- Flows of products (physical supply);
- Flows of risk;
- Flows of finance (capital and payment);
- Flows of information (mandatory and elective).

Logistics management has great concern with the integration of these flows. These flows integration focus on quick response (QR), just-in-time systems (JIT) and efficient consumer response (ECR). Nowadays, responsiveness to customer demand has become the key factor. Poor responsiveness in the logistics chain may be caused by holding products in a form and at points where it could not be responsive to changes in demand. Such lack of responsiveness is now simply too expensive and damaging. In essence, such systems seek to allow quick response to changing demand by holding semi-finished product and using information links to eliminate time in the system. Of necessity, such approaches involve the integration of manufacturing and distribution in order to gain the time savings. The emphasis on ECR attempt to ensure that suppliers are working with retailers and sharing data so as to avoid unnecessary costs and time delays and to deliver continuous delivery. Somerfield once held with 12 suppliers in a co-managed service, focused on the continuous replenishment of products, the introduction of new goods and the management of promotions. It set a 98.5 per cent service level target focusing on the consumer rather than Somerfield. By the end of the trial, stock levels had fallen by 25 percent without compromising customer service, service levels had increased, and many of the participants had adopted the co-managed inventory technique.

As the pressure for such relationships has increased, so the types of links and flows have changed. These changes have focused on four areas:

Crucial importance of customer/demand data

1．Technology. Technology introduction at the retail field has been taking place for many years. Retailers are able to capture much more data about customers and demand than before. This is important in itself, but the use of these data throughout the organization is crucial. Seven-Eleven Japan Co Ltd used technology to restructure understanding of consumers, capture demand, place orders, distribute products to stores several times daily, enhance the retail offer by service provision, electronically pay bills and re-structure risk. They further developed and transformed the Southland Corporation in the United States, and

finally transformed the business.

International souring and operating

2．Internationalization. The internationalization or globalization is important to modern logistics. Retailers are increasingly operating on an international scale whether in terms of sourcing of products or operating of stores. The flows among companies are complicated by the internationalization, and require closer management.

Retailers are in alliance with distributors

3．Alliances. Internationalization and associative relationships promoted the retail alliances. Retailers adopt logistics alliances, as it also points to the rise of specialist distributors who can take on global distribution on behalf of manufacturers or retailers. Many of the leading retailers, especially the franchise operators of Benetton and Seven-Eleven Japan are at the forefront of the changes.

Retailers subcontract some acativities

4．Management. Future management for retail field will require very different methods of operating. For example, retailers or manufacturers need to consider if they want to carry out physical activities and information management by themselves. Other considerations include subcontracting a broad range of distribution tasks and associated operations.

Challenges for the Future

Looking ahead, we can see three areas on which retail logistic managers will have to focus in addition to current concerns:

1．Standardization. With standardization, we can have a better understanding of how a minute decision will affect distribution substantially;

2．Congestion. For many products transportation is a problem. Transportation congestion could possibly lead in the end to electronic shopping and home delivery.

3．Packaging and recycling. Growing environmental concern is forcing retailers to develop better and more efficient recycling and re-use systems.

New Words and Expressions

availability /əˌveɪləˈbɪləti/ *n.* 可用性，有效性，实用性
concern /kənˈsɜːn / *v. n.* 涉及，关系到；担心
integrate /ˈɪntɪgreɪt/ *v.* 使……完整，使……成整体
scope /skəʊp / *n.* 视野，范围
dominate /ˈdɒməneɪt / *v.* 控制，占优势，占主要地位

cornflake /ˈkɔːnfleɪks / *n*.	玉米片
perfume /ˈpɜːfjuːm / *n*.	香水，香味
engender /ɪnˈdʒendə/ *v*.	使产生，造成
consignment /kənˈsaɪnmənt/ *n*.	运送，委托，托付物
rationalization /ˌræʃənəlaɪˈzeɪʃən / *n*.	合理化
responsiveness /rɪˈspɒnsɪvnəs / *n*.	快速响应
eliminate /ɪˈlɪməneɪt/ *v*.	消除，排除
replenishment /rɪˈplenɪʃmənt/ *n*.	补给
internationalization /ˌɪntəˌnæʃnəlaɪˈzeɪʃn/ *n*.	国际化
alliance /əˈlaɪəns/ *n*.	联盟，联合，联姻
congestion /kənˈdʒestʃən/ *n*.	拥塞，拥挤

Notes

1．Nowadays, the old inefficient, manufacturer-led and supplier-led practices have been swept away by the modern, technological rich, retailer-led and customer-focused ways of ensuring product availability.

现今，原来低效的制造商和供应商主导的实践已经被抛弃，取而代之的是现代的、富含技术的零售商引导的和以客户为中心的方法，以确保获得产品。

2．Increasing return flow of packaging material and handling equipment for recycling/re-use. Retailers are becoming much more involved in “reverse logistics” operation.

包装材料和处理设备的退回流增加以便于循环/再使用。零售商更多地涉及“逆向物流”运作。

3．Of necessity, such approaches involve the integration of manufacturing and distribution in order to gain the time savings.

在必要时，这种方法还涉及制造和配送的整合，以节省时间。

4．Other considerations include subcontracting a broad range of distribution tasks and associated operations.

其他的考虑还包括将大量的配送任务和相关的运作分包出去。

5．With standardization, we can have a better understanding of how a minute decision will affect distribution substantially.

由于标准化，我们可以更好地理解一瞬间的决策会如何本质性地影响配送。

Exercises

I. Phrases translation.

零售物流	综合配送
整合配送	快速反应
产品流	风险流

资金流　　信息流
有效客户响应

II. Fill in the blanks and put the sentences into Chinese.

1. The efforts of retailers to undertake distribution and _____ _____have dramatic influence on_____ _____.

2. Retailers have been extending their_____ _____, as a result of QR pressures and competition.

3. The channel of modern retailing now consists basically of three main factors-_____ _____ and _____.

4. Technology is important in itself, but _____ _____ _____ _____ _____throughout the organization is crucial.

5. Retailers are increasingly operating on an international scale whether in terms of _____ _____ _____or operating of stores.

6. Growing environmental concern is forcing retailers to develop better and more efficient _____and _____systems.

III. Answer the following questions.

1. Why are the retailers playing increasingly important role in logistics?

2. Why should ECR be attached great importance to?

3. What other three areas should be considered by the modern retailer logistic managers? Why?

4. Describe the inventory reduction of Tesco during 1970—1997, and discuss the reason for the reduction.

IV. Give examples for the changes in links and flows in retail logistics.

Areas	Important factors	Examples
Technology	1.To capture much more data about customers and demand than before	
	2.The use of these data throughout the organization	
Internationalization	1.Operating on an international scale	
	2.Flows requiring closer management	
Alliances	1.Retailers adopt logistics alliances	
	2.the rise of specialist distributors	
Management	Different methods of operating	

Text II Fashion Logistics

Concept of Fashion

Definition and characteristics of fashion market

The Challenge to marketing and logistics is to find ways in which product development times can be reduced, feedback from the market-place made more rapid and replenishment times compressed. This pressure is more evident than in markets governed by fashion. Fashion is a broad term which typically refers to any product or market where there is an element of style which is likely to be short-lived. We have defined fashion markets as exhibiting the following characteristics:

1. Short life-cycles: the product is often designed to capture the mood of the moment. The saleable period is likely to be very short and seasonal, measured in months or even weeks.

2. High volatility: demand for these products is rarely stable or linear. It may be influenced by the weather changes, hit films, TV shows or even directly by advertising. Julia Roberts' appearance in the film Pretty Woman wearing a brown and white polka dress cleared the shops of similar dresses, and a Volkswagen advertisement featuring a newly divorced woman in a white top hat sent millinery sales soaring.

3. Low predictability: because of the volatility of demand it is extremely difficult to forecast with any accuracy even total demand during a period, let alone week-by-week or market-by-market requirements.

4. High impulse purchase: many buying decisions for these products are made at the point of purchase. In other words, the shopper when confronted with the product is stimulated to buy it, hence the critical role of "availability" and, in particular, availability of sizes, colors, etc.

Trends Making Fashion Logistics Complex

Two trends for fashion market: off-shore sourcing, and reduction of suppliers number

The two trends have added complexity and difficulty to fashion logistics management. First is the growing tendency to source product and materials off-shore, causing longer lead-times. The pressure for seeking low-cost manufacturing came from the retailers. Between 1986 and 1991 one-sixth of all clothing factories in the European Union closed down as retailers switched their sourcing off-shore, increasing to the Far East. However, the longer replenishment lead time will cause

severe suffering in either lose of sales or longer "pipelines" with more inventory.

The second trend is the moves by many retailers in the apparel business to reduce significantly the number of suppliers they do business with. It is particularly driven by the need to develop more responsive replenishment systems, which is not possible when sourcing is spread over hundreds, if not thousands, of suppliers.

Managing Fashion Logistics Pipeline

Traditional ways to cope with uncertainty are to improve the quality of the forecast. Yet, by definition, the volatility of demand and the short life cycles found in may fashion markets make it highly unlikely that forecasting methods can ever consistently and accurately predict sales at the item level. Instead, ways must be found of reducing the reliance upon the forecast and people must focus on lead-time reduction.

Three critical lead times

There are three critical lead times that must be managed by organizations that seek to compete successfully in fashion markets:

● Time-to-market: how long does it take the business to recognize a market opportunity and the translate this into a product or service and to bring it to the market? Companies that are slow to market can suffer in two ways. First, they miss a significant sales opportunity that probably will not be repeated. Second, the supplier is likely to find that when the product finally arrives in the market place, demand is starting to fall away, leading to the likelihood of mark-downs. Fig.3-2 illustrates the double risks facing those organizations that are slow to market.

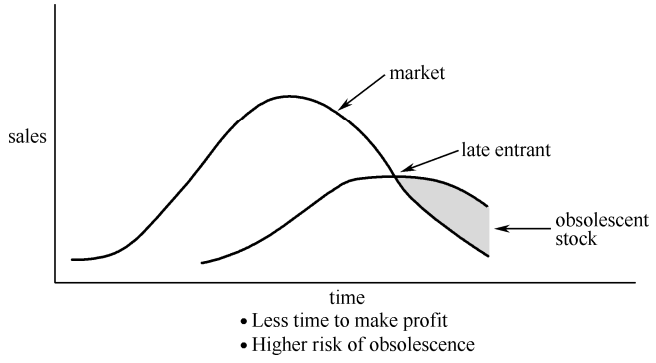

Fig.3-2 Shorter life cycles making timing crucial

● Time-to-serve: how long does it take to capture a customer's order and to deliver the product to the retail customer's satisfaction?

Traditionally in fashion industries orders from retailers have had to

place on suppliers' books many months ahead of the season. Nine months was not unusual as a typical lead time. Clearly, the risk of both obsolescence and stock-outs is high, as well as the significant inventory carrying cost that inevitably is incurred somewhere in the supply chain.

● Time-to-react: how long does it take to adjust the output of the business in response to volatile demand?

The challenge in a fashion market is to be able to see "real" demand. Real demand is what consumers are buying or requesting hour by hour, day by day. Because most supply chains are driven by orders (ie batched demand), individual parities in the chain will have no real visibility of the final market place.

Creating Lean Supply Chains

Two strategies for leanness: reducing lead time, and capturing information sooner

Successful companies in fashion markets are able to capture the imagination of the consumer with their products but are often characterized by their agility. They are agile because they are "lean". How is this leanness achieved? Many organizations make significant improvements by adopting two strategies of reducing the logistics lead time and capturing information sooner on actual customer demand.

The Limited, a Columbus, Ohio-based apparel retailer, was one of the first in its industry to fully understand and use the economics of stock-turn and inventory management. Its flair for formula merchandising and skill in minimizing time-to-market changed the face of fashion retailing in the United States. Long ago, The Limited developed computer-controlled global supply chains honed to detect and use new fashion trends with speed and efficiency.

The Limited's teams of scouts continually comb the globe for hot new fashion ideas. Images of their finds are sent back to the Columbus Headquarter, where they are promptly copied. Computer-aided design techniques are applied to bring the cut, color and other details of the design into line with North American tastes. Moments later, small pilot orders are dispatched to EDI-linked suppliers in the low-cost manufacturing centers of Asia. Using Hong Kong as a consolidation center, the goods are air freighted direct to The Limited's distribution center in Columbus, in four times weekly shipments aboard a specially chartered 747 jumbo jet. The goods, ready labeled and price tagged for display, are sorted immediately, then, within two to three days, forwarded by road and air to retail sites all over the United States. The

whole process takes around three to five weeks from order to in-store display and at the time it was introduced compared with the average nine months taken by its competitors.

New Words and Expressions

feedback /ˈfiːdbæk/ *n.*	反馈，回复
replenishment /rɪˈplenɪʃmənt/ *n.*	补充，补给
capture /ˈkæptʃə(r)/ *v. n.*	俘获，夺得，捕获；战利品
volatility /ˌvɒləˈtɪləti/ *n.*	挥发性，易变，活泼
polka /ˈpɒlkə/ *n.*	女用紧身短上衣
millinery /ˈmɪlɪnəri/ *n.*	女帽类，女帽制造业
predictability /prɪˌdɪktəˈbɪləti/ *n.*	可预测性，可预言
impulse /ˈɪmpʌls/ *n.v.*	冲动，刺激，推动力；推动
stimulated /ˈstɪmjuleɪtɪd/ *adj.*	受激的
apparel /əˈpærəl/ *n. v.*	衣服，服装；给……穿衣
obsolescence /ˌɒbsəˈlesns/ *n.*	退化，荒废
batched /bætʃt/ *adj.*	成批（处理）的
agility /əˈdʒɪləti/ *n.*	敏捷，灵活
honed /həʊnd/ *adj. v.*	磨光的，亚光的；把……磨光
scout /skaʊt/ *n. v.*	童子军，侦察兵；侦察，搜索
chartered /ˈtʃɑːtəd/ *adj.*	受特许的
jumbo /ˈdʒʌmbəʊ/ *adj.n.*	巨大的；庞然大物

Notes

1．The Challenge to marketing and logistics is to find ways in which product development times can be reduced, feedback from the market-place made more rapid and replenishment times compressed.

营销和物流的挑战是找到可缩短产品开发时间、获得更快的市场反馈、压缩补给时间的方法。

2．…the volatility of demand and the short life cycles found in may fashion markets make it highly unlikely that forecasting methods can ever consistently and accurately predict sales at the item level.

……许多时尚业市场中的需求波动性和生命周期短（两个）特点，使得预测方法几乎不可能做到稳定、准确地预测产品的销售。

Exercises

I. Phrases translation.

consolidation center

computer-aided design (CAD)
lean supply
real demand
lead time
服装业
冲动购买
店内展示
缺货物品

II. Fill in the blanks and put the sentences into Chinese.

1. Fashion is a broad term which typically refers to any product or market where there is an element of _____which is likely to be _____.

2. There are three critical lead times that must be managed by organizations that seek to compete successfully in fashion markets:_____, _____ and _____.

3. _____ is what consumers are buying or requesting hour by hour, day by day.

4. Many organizations make significant improvements by adopting two strategies of reducing the _____and capturing _____ sooner on actual customer demand.

III. Answer the following questions.

1. What are the characteristics of fashion market?

2. What are the two trends that add complexity and difficulty to fashion logistics management?

3. Why is "time-to-market" so important to the fashion companies?

4. How will you create lean supply chains?

Text III Supplementary Reading

Supply Chain Management of Grocery Retailers

Case Study of Tesco

Tesco is the UK's largest food retailer, with a sales turnover of more than €67.5 billion. While it has some 638 stores in central Europe, and some 636 in the Far East, most are in the United Kingdom and Northern Ireland, where it has nearly 1,800. This number has increased rapidly as Tesco entered the convenience store market with deals such as the Tesco Express alliance with Esso to run grocery shops at petrol stations. The product range held by the stores

has grown rapidly in recent years, and currently stands at 65,000 stock-keeping units (skus) depending on the size of the store as Tesco broadens its presence in the "non-food" market for electrical goods, stationery, clothing and the like. This massive range is supported by 3,000 suppliers, who are expected to provide service levels (correct time and quantities) of at least 98.5% by delivering to Tesco within half-hour time "windows". Volumes are equally impressive. In a year, some 2.5 billion cases of product are shipped from suppliers to the stores.

Tesco states that its core purpose is "to create value for customers to earn their life-time loyalty". Wide product range and high on-shelf availability across that range are key enablers of that core purpose. So how do you maintain high availability of so many SKUS in so many stores?

An early reform for supermarket operation was to have suppliers deliver to a distribution centre rather than to every store. During the 1980s, distribution to retail stores was handled by 26 depots. These operated on a single-temperature basis, and were small and relatively inefficient. Delivery volumes to each store were also relatively low, and it was not economic to deliver to all stores each day. Goods that required temperature-controlled environments had to be carried on separate vehicles. Each product group had different ordering systems. The network of depots simply could not handle the growth in volume and the increasingly high standards of temperature control. A new distribution strategy was needed.

Under the "composite" distribution system, many small depots with limited temperature control facilities were replaced by composite distribution centres (called regional distribution centre, RDCs), which can handle many products at several temperature ranges. The opportunity Tesco provide a cost-effective daily delivery service to all stores. Typically, a composite distribution centre can handle over 60 million cases per year on a 15-acre site. The warehouse building comprises 25,000 square metres divided into three temperature zones: frozen (-25℃)，+2℃ (chilled) and +12℃ (semi-ambient). Each distribution centre (DC) serves a group of between 100 and 140 retail stores. Delivery vehicles from composite depots can use insulated trailers divided into chambers by mean of movable bulkheads so they can operate at different temperatures. Deliveries are made at agreed, scheduled times. Ambient goods such as cans and clothing are delivered through a separate grocery distribution network which relies on a stocked environment where orders are picked by store. This complemented by a strategically located trucking station which operates a pick to zero operation for fast-moving grocery on merchandise units that can be placed directly on the shop floor.

So much for the method of transporting goods from supplier through to the stores, but how much should be sent to each store? With such a huge product range today, it is impossible for the individual store to reorder across the whole range (store-based ordering). Instead, sales of each product line are tracked continuously through the till by means of electronic point of sale (EPOS) systems. As a customer's purchases are scanned through the bar code reader at the till, the sale is automatically recorded for each (Stock Keeping Unit). Cumulative sales are updated every four hours on Tesco Information Exchange (TIE). This is a system based on Internet Protocol that allows Tesco and its suppliers to communicate trading information. The aim of improved

communication is to reduce response times from manufacturer to stores and to ensure product availability on the shelf. Among other things, TIE aims to improve processes for introducing new products and promotions, and to monitor service levels.

Based on the cumulative sales, Tesco places orders with its suppliers by means of electronic data interchange (EDI). As volumes and product ranges increasing during the 1990s, food retailers such as Tesco aimed to destock their distribution centres by ordering only what was needed to meet tomorrow's forecast sales. For fast-moving products such as types of cheese and washing powders, the aim is day 1 for day 2: that is, to order today what is needed for tomorrow. For fast-moving products, the aim is to pick to zero in the distribution centre: no stock is left after store orders have been fulfilled and deliveries to stores are made as soon as the product is picked, which increases the stock availability for the customer. The flow of the product into the distribution centre is broken into four waves and specific products are delivered in different cycles through the day. This means that the same space in the distribution centre can be used several times over.

New Words and Expressions

insulated /ˈɪnsjuleɪtɪd/ *v.*	使隔离，使孤立；使绝缘，使隔热
chamber /ˈtʃeɪmbə(r)/ *n.*	室，卧室，会客室，内庭
stationery /ˈsteɪʃənri/ *n.*	文具，办公用品，信纸，信封，文房四宝
cost-effective /ˌkɒstɪˈfektɪv/ *adj.*	成本高效的，经济的
chill /tʃɪl/ *v.*	（使）变冷，使冰冷
ambient /ˈæmbiənt/ *adj.*	周围的，环境的
bulkhead /ˈbʌlkhed/ *n.*	隔离壁，隔板
cumulative /ˈkjuːmjələtɪv/ *adj.*	累积的，渐增的

Notes

1．This massive range is supported by 3,000 suppliers, who are expected to provide service levels (correct time and quantities) of at least 98.5% by delivering to Tesco within half-hour time "windows".

这么大范围的商品由 3 000 家供应商供给，要求他们提供的服务水平（时间和数量的正确率）至少是 98.5%，在半小时的"时间窗"里向 Tesco 发货。

2．Tesco states that its core purpose is "to create value for customers to earn their life-time loyalty".

Tesco 声明其核心目标是"为客户创造价值，以赢得他们终生的忠诚"。

3．Each product group had different ordering systems. The network of depots simply could not handle the growth in volume and the increasingly high standards of temperature control.

每项产品都有不同的订单系统。配送点网络简直无法对付数量的增长和温控标准的提高。

Exercises

I. Fill in the blank and put the sentence into Chinese.

1. The warehouse building comprises 25,000 square metres divided into three temperature zones:_____, _____, and _____.

2. Delivery vehicles from composite depots can use _____ divided into chambers by mean of _____ so they can operate at different temperatures.

3. As a customer's purchases are scanned through_____ at the till, the sale is automatically recorded for_____.

4. The flow of the product into the distribution centre is broken into four waves and specific products are delivered in different cycles through the day.

II. Phrases translation.

stock-keeping units	sales turnover
regional distribution center (RDC)	store-based ordering
electronic point of sales (EPOS) systems	cumulative sales
internet protocol	fast-moving product

III. Questions for discussion or writing.

1. Describe the key logistics processes at Tesco.
2. How shall we manage fast-moving products?
3. How do you understand Tesco's core purpose of "to create value for customers to earn their life-time loyalty"?
4. What do you think are the main logistics challenges in running the Tesco operation?