

Chapter 7

B2B E-Commerce: Supply Chain Management

Learning Objectives

- Know the growth of B2B e-commerce, as well as its potential benefits and challenges.
- Understand how procurement and supply chains relate to B2B e-commerce.

Part I: Overview of B2B E-commerce

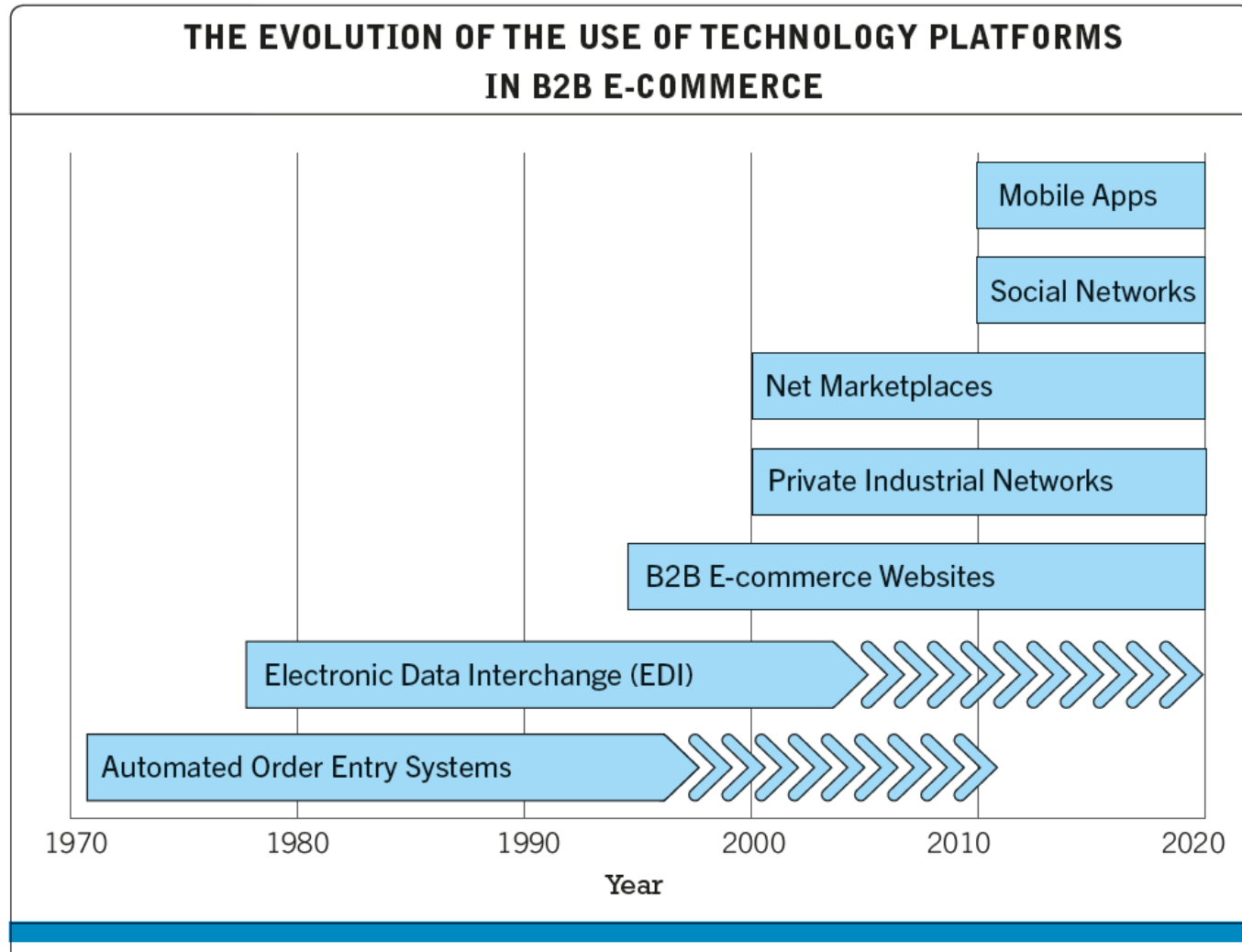
Basic Definitions

- **B2B Commerce / B2B 商務**
 - All types of computer-enabled inter-firm trade
所有類型的企業間跨組織交換價值的貿易活動
 - Before Internet, B2B transactions called trade or procurement process
在互聯網之前，B2B交易稱為貿易或採購過程
- **B2B E-Commerce / B2B 電子商務**
 - The portion of B2B commerce enabled by the Internet
描述基於互聯網的 B2B 商務
- **Supply Chains / 供應鏈**
 - Supply chains are a complex system of organizations, people, business processes, technology, and information, all of which need to work together to produce products efficiently
供應鏈是一個由組織、人員、業務流程、技術和信息組成的複雜系統，所有的這些需要協同工作以高效率地生產產品
 - Often global
通常是全球化的

The Evolution of B2B E-Commerce

- In the mid-1970s, Automated Order-entry Systems
20世紀70年代中期，訂單自動錄入系統
- In the late 1970s, Electronic Data Interchange (EDI)
20世紀70年代後期，電子數據交換
- In the mid-1990s, B2B E-commerce Websites
20世紀90年代中期，B2B電子商務網站
- In the late 1990s, Net Marketplaces
20世紀90年代後期，在線交易市場
- From 2000, Private Industrial Networks, Net marketplace, Social Network, Mobile Apps
從2000年開始，會員專用網絡、在線交易市場、社交網絡、移動應用軟件

The Evolution of B2B E-Commerce



B2B e-commerce has gone through many stages of development since the 1970s. Each stage reflects a major change in technology platforms from mainframes to private dedicated networks, and finally to the Internet, mobile apps, and social networks.

The Evolution of B2B E-Commerce

Automated Order-entry Systems 訂單自動錄入系統

- Automated order entry systems involve the use of telephone modems to send digital orders. Automated order entry systems show goods from a single seller.

訂單自動錄入系統包括使用電話調制解調器發送數字訂單。自動訂單輸入系統展示來自單個賣家的商品。

- Telephone modems were replaced by personal computers using private networks in the late 1980s, and by Internet-connected desktop personal computers accessing online catalogs in the late 1990s.

電話調制解調器後來逐漸被1980年代後期出現的連接專用網絡的個人計算機，以及1990年代後期出現的可訪問在線目錄的連接互聯網的台式個人計算機取代。

- Automated order entry systems are seller-side solutions. They are owned by the suppliers and are seller-biased markets—they show only goods from a single seller.

訂單自動錄入系統是賣方解決方案。它們歸供應商所有，是賣方偏向市場——它們只顯示來自單一賣方的商品。

The Evolution of B2B E-Commerce

Electronic Data Interchange (EDI) 電子數據交換

- EDI is a communications standard for sharing business documents such as invoices, purchase orders, shipping bills, product stocking numbers (SKUs), and settlement information among a small number of firms. EDI document structures are defined by industry committees.

EDI是一種在少數企業間傳遞和共享諸如發貨單、採購單、運輸單、產品庫存單和結算清單等商業文件的通信標準。EDI 文件結構由行業委員會定義。

- Virtually all large firms have EDI systems, and most industry groups have industry standards for defining documents in that industry.

幾乎所有大企業都有自己的EDI系統，並且大多數行業組織都有建立該行業的EDI標準。

- EDI systems are owned by the buyers, hence they are buyer-side solutions and buyer-biased because they aim to reduce the procurement costs of supplies for the buyer.

EDI系統歸買方所有，因此它們屬於買方解決方案，並且偏向買方，因為它們旨在降低買方供應品的採購成本。

- EDI systems generally serve vertical markets. A vertical market is one that provides expertise and products for a specific industry, such as automobiles. In contrast, horizontal markets serve many different industries.

EDI 系統通常應用於垂直市場。垂直市場是為特定行業（例如汽車）提供專業產品和服務的市場。相比之下，為多個不同的行業提供通用產品和服務地市場為水平市場。

The Evolution of B2B E-Commerce

B2B E-commerce Websites B2B電子商務網站

- B2B e-commerce websites are perhaps the simplest and easiest form of B2B e-commerce to understand, because they are just online catalogs of products made available to the public marketplace by a single supplier.

B2B 電子商務網站可能是最易理解的B2B電子商務形式，因為它們由單個供貨商面向公共市場提供產品的在線目錄。

- B2C e-commerce websites owned by the supplier, they are seller-side solutions and seller-biased because they show only the products offered by a single supplier.

B2C電子商務網站歸供應貨商擁有，是賣方解決方案，側重於特定的供貨商，因為它們僅顯示單個供貨商提供的產品。

- B2B e-commerce websites tend to serve horizontal markets—they carry products that serve a wide variety of industries.

B2B電子商務網站通常應用於水平市場——它們提供可用於多個行業的通用產品。

The Evolution of B2B E-Commerce

Net Marketplaces 在綫交易市場

- Net marketplace brings hundreds to thousands of suppliers and buyers into a sell-side, Internet-based environment to conduct trade.

在綫交易市場將成百上千的供應商和買家匯集到一個基於互聯網的商務環境中進行貿易。

Private Industrial Networks 會員專用網絡

- Private industrial networks (sometimes also referred to as a private trading exchange, or PTX) are Internet-based communication environments that extend far beyond procurement to encompass supply chain efficiency enhancements and truly **collaborative commerce** where the buyers work with the sellers to develop and design new products.

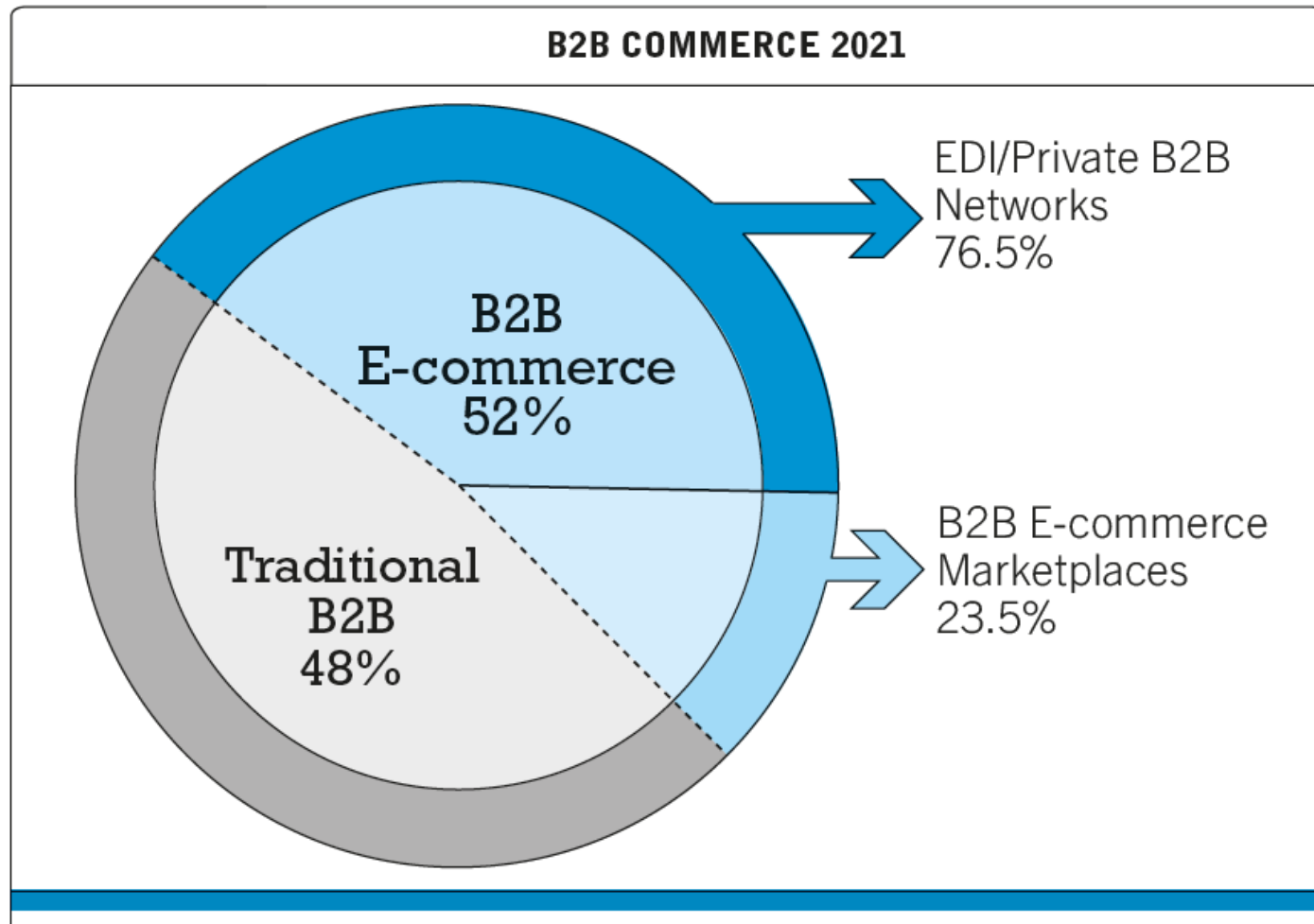
會員專用網絡（有時也稱為私有交易交易所，PTX）是一種基於互聯網的通信環境，其範圍遠遠超出傳統採購模式，實現供應鏈效率的提高和真正意義上的買賣雙方一同開發和設計新的產品的**協同商務**。

The Evolution of B2B E-Commerce



Growth of B2B Commerce 2011–2020

The Evolution of B2B E-Commerce



In 2021, B2B e-commerce accounted for more than half (52%) of all B2B commerce. Within B2B e-commerce, EDI/private B2B networks accounted for the vast majority of B2B e-commerce (more than 75%). Contrary to initial expectations, various types of B2B e-commerce marketplaces accounted for only about 24%.

Potential Benefits of B2B E-Commerce

- Lower administrative costs
降低管理成本
- Lower search costs for buyers
降低買方的搜尋成本
- Reduced inventory costs
減少企業庫存成本
- Lower transaction costs
減少交易成本
- Increased production flexibility by ensuring just-in-time parts delivery
通過確保零部件的準時交貨來增強企業的生產彈性
- Improved quality of products by increasing cooperation among buyers and sellers
通過加強交易雙方的合作和減少質量糾紛來提高產品質量

Potential Benefits of B2B E-Commerce

- Decreased product cycle time
縮短企業的生產周期
- Increased opportunities for collaboration
增加合作機會
- Greater price transparency
提高價格透明度
- Increased visibility, real-time information sharing
提高可見性和實時信息共享

Challenges of B2B E-commerce

- Often real-world supply chains fail to provide visibility into the supply chain because they lack real-time demand, production, and logistics data, and have inadequate financial data on suppliers. The result is unexpected supplier failure and disruption to the supply chain.

現實世界的供應鏈通常無法提供對供應鏈的可遇見性，因為它們缺乏實時需求、生產和物流數據，並且供應商的財務數據不足。結果是供應商意外破產和供應鏈中斷。

- Builders of B2B supply chains often had little concern for the environmental impacts of supply chains, the sensitivity of supply chains to natural events, fluctuating fuel and labor costs, or the impact of public values involving labor and environmental policies.

B2B 供應鏈的建設者通常很少關心供應鏈的環境影響、供應鏈對自然事件的敏感性、燃料和勞動力成本的波動，或者涉及勞動力和環境政策的公共價值觀的影響。

Part II: The Procurement Process and the Supply Chain

Procurement Process

Steps in the Procurement Process 採購流程的步驟

- The process that business firms purchase goods they need to produce goods they will ultimately sell to consumers.

企業購買需要的商品以生產他們最終將出售給消費者的商品的過程.

1



Search

2



Qualify

3



Negotiate

4



**Purchase
Order**

5



Invoicing

6



Shipping

7



**Remittance
Payment**

The Procurement Process

Procurement Process

Steps in the Procurement Process 採購流程的步驟

- The first three steps involve deciding who to buy from and what to pay: searching for suppliers of specific products; qualifying both sellers and the products they sell; and negotiating prices, credit terms, escrow requirements, quality, and scheduling of delivery. Once a supplier is identified, purchase orders are issued, the buyer is sent an invoice, the goods are shipped, and the buyer sends a payment. Each of these steps in the procurement process is composed of many separate business processes and sub-activities. Each of these activities must be recorded in the information systems of the seller, buyer, and shipper. Often, this data entry is not automatic and involves a great deal of manual labor, telephone calls, faxes, and e-mails

前三個步驟涉及決定向誰購買和支付什麼：搜索特定產品的供應商；核實供應商資質和產品質量；談判確定價格、信用條款、托管要求、質量和交貨時間安排。一旦確定了供應商，採購方就會發出採購訂單，供應商向買方發送發票，裝運貨物，買方付款。採購流程中的每個步驟都由許多獨立的業務流程和子活動組成，這些活動必須記錄在賣方、買方和發貨人的信息系統中。通常，這種數據錄入不是自動的，需要大量的人工勞動，同時使用電話、傳真和電子郵件來溝通。

Procurement Process

Types of Procurement 採購類型

- **Firms make purchases of two kinds of goods 企業採購的商品可分為兩大類**
 - Direct goods are goods integrally involved in the production process—for instance, when an automobile manufacturer purchases sheet steel for auto body production
直接物料是生產過程中整體涉及的商品，例如，汽車製造商購買的用於汽車車身生產的鋼板。
 - Indirect goods are all goods not directly involved in production process, such as office supplies and maintenance products. Often these goods are called MRO goods—products for maintenance, repair, and operations.
間接物料是指不直接用於產品生產過程的其他原材料，如辦公用品、維修商品等。它們通常被稱為MRO物料——用於維護、修理和運營的商品。

Procurement Process

Types of Procurement 採購類型

- **Firms use two methods to purchase 企業通常採用兩種採購方式**

- Contract purchasing 合同採購

- Contract purchasing involves long-term written agreements to purchase specified products, with agreed-upon terms and quality, for an extended period of time. Generally, firms purchase direct goods using long-term contracts.

合同採購是通過涉及購買特定商品的長期書面協議來購買所需商品，包括雙方商定的條款和質量要求，且在之後的一段時間內有效。公司一般情況下使用長期合同購買直接物料。

- Spot purchasing 現貨採購

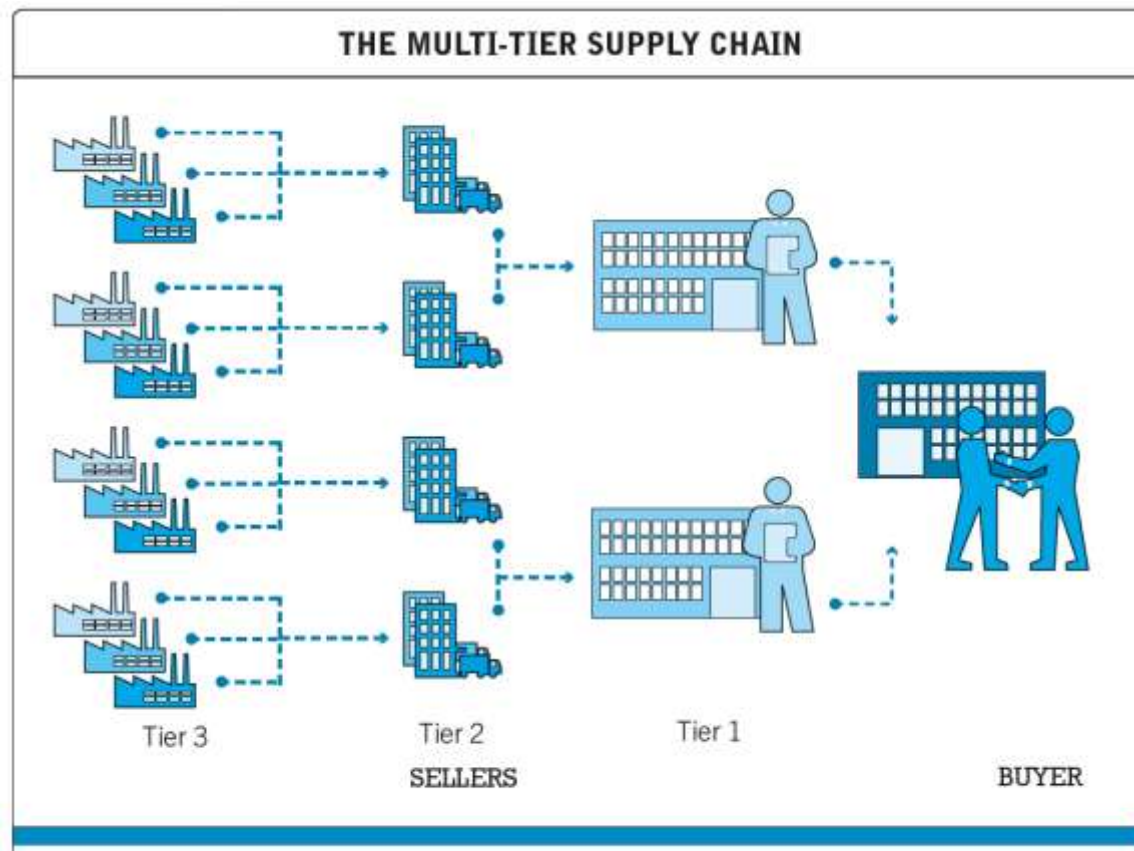
- Spot purchasing involves the purchase of goods based on immediate needs in larger marketplaces that involve many suppliers. Generally, firms use spot purchasing for indirect goods, although in some cases, firms also use spot purchasing for direct goods. According to some estimates, spot purchases account for up to 40% of total procurement spending.

現貨採購是指在有許多供應商參與的較大市場中，根據即時需求購買商品。一般來說，企業對間接物料採取現貨採購。據估計，現貨採購至少占總採購支出的 40%。

Multi-Tier Supply Chain

- A multi-tier supply chain is a complex system, which covers multiple tiers of suppliers

多層供應鏈是一個複雜的系統，它涵蓋了多級供應商。



The supply chain for every firm is composed of multiple tiers of suppliers.

Supply Chain Visibility

- **Supply chain visibility** refers to the ability of a firm to monitor the output and pricing of its first- and second-tier suppliers, track and manage supplier orders, and manage transportation and logistics providers who are moving the products.

供應鏈可見性指的是一個公司監督其一級和二級供應商的產量和定價、跟踪和管理供應商訂單以及管理運輸和物流的能力。

- Supply chain is visible when you know exactly what you have ordered from your suppliers and what their production schedule is, and when you can track the goods through shipping and trucking firms to your in-bound warehouse.

當確切地知道從供應商那裏訂購了什麼以及他們的生產計劃是什麼，以及能通過船運和貨運公司追蹤貨物時，就實現了供應鏈可見性。

Supply Chain Visibility

CONCEPTS AND CHALLENGES IN SUPPLY CHAIN MANAGEMENT	
CONCEPT/CHALLENGE	DESCRIPTION
Visibility	Having the ability to monitor suppliers, orders, logistics, and pricing
Demand forecasting	Informing your suppliers of future demand
Production scheduling	Informing your suppliers of the production schedule
Order management	Keeping track of orders to your suppliers
Logistics management	Managing your logistics partners based on your production schedule

Part III: Supply Chain Management

Supply Chain Management

- **Supply Chain Management (SCM) 供應鏈管理**

- Supply chain management refers to a wide variety of activities that firms and industries use to coordinate the key players in their procurement process.

供應鏈管理是指企業間和行業間協調採購過程中的主要參與者的各種業務活動。

- **Major Trends in SCM**

- Trends include: Just-in-time and lean production, supply chain simplification, adaptive supply chains, sustainable supply chains, supply chain management systems

趨勢包括：精益生產、供應鏈精簡、適應性供應鏈、可持續供應鏈、供應鏈管理系統和協同商務

Supply Chain Management

- **Adaptive Supply Chains 精益生產**

- Set of production methods and tools.

一整套生產方法和工具.

- Focus on elimination of waste throughout customer value chain, not just inventory.

專注於消除客戶價值鏈中的浪費，而不僅僅是庫存.

- **Supply Chain Simplification 供應鏈精簡**

- Reduce size of supply chain, and strengthen cooperation with strategic group of suppliers to reduce product and administrative costs and improve quality.

減少供應鏈規模，加強與少部分戰略供應商合作，減少製造成本和管理成本的同時，提高產品質量.

Supply Chain Management

- **Lean Production 適應性供應鏈**

- Reduce centralization, i.e., reduce risks caused by relying on single suppliers who are subject to local instability

降低集中度，即減少因依賴易受當地不穩定因素影響的單一供應商而造成的風險

- Create regional- or product-based supply chains

創建基於區域或產品的供應鏈

- Allow production to be moved to temporary safe harbors in case of local manufacturing disruptions

允許生產轉移到臨時安全港，以防當地生產中斷

- Focus on “optimal-cost,” distributed manufacturing, and flexible supply chains that can shift to low-risk areas

專注於“成本的優化”、分布式製造和能夠轉移到低風險領域的靈活供應鏈

Supply Chain Management

- **Sustainable Supply Chains 可持續供應鏈**
 - Take social and ecological interests into account
兼顧社會和生態利益
 - Use efficient and environmental methods in production, distribution, logistics
在生產、分銷和物流中使用有效的環保方法
 - Good business, over long term
從長遠來看，是一種非常好的經營方式
 - Create value for consumers, investors, communities
為消費者、投資者以及社會公眾創造價值

Supply Chain Management

- **Supply Chain Management Systems 供應鏈管理系統**

- Continuously link activities of buying, making, and moving products from suppliers to purchasing firms.

不斷地將企業的採購過程、生產過程和從供應商到企業的物資流動無縫連接起來。

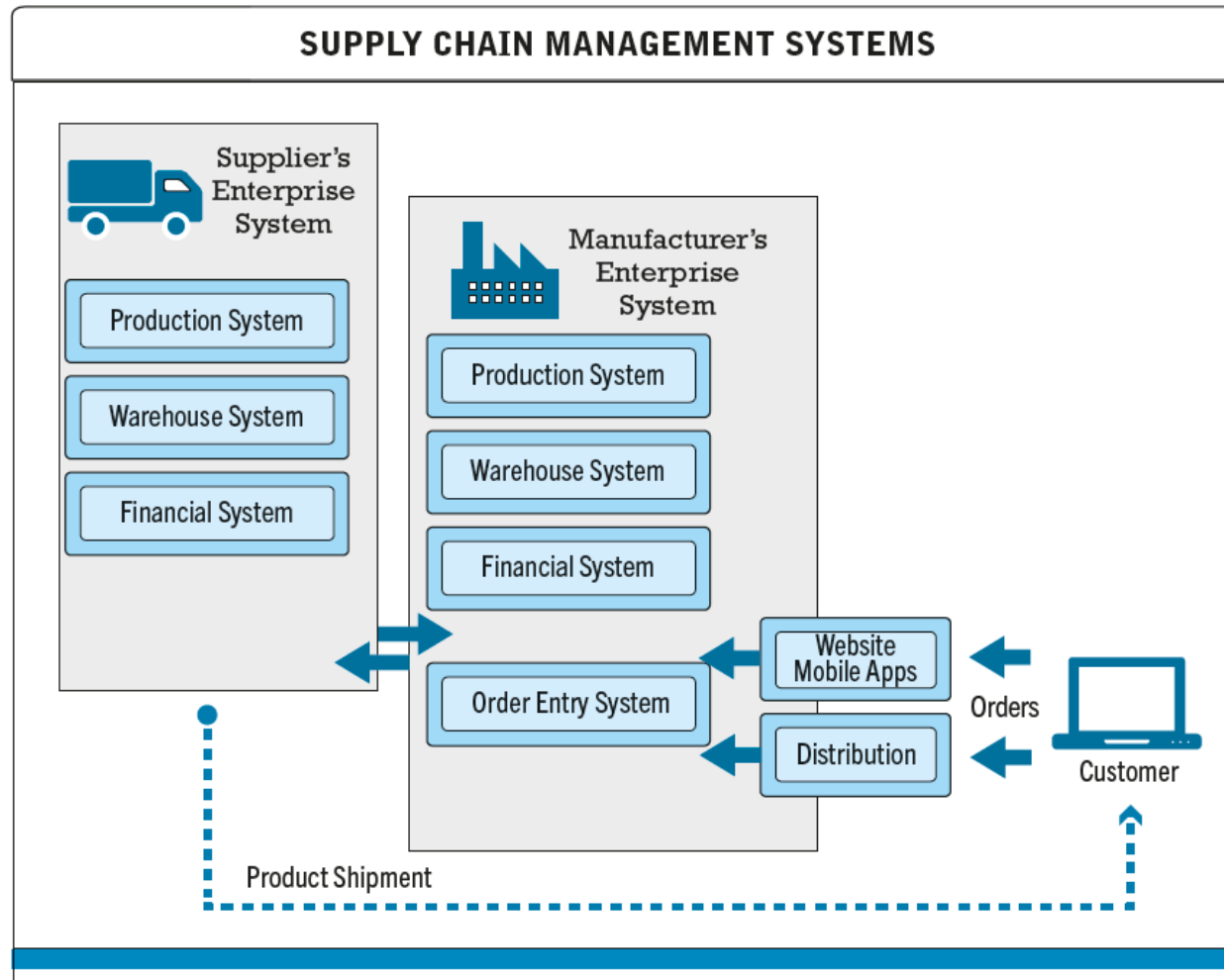
- Integrates demand side of business equation by including order entry system in the process.

通過與訂單自動錄入系統的集成把企業供銷兩端的客戶也納入整個系統。

- With SCM system and continuous replenishment, inventory is eliminated and production begins only when order is received.

通過供應鏈管理系統與連續補貨，企業能夠實現零庫存，產品生產可在訂單到達後才正式開始。

Supply Chain Management



SCM systems coordinate the activities of suppliers, shippers, and order entry systems to automate order entry through production, payment, and shipping business processes. Increasingly customers, as well as employees working throughout the supply chain, are using smartphones, tablets, and mobile apps to place and coordinate orders.

Supply Chain Management

- **Collaborative Commerce 協同商務**

- Collaborative commerce is a direct extension of supply chain management systems, as well as supply chain simplification. Collaborative commerce is defined as the use of digital technologies to permit firms to collaboratively design, develop, build, market, and manage products through their life cycles.

協同商務由供應鏈精簡和供應鏈管理系統演化而來。協同商務是指多家企業通過數字化技術，在產品的整個生命週期中進行協作設計、研發、製造、銷售和管理的一種合作方式。

- This is a much broader mission than EDI or simply managing the flow of information among organizations. Collaborative commerce involves a definitive move from a transaction focus to a relationship focus among the supply chain participants. Rather than having an arm's-length adversarial relationship with suppliers, collaborative commerce fosters sharing of sensitive internal information with suppliers and purchasers.

與EDI或者企業間信息流的簡單管理相比，協同商務涉及的範圍更廣，涉及從以“交易過程”為中心向以“供應鏈上合作企業的關係”為中心的決定性轉變。協同商務鼓勵採購方和供貨方共享自己內部的敏感信息，改變過去兩者之間的緊張對立關係。

Part IV: Net Marketplaces: The Selling Sid of B2B

Net Marketplaces

- **Net marketplaces** are sell-side digital environments that bring suppliers and buyers together. These Net marketplaces could scale easily as volume increased by simply adding more computers and communications equipment.

在綫交易市場是將供應商和買家聚集在一起的面向賣方的數字化交易市場。隨著交易量的增加，只需添加更多的計算機和通信設備，這些在綫交易市場就可以輕鬆擴展。

Characteristics of Net Marketplaces

CHARACTERISTICS OF B2B E-COMMERCE MARKETPLACES: A B2B VOCABULARY

CHARACTERISTIC	MEANING
Bias	Sell-side vs. buy-side vs. neutral. Whose interests are advantaged: buyers, sellers, or no bias?
Ownership	Industry vs. third party. Who owns the marketplace?
Pricing mechanism	Fixed-price catalogs, auctions, bid/ask, and RFPs/RFPs.
Scope/Focus	Horizontal vs. vertical markets.
Value creation	What benefits do they offer customers or suppliers?
Access to market	In public markets, any firm can enter, but in private markets, entry is by invitation only.

Types of Net Marketplaces

According to two dimensions of net marketplaces:

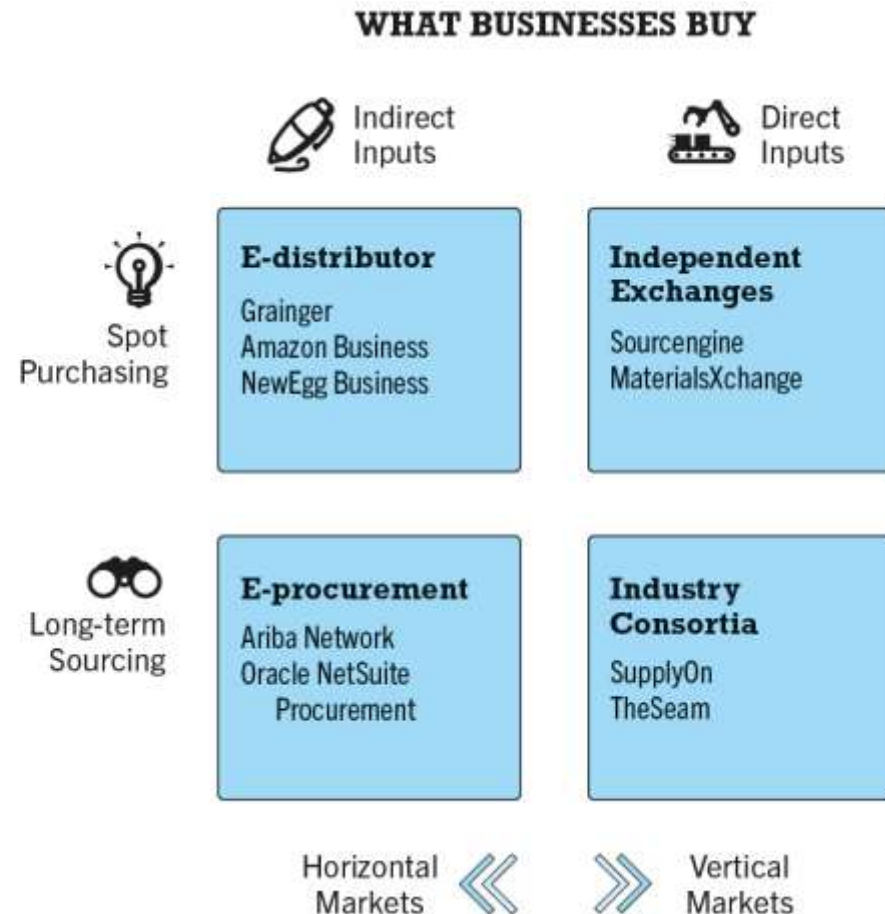
- Providing indirect goods or direct goods
- Providing contractual purchasing or spot purchasing



Four main types :

- E-distributor
- E-procurement Marketplace
- Exchange
- Industry Consortia

**HOW
BUSINESSES
BUY**



Types of Net Marketplaces

E-distributor 電子分銷商

- The most common and most easily understood type of Net marketplace
最常見和最容易理解的在線交易市場類型
- Providing an online catalog that represents the products of thousands of direct manufacturers
采用電子目錄來展示數以千計供應商的產品信息
- E-distributors are independently owned intermediaries that offer industrial customers a single source from which to order indirect goods on a spot, as-needed basis
電子分銷市場是獨立的中介交易市場，為企業客戶提供採購間接物料的單一貨源，客戶可根據需要進行現貨購買
- A significant percentage of corporate purchases cannot be satisfied under a company's existing contracts, and must be purchased on a spot basis
大部分的企業採購無法由企業現已簽訂的合同完成，需采用現貨採購的方式
- E-distributors make money by charging a markup on products they distribute
電子分銷市場通過提高所銷售商品的標價實現盈利

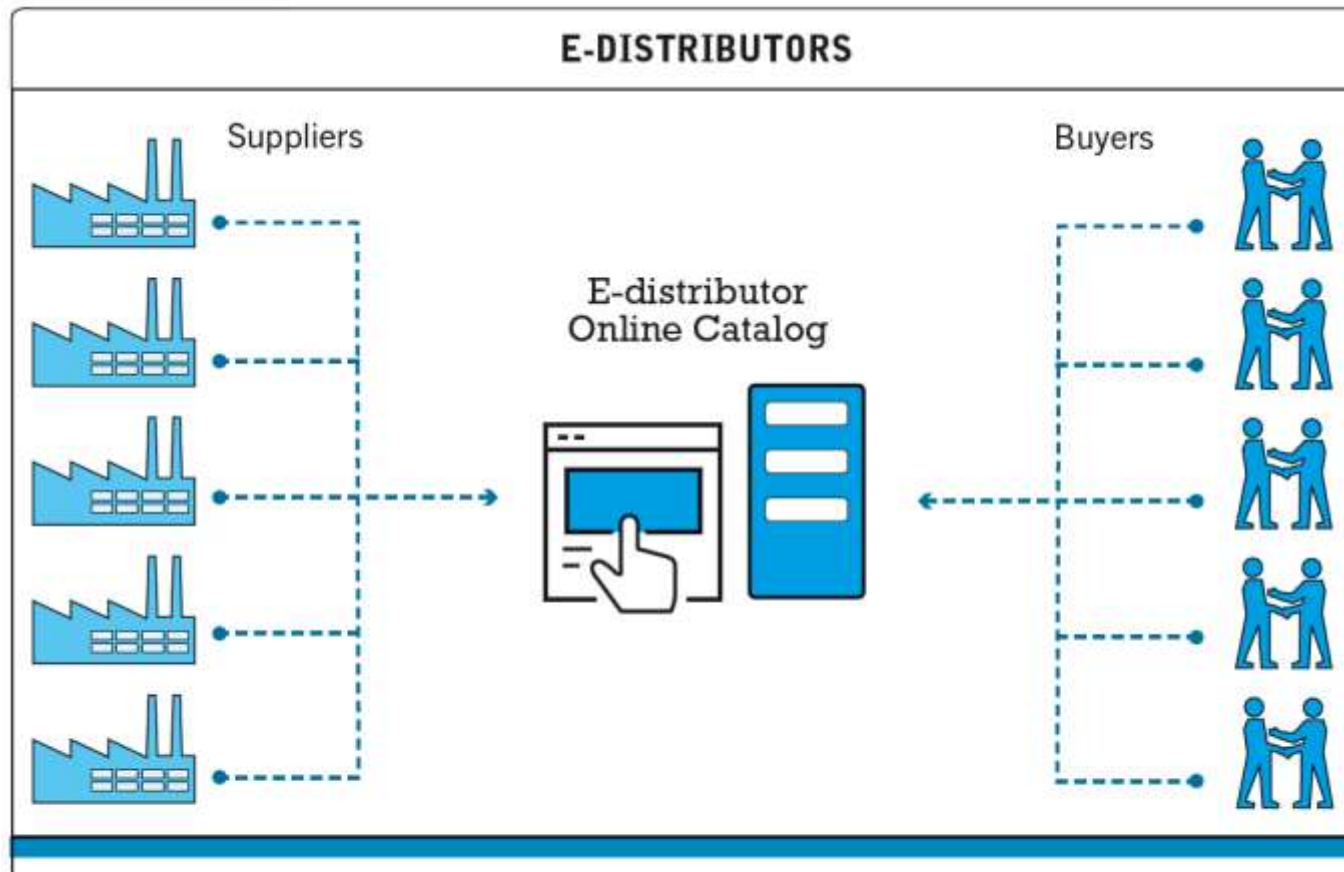
Types of Net Marketplaces

E-distributor 電子分銷商

- E-distributors operate in horizontal markets because they serve many different industries with products from many different suppliers
電子分銷市場屬於水平結構，因為它提供來自不同行業的多家供應商的產品
- E-distributors usually operate public markets in the sense that any firm can order from the catalog
電子分銷市場通常是面向大眾的，任何企業都能訂購在綫目錄中的商品
- E-distributor prices are usually fixed, but large customers receive discounts and other incentives to purchase
電子分銷市場中商品的價格通常是固定的，但大客戶可以獲得折扣和其他優惠條件
- The primary benefits offered to industrial customers are lower search costs, lower transaction costs, wide selection, rapid delivery, and low prices
電子分銷市場讓企業客戶享受到更低的搜尋成本、更低的交易成本、更廣泛的選擇空間、更快的交貨速度和更低廉的產品價格

Types of Net Marketplaces

E-distributor 電子分銷商



E-distributors are firms that bring the products of thousands of suppliers into a single online catalog for sale to thousands of buyer firms. E-distributors are sometimes referred to as one-to-many markets: one seller serving many firms.

Types of Net Marketplaces

E-procurement Marketplace 電子採購市場

- An e-procurement marketplace is an independently owned intermediary that connects hundreds of online suppliers offering millions of maintenance and repair parts to business firms who pay fees to join the market.

電子採購市場是獨立的中介市場，集中數百計的在線供應商，為付費加盟的企業用戶提供數以百萬計的維護和維修商品。

- E-procurement marketplaces are typically used for long-term contractual purchasing of indirect goods; they create online horizontal markets, but they also provide for members' spot sourcing of MRO supplies.

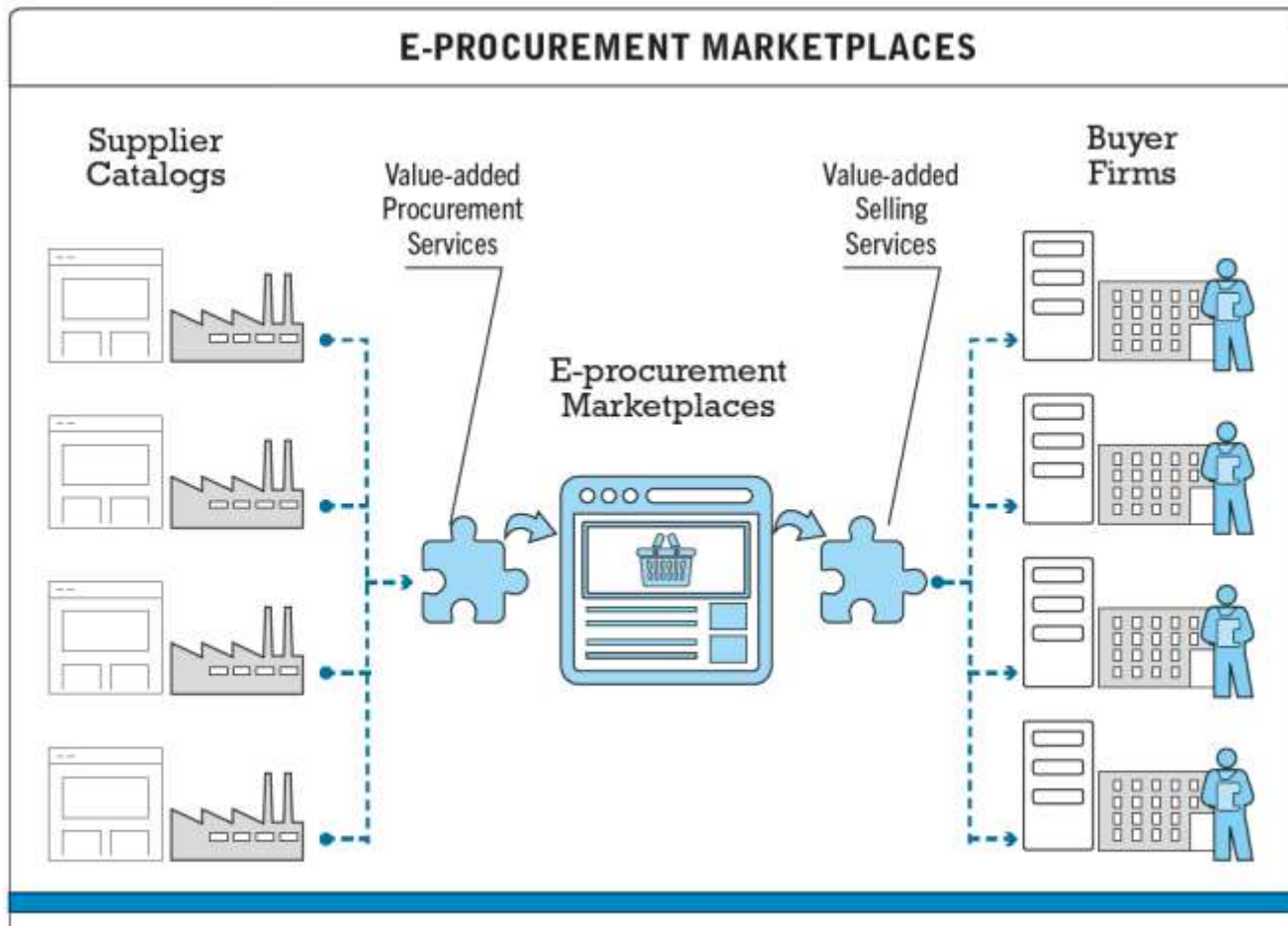
電子採購市場通常用於間接物料的長期合同採購；他們創建水平結構的在線交易市場，但也為會員提供間接物料的現貨交易。

- E-procurement marketplaces make money by charging a percentage of each transaction, licensing consulting services and software, and assessing network use fees.

電子採購市場通過從每筆交易中收取一定比例的費用、諮詢服務費和軟件許可費以及網絡使用費等方式實現盈利。

Types of Net Marketplaces

E-procurement Marketplace 電子採購市場



E-procurement marketplaces aggregate hundreds of catalogs in a single marketplace and make them available to firms, often on a custom basis that reflects only the suppliers desired by the participating firms.

Types of Net Marketplaces

Exchange 電子交易市場

- An exchange is an independently owned online marketplace that connects hundreds to potentially thousands of suppliers and buyers in a dynamic, real-time environment.
電子交易市場是把數千家供應商與潛在客戶集中在同一動態、實時的交易環境中的獨立在綫交易市場。
- Exchanges generally create vertical markets that focus on the spot-purchasing requirements of large firms in a single industry, such as computers and telecommunications, electronics, food, and industrial equipment.
電子交易市場通常應用於垂直市場結構，關注某個特定行業中大型企業的現貨採購需求，如計算機通信、電子設備、食品和工業設備等行業。
- Exchanges were the prototype Internet-based marketplace in the early days of e-commerce.
電子交易市場是電子商務早期的互聯網交易市場的原型。

Types of Net Marketplaces

Exchange 電子交易市場

- Exchanges make money by charging a commission on the transaction. The pricing model can be through an online negotiation, auction, RFQ, or fixed buy-and-sell prices.

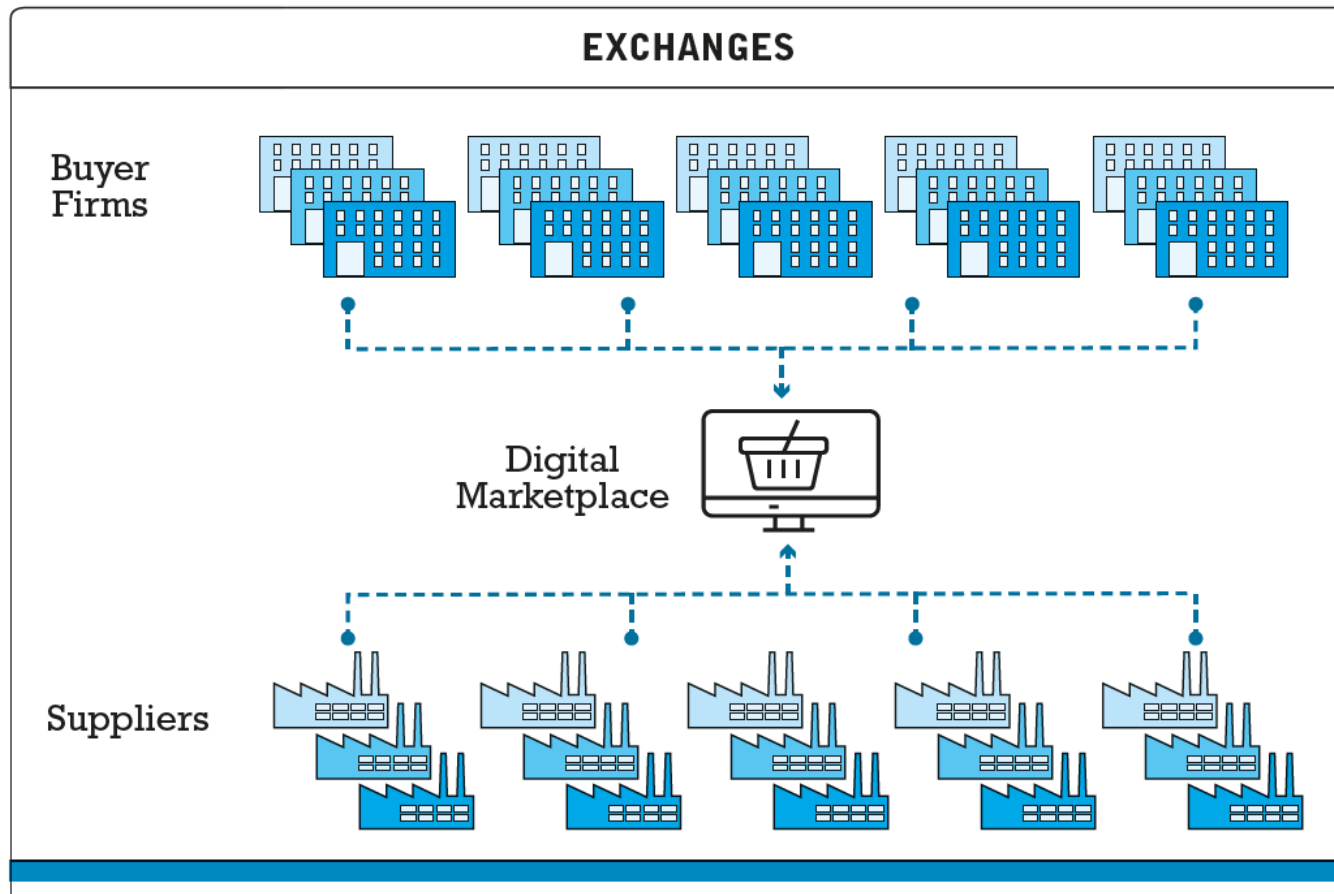
電子交易市場通過收取交易佣金來獲得收入。市場中的定價機制靈活，包括在線議價、拍賣、詢價報價以及固定價格。

- While most exchanges tend to be vertical marketplaces offering direct supplies, some exchanges offer indirect inputs as well, such as electricity and power, transportation services (usually to the transportation industry), and professional services.

大多數電子交易市場屬於提供直接物料的垂直市場，但也有少部分市場提供簡介物料，如電力能源、運輸服務（一般面嚮交通運輸行業）和各類專業化的服務市場。

Types of Net Marketplaces

Exchange 電子交易市場



Independent exchanges bring potentially thousands of suppliers to a vertical (industry-specific) B2B e-commerce marketplace to sell their goods to potentially thousands of buyer firms. Exchanges are sometimes referred to as many-to-many markets because they have many suppliers serving many buyer firms.

Types of Net Marketplaces

Industry Consortia 行業協會

- An industry consortium is an industry-owned vertical market that enables buyers in the industry to purchase direct inputs (both goods and services).
行業協會是行業所有的垂直市場，幫助採購企業從有限的經授權合作的供貨商處購買直接供給品（包括商品和服務）。
- Industry consortia emphasize long-term contractual purchasing, the development of stable relationships (as opposed to merely an anonymous transaction emphasis), and the creation of industry-wide data standards and synchronization efforts.
行業協會強調長期合同採購、發展穩定的合作關係（而不是僅僅強調匿名交易），以及創建全行業的數據標準和同步工作。
- The ultimate objective of industry consortia is the unification of supply chains within entire industries, across many tiers, through common data definitions, network standards, and computing platforms.
行業協會的最終目標是通過共同的數據定義、網絡標準和計算平台，跨越多個層級，實現整個行業內的供應鏈協調統一。

Types of Net Marketplaces

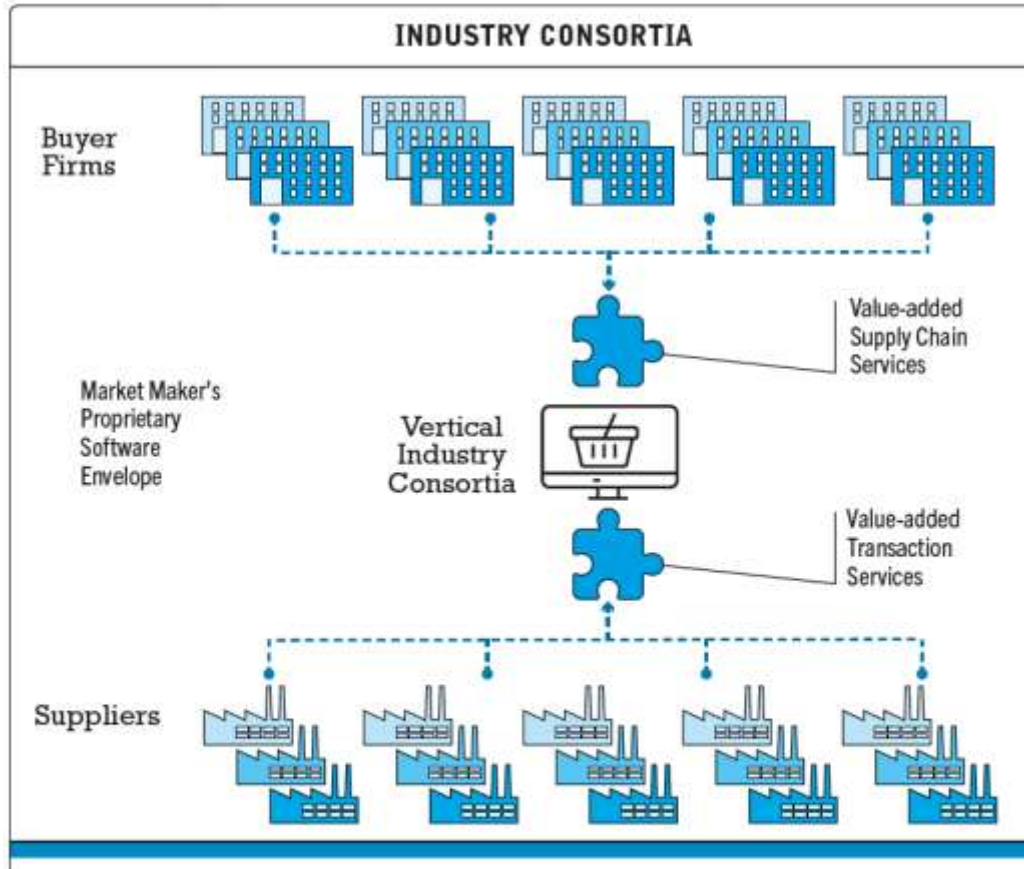
Industry Consortia 行業協會

- Industry consortia make money in a number of ways. Industry members usually pay for the creation of the consortia's capabilities and contribute initial operating capital. Then industry consortia charge buyer and seller firms transaction and subscription fees. Industry members—both buyers and sellers—are expected to reap benefits far greater than their contributions through the rationalization of the procurement process, competition among vendors, and closer relationships with vendors..

行業協會盈利的方式有很多。行業成員一般以合資方式建立行業協會，提供初始運營資本，然後行業協會向買方公司和供應商收取交易費和訂閱費。通過採購流程的合理化、供應商之間的競爭以及與供應商更密切的關係，行業成員（包括買方和賣方）預計將獲得遠遠大於其貢獻的收益。

Types of Net Marketplaces

Industry Consortia 行業協會



Industry consortia bring thousands of suppliers into direct contact with a smaller number of very large buyers. The market makers provide value-added software services for procurement, transaction management, shipping, and payment for both buyers and suppliers. Industry consortia are sometimes referred to as many-to-few markets, where many suppliers (albeit selected by the buyers) serve a few very large buyers, mediated by a variety of value-added services.

Private Industrial Networks 會員專用網絡

- A private industrial network is a Internet-enabled network for the coordination of trans-organizational business. A trans-organizational business process requires at least two independent firms to perform.

會員專用網絡是一個Internet驅動的網絡，用於協調跨組織的務流程。一個組織間業務流程需要至少兩個獨立的公司來執行。

- Private industrial networks are owned by the buyers and are buyer-side solutions with buyer biases, but they offer significant benefits for suppliers as well.

會員專用網絡是由買方擁有的，是買方解決方案，但它也為供應商提供了巨大的利益。

- For the most part, these networks originate in and closely involve the manufacturing and related support industries, and therefore we refer to them as industrial networks, although in the future they could just as easily apply to some services.

會員專用網絡產生於製造及相關服務行業，絕大多數現有網絡也與製造業息息相關，因此有時我們也稱其為工業網絡，儘管將來它也可輕鬆應用於其他服務領域。

Private Industrial Networks 會員專用網絡

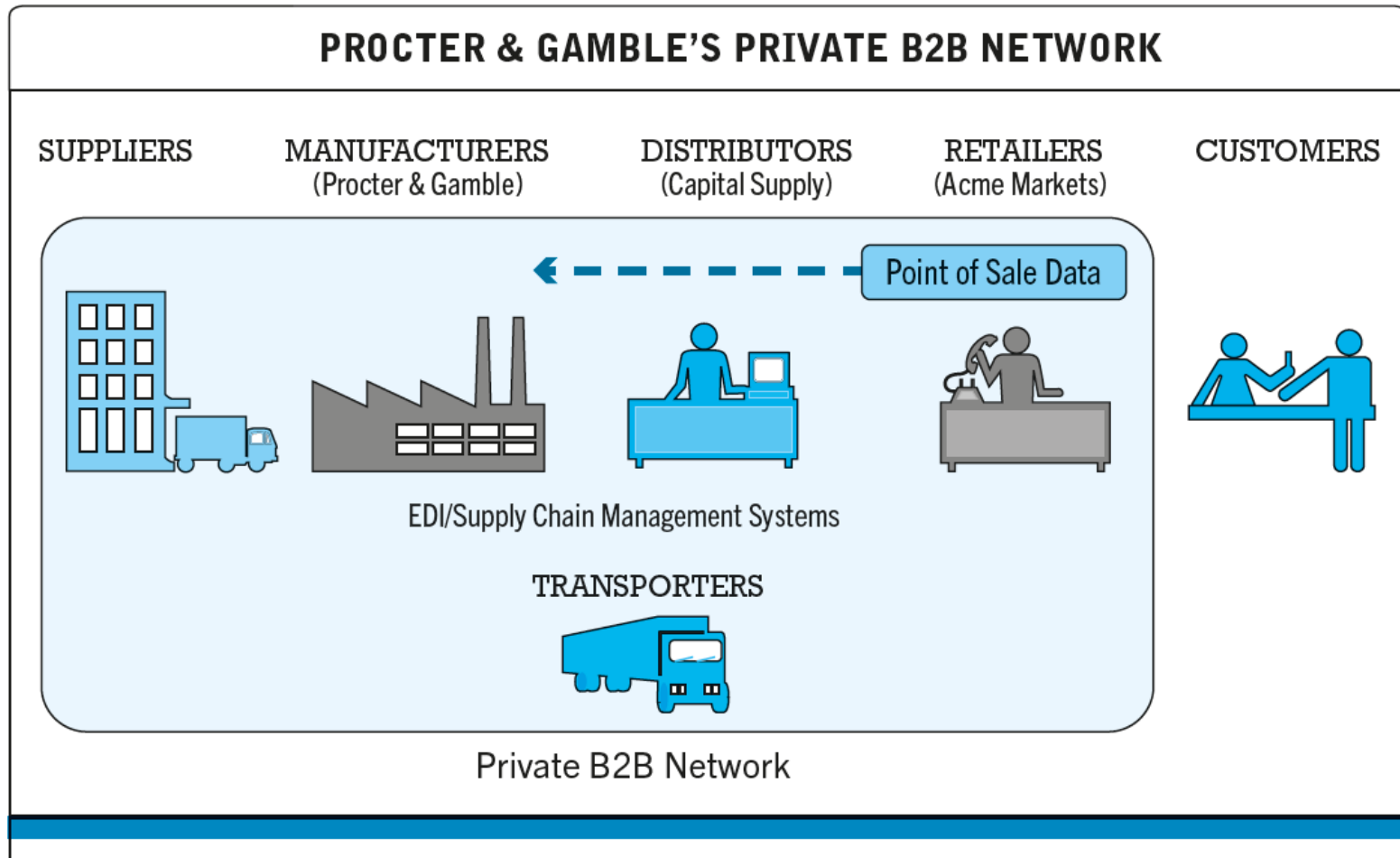
- Private industrial networks are the most prevalent form of B2B e-commerce in terms of transaction volume, and are expected to continue to be so into the foreseeable future. Private industrial networks allow firms to extend their boundaries and their business processes to include supply chain and logistics partners

就交易量而言，會員專用網絡是 B2B 電子商務最普遍的形式，預計在可預見的未來將繼續如此。會員專用網絡通過加深與供應鏈和物流合作夥伴的關係，允許公司擴展其邊界和業務流程。

- Private industrial networks can be viewed as extended enterprises in the sense that they often begin as enterprise resource planning (ERP) systems in a single firm, and are then expanded to include the firm's major suppliers.

從某種意義上說，會員專用網絡可以被視為跨邊界組織，它們通常由某家企業的企業資源計劃系統擴展而來，然後擴展到公司的主要供應商。

Private Industrial Networks 會員專用網絡



Procter & Gamble's private B2B network attempts to coordinate the trans-organizational business processes of the many firms it deals with in the consumer products industry.

Private Industrial Networks 會員專用網絡

In P&G's private B2B network, customer sales are captured at the cash register, which then initiates a flow of information back to distributors, P&G, and its suppliers. This tells P&G and its more than 70,000 suppliers the exact level of demand for thousands of products. This information is then used to initiate production, supply, and transportation to replenish products at the distributors and retailers. This process is called an efficient customer response system (a demand-pull production model), and it relies on an equally efficient supply chain management system to coordinate the supply side.

在寶潔的會員專用網絡中，對顧客的銷售在收銀機中被記錄下來，然後收銀機將信息反饋給分銷商、寶潔及其供應商。寶潔及其70000多家供應商就能知曉顧客對成千上萬種產品的確切需求水平，這些信息隨後被用於啟動生產供應和運輸，以在分銷商和零售商處補充產品。這個過程被稱為高效的客戶響應系統（需求拉動型生產模式），它依賴於同樣高效的供應鏈管理系統來協調供應方。

Private Industrial Networks 會員專用網絡

The specific objectives of a private industrial network include:

會員專用網絡的具體目標包括:

- Developing efficient purchasing and selling business processes industry-wide.
開發面嚮整個行業的高效採購和銷售業務流程.
- Developing industry-wide resource planning to supplement enterprise-wide resource planning.
制定行業範圍的資源規劃以補充企業範圍的資源規劃.
- Increasing supply chain visibility—knowing the inventory levels of buyers and suppliers.
提高供應鏈可見性——瞭解買家和供應商的庫存水平.
- Achieving closer buyer-supplier relationships, including demand forecasting, communications, and conflict resolution.
實現更緊密的買賣雙方關係，包括需求預測、溝通和衝突解決.
- Operating on a global scale—globalization.
在全球範圍內運作——全球化.
- Reducing risk by preventing imbalances of supply and demand, including developing financial derivatives, insurance, and futures markets.
通過防止供需失衡來降低風險，包括發展金融衍生品、保險和期貨市場.

Exercise

1) _____ was/were the first step in the development of B2B e-commerce.

- A) Electronic Data Interchange (EDI)
- B) Automated order entry systems
- C) Computerized inventory databases
- D) Digital invoices

2) _____ refers to the links that connect business firms with one another to coordinate production.

3) **Automated order entry systems:**

- A) show goods from a single seller
- B) increased the costs of inventory replenishment
- C) are typically owned by the purchasing firm
- D) no longer play an important role in B2B commerce

Exercise

4) Which of the following statements about Electronic Data Interchange (EDI) systems is true?

- A) They typically serve vertical markets
- B) They are seller-side solutions
- C) They evolved from private trading exchanges
- D) They still play an important role in B2C commerce

5) B2B e-commerce websites:

- A) are a predecessor of industry consortia
- B) tend to serve horizontal markets
- C) are buyer-side solutions
- D) are considered a type of EDI system

6) _____ are the fastest growing form of B2B e-commerce.

- A) R-distributors
- B) Exchanges
- C) Private industrial networks
- D) Industry consortiums

Exercise

7) All of the following are potential benefits of B2B e-commerce *except*:

- A) lower administrative costs
- B) lower search costs
- C) lower price transparency
- D) lower transaction costs

8) All of the following are potential benefits of B2B e-commerce *except*:

- A) increased production flexibility
- B) increased product cycle time
- C) increased opportunities to collaborate with suppliers and distributors
- D) increased visibility and real-time information sharing among all participants in the supply chain network

9) A(n) _____ market is one that provides expertise and products for a specific industry, such as automobiles.

- A) vertical
- B) horizontal
- C) indirect
- D) buyer-biased

Exercise

10) The essential characteristic of _____ are they bring hundreds to thousands of suppliers into a single Internet-based environment to conduct trade.

- A) industry communications
- B) exchanges
- C) Net marketplaces
- D) horizontal markets

11) What is the first step in the procurement process?

- A) negotiate price
- B) qualify the seller and its products
- C) issue a purchase order
- D) search for suppliers

12) The last step in the procurement process is:

- A) sending a remittance payment
- B) sending the invoice
- C) shipping the goods
- D) delivering the goods

Exercise

13) _____ purchasing involves the purchase of goods based on immediate needs in larger marketplaces that involve many suppliers.

- A) Spot
- B) Indirect
- C) Vertical
- D) Bulk

14) A(n) _____ system continuously links the activities of buying, making, and moving products from suppliers to purchasing firms, as well as integrating order entry systems.

- A) EDI
- B) ERP
- C) CPFR
- D) SCM

15) _____ is defined as the use of digital technologies to permit organizations to work together to design, develop, build, and manage products through their life cycles.

- A) SCM
- B) Social e-commerce
- C) EDI
- D) Collaborative commerce

Exercise

16) Which of the following is another name for a private industrial network?

- A) industry consortia
- B) EDI system
- C) private industrial network
- D) PINS

17) Which of the following statements is true?

- A) B2B e-commerce websites tend to serve horizontal markets
- B) Generally, for B2B commerce and B2B e-commerce, their definitions are the same
- C) Adaptive supply chains don't focus on elimination of waste throughout customer value chain
- D) Contract purchasing involves purchase of goods based on immediate needs in larger marketplaces that involve many suppliers

18) EDI document structures are defined by:

- A) a single international standards body
- B) individual suppliers and buyers
- C) industry committees
- D) each purchaser

1. List the steps of the procurement process.

2. List at least five potential benefits of B2B e-commerce