Business-to-Business E-Commerce

Electronic Commerce
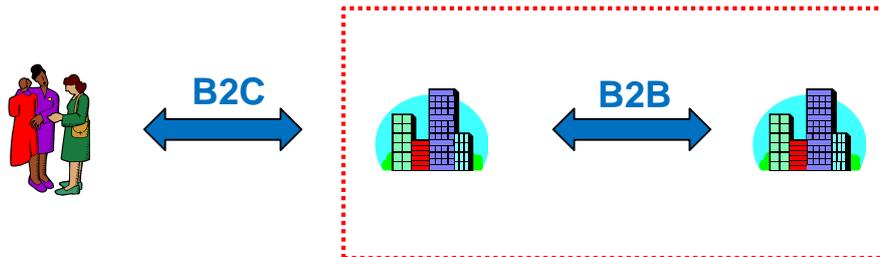
- **Code: 008023-01+02**
- **Course: Electronic Commerce**
- **Period: Autumn 2013**
- **Professor: Sync Sangwon Lee, Ph. D**
- **D. of Information & Electronic Commerce**

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00. Contents

- 01. B2B E-Commerce
- 02. One-to-Many
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- 04. Many-to-Many
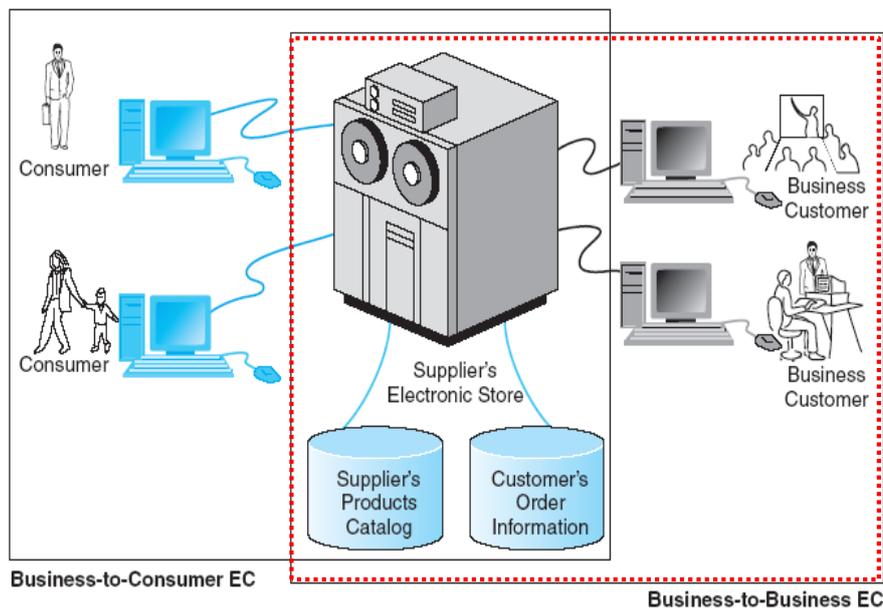- 05. Partner/Supplier Relationship

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01. B2B E-Commerce

- Business-to-business e-commerce (B2B EC)
  - Transactions between businesses conducted electronically over the Internet, extranets, intranets, or private networks; also known as eB2B (electronic B2B) or just B2B.
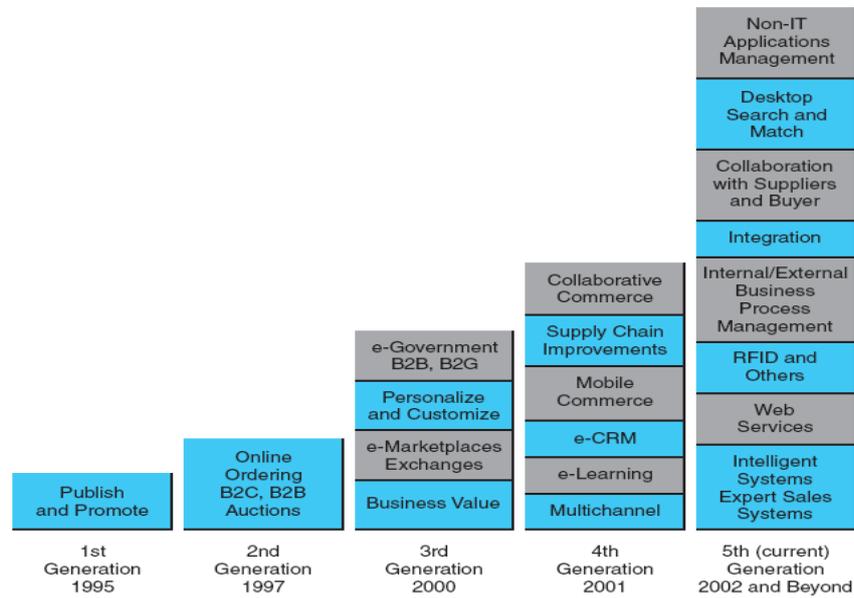

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01. B2B E-Commerce

- Business-to-business e-commerce (B2B EC)

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01. B2B E-Commerce

- Generations of B2B EC

Non-IT Applications Management
Desktop Search and Match
Collaboration with Suppliers and Buyer
Integration
Internal/External Business Process Management
RFID and Others
Web Services
Intelligent Systems Expert Sales Systems

5th (current) Generation 2002 and Beyond

Collaborative Commerce
Supply Chain Improvements
Mobile Commerce
e-CRM
e-Learning
Multichannel

4th Generation 2001

e-Government B2B, B2G
Personalize and Customize
e-Marketplaces Exchanges
Business Value

3rd Generation 2000

Online Ordering B2C, B2B Auctions

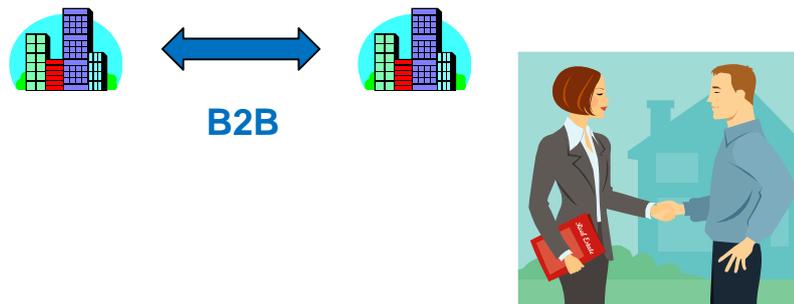2nd Generation 1997

Publish and Promote

1st Generation 1995

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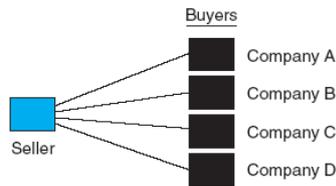
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01. B2B E-Commerce

- Basic Types of B2B Transactions and Activities
  - Sell-side
  - Buy-side
  - Exchanges
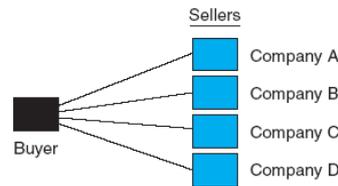 - Supply chain improvements and collaborative commerce
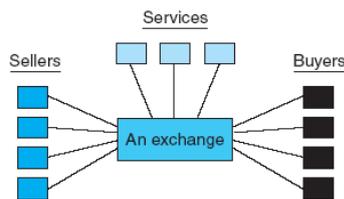
B2B

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01. B2B E-Commerce
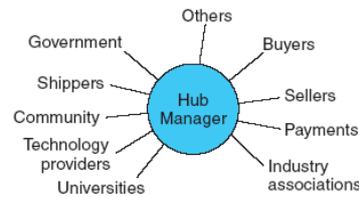
• Basic Types of B2B Transactions and Activities

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01. B2B E-Commerce

• Basic Types of B2B E-Marketplaces and Services
  • One-to-many and many-to-one
    • Company-centric EC
      • E-commerce that focuses on a single company's buying needs (many-to-one, or buy-side) or selling needs (one-to-many, or sell-side).
    • Private e-marketplaces
      • Markets in which the individual sell-side or buy-side company has complete control over participation in the selling or buying transaction.

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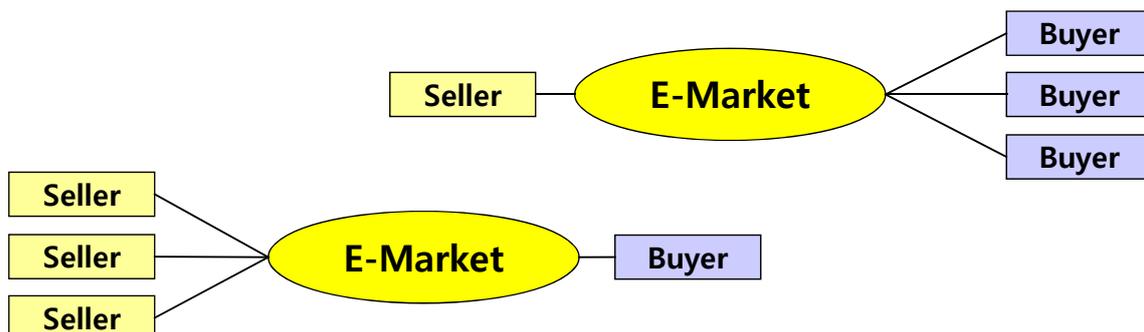
01. B2B E-Commerce

- Basic Types of B2B E-Marketplaces and Services
  - Many-to-many
    - Exchanges (trading communities or trading exchanges)
      - Many-to-many e-marketplaces, usually owned and run by a third party or a consortium, in which many buyers and many sellers meet electronically to trade with each other.
    - Public e-marketplaces
      - Third-party exchanges open to all interested parties (sellers and buyers).

Seller		Buyer
Seller	E-Market	Buyer
Seller		Buyer
Seller		Buyer

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01. B2B E-Commerce

- Transaction Parties of B2B
  - Sellers
  - Buyers
  - Intermediaries
    - Cf. online intermediary: An online third party that brokers a transaction online between a buyer and a seller; may be virtual or click-and-mortar.
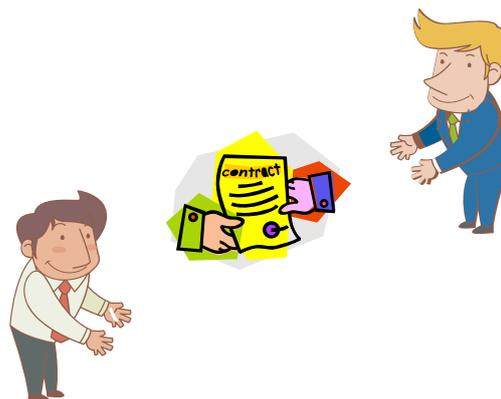
01. B2B E-Commerce

- Transaction Types of B2B
  - Spot buying
    - The purchase of goods and services as they are needed, usually at prevailing market prices.
  - Strategic (systematic) sourcing
    - Purchases involving long-term contracts that usually are based on private negotiations between sellers and buyers.

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01. B2B E-Commerce

- Transaction Types of B2B
  - Spot buying vs. strategic (systematic) sourcing

Streamlined Link

E-Hub

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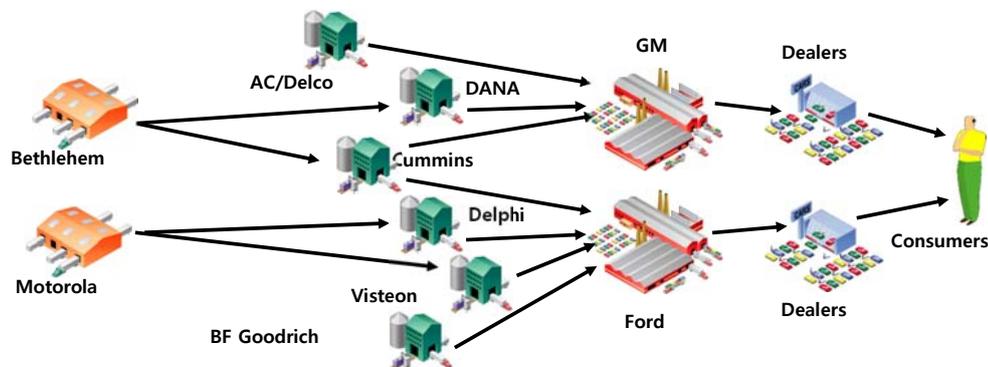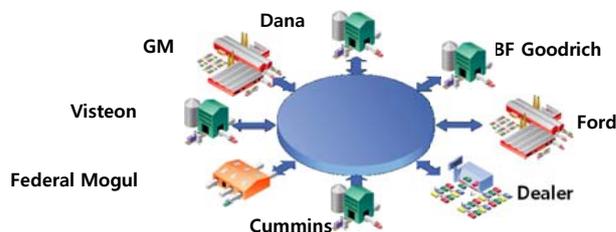
01. B2B E-Commerce

- Material Types of B2B
  - Direct materials
    - Materials used in the production of a product (e.g., steel in a car or paper in a book).
  - Indirect materials
    - Materials used to support production (e.g., office supplies or light bulbs).
    - MRO (maintenance, repair, and operation)
      - Indirect materials used in activities that support production.

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01. B2B E-Commerce

- Trade Directions of B2B
  - Vertical marketplaces
    - Markets that deal with one industry or industry segment (e.g., steel, chemicals).
  - Horizontal marketplaces
    - Markets that concentrate on a service, material, or a product that is used in all types of industries (e.g., office supplies, PCs).

Horizontal

Vertical

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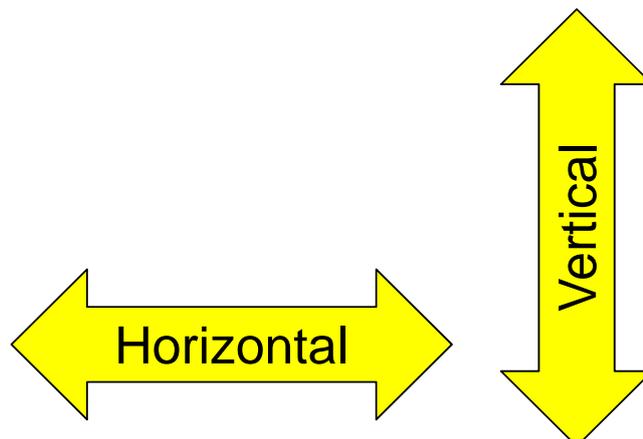
01. B2B E-Commerce

- Trade Directions of B2B
  - Vertical marketplaces vs. horizontal marketplaces

Vertical eMarketplace Operators

Chemicals/Energy	Computer & Electronics	Construction	Financial Services	Food & Agriculture	Health Care & Life Sciences	Metals	Telecom
AetraEnergy Bloombey CheMatch ChemConnect e-Chemicals Enermetrix.com Energy.com HoustonStreet Industria	FastParts PartMiner.com PcOrder TechnologyNet	Bidcom BuildNet Buzzsaw Cephren	IMX Exchange Muniauction Pedestal Ultraprise	efdex Floraplex FoodUSA Gofish.com	BioSupplies.com Chemdex Neoforma SciQuest	e-Steel iSteelAsia MaterialNet MetalShopper MetalSite	Arbinet Band-X RateXchange Simplexity.com Telezoo The GTX.com

Vertical eMarketplace Aggregators - VerticalNet, Ventro, Internos

PROCUREMENT - Ariba, Commerce One, Clarus, Works.com, Supplyaccess, PurchasePro, Peregrine/Harbinger, Unibex

MRO SUPPLIES AND SERVICES - MRO.com, W.W. Grainger

INDUSTRIAL PRODUCTS - supplyFORCE

SURPLUS GOODS AND EQUIPMENT MANAGEMENT - TradeOut, FreeMarkets (iMark), AssetTrade

INFORMATION TECHNOLOGY - Intraware

SALES & MARKETING - Art Technology Group, Broadvision, Calico, Firepond, SpaceWorks

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02. One-to-Many

- One-to-Many
  - Sell-side e-marketplaces
  - A Web-based marketplace in which one company sells to many business buyers from e-catalogs or auctions, frequently over an extranet.

Seller — E-Market — Buyer / Buyer / Buyer

02. One-to-Many

- One-to-Many EC
  - Direct sales from catalogs
    - Configuration for customization
    - Example: CISCO Systems
  - Selling via intermediaries
    - Manufacturers frequently use intermediaries to distribute their products to a large number of buyers.
    - The intermediaries (known as distributors) usually buy products from many vendors and aggregate them into one catalog from which they sell.
  - Selling via auctions
   - Using auctions on the sell side

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03. One-from-Many

- One-from-Many
  - Buy-side e-Marketplaces
  - = E-procurement
  - A corporate-based acquisition site that uses reverse auctions, negotiations, group purchasing, or any other e-procurement method.

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  Seller
  Seller  ──  E-Market  ──  Buyer
  Seller
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03. One-from-Many

- Traditional Procurement
    - The planning, organizing, and coordinating of all the activities relating to purchasing goods and services needed to accomplish the organization's mission.

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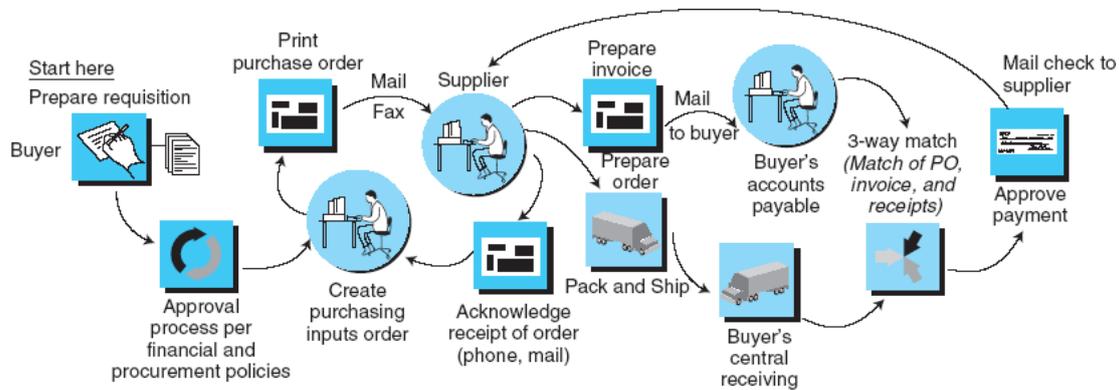
03. One-from-Many

- Inefficiencies in Traditional Procurement
    - Maverick buying
        - Unplanned purchases of items needed quickly, often at higher prices, not pre-negotiated.
    - ➔ E-procurement
        - The electronic acquisition of goods and services for organizations.

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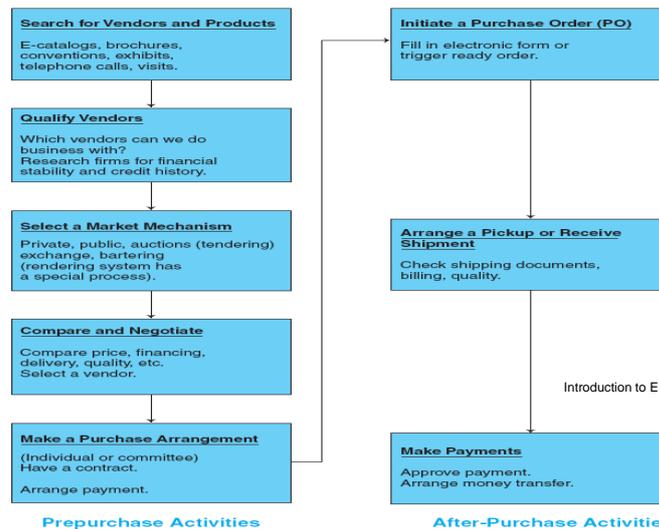
03. One-from-Many

- E-Procurement Methods
  - E-sourcing
  - E-tendering (E-bidding)
  - E-reverse auctioning
  - E-informing
  - Web-based ERP (electronic resource planning)
  - E-MRO (maintenance, repair, and operating)

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03. One-from-Many

- An Example of E-Procurement
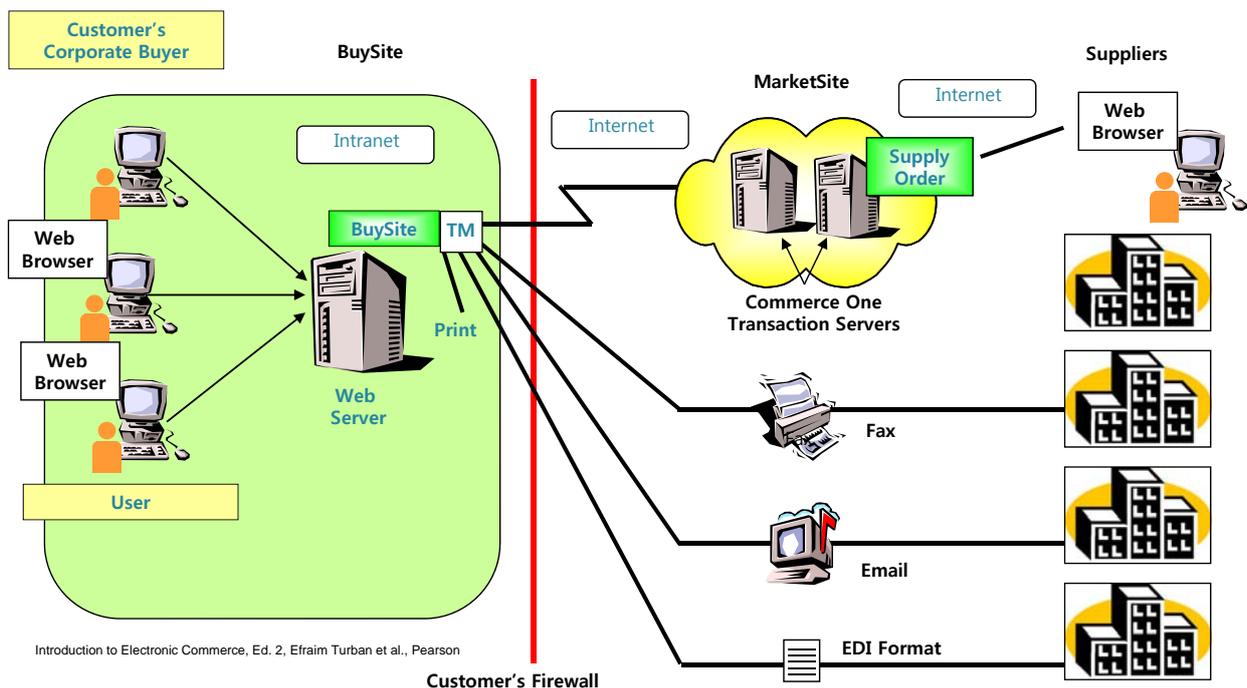
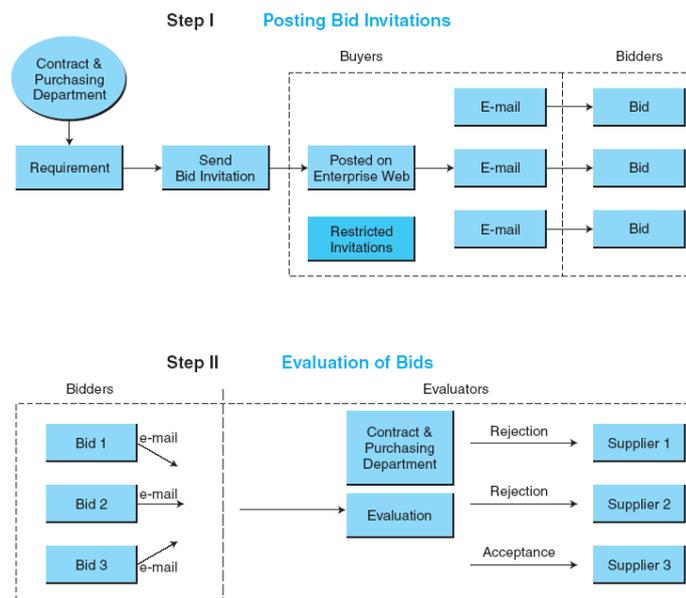Introduction to Electronic Commerce, Ed. 2, Efraim Turban et al., Pearson

03. One-from-Many

- Method 1: Reverse Auction
  - Request for quote (RFQ)
    - The "invitation" to participate in a tendering (bidding) system
  - Types
    - E-tendering by government
    - Group reverse auction

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03. One-from-Many

- Method 1: Reverse Auction
  - Process of reverse auction

Step I **Posting Bid Invitations**

Contract & Purchasing Department → Requirement → Send Bid Invitation → Posted on Enterprise Web / Restricted Invitations (Buyers) → E-mail → Bid (Bidders)

Step II **Evaluation of Bids**

Bidders: Bid 1, Bid 2, Bid 3 → e-mail → Evaluators: Contract & Purchasing Department, Evaluation → Rejection → Supplier 1; Rejection → Supplier 2; Acceptance → Supplier 3

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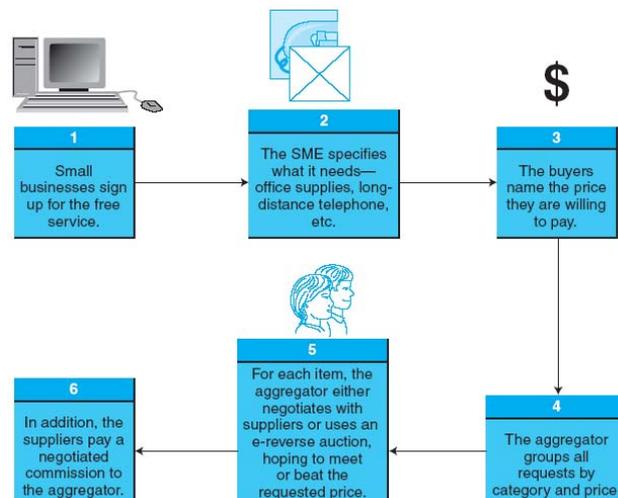
03. One-from-Many

- Method 2: Internet Procurement Marketplace
  - The aggregated catalogs of all approved suppliers combined into a single internal electronic catalog.
  - Desktop purchasing
    - Direct purchasing from internal marketplaces without the approval of supervisors and without the intervention of a procurement department.

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03. One-from-Many

- Method 3: Buying at E-Auction
  - Group purchasing
    - The aggregation of orders from several buyers into volume purchases so that better prices can be negotiated.
  - Internal aggregation
  - External aggregation

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03. One-from-Many

- Method 4: Others
    - Buying from e-distributors
    - Purchasing direct goods
    - Electronic bartering
        - Bartering exchange
            - An intermediary that links parties in a barter; a company submits its surplus to the exchange and receives points of credit, which can be used to buy the items that the company needs from other exchange participants.

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04. Many-to-Many

- Many-to-Many
    - = Exchanges

Seller		Buyer
Seller	E-Market	Buyer
Seller		Buyer
Seller		Buyer

04. Many-to-Many

• Flow and Access to Information of Exchange

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04. Many-to-Many

• Dynamic Pricing of Exchange
   • A rapid movement of prices over time and possibly across customers,
     as a result of supply and demand matching

04. Many-to-Many

- Functions of Exchange
  - Matching buyers and sellers
  - Facilitating transactions
  - Maintaining exchange policies and infrastructure

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04. Many-to-Many

- Services of Exchange

The Exchange and Its Services

Sellers

A
B
C
D
•
•
•

- Buyer–seller registration, qualification, coordination
- Catalog management (conversion, integration, maintenance)
- Communication/protocol translation (EDI, XML, CORBA)
- Sourcing—RFQ, bid coordination (product configuration, negotiation)
- Security, anonymity
- Software: groupware, workflow
- Integration with members' back-office systems
- Auction management
- News, information, industry analysis
- Support services (financing, payment, insurance, logistics, tax, escrow, order tracking)
- Administration—profiles, statistics, etc.

Buyers

X
Y
Z
•
•
•

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04. Many-to-Many

- Revenue Models of Exchange
  - Transaction fees
  - Service fees
  - Membership fees
  - Advertising fees
  - Others

04. Many-to-Many

- Types of Exchange
  - B2B portals
    - Information portals for businesses.
  - Vortals
    - Vertical portals
    - B2B portals that focus on a single industry or industry segment
  - Consortium trading exchange (CTE)
    - Third-party and directories exchanges
    - An exchange formed and operated by a group of major companies in an industry to provide industry-wide transaction services

05. Partner/Supplier Relationship

- Partner Relationship Management (PRM)
    - Business strategy that focuses on providing comprehensive quality service to business partners.
    - Ex. e-communities

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