

Chapter 1

E-Commerce and E-Business

Learning Objectives

- Understand B-to-C and B-to-B E-Commerce.
- Identify Drivers to two types of E-Commerce
- Activities in E-Commerce.
- Describe features of E-Business
- Appreciate E-Governance

Overview

- What is E-Commerce?
- Types of E-Commerce
- Drivers, Activities, Values and Models of B-to-C E-Commerce
- History, Drivers, Activities, Values and Models of B-to-B E-Commerce
- E-Business
- E-Governance

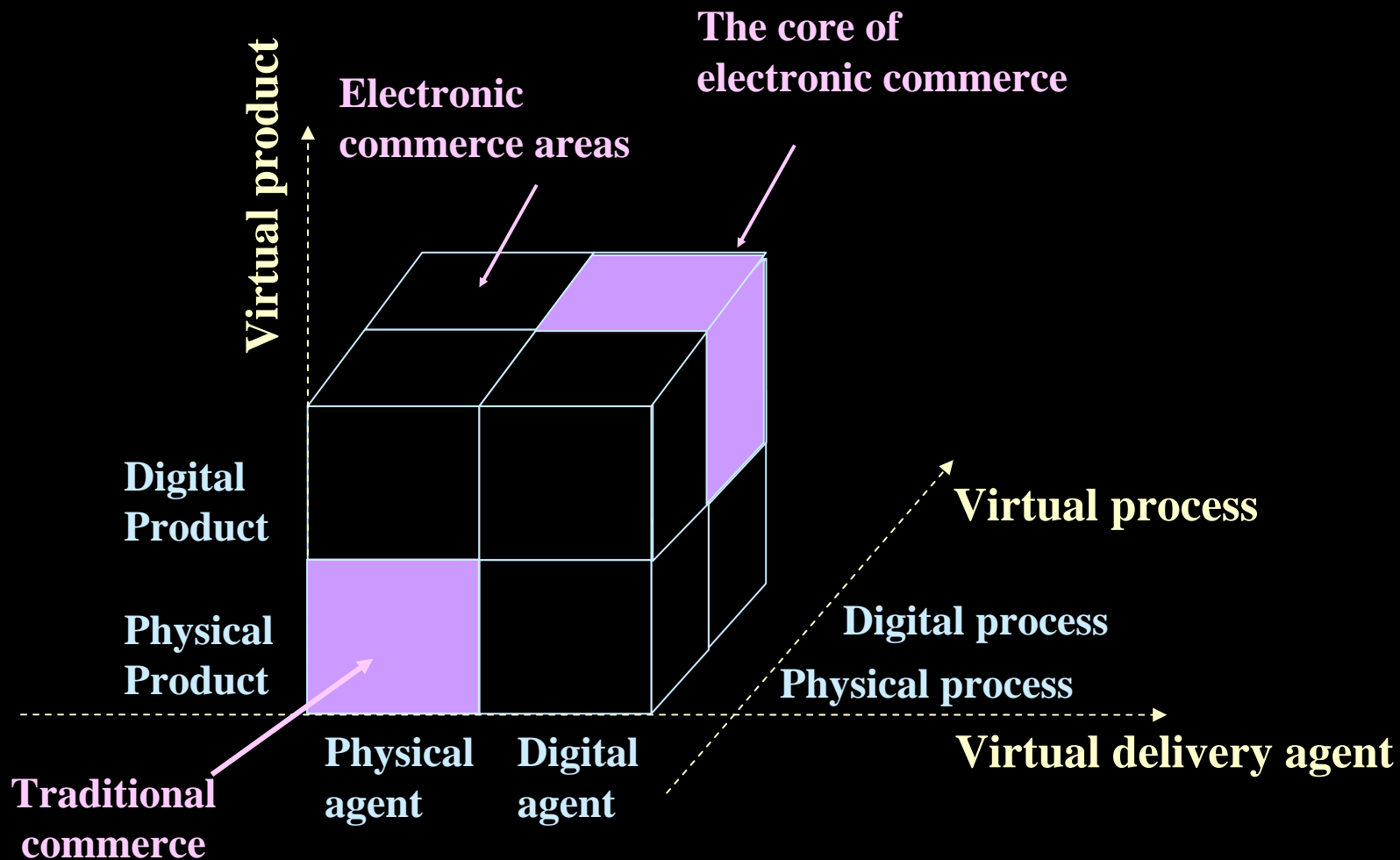
What is E-Commerce?

- Business activities running over the Internet and World Wide Web platform
- Use of TV and toll-free telephones in business are not usually associated with e-commerce
- Depending on the situation, electronic data interchange (EDI) may or may not be associated with e-commerce. EDI is used for business-to-business transactions
- Examples of e-commerce:
 - Buying books on Amazon.com
 - Promoting cars on Toyota.com
 - Participating in auctions at eBay.com
 - Customer support at Fedex.com
 - Industrial exchanges such as Covisint.com

Pure Vs. Partial Electronic Commerce

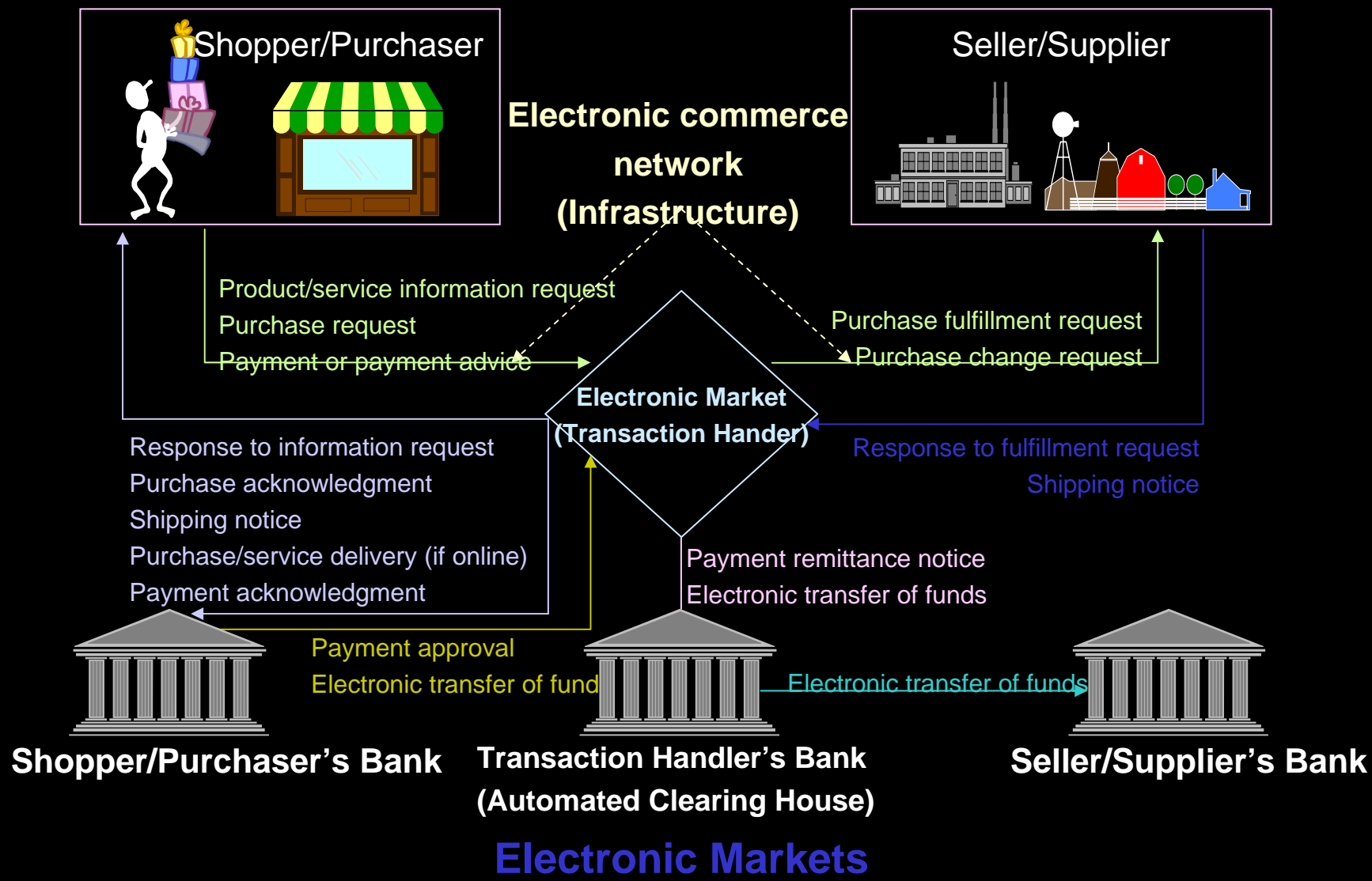
- Three dimensions
 - the product (service) sold [physical / digital];
 - the process [physical / digital]
 - the delivery agent (or intermediary) [physical / digital]
- Traditional commerce
 - all dimensions are physical
- Pure EC
 - all dimensions are digital
- Partial EC
 - all other possibilities include a mix of digital and physical dimensions

The Dimensions of Electronic Commerce



Electronic Markets

- A *market* is a network of interactions and relationships where information, products, services, and payments are exchanged.
- The market handles all the necessary transactions.
- An electronic market is a place where shoppers and sellers meet electronically.
- In electronic markets, sellers and buyers negotiate, submit bids, agree on an order, and finish the execution on- or off-line.



Types of E-Commerce

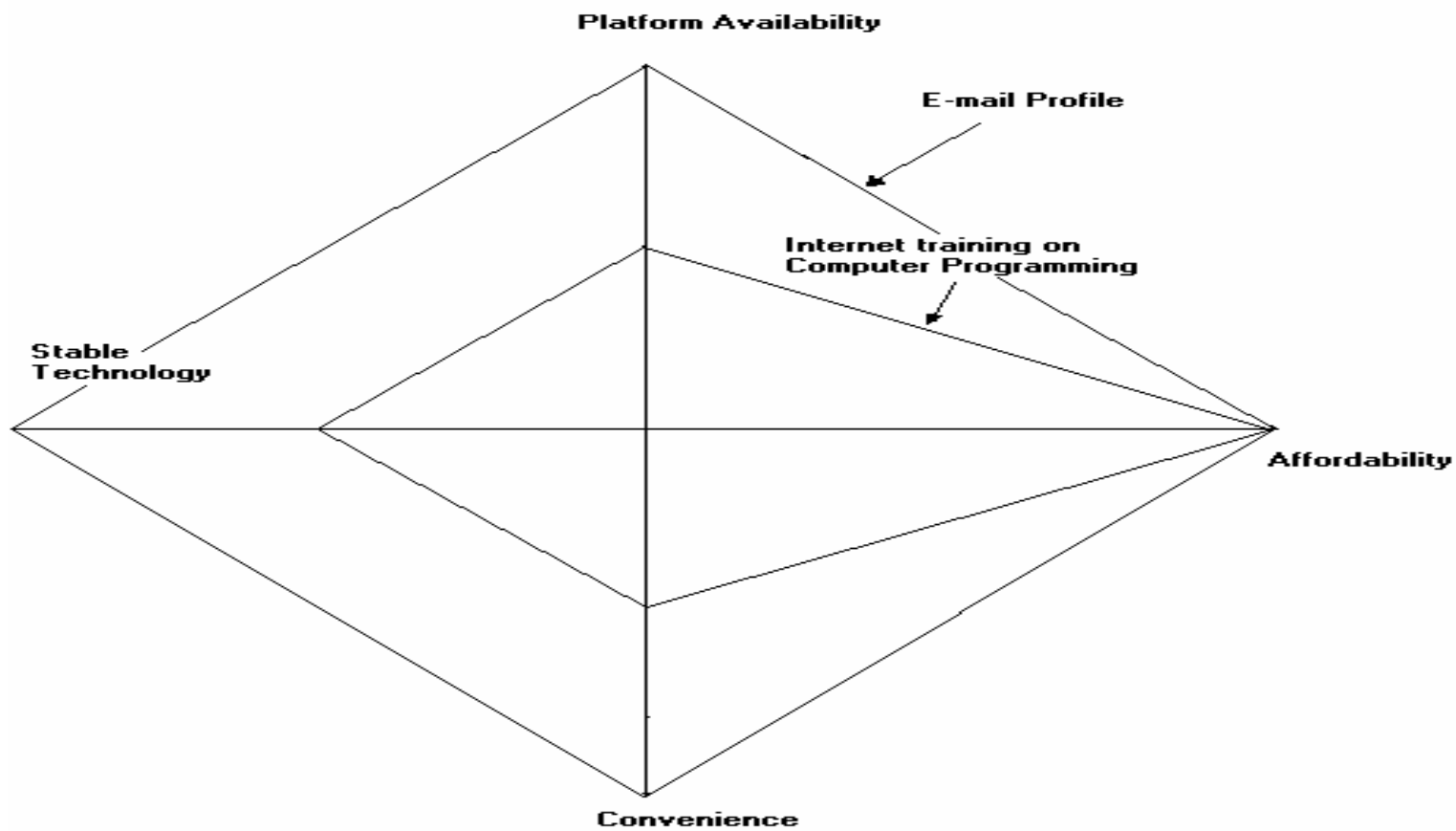
- Business-to-consumer E-Commerce
 - Serves direct consumers. Important activity is buying
 - Other activities: promotion, ordering, payment
- Business-to-business E-Commerce
 - Serves businesses. Important activity is purchasing. Purchasing is differentiated from buying in that instead of individuals departments are involved, formal processes are followed, high monetary values may be involved, and complex negotiations and contracts may take place
 - Products include office supplies, raw materials, manufacturing equipment, and power plants, where the person who consume the items are different from those that authorize the purchase.

History to B2C E-Commerce

- History:
 - Internet is not the first platform to enable consumers to shop from home using telecommunication medium.
 - Most of these efforts did not succeed.
 - For example, in 1984, Chase Manhattan launched a home banking system with AT&T.
 - Display customer's account on TV using a AT&T device
 - AT&T device resemble d a keyboard with a card reader
 - Consumers reacted enthusiastically in laboratory tests, but were turned off by the bulky wires on the floor of the living room.

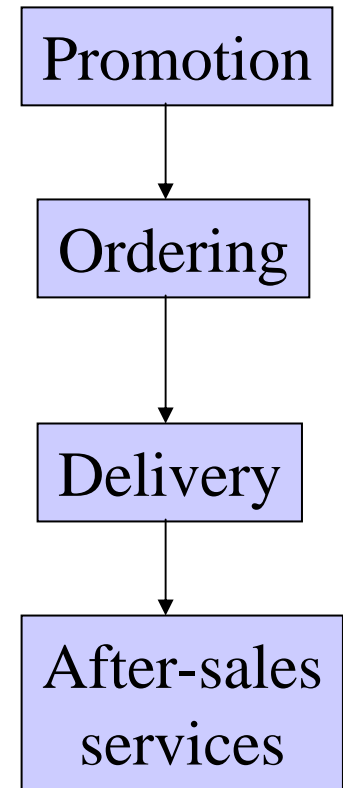
Drivers to B2C E-Commerce

- A framework to predict the acceptance or rejection of a new technological platform, introduced by Mercer Consulting, consists of 4 elements:
 - Affordability (Social driver)
 - Switching cost
 - Available substitutes
 - Convenience (Social driver)
 - Saving in time and labor
 - Change from existing habits
 - Extent of training required
 - Stability (Technological driver)
 - maturity
 - Availability (Technological driver)
 - Available in a variety of settings
 - Less restriction to special environment



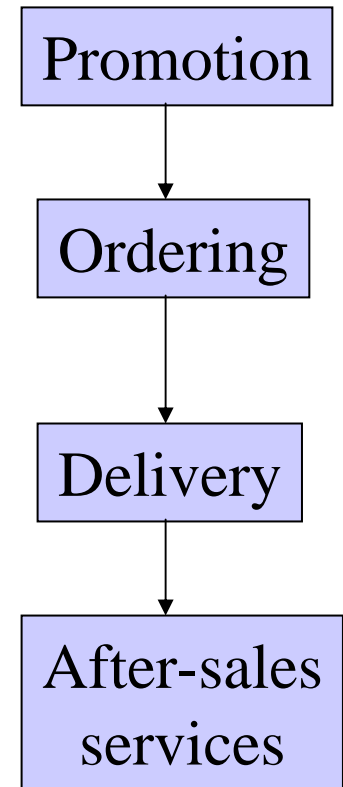
Activities: B2C E-Commerce

- Advertisement (promotion)
 - Advertising expenditures are expected to increase from \$3.3 billion in 1999 to \$33 billion by 2004 (The Economist, 1999). By 2004, about 8% of advertising are spent on Internet.
 - Formats: banners, buttons, superstitials, rich-media banners
 - Limitations:
 1. Small banner vs. full page advertisements on newspaper.
 2. Web surfer is “out of control”. Users may skip advertisement by a mouse click.
 3. Cost per thousand exposure (CPM) does not reflect the effectiveness of a medium
 - Advantages:
 1. Interactive. Users are “in control”.
 2. More focused. Learning users preferences allow tailored advertisement.
 3. Provides community-based sites. Users may exchange comments.



Activities: B2C E-Commerce

- Ordering
 - 3 Cs:
 - Content-oriented: university sites
 - Commerce-oriented: Amazon.com
 - Community-oriented: IVillage.com
 - Commerce-oriented sites provide the facility to place orders: access databases of products, orders, customers, payment information, and shipping alternatives.
 - Transaction sites provide competing prices from other websites using agents.
- Product Delivery
 - Deliver through Internet: software, news, music, etc.
 - Save time and money
 - Deliver through physical mail: books, flowers, computers, etc.
- After-sales Support
 - Through e-mail, search engines, and bulletin boards.
 - Companies are using various technologies, such as customer relationship management software, data mining tools, and personalization tools to develop long-lasting relationships with customers.
 - Over 90% survey report find that Web-based support is a good complement to telephone-based support.

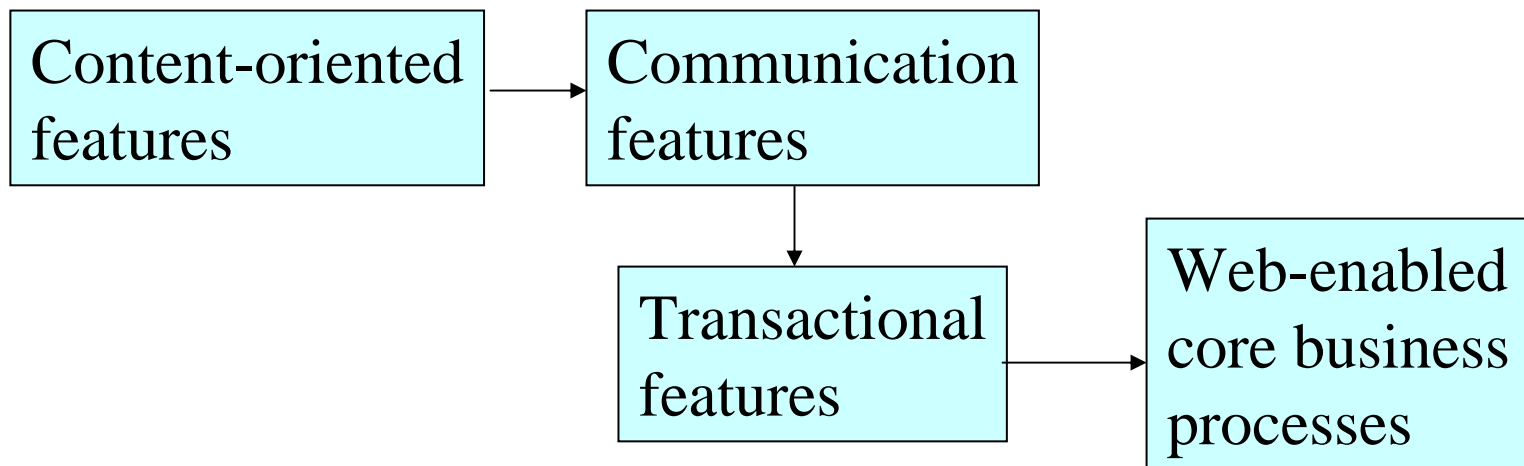


E-community (virtual community)

	Intimacy	Interests	Transactions
Motive	Relationship	Shared interests	Information and transactions
Interaction	One-to-one	Many-to-many	One-to-many
Web content	Member-generated documents and messages	Discussion groups and member-supplied contents	Host-supplied documents
Autonomy	Member driven	Moderated discussion groups	Host driven
Technology	E-mail, telephone, chat sessions, virtual postcards, virtual greeting cardings	Bulletin boards, threaded discussion, forums	Web display of documents and multimedia contents; facility to conduct commercial transactions
Examples	Cupid.com	WELL, GeoCities, Tripod	Most company websites, e.g. Microsofts

Values: B2C E-Commerce

- Creating Business Values
 - Operational excellence
 - Low costs, low overhead, quick response, streamlined process
 - Customer intimacy
 - Establishing lifelong relationships with customers and meeting with individual needs
 - Product and service leadership
 - Continuous innovation in product and service lines
 - Investment in research and development



Values: B2C E-Commerce

- Creating Consumer Values
 - Cost
 - Cost saving, e.g., cheaper books from Amazon.com, auction sites.
 - Choice
 - Wide choice available through single portal.
 - Convenience
 - Purchasing without physically visiting different shops
 - Customization
 - Filters information and news for individuals.

Business Models: B2C

- Business model describes the basic framework of a business
 - Market segments being served. (WHO?)
 - Service being provided. (WHAT?)
 - The means by which the service is being produced. (HOW?)

Business Model of eBay.com.....

- Who? Everybody
- What? Any product
- How? Exchange through auction
- Business value? Efficiency + relationship
- Consumer value? Low price + choice

Models: B2C E-Commerce.

- Pure-play (primarily Internet based)
 - Portal sites/ Advertisements [Yahoo.com](#)
 - Auction-based [ebay.com](#)
 - Retail Merchants [Amazon.com](#)
- Pure-play model did not prove viable
 - The strategy of “getting customers at any cost” did not work.
 - Price to establish a brand name is too high and no commensurate revenue stream because of excessive of competitors
 - It provides good information and experience to traditional brick-and-mortar firms.
- Brick and Mortar (Click and brick)
 - New Channels (disintermediation) [Gateway.com](#)
 - Reinforce existing channels
 - Promotion ([Toyota.com](#)),
 - transaction ([bn.com](#))
 - support ([Fedex.com](#))

Other Business Models

Site	Who	What	How	Business Value	Customer Value
EBay.com	Everybody	any product	Allow individual to trade goods among themselves through auctions	<ul style="list-style-type: none"> •Efficient execution •Customer relationship 	<ul style="list-style-type: none"> •Good price •Access to uncommon items •Shopping convenience
MySimon.com	Everybody	Any product	Provide comparative prices for goods sold on the web	<ul style="list-style-type: none"> •Customer service and relationship 	<ul style="list-style-type: none"> •Best price •Shopping convenience
Toyota.com	Potential Toyota car buyers	Only Toyota automobiles	Provide an alternative channel for promotion	<ul style="list-style-type: none"> •Customer relationship and customer support 	<ul style="list-style-type: none"> •Easy access to relevant information
WSJ.com	Individuals too busy to read their newspapers	Business information	Provide news on the Web and through e-mails	<ul style="list-style-type: none"> •Additional source of revenue through subscription 	<ul style="list-style-type: none"> •Convenience of having news tailored to one's needs

History: B2B E-Commerce

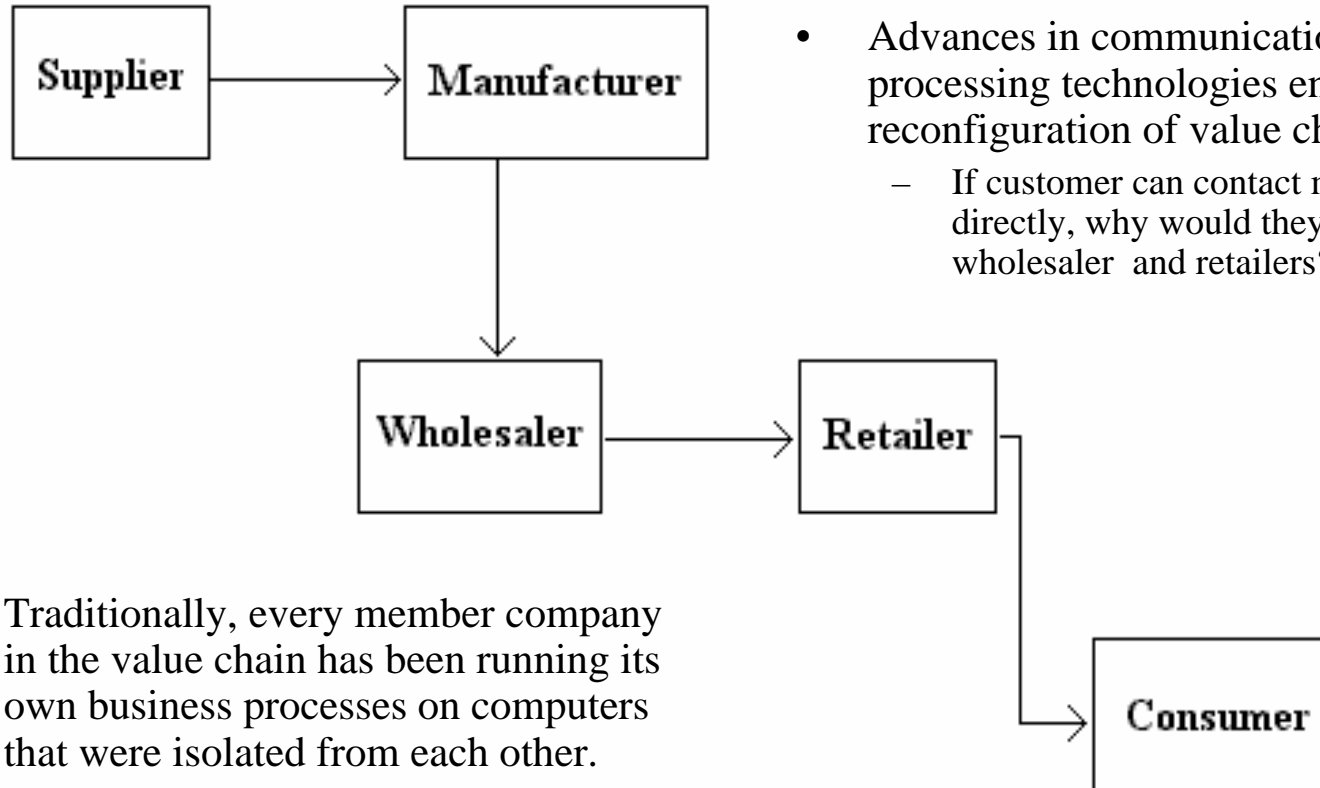
History

- Inter-organizational systems
 - American Airlines
 - American Hospital Supply
- Electronic Data Interchange
- Dramatically reduce costs across the supply chain.
- Reshape relationships with suppliers by integrating production and shipment plans.
- Forrester Research predicts that B2B e-commerce in US will reach \$1.3 trillion by 2003.

Drivers: B2B E-Commerce

- Globalization
 - WTO's new foreign trade rules are opening local economies around the world to international suppliers
- Reduced barriers to entry
- De-regulation
 - Increased number of suppliers
- Demanding consumers and price pressures
- Pressure to re-organize the value chain

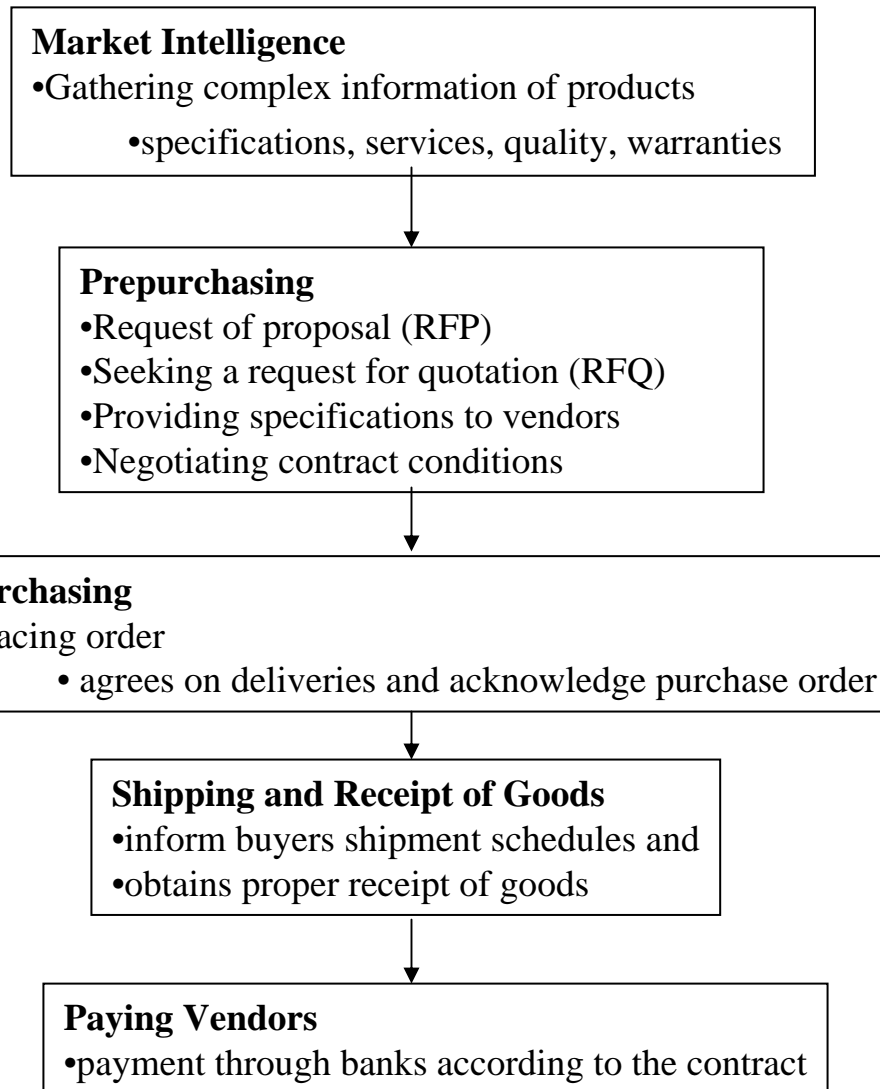
A Typical Value Chain



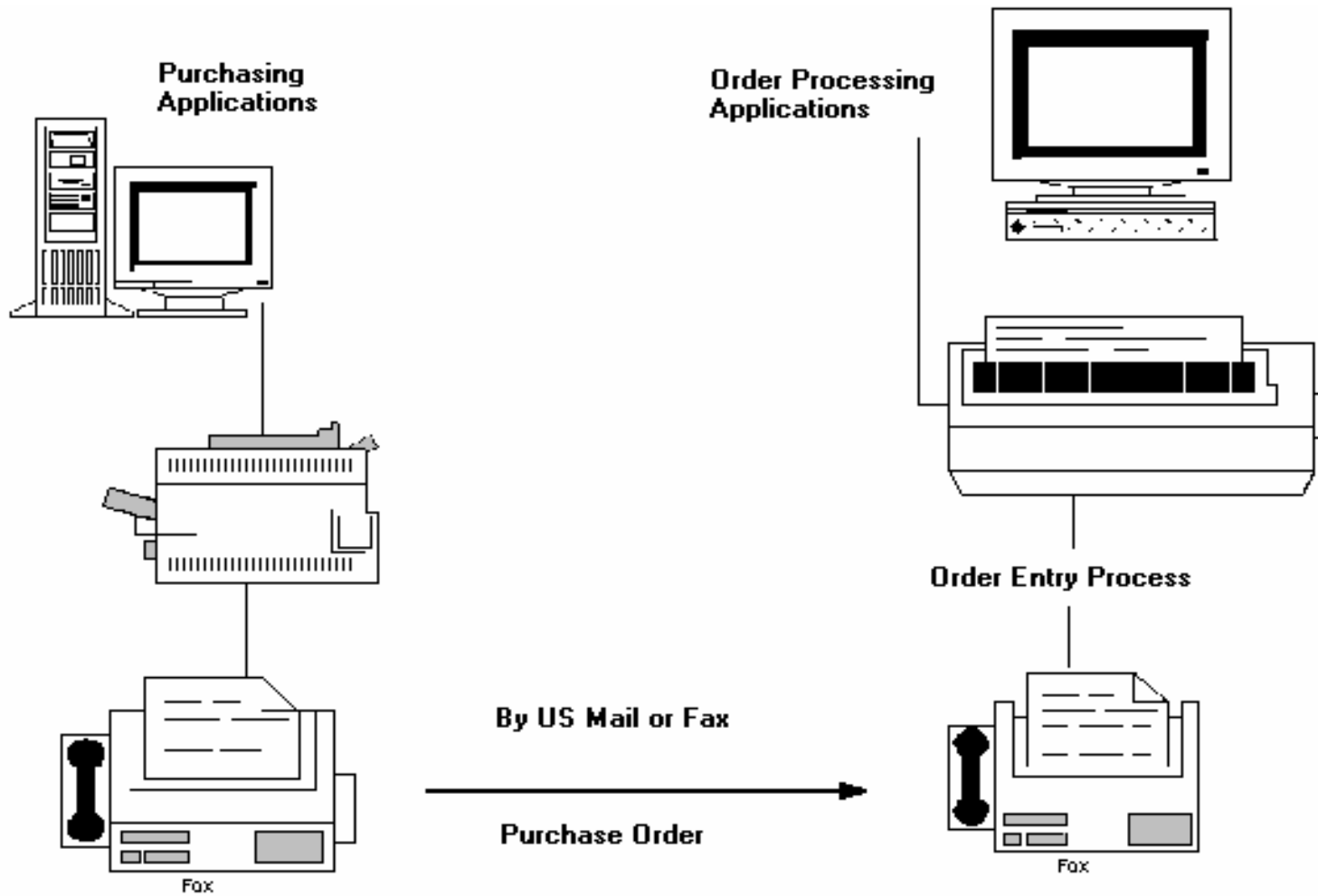
- Traditionally, every member company in the value chain has been running its own business processes on computers that were isolated from each other.
 - In the 80s, EDI allows computers to talk to each other across company boundary
 - The Internet permit textual data and complex data (catalogs, drawings, and specifications) to be exchanged.

- Advances in communication and processing technologies enables reconfiguration of value chains
 - If customer can contact manufacturers directly, why would they need wholesaler and retailers?

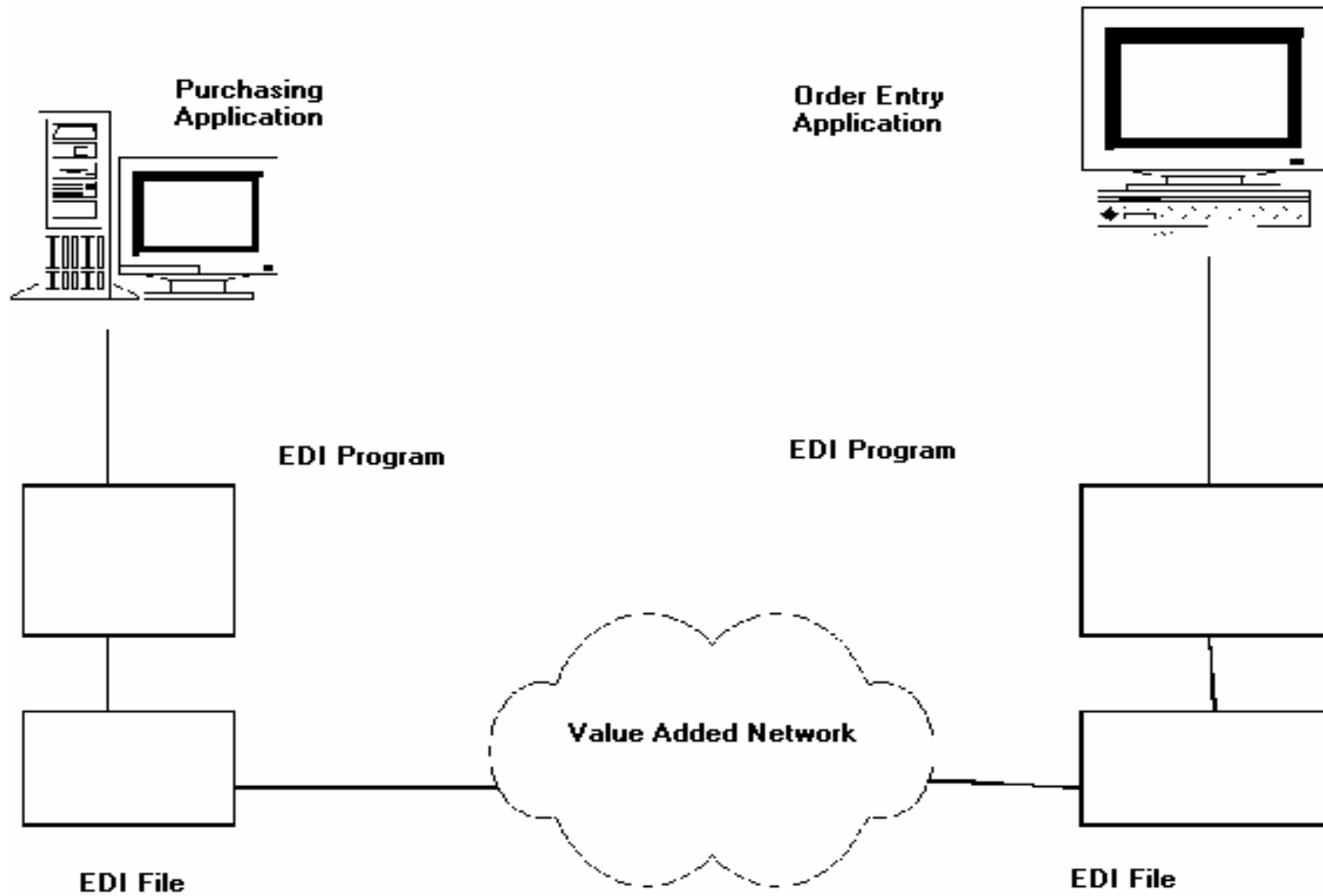
Activities: B2B E-Commerce



Paper-based B2B Commerce



EDI-based B2B Commerce



Models: B2B E-Commerce

- Pure Play (Primarily Internet)
 - Electronic markets iMark.com
 - Web Malls www2.mallpark.com
 - Web Hosting Mindspring.com
- Brick and Mortar
 - Suppliers' Web Covisint.com
 - Promotion Mysap.com
 - Logistics Ec.ups.com
 - After Sales Cisco.com

Business Models for B2B EC

Site	Who	What	How	Business Value	Customer Value
MySap.com	Customers and consultants for SAP products	Provide details about SAP products and available consulting services	Users and prospective users can get information from the website and communicate with each other	Customer relationship	Access to information about products and consultants
Fedex.com	Companies having account with or individuals using Fedex's services	Any products	Customers can access Fedex's information systems to retrieve data relevant to them	<ul style="list-style-type: none"> •Customer service and relationship •Efficiency and cost saving sin providing customer support 	Convenience and access to operational information

Definition: E-Business

- IBM: E-Commerce plus all activities that make e-commerce possible
 - Use of Internet technologies to improve and transform key business processes
- Kalakota: Fusion of processes, applications and structures to create high performance
- AMR: set of activities-- supply chain, enterprise management and customer management

Activities: E-Business

- Supply Chain Management
 - Logistics, Distribution planning, Demand planning, Forecasting, Warehouse management
- Enterprise Management
 - Finance and Administration, Operations, Procurement, Human Resources, Inventory management, R & D
- Customer Management
 - Sales channel management, Marketing automation, Customer relationship management, Personalization

E-Government

Providing services to citizens through web-sites

- Citizens
- Businesses
- State Employees
 - Rules, regulations, conduct transactions, find information, download forms