A hand is pointing at a bar chart displayed on a tablet screen. The chart consists of seven vertical bars of varying heights, representing data. The background is a blurred image of a person in a blue shirt.

# IS402.3

## E-Business Application Development

---

**Dulanjali Wijesekara**

**Dep. of Information and Systems Sciences**

**NSBM Green University**

**[dulanjali.w@nsbm.ac.lk](mailto:dulanjali.w@nsbm.ac.lk)**

## Evaluation of Performance:

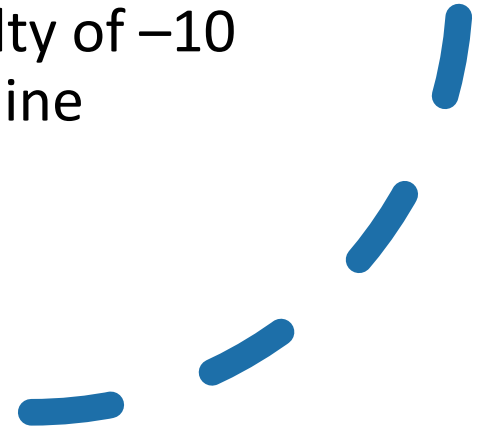
- Continuous Assessments: In-class tests, Group assignment
- Eligibility to sit the final examination: 80% Attendance + 40% Continuous Assessments
- Final Evaluation: 60% End of semester examination + 40% Continuous Assessments

### Recommended Reading:

- Laudon, K. and Laudon, J., 2018, Management Information Systems: Managing the Digital Firm, 13th Edition, Prentice Hall
- O'Brien, J.A. and Marakas, G.M., 2011, Management Information Systems, Tenth Edition, McGraw-Hill


# A few Ground Rules ...

- Observe academic honesty: no plagiarism in assignments
- Classroom participation:
  - Ask questions during class
  - Answer questions voluntarily
  - Provide constructive feedback
- On time submission of assignments:
  - Late submissions will incur a penalty of –10 marks for each day after the deadline





# Learning Outcome

- Develop an e-Business strategy
  - Plan and stage an e-Business venture
  - Understand technology architectures underpinning the deployment of e-Business systems, including data formats and various programming solutions
- 

# Introduction to E-Business

- Unique features of e-commerce technology
- Types of e-commerce
- History behind e-commerce
- Future of e-commerce



# Introduction

---

Electronic business (e-business) can be defined as the use of the internet to network and empower business processes, electronic commerce, organizational communication and collaboration within a company and with its customers, suppliers, and other stakeholders.

---

E-businesses utilize the internet, intranets, extranets and other networks to support their commercial processes.

# E-Business

---

Electronic business refers to the use of the Web, Internet, intranets, extranets or some combination thereof to conduct business.

---

E-business is mostly similar to e-commerce, but it goes beyond the simple buying and selling of products and services online.

---

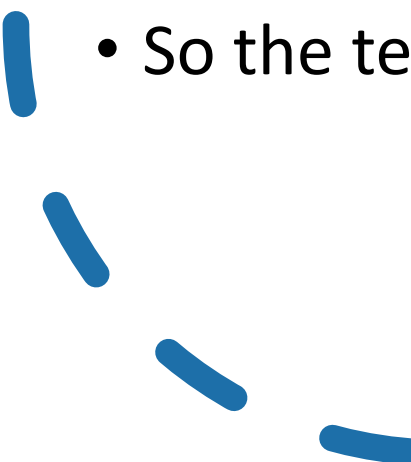
E-business includes a much wider range of businesses processes, such as supply chain management, electronic order processing and customer relationship management.

---

E-business processes, therefore, can help companies to operate more effectively and efficiently.



# E-Business vs E -Commerce

- E-Business is a more general term than E-Commerce.
  - E Business & E commerce terms are used interchange but refers to different aspects.
  - Mostly business transactions finally are involved in selling, buying or transferring of products or services.
  - So the term “E-Commerce” is more widespread
- 



# The relationship between e-business and e-commerce

## E-business

Buying and selling electronically

Electronic procurement

Electronic distribution

Online customer service

Electronic marketing

Secure transactions

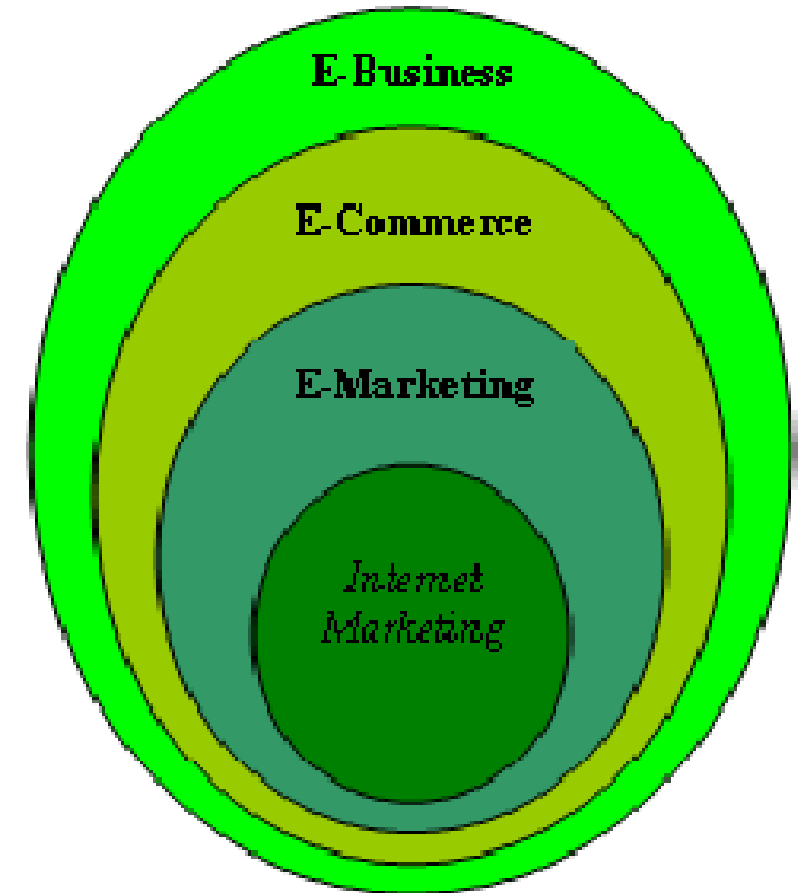
Automation of processes

Electronic collaboration

## E-commerce

Sell-side e-commerce

Buy-side e-commerce



# Creation of Value

---

- The goal of any e-Business project is to **create value**.
  - **Increase of Margins**
  - **Increased Staff Motivation**
  - **Customer Satisfaction**
  - **Privileged Relationships with the Partners**
  - **Time to Market**
  - **Reduction of Costs**



# Increase of Margins

---

- One way is as a result of an **increase in margins**, i.e. a reduction in production costs or an increase in profits.
- E-Business makes it possible to achieve this in a number of different ways, including:
  - positioning on new markets,
  - increasing the quality of products or services,
  - prospecting new clients,
  - increasing customer loyalty;
  - increasing the efficiency of internal functioning.

# Increased Staff Motivation

---

- Another way is as a result of **increased staff motivation**.
- The transition from a traditional activity to an e-Business activity ideally makes it possible to motivate associates to the extent that:
  - the overall strategy is more visible for the employees and favors a common culture,
  - the mode of functioning implies that the players assume responsibilities,
  - teamwork favors the improvement of skills.

# Customer Satisfaction

---

- Another way is as a result of **customer satisfaction**.
- As a matter of fact, e-Business favors:
  - a drop in prices in connection with an increase in productivity,
  - improved capacity to listen to the client,
  - products and services that are suitable for the client's needs,
  - a mode of functioning that is transparent for the user

# Privileged Relationships with the Partners

---

- An additional way is as a result of **privileged relationships with the partners**.
- The creation of communication channels with the suppliers permits:
  - increased familiarity with each other,
  - increased responsiveness,
  - improved anticipation capacities,
  - the sharing of resources that is beneficial for both parties.

# Time to Market

---

- The time that is necessary to bring a product on the market from the moment that the idea for it was put forward.
- Worldwide, new technologies provide an incredible source of inspiration to formalize ideas while making time to market even more critical because of the rapid flow of information and speedy competition.

# Reduction of Costs

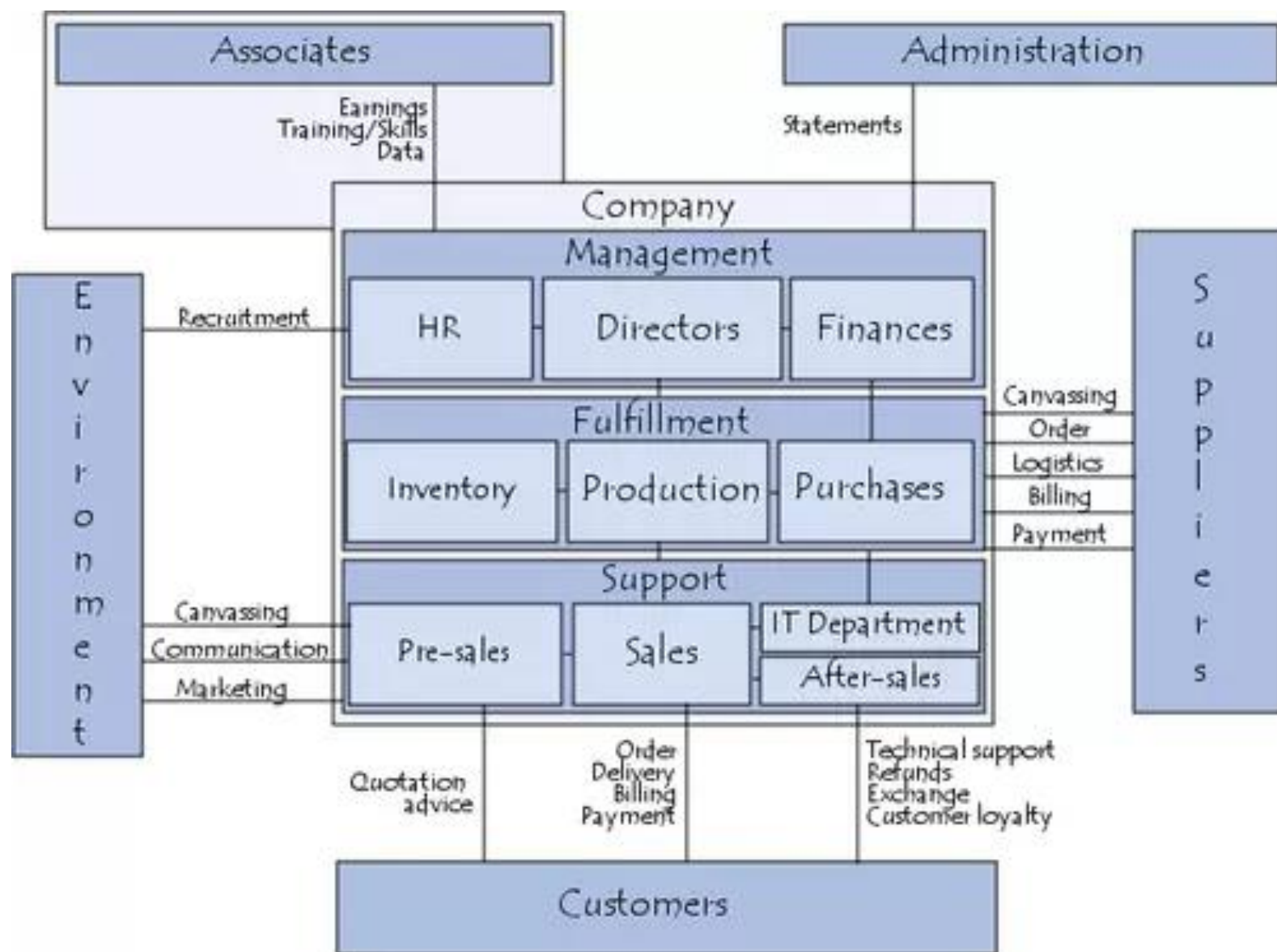
---

- The use of new technologies for the functioning of a company makes it possible to reduce the costs on the different levels of its organization in time.
- Implementation of such a project is generally very costly and necessarily leads to organizational changes.
- This may cause upheaval in the practices of its employees.
- It is, therefore, essential to determine the **return on investment (ROI)** of such a project,
  - i.e. the difference between the expected profits and the required overall investment, taking into account the cost of human resources mobilized.



# Characterization of the e-Business

- A company can be viewed as an entity providing products or services to clients with the support of products or services of partners in a constantly changing environment.
- The functioning of a company can be roughly modeled in accordance with a set of interacting functions.
- This is commonly classified into three categories:
  - **performance functions,**
  - **management functions,**
  - **and support functions.**



# Contd..

---

- Performance functions represent the core of its activity (**core business**),
  - i.e. the production of goods or services. They pertain to activities of production, stock management, and purchasing (purchasing function).
- Management functions cover all strategic functions of the management of the company.
  - They cover general management of the company, the human resources (HR) management functions, as well as the financial and account management functions.
- Support functions support the performance functions to ensure that the company runs smoothly.
  - Support functions group all activities related to sales (in certain cases, they are part of the core business) as well as all activities that are transversal to the organization, such as management of technological infrastructures (IT, or **Information Technology**):

# Attributes of E-Commerce



Digitalization of business



Focus on Business  
Process



Usage of Global Network



New Potentials &  
opportunities

# New Economy

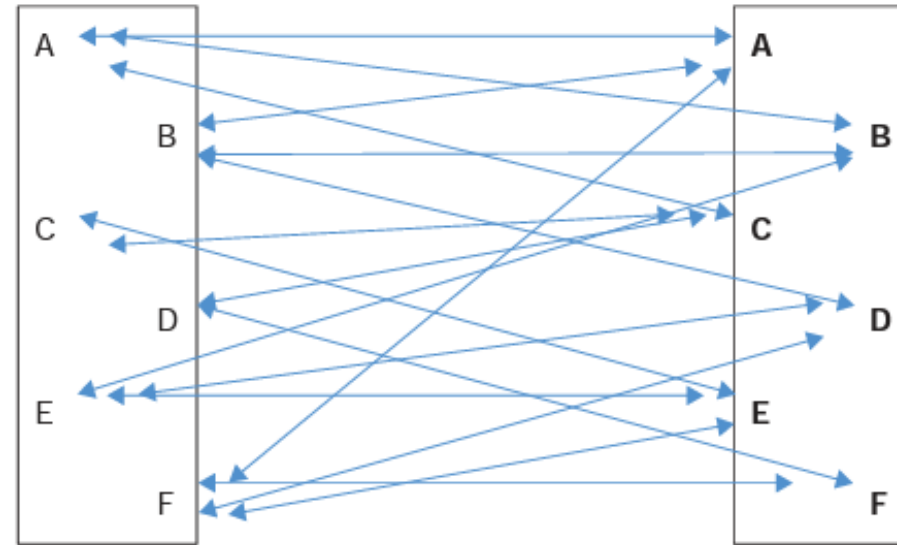
- 'the internet economy', 'the information economy' or 'the digital economy'.
- These terms are used to define the distinct contributions to the economy through use of the internet, digital technology, or information and communications technology (ICT).
- Together these types of technologies have created the so-called 'new economy', with boundaryless organizations.
- Based on entrepreneurship ,knowledge creation and sharing, innovation and creativity, and utilizing information technology for developing and selling new products and services.
- The new economy defined the industrial landscape 20<sup>th</sup> Century

# Key differences between the old and new economy

Issues	Old economy	New economy
<b>Economy factors</b>		
Markets	Stable	Dynamic and complex
Competition	National	International and global
Structure	Manufacturing	Service
Value driver	Physical capital	Human capital
<b>Business factors</b>		
Organisation	Hierarchy	Network or virtual
Production	Mass	Flexible, customised
Growth driver	Capital and labour	Innovation and knowledge
Technology driver	Machines	Digital and electronic
Competitive advantage	Low cost/high production	Innovation, speed, quality
Relationships	Independent	Collaborative
<b>Consumer factors</b>		
Tastes	Stable	Dynamic, segmented
Skills	Specialised	Multiple and flexible
Educational needs	Trade orientated	Lifelong learning
Workplace relations	Confrontational	Collaborative
Nature of employment	Stable	Insecure, opportunistic

Buyers

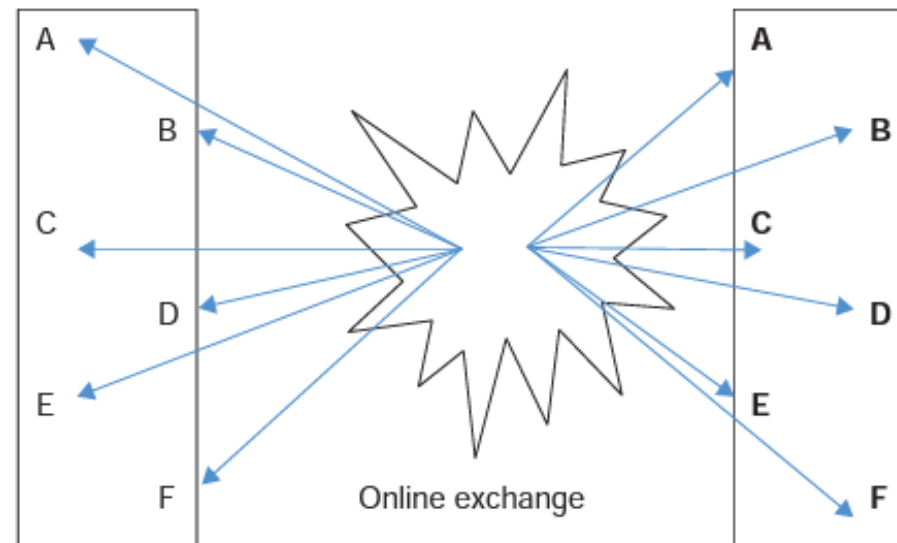
Sellers

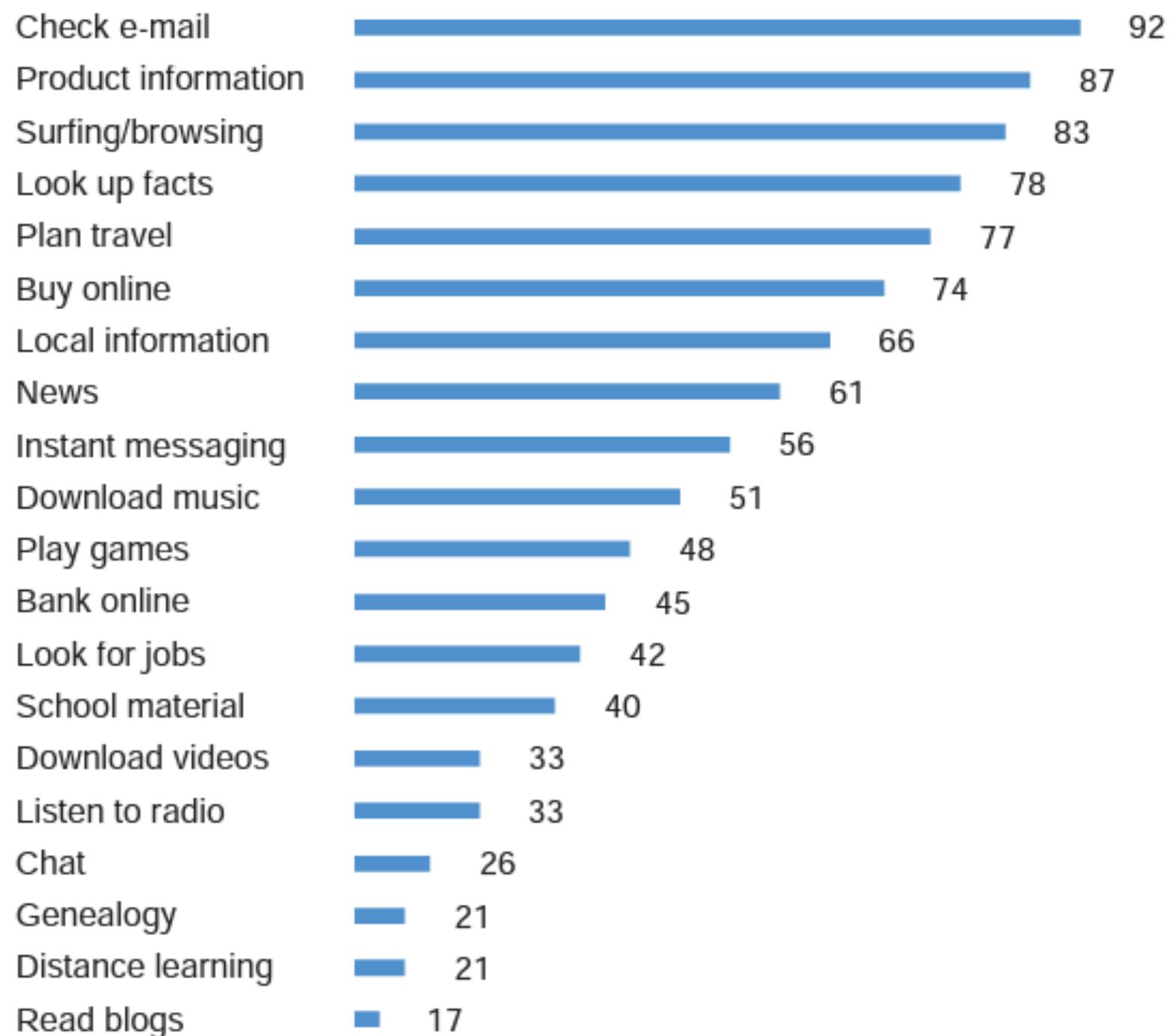


New economy

Buyers

Sellers









# Unique Features of E-Commerce

1. Ubiquity
2. Global Reach
3. Universal Standards
4. Richness
5. Interactivity
6. Information Density
7. Personalization/ Customization
8. Social Technology

# Unique Features of E-Commerce

## 1. Ubiquity

Internet/Web technology available everywhere: work, home, and so on, anytime.

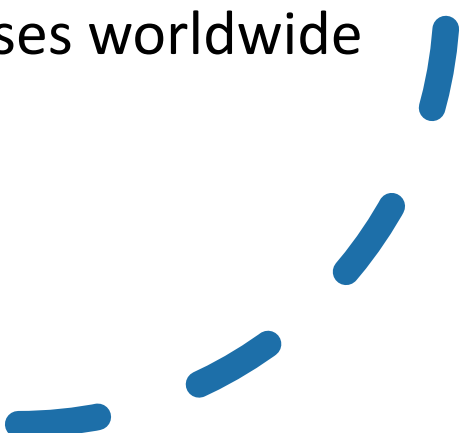
- Marketplace removed from temporal, geographic locations to become marketspace
- Enhanced customer convenience and reduced shopping costs
- Reduces transaction costs
- Costs of participating in market



# Unique Features of E-Commerce

## 2. Global Reach

The technology reaches across national boundaries, around Earth

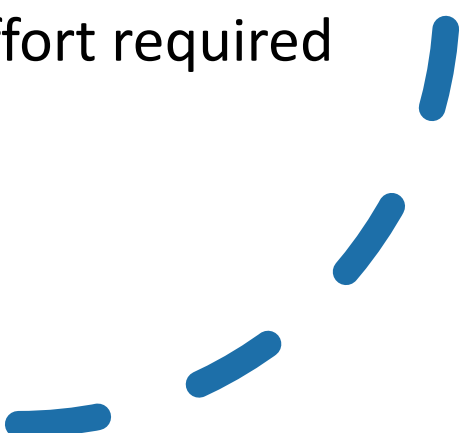
- Commerce enabled across cultural and national boundaries seamlessly and without modification
  - Marketplace includes, potentially, billions of consumers and millions of businesses worldwide
- 



# Unique Features of E-Commerce

## 3. Universal standards

One set of technology standards: Internet standards

- Disparate computer systems easily communicate with one another
  - Lower market entry costs - costs merchants must pay to bring goods to market
  - Lower consumers' search costs - effort required to find suitable products
- 

# Unique Features of E-Commerce

## 4. Richness

Supports all rich media formats such as video, audio, and text messages

- Possible to deliver rich messages with text, audio, and video simultaneously to large numbers of people.
- Video, audio, and text marketing messages can be integrated into single marketing message and consumer experience.

# Unique Features of E-Commerce

## 5. Interactivity

The technology works through interaction with the user.

- Consumers engaged in dialog that dynamically adjusts experience to the individual.
- Consumer becomes co-participant in process of delivering goods to market.



# Unique Features of E-Commerce

## 6. Information density

Large increases in information density—the total amount and quality of information available to all market participants

- Greater price transparency
- Greater cost transparency
- Enables merchants to engage in price discrimination



# Unique Features of E-Commerce

## 7. Personalization/Customization

Technology permits modification of messages, goods

- Personalized messages can be sent to individuals as well as groups.
- Products and services can be customized to individual preferences.
- Target Marketing





# Unique Features of E-Commerce

## 8. Social technology

The technology promotes user content generation and social networking

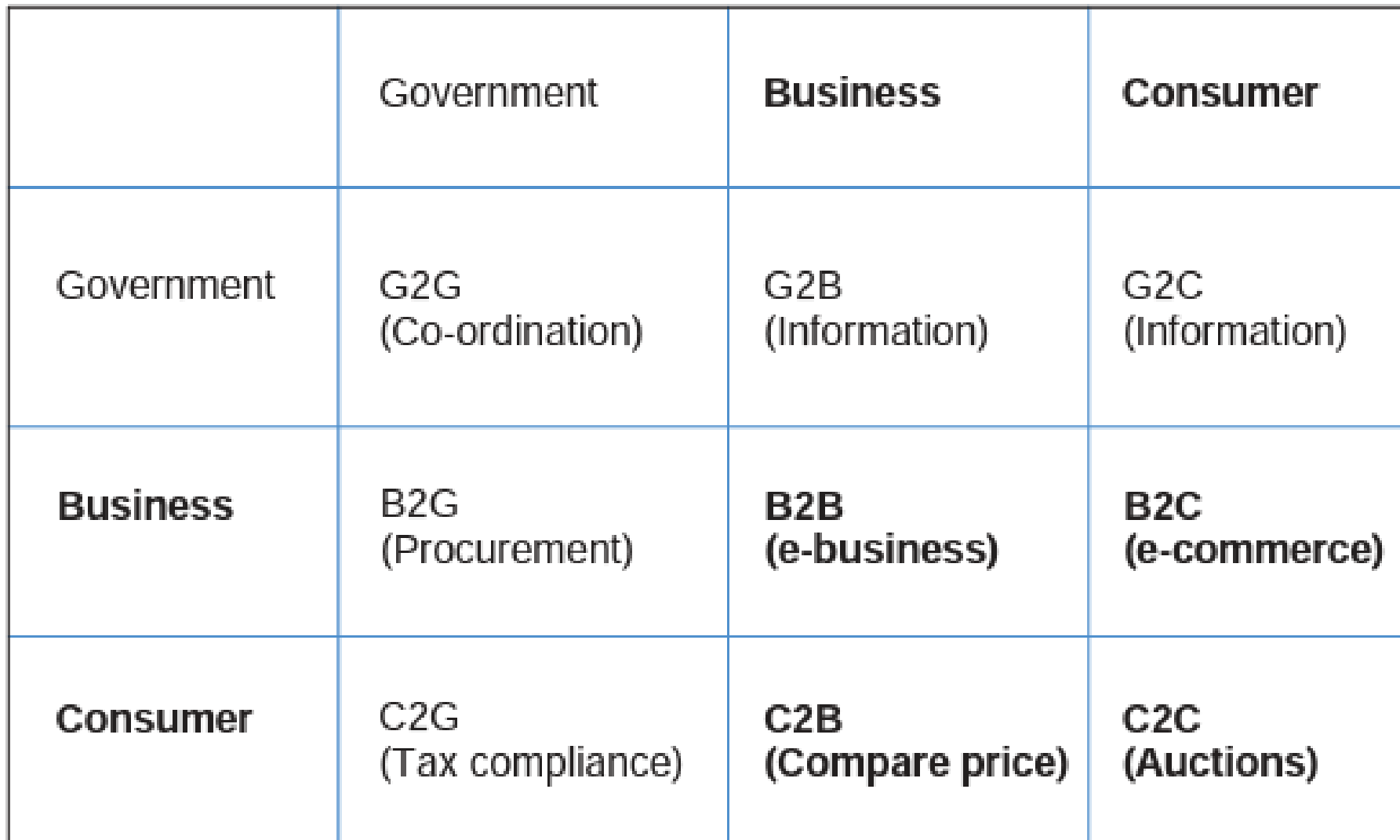
- New Internet social and business models enable user content creation and distribution, support social networks
- Many-to-many model





# Types of E-Commerce

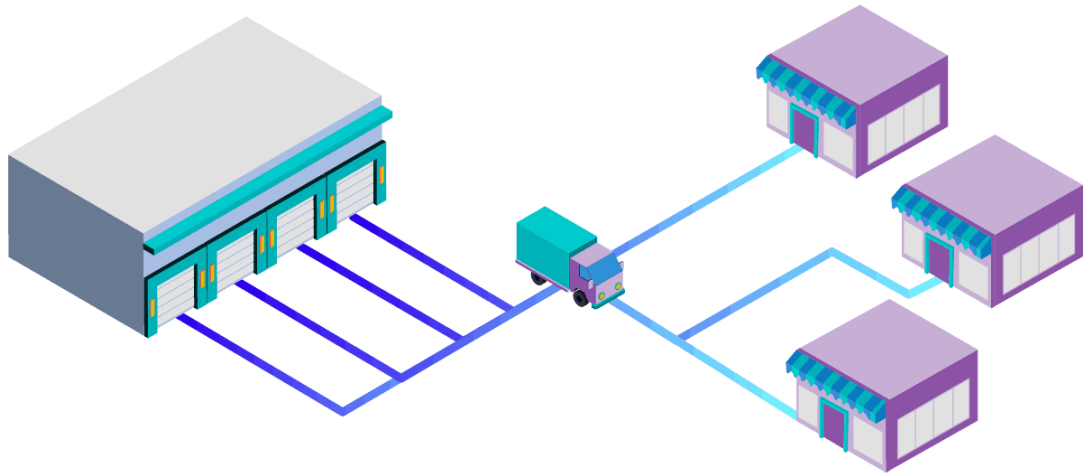
- Business-to-Business (B2B)
- Business-to-Consumer (B2C)
- Consumer-to-Consumer (C2C)
- Consumer-to-Business (C2B)
- Business-to-Administration (B2A)
- Consumer-to-Administration (C2A)



	Government	<b>Business</b>	<b>Consumer</b>
Government	G2G (Co-ordination)	G2B (Information)	G2C (Information)
<b>Business</b>	B2G (Procurement)	<b>B2B (e-business)</b>	<b>B2C (e-commerce)</b>
<b>Consumer</b>	C2G (Tax compliance)	<b>C2B (Compare price)</b>	<b>C2C (Auctions)</b>

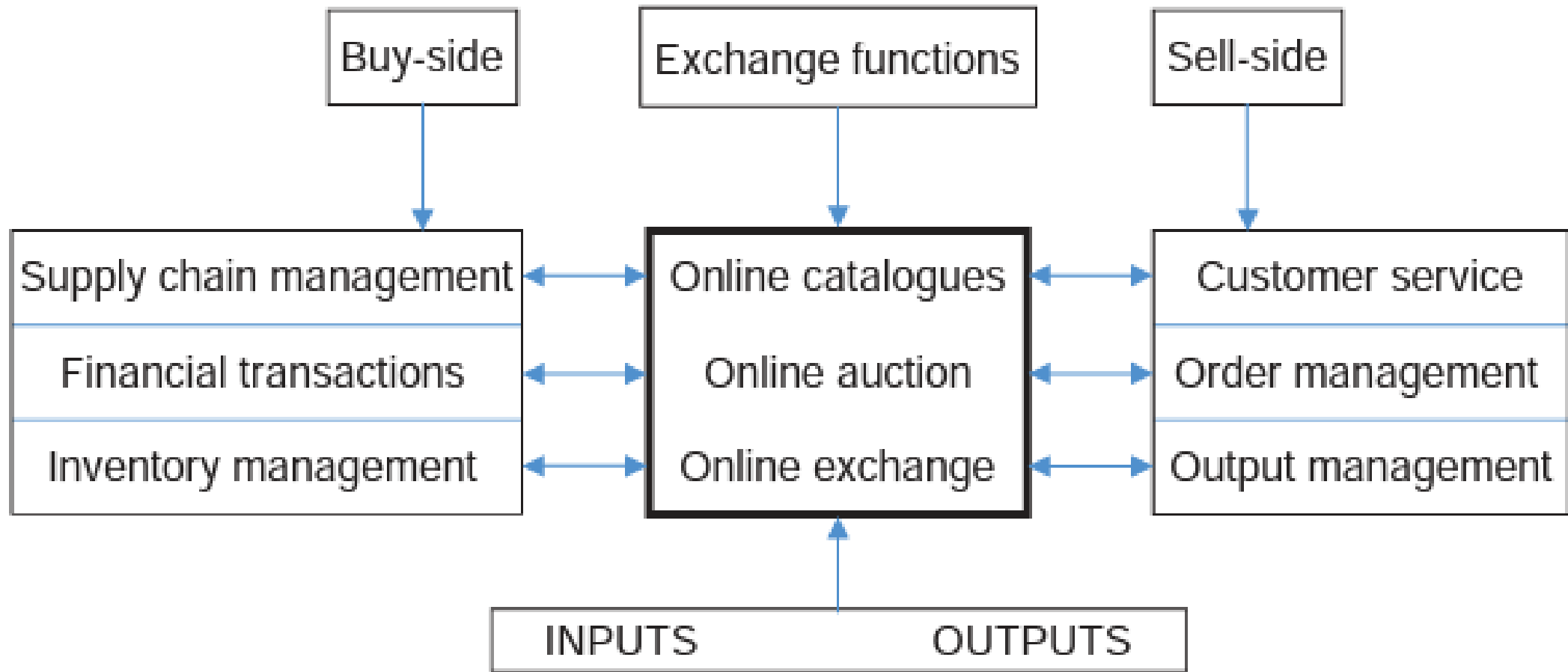
A framework  
for e-business  
markets

# Types of E-Commerce



- **Business-to-Business (B2B)**

- A B2B model focuses on providing products from one business to another.
- Many businesses in the specific niche are service providers
- B2B transactions can include bulk pricing, larger quantity orders, or specialty products that an average consumer would never need on a day to day basis.
- B2B transactions create powerful and long-lasting relationships between each side

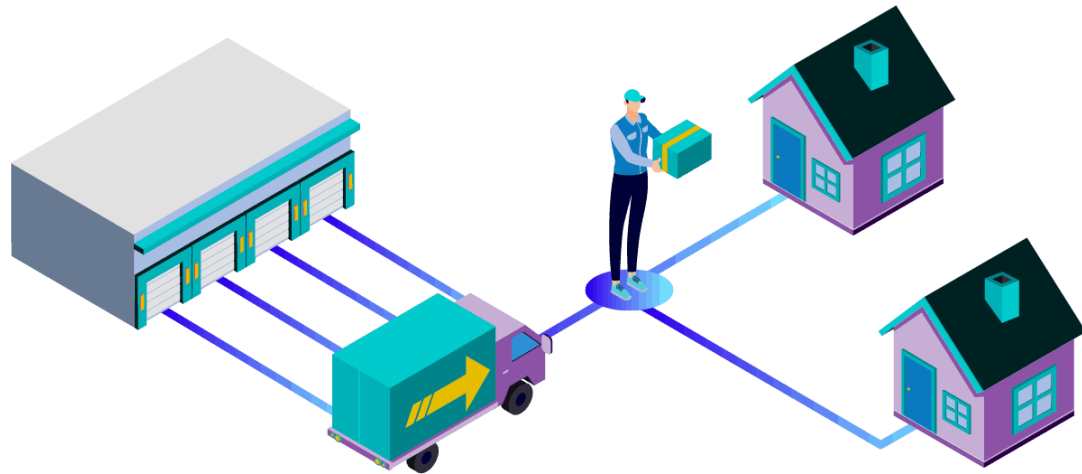


# B2B Business Development Stage

---

	Method	Outcome
<b>Stage 1</b>	Buying and selling online	Cut costs and increase speed of supply
<b>Stage 2</b>	Third-party exchanges	Firms bring together buyers and sellers
<b>Stage 3</b>	Consortia	Large firms create a virtual market

# Types of E-Commerce



- **Business-to-Consumer (B2C)**
  - Most popular in business, deepest market
  - Traditional retail model
  - Internet serves as a marketplace in itself and the eCommerce store serves as the portal between businesses and consumer shopping online
  - Not limited to products, but services are quite often distributed
  - Businesses may offer services like financial advising, tutoring, subscription memberships, and etc.

# Types of E-Commerce



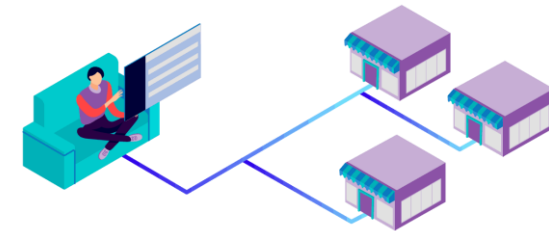
- **Consumer-to-Consumer (C2C)**

- Sites allow customers to trade, buy, and sell items by paying a small commission to the site
- Opening a C2C site takes careful planning
- Successful platforms like eBay and Craigslist
- Can be heavily impacted by unsustainable business models.
- Some e-businesses have a hand in facilitating C2C e-commerce such as electronic classified advertising on e-newspaper sites or providers of consumer e-commerce portals.



# Types of E-Commerce

- **Consumer-to-Business (C2B)**
  - Growing in prevalence
  - Consumer sells goods or services to businesses
  - Roughly equivalent to a sole proprietorship serving a larger business



# Types of E-Commerce

---

- **Business-to-Administration (B2A)**

- Businesses whose sole clients are governments or type of public administration
- Involves a large amount and a variety of services, particularly in areas such as fiscal, social security, employment, legal documents and registers, etc.
- Increased considerably in recent years with investments made in e-government.

# Types of E-Commerce

- Consumer-to-Administration (C2A)
  - All electronic transactions conducted between individuals and public administration
  - Education – disseminating information, distance learning, etc.
  - Social Security – through the distribution of information, making payments, etc.
  - Taxes – filing tax returns, payments, etc.
  - Health – appointments, information about illnesses, payment of health services, etc.



# Summary

---

- Business-to-Consumer (B2C): e-shops, e-malls, e-auctions, buyer aggregators, infomediaries, classifieds, portaling, manufacturer model, subscription;
- Business-to-Business (B2B): e-auctions, infomediaries, e-procurement, e-distribution, portaling, e-marketing, trading communities, third-party marketplaces, collaboration platforms, value chain integrators, value chain service providers, affiliates; g
- Consumer-to-Consumer communities: e-auctions, virtual communities

# Types of eCommerce by Revenue Model

- The following types of eCommerce are based on how the business operates itself and generates income.
  - Dropshipping
  - Wholesaling
  - Private Labeling
  - White Labeling
  - Subscription Service

# Dropshipping

- Dropshipping allows businesses to sell to consumers without having to deal with production, inventory, or shipping tasks.
- Work with a third-party wholesaler and market their products online.
- This method generally has low startup costs.
- Getting started only requires a website and a partnership with a wholesaler.
- There is access to suppliers available on dropshipping directories like SaleHoo and Spocket.
- Issue - is the inability to vet the item's condition before shipping it to the customer.
  - Moreover, competition may be stiff for businesses selling a common product

# Wholesaling

- A wholesaler purchases goods in large volumes from manufacturers and resells them to retailers.
- To make a profit, they will sell the products at a higher price. The items are stocked to be sold to consumers.
- A wholesaling business usually requires a warehouse space to store the items.
- The selling process can occur on their own website or a marketplace like **Amazon**, **Alibaba**, or **Faire**.
- Though wholesaling typically falls under the business-to-business category, some suppliers are open to selling directly to consumers.



# Private Labeling

---

- A private label business works with a manufacturer to create a product using its brand name.
- The company will control the item's features, including its material, function, and packaging.
- A benefit of private labeling is that the product can be unique from the rest on the market.
- it's good practice to research the manufacturer first to determine whether they're capable of fulfilling your requirements.



# White Labeling

- A company purchases a ready-made product line from a manufacturer and applies its own branding to sell them.
- Unlike the private label model, the business doesn't have a say in the making of the item.
- Due to the lack of involvement, however, the production process is usually faster and more affordable.
- Once the items are ready, the company will store them in their own facilities.
- Similar to dropshipping, competition may be intense if you're selling a popular low-ticket product.

# Subscription Service

- In this model, the business will provide a product or service recurrently to a consumer in exchange for periodic payments – usually weekly, monthly, or annually.

# Contd...

---

- Subscription services can qualify as one of the following types:
  - **Access.** Customers can use a premium digital platform for a regular fee.
    - Some businesses provide free access (freemium) with limited features to give potential subscribers a preview of the service.
  - **Curation.** The company will customize a product collection according to the buyer's preferences.
    - In many cases, the individual may try the item and purchase it to keep. If it turns out unsuitable, they may send it back.
  - **Replenishment.** This subscription is usually for consumer packaged goods that people often purchase, such as groceries.
    - A business will automatically restock these items to the customer according to their order frequency preferences.

# Summary

- Dropshipping. Online stores that work with third-party suppliers in handling stock and shipping its goods to the consumer.
- Wholesaling. Businesses that purchase and resell products in bulk to retailers.
- Private labeling. Companies that partner with manufacturers to create custom products using their own branding.
- White labeling. Using this revenue model, the brand will purchase a ready-made product line from a manufacturer and apply its branding before selling.
- Subscription service. Businesses that receive recurring payments in exchange for providing products or services regularly to the customer.