

01 - Explores applicability of ICT to business organizations and the competitive marketplace

Explores applicability of ICT to business organizations and the competitive marketplace

- Economy

An economy of a country is production, distribution, exchange, and consumption of goods and services

- Digital Economy / Internet economy / Web economy

A digital economy is an economy that is based on electronic

The Goods and services produced by an electronic business and traded through electronic commerce.

Business methods in Digital Economy

- Reverse auction
- Group purchasing
- e-Marketplace

Auction

An auction is a process of buying and selling goods or services by offering them up for bid, taking bids, and then selling the item to the highest bidder

There are 2 types of auctions

- Regular Auctions - several buyers are trying to buy from a single seller.
- Reverse Auctions - several sellers offer their items/service to a single buyer.



Group Purchasing

Group of individuals, companies are collectively purchasing a greater number of products or services to get a discount.

Here, each individual pay less per unit when buying more units.

Examples:

- <http://www.etrana.com/>
- <http://usa-llc.com/USA/index.cfm/>

E-marketplaces

E-marketplaces are markets in which buyers and sellers negotiate on-line.

Main components of an E-marketplace

- Front end: Part where the customers interact, including the sellers' portal, electronic catalogs, shopping carts and search engines.
- Back end: inventory management, purchasing from suppliers, payment processing, packaging and delivery.

Business organizations in Digital Economy

- **Pure bricks**
 - only offline mode.
 - Stores that allow customers to interact **only through offline** methods
- **Brick and click**
 - both online and offline mode.
 - Stores that allow customers to interact through **both offline and online** methods
- **Pure click**
 - only online mode.
 - Stores that allow customers to interact **only through online** methods

The functions and the role of ICT in business

Use of ICT in business functions as information systems could be broadly classified into two categories.

1. Transaction processing.
2. Decision support.

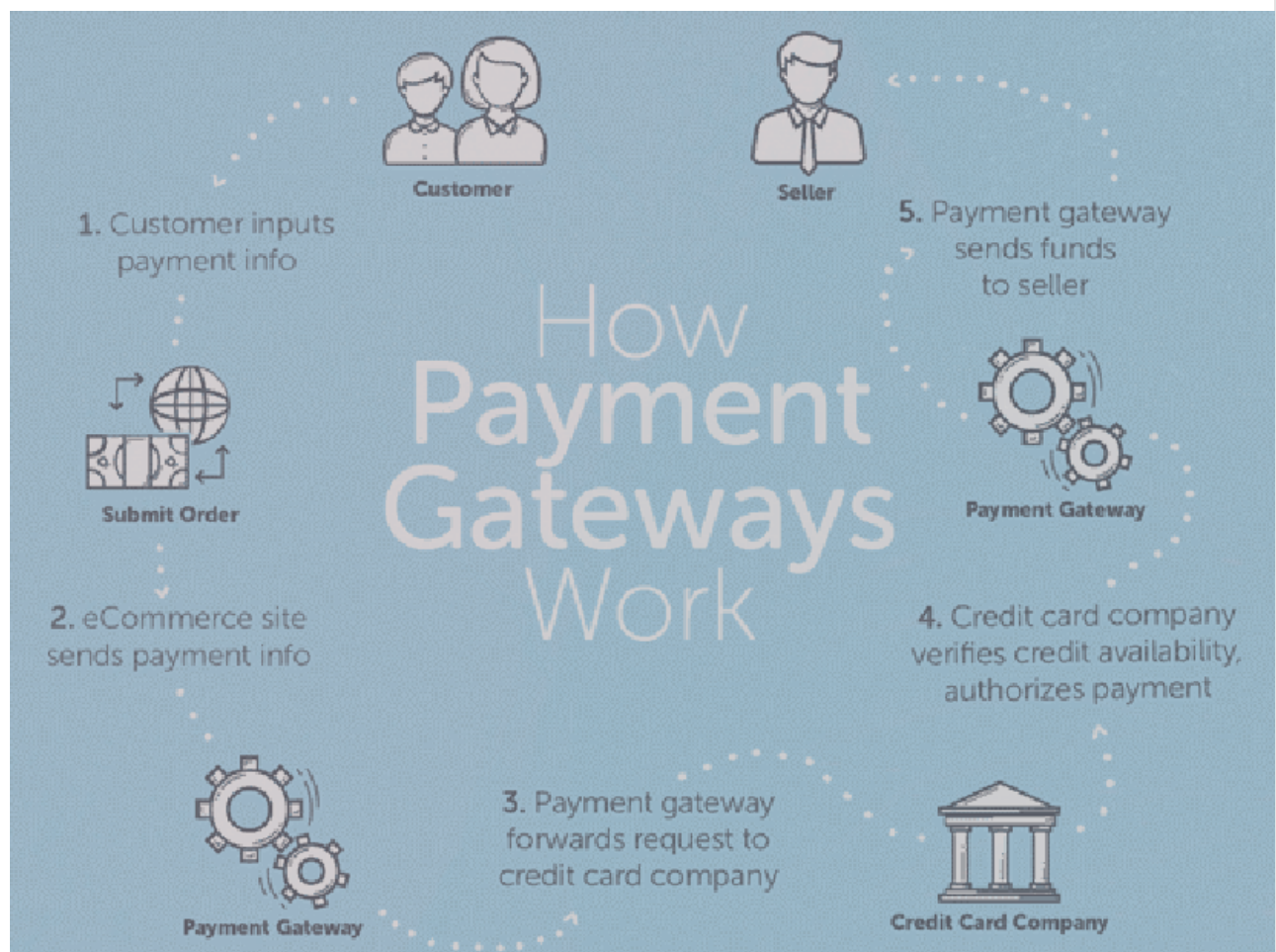
Generally there are other categories as below.

- Transactions and ICT
- Data Definition Language (DDL)
Data Manipulation Language (DML)
- Accounting and ICT
- Human resource and ICT
- Production and ICT
- Marketing, sales and ICT
- Supply chain management and ICT
- Business communication and ICT

Secure payment mechanism

- Payment gateways

A payment gateway is a merchant service provided by an e-commerce application service provider that authorizes credit card or direct payments processing for e-businesse



One **issue with online payments** with payment gateways is the customer has to submit credit card details to every merchant (or rather at every merchant's web site) that they shop with. This increases the number of

chances of getting your sensitive data being recorded by one of those merchants.

To reduce the risk we can use third party systems like PayPal.

Secure payment methods

- Credit cards
- Debit cards
- Third party systems - PayPal

Mechanisms used to make payments secure

- Data encryption
- Digital currency/ Virtual and cryptocurrencies

Digital currency: Currency or payment that only exists in electronic form and intangible.

Advantages and disadvantages of e-commerce

E-Commerce

Advantages

- Faster Buying Process
- Eliminates Operating Cost
- Personalize Shopping Experience
- Available 24×7
- Connects far and wide
- Detailed Product Information
- Retargets the Customers

Disadvantages

- Lack of Personal Touch
- No Guarantee about Product Quality
- Security Issues
- Long Delivery Period
- Cannot try before Buying

02 - Analyses the relationship between ICT and business operations

Analyses the relationship between ICT and business operations

E-Commerce Business Models

These models include,

- Online marketplaces

- Virtual storefronts
- Information brokers
- Virtual providers
- Portals
- Online service providers
- Virtual communities

Online marketplace

Online marketplace is an e-commerce site which acts as a platform for multiple large and small-scale sellers to offer their products and services to a global pool of customers

- Example: Amazon



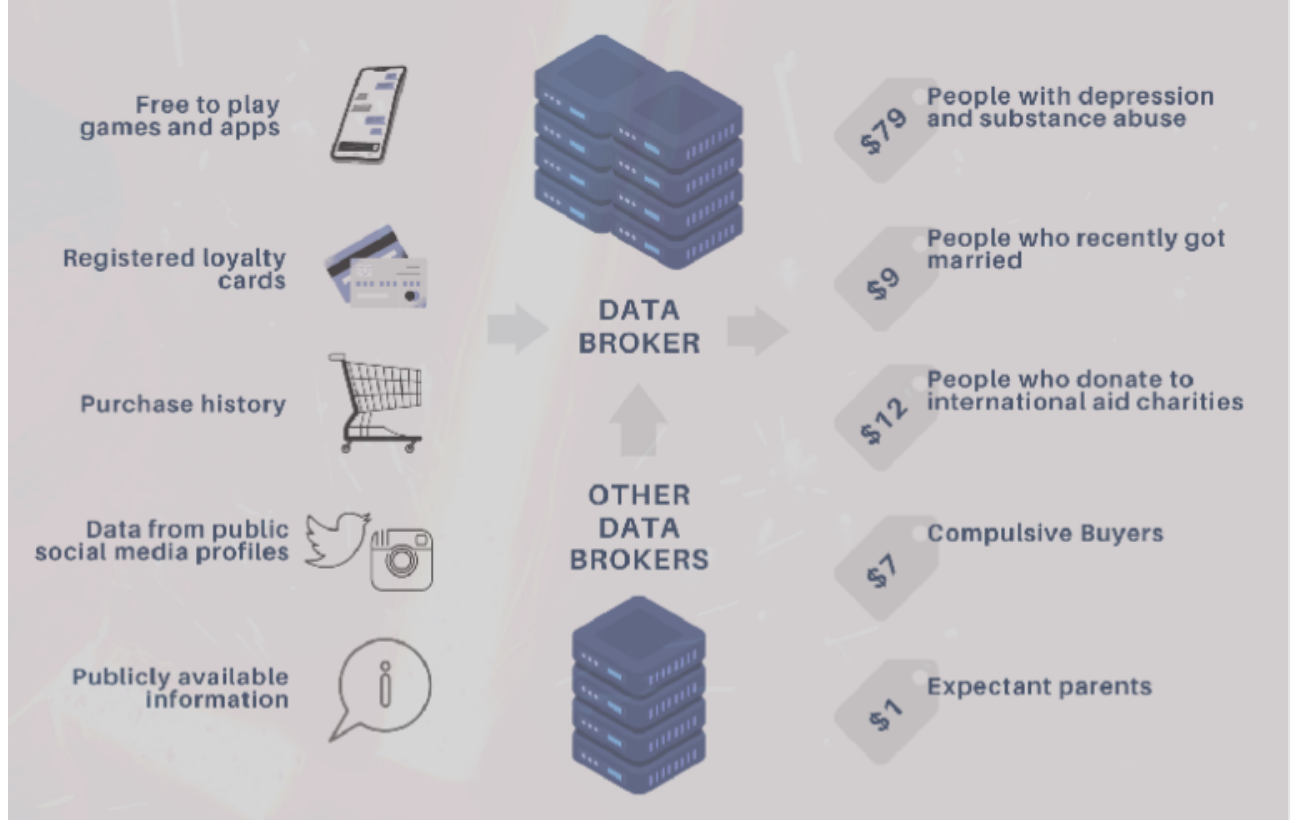
Virtual storefronts

Virtual storefronts make use of digital technologies to display products being offered on an electronic screen

- Example: In airports, subway stations

Information brokers

Information brokers are the sites that help consumers to filter the required information from a many of publicly available information sources



Content providers

Content providers are the sites that offer digital content such as news, music, photos, videos and games online

Examples:

- Apple - iTunes
- Amazon - Distribution & Delivery

Portals

Portals provide the entry point to e-commerce by collecting data from a large number of providers and letting customers search for goods and services

Examples:

- Yahoo

A search engine can be a portal but not all the search engines are portals (Google)

Online service providers

Online service providers provide various services online such as news, search engine, banking, health care, entertainment, social networking, etc

Example:

- Google
- Social media - Facebook

Virtual communities

Virtual communities are formed by individuals connected through online social networks sharing similar interests, opinions or feelings.

Example:

- Social media - Facebook

Good to find potential customers from communities based on same interests

Types of e-business transactions (Models)

- B2B (Business to Business)
- B2C (Business to Consumer)
- C2C (Consumer to Consumer)
- C2B (Consumer to Business)
- B2E (Business to Employee)
- G2C (Government to Citizen)

All these transaction happens online. It must be included in the definition.

B2B (Business to Business)

Business to Business (B2B) e-commerce happens between two business organizations when they exchange goods or services online

- Getting ice cream from a ice cream factory to a super market (factory: Business, super market: Business)

B2C (Business to Consumer)

Business to Consumer (B2C) e-commerce happens when a Consumer consumes services or goods from a Business online

(Most common form of e-commerce

- Portal, e-tailer, Content provider, Transaction Broker, Market Creator, Service Provider, Community Provider
- Individuals purchasing electronic items online or customers using e-banking services

C2C (Consumer to Consumer)

Consumer to Consumer (C2C) e-commerce offers a platform for two consumers to meet and engage in business transactions online.

- eBay, ikman

C2B (Consumer to Business)

In Consumer to Consumer (C2C) e-commerce, consumer acts as the seller and business as the buyer online, the consumer is paid for the service provided

- Independent photographer selling pictures to a company (Customer: Photographer, Business: Company)

B2E (Business to Employee)

Business to Employee (B2E) e-commerce happens when business firms offer online services to their employees online

(The objective of B2E is to attract and retain high-quality employees

- Online Training services
- Online insurance policy management

G2C (Government to Citizen)

Government to Citizen (G2C) is a form of e-commerce that happens when governments practice e-government by providing services to the citizens online.

(Here in this relationship, all Businesses, Consumers and employees are considered as citizens.

- The Office of the Provincial Commissioner of Motor Traffic (Western Province) in Sri Lanka offers the online facility of obtaining revenue licenses for motor vehicles to the citizens

M-commerce

Mobile-based e-commerce transactions which are commonly known as m-commerce

M-commerce is an important component of mobile marketing in which electronic commerce takes place through mobile devices

Also known as next-generation ecommerce

- As mobile devices get proliferated, more and more people browse the Internet using mobile and other handheld device
- With M-commerce, its easy to provide geo-advertising and geo-information services.

Advantages and disadvantages of e-business

Advantages

- **Worldwide presence:** A firm engaging in e-business can have a nationwide or a worldwide presence
- **Cost-effective Marketing and Promotions:** Using the web to market products guarantees worldwide reach at a nominal price
- **Curtailing of Transaction Cost:** The nature of online business is such that, the costs incurred for every transaction to go through smooth and sound, there is no acting middleman

Disadvantages of e-Business

- **Sectoral Limitations:** The main disadvantage of e-business is the lack of growth in some sector - Food sectors
- **Costly E-business Solutions for Optimization:** Substantial resources are required for redefining product lines in order to sell online
- **Question of Safety:** Concerns on the safety of our products and services.
- **Data Security and Privacy Violations:** Potential or intentional leakage/selling or personal information to other companies.

E-commerce revenue models

Sales revenue model

- **The most common revenue model**
- Here profits are made by selling services or products.
- Any business selling items through the internet, regardless of their business model, is following the sales revenue model.

Advertising revenue model

- The advertising revenue model is when popular platforms **allow others to advertise with them for a fee**
- Media sites, such as magazines, newspapers, and TV channels, also frequently use this model.

- The flat fee is mostly dependent of the number of clicks on the ad.

Subscription revenue model

- In this model users are charged a recurring fee (monthly or annual) for using services or having existing products replenished and delivered regularly.

Transaction revenue model

- This model charges a fee every time a transaction is made through their platform. For example, eBay charges sellers a fee whenever an item is sold

Affiliate Revenue Model

- With this model, businesses earn revenue just by promoting and selling another person's (or company's) product on their site (as opposed to the advertising revenue model, which doesn't allow for purchase on the host's site).
- This model is based on revenue sharing.

03 - Analyses the ICT in terms of generating and delivering an improved products and services to consumers

Analyses the relationship between ICT and business operations

E-Marketing

E-Marketing is the marketing of products or services over the Internet.

Electronic Marketing also referred to as Internet marketing, i-marketing, web-marketing, online-marketing or e-Marketing.

It is simply making use of electronic media, especially the Internet for marketing activities.

- Many customers make purchases based on the emails they receive containing product catalogs and special offers.
- Share information regarding new offerings and promotions as well as to hear from customers any suggestions, complaints, as well as comments.

Advantages of E-marketing

- The ability of a firm to adapt based on the customers' feedback.
- The ability to make an instant impact.
- The ability to reach customers with similar interests faster and easier.
- The ability to directly approach specific marketplaces.

Philosophy of marketing

The marketing concept and philosophy is one of the simplest ideas

At its very core are the customer and his or her satisfaction. The marketing concept and philosophy states that the organization should try to satisfy its customers' wants and needs while meeting the organization's goals.

(In simple terms, "**the customer is king**".

There are 2 types of main philosophies.

1. Marketing Philosophy
2. Product-based Philosophy

	Marketing philosophy	Product-based philosophy
Attitude to customers	Determined by customers' needs	Sell what we make
Market Research:	Identify customers' needs.	Measure customer reactions
Sales Strategy:	Pull customers.	Push products.
Packaging:	Customer convenience, Marketing & sales aid.	Product protection
Profit	Profit long term from customer relationships.	Now, through manufacturing efficiency.
Transport / Distribution:	To meet customer demands effectively.	At lowest cost.
Advertising:	Customer Benefits.	Product Features

Online Advertising

Online advertising is a form of promotion that uses the Internet and World Wide Web for the expressed purpose of delivering marketing messages to attract customers.

Examples of online advertising:

- include contextual ads on search engine results pages
- banner ads

- Social network advertising
- e-mail marketing

Benefits of online advertising

- The immediate publishing of information and content that is not limited by geography or time.
- Online advertising allows for the easy customization of advertisement
- Easy reach of many customers.
- Easy reach of communities with similar interests.

Mobile Marketing

The increase of mobile devices introduces a new dimension to marketers to recognize their targets, which is the location.

They introduce three notable **location-based services** the mobile marketers can use namely geo-social services, Geo-advertising and geo-information services.

- **Geo-social services:** help users to know where people with similar interests as him or her meet. Facebook is a popular social networking site that offers this service.
- **Geo-advertising services:** help connecting local merchants with nearby customers. For example, the local restaurants can offer lunchtime promotions to the crowd within a specific distance expecting to attract a percentage of them as customers.
- **Geo-information services:** provide information about a subject, such as an exhibit at a museum, on a geographical map for the people passing nearby.

Database Marketing

When the customers' online activities increase through both web and mobile interfaces, more and more databases become existing which contain information about current and future customers.

These databases not only contain customers' personal information but also their web browsing patterns as well as location details.

Using these details, the **customers can be directly contacted** and provided with the advertising information.

Database marketing is a **direct marketing technique** and it could be well supported with intelligent data mining techniques.

This helps to make more personalized offers