



# INFS 1602 Final Notes

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# INFS I 602 Final Notes

## Week 1 - Information Systems and IS Professionals in Global Business

An information system is a set of interrelated components which collect, process, store and distribute information. The use of these information systems is to support decision making, coordination and control in the internal aspect of the business.

Functions:

- Input – capture/collect data
- Processing – convert raw input to meaningful information
- Output – transfer of processed information

### Business Objectives for Information Systems

There are 6 main strategies that are heavily emphasised when applying IS.

#### 1. Operational Excellence

Continually achieve to improve the efficiency of the service that they offer through the implementation of IS. (Walmart uses IS to digitally link suppliers to its physical stores, sending in a replacement to the shelf almost immediately.)

#### 2. New products, services, and business models

Apple has used IS to continuously improve the brand of their products, transforming an outdated database to be sold under a new market “iTunes”

#### 3. Customer and supplier intimacy

Emphasises on the fact of Customer Loyalty. Customers respond to the business by purchasing more > business reply with better products. Likewise, with suppliers.

Mandarin Oriental is a hotel based service that uses IS to keep track of guest's preferences etc.

#### 4. Improved decision making

IS clarifies the enormous information bank by filtering out important data and information in order to inform business managers of correct decisions to undertake.

Verizon Corporation uses a Web-based dashboard to make informed decisions from information derived from precise real time information such as customer complaints.

#### 5. Competitive Advantage

Doing things better than your competitors, e.g. charging less for superior products or responding to customers real time add up to increased profits. This is met by achieving one or more of the above goals. Apple, Walmart and UPS are examples of this.

#### 6. Survival

Investment into IS, is regarded now as a necessity to keep up with competition. With the demand of legal compliance, businesses must accurately compile all information without having to interrupt daily procedures. E.g. The Toxic Substances Control Act 1976, requires firms to regulate records of their employees for up to 30 years.

### The information and Digital Economy

- Firms seek to create core competencies (Skills and abilities that can be further utilised in the value adding process)
- Skilled work is more defined now as (non-routine). Must lead to innovative creations/designs.
- Innovation is the key to give businesses a competitive edge over competitors.

## Dimensions of Information Systems



### Organizations

- Is structured in a way that allows for a clear-cut division of labour.
- Normally consists of various positions with different authority and responsibility levels.
  - Senior Management (long-range strategical decisions/ensures financial stability)
  - Middle management (carries out plans/programs of senior)
  - Operational Managers (day to day monitoring of the business)
  - Knowledge workers (e.g. scientists, engineers create or design product/services create new knowledge for the firm)
- Data workers (secretaries or clerks assist with scheduling and communications)
- Production or service workers (produce and deliver the product)

Information systems can help implement each business' unique culture into the business, generally a core set of rules, assumptions or values that are generally accepted by everyone in the business.

UPS's priority is customer service and is reflected in the business itself, embedded into it IS (company package tracking system)

### Management

Formulate decisions and action plans to solve organizational problems by perceiving business challenges in the environment. By working out the problems, they can then allocate the needed amount of human resources to fix or improve the situation. Managers must take advantage of IS to create new products and services, allowing innovation and the continued success of the business.

### Information Technology

One of the many tools managers use to cope with change

- Computer Hardware (physical equipment used for input, processing and output activities in an information system)
- Computer software ( Detailed, pre-programmed instructions that control/coordinate computer hardware components in an information system)
- Data management technology (Software governing the organization on physical storage media)
- Networking and telecommunications technology (physical/software, links various pieces of hardware and transfers data from various physical locations)

UPS's IS performs highly complex task regarding the core purpose of UPS's service (package delivery)

The system cross checks and gains all required information before compiling it in a database, which can then be accessed through minimal effort and high accuracy.

### Potential sources of innovation?

- Investing in information technology does not guarantee good returns
- Consideration variation in the return of firms receive from technology investments.
  - Adopting the right business model
  - Investing in complementary assets (organisational and management capital)