

# INTRODUCTION TO BUSINESS INFORMATION SYSTEMS

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COMPLETE DETAILED COURSE NOTES - INF10003

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PREVIEW

## 1 – Introduction

Types of business:

- **Sole proprietorship** – owned by a single person; simplest business form; not a legal entity; operates under an owner's name or a fictitious name
- **Partnership** – owned by a few people (up to 20); general or limited type; governed by the relevant laws in the state/territory
- **Corporation** (service and product industry based) – single or many shareholders (thousands in the case of a public company); legal entity that is separate and distinct from owners; right to enter contract, loan and borrow money, sue and be sued, hire employees, own assets, pay taxes; are listed on the stock exchange/have shareholders

Common departments found in a corporation:

- Marketing
- Accounting
- Finance
- HR
- Management info systems
- Production
- Operations
- Sales

**Business process:** A standardized set of activities that accomplish a specific task – ex. Processing a customer's order

**NFC (near field communication):** "touch and go" function for finance on phones (one use).

## 2 – Competing in the Information Age

- Information age started when computerization began to take a significant foothold in business processes
- Many business leaders have created exceptional opportunities by coupling the power of the information age with traditional business methods
- There is a human cost of the growing technology sector – advanced automation reduces employment opportunities
- Organisations are complex – people, interactions between diverse people, complexity makes it hard to know and understand what is really going on
- Organisations/businesses typically provide their customers with goods and/or services
- Traditional organisational pyramids are changing to customers and clients being the main focus, over top management
- Problems occur in business when departments work independently – lack of integration, inefficiencies of information transfer and process control, communication, data sharing and flow information, difficult to see the big picture, minimal business intelligence and knowledge

### Systems Thinking

**Systems thinking** is a way of looking at a problem holistically. It “requires you to model the components of the system and to connect the inputs and the outputs among those components into a sensible whole – one that explains the phenomenon observed”.

- **It is always better to design a solution than use a default solution for a specific problem**
- Part of systems thinking is about achieving the seamless transfer of data, getting departments to work inter-dependently and thus improved intelligence and knowledge and business decisions
- People use information technology to work with information
- IT – concerned with hardware and software
- IS – collects, processes, stores, analyses and disseminates data and information
- For IS to work, it needs a well designed and implemented IT system
- Business in a global environment is cultural (languages, religion, customs), political (trans-border data flows, imports, exports, trades, change of govt.) and geo-economic (locality changes, fly-in-fly-out, tech support teams)

**First-mover advantage** when an organisation can significantly affect its market share by being first in the market with a competitive advantage – the integration of business and technology has allowed organisations to increase their share of the global economy, transform the way they conduct business and become more efficient and effective (Global IT)

## Competitive Advantage

**Business Strategy** – a leadership plan that achieves a specific set of goals or objectives

- May include: developing new product or service, entering a new market, increasing customer loyalty, attracting new customers, increasing sales
- Competitor advantages are typically temporary because competitors are quick to copy competitive advantages
- First-mover advantage (see above)
- **Competitive Intelligence:** process of gathering information about the competitive environment to improve the company's ability to succeed – Michael Eugene Porter
- **Five forces model, three strategic initiatives, value chain analysis**
- Knowledgeable customers can force down prices, influential suppliers can drive down profits by charging higher prices for supplies, new market entrant can steal potential capital investment, substitute products can steal customers
- To combat the above, Porter developed the 5 forces model to help determine the attractiveness of an industry
  1. Bargaining power of customers
  2. Threat of substitutions
  3. Bargaining power of suppliers
  4. Threat of new entrants
  5. Rivalry among existing competitors

**Value chain analysis:** views a company as a series of business processes that each add value to the product or service

## Innovation

- New tech that have evolved from the cumulative innovations of the past half century brought dramatic changes in the way goods and services are produced and distributed
- **Innovation** is the implementation of a new or significantly improved idea, good, service, process or practice that is intended to be useful.
- Main driver of innovation is often the courage and energy to better the world
- Success of innovation relies on its success to be implemented commercially
- Goal of tech and innovation is to add value back into the business

## Creating Business Value

**Improvements** can include:

- Product promotion
- New sales channel
- Direct savings
- Time to market
- Customer service
- Brand image

**Transformation** can include:

- Technological and organisational learning
- Customer relations
- Ordering processes

**New Opportunities** can include:

- New product capabilities
- New business models
- Market operations

## Triggers for Innovation

- **Demographic Changes** - New generation: more tech savvy, different trust levels for online services and interactions, more affluent (greater income), more willing to invest in products or services that offer short term gains.
- **Changes in perception** - Political, societal, regulatory and other unforeseen trends may drive the need or the popularisation of new products and services, or may revitalise a dormant sector. For example; the environment movement has spawned new technologies as well as revitalising some existing technologies.
- **New knowledge** - Scientific break throughs, technology adaptations, cross convergence of technologies all lead to new products and services. This may lead to the change in behaviours in society. It also spawns copycat products and mass competition.

## Innovation Types & Categories

- Product innovation
- Process innovation
- Marketing innovation
- Organizational innovation
- Business Model innovation

In addition to dividing innovations into types, innovation is often characterized by its impact on existing markets or businesses:

- **Sustained innovation** - Sustaining innovations allows organizations to continue to approach markets the same way
- **Disruptive innovation** - Disruptive innovations on the other hand, significantly change a market or product category, such as the invention of a cheap, safe personal flying machine that could replace cars.
- **Incremental innovation** - Similarly, incremental innovation is evolutionary innovation, a step forward along a technology trajectory, with a high chance of success and low uncertainty about outcomes
- **Radical innovation** - Radical innovation, on the other hand, involves larger leaps in the advancement of a technology or process