ACCG250 – Accounting Systems Design and Development

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LECTURE 1: INTRODUCTION TO ACCOUNTING INFORMATION SYSTEMS

- Today, every company = technology company
    - Dependency on technology is higher than the past → progression towards a digital lifestyle
    - Customer technology usage
    - Different consumer needs → e.g. wanting to track parcels (tech)
        - Quicker processing
        - More information
- To maintain and smoothly run businesses, make sure to:
    - Document processes
    - Cyber security
    - Companies make/spend money
    - Protect assets
    - Accounting information systems
- Accounting Information Systems (AIS)
    - Accountants act as users, auditors and consultants of AIS
    - Every business uses AIS
- Information offers competitive advantage
    - Market analysis
    - Customer preferences → competitive scope
    - Info revolution is affecting competition in:
        - Change in business processes
        - Providing competitive advantage
        - Development in new businesses
- Case study - AAMI App
    - Why develop?
        - Gather information - behavioural factors
        - Data about drivers → real data
            - Pricing premiums dependent on driving skill
    - Use of IT to improve business
    - Competitive advantage?
        - Self-selective → does not have to utilise app
        - Real data vs informational data
- What does matter?
    - Doing something better and cheaper than competition is always valuable, even if competitive advantage is only temporary
    - Storage and usage of invaluable information
- **Data, Information and Knowledge**
    - Data vs Information
        - Data are raw facts relating to or describing an even
        - Data becomes useful when the application of rules or knowledge enable a conversion into information
        - Information used in decision making
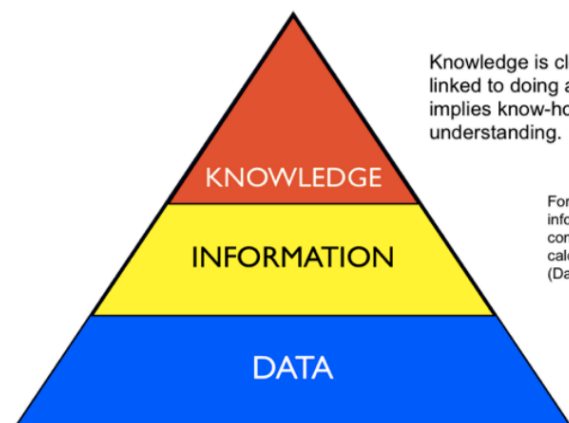
Knowledge is closely linked to doing and implies know-how and understanding.

For data to become information, it must be contextualized, categorized, calculated and condensed (Davenport & Prusak 2000)

Data is "unstructured facts a figures that have the least impact on the typical manag Thierauf (1999)

- Too much info = information overload
- E.g. Data - rows of data in excel, Info - data features (Autofilter) turn data into info, Knowledge - turn into intelligence through analytical tools

LECTURE 2: BUSINESS PROCESSES

- Effect of change/ influences
    o E.g. government tax, natural disasters
    o Change can result from multiple places → including technology
- Change and disruption becoming quicker and quicker
    o Adoption of change and technology
    o Embrace and understand change
- **Competitive advantage** (in relation to previous lecture)
    o Any assets that provide an organisation with an edge against its competitors in some measure such as cost, quality or speed
        ▪ Helps org to control a market and to accrue larger than avg. profits
        ▪ Essential for org.'s survival
        ▪ Becoming knowledgeable about strategy and how info systems can affect strategy and competitive position will help you throughout your career
    o Key questions:
        ▪ What is their competitive advantage?
        ▪ What are they best at?
        ▪ Why do customers buy from them?
        ▪ Do IS help support their competitive advantage? How?
    o Provides orgs with an edge against its competitors
- **Porters Five Forces Model ****
    1. **Rivalry among existing competitors:**
        ▪ Current status within the market that a business operates within
    2. **Threat of substitute products or services:**
        ▪ Products or services that can be used as an alternative to what the industry currently produces
    3. **Bargaining power of suppliers**
        ▪ Supplier can find itself in a strong bargaining position if it is the only business able to provide a particular product or service
    4. **Bargaining power of buyers**
        ▪ Organisation that has a small number of specialist customers cannot afford to lose them → hence, customer is in a position of relative strength
    5. **Threat of new entrants**
        ▪ New orgs entering an industry create increased competition for the existing participants
    o Using 5 forces model, org can analyse its industry to identify opportunities and threats and then develop tactics for these situations
- Competitors are not your only rivals
- Change in business can be very small → to radical

- ** Below are important, remember to know how to differentiate the two
- **Business Process Reengineering (BPR)**
    o *Radical redesign* of an orgs business processes
        ▪ Increases productivity and profitability

- o Examines business processes with a "clean slate approach"
- o Removes all businesses previous processes and starts anew
- o Tries to dramatically improve areas of business
- o It is a ground-up design
- **Business Process Improvement (BPI)**
  - o *Incremental approach* to move an org toward business process centered operations
  - o Focuses on reducing variation in process outputs by identifying the underlying cause of the variation
    - ▪ → framework e.g. Six Sigma
  - o 5 basic phases of successful BPI
   - ▪ define, measure, analyse, improve, control
  - o **BPR vs BPI**
    - ▪ BPI

BPI	BPR
Low risk/ low cost	High risk/ high cost
Incremental change	Radical redesign
Bottom-up approach	Top-down approach
Takes less time	Time consuming
Quantifiable results	Impacts can be overwhelming
All employees trained in BPI	High failure rate

  - o Change is constant → two ways companies deal with changing their business processes are BPI and BPR
- **Business Process Management (BPM)**
  - o Management system used to support continuous BPI initiatives for core business processes over time
- Incremental vs Radical
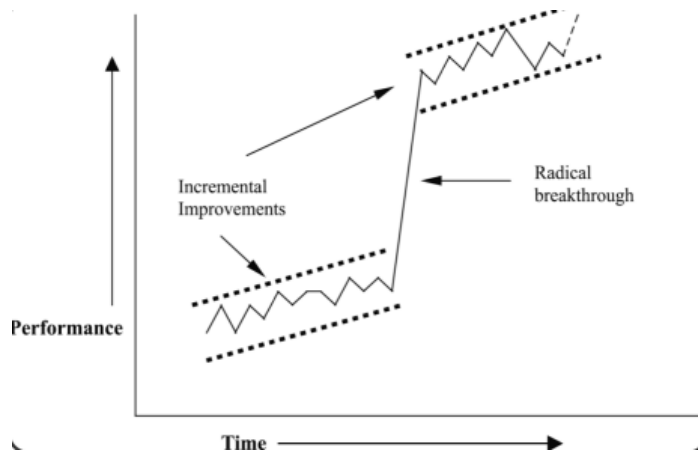
- Lecture example: Botox is to BPI as Cosmetic surgery is to BPR
- Business - Information technology alignment
  - o Tight integration of IT function → in line with org's strategy, mission, goals
  - o IT helps in achieving business processes overall
  - o **6 characteristics of business-IT alignment**
    - ▪ IT viewed as an engine of innovation continually transforming the business and often creating new revenue streams
    - ▪ Organizations view their internal & external customers and their customer service function as supremely important
    - ▪ Organizations rotate business and IT professionals across departments and job functions
    - ▪ Organizations provide overarching goals that are completely clear to each IT and business
    - ▪ Organizations ensure that IT employees understand how the company makes (or loses) money
   - ▪ Organizations create a vibrant and inclusive company culture.

LECTURE 3: BUSINESS INFORMATION SYSTEMS

- Core information systems: ERP, CRM, SCM
- **Enterprise Resource Planning**
  - ERP system is a set of computer program modules that attempts to integrate the different functional areas of the organisation
    - Programs: SAP, Oracle
  - An ERP is designed on the basis of <u>best practice</u> - the best way of performing a particular process
  - Key points:
    - Doesn't work for all businesses
    - Connects SCM and CRM → they are systems that are used in conjunction with
      - ERP helps to support customer interaction
    - Info can be seen by all relevant people
      - Assists communication process
  - Goal: Improve and streamline internal business processes
  - Provides information on:
    - Inventory
    - Customer preference
    - Human resources
    - Qualifications
    - Sales performance
- **Customer Relationship Management**
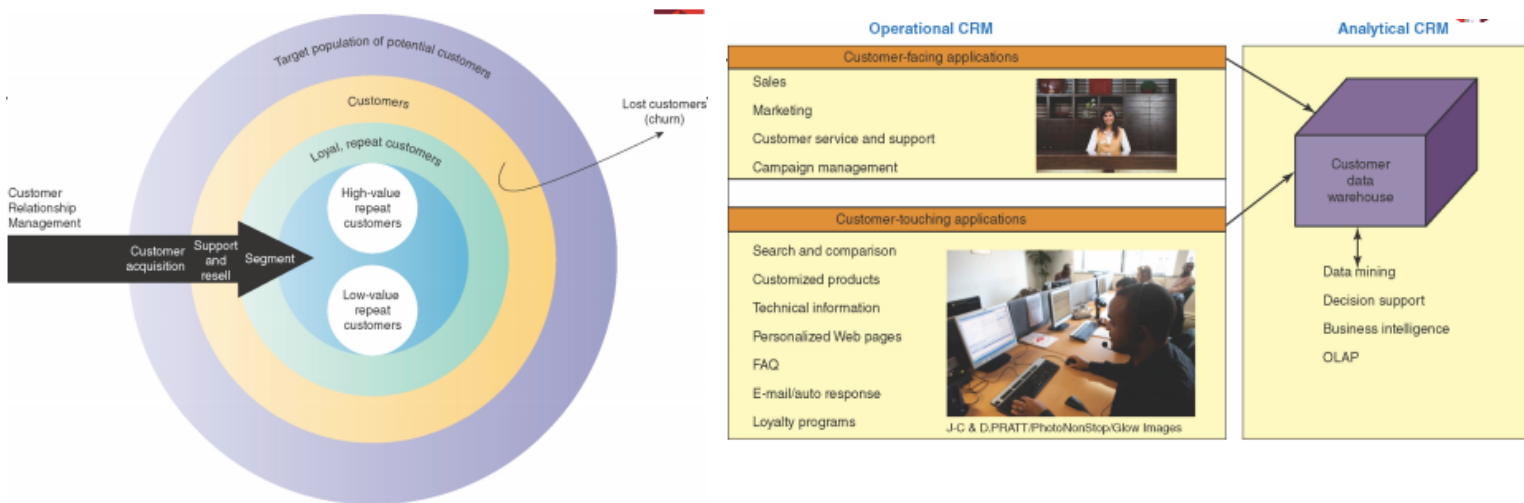
  - Collects information on:
    - Customer preferences
    - Age groups etc.
  - Manage and analyse customer interactions
  - Advantages:
    - Profitability
    - Build relationships with customers
  - Disadvantages:
    - Costs associated with implementation of software
  - Goal: help acquire, enhance and retain customers
- **Supply Chain Management**
  - What is a supply chain → flow of materials, information, money and services from raw material to suppliers, to factories and warehouses, to the end customers

- o Structure
  - **Upstream:** where sourcing procurement external suppliers occur
  - **Internal**: where packaging, assembly or manufacturing takes place
  - **Downstream**: where distribution takes place
- o Components
  - Flows in the supply chain
    - Materials flows
    - Information flows
    - Financial flows
  - Tiers of suppliers
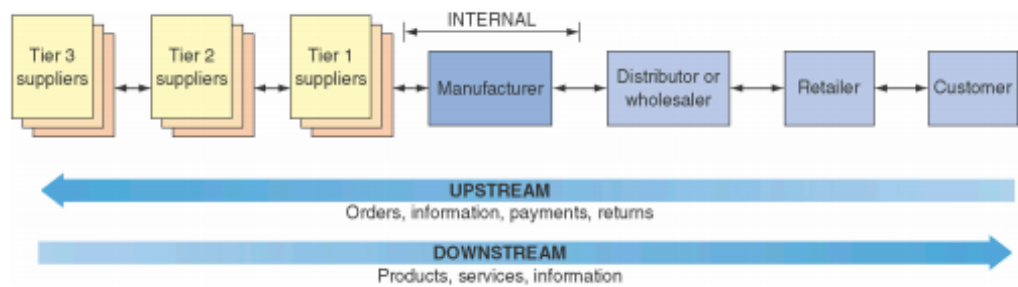
- o Goal: improve coordination between participants of the supply chain
  - Participants → suppliers, distributors, manufacturers etc.