What is AIS?
An accounting information system can be define as the application of technology to the capturing, verifying, storing, sorting and reporting of data relating to an organisation's activities.

The Role of AIS in the Accounting Discipline
Accounting information is central to many different activities inside and outside an organisation. The information that can be generated by an AIS is diverse and informs the decisions of internal and external stakeholders.

Components in AIS
1. Capturing Inputs
   - E.g. manual keying, scanning through barcode technology, voice recognition
2. Processing (converting data to information)
   - E.g. data retrieval and data update, calculation, format and validity checks on data
3. Outputs
   - E.g. receipts, invoices, purchase orders

Business Functions
- A specific subset or the organisation that performs a particular role that contributes to the organisation achieving the objectives.
- E.g. sales department, marketing department, warehouse

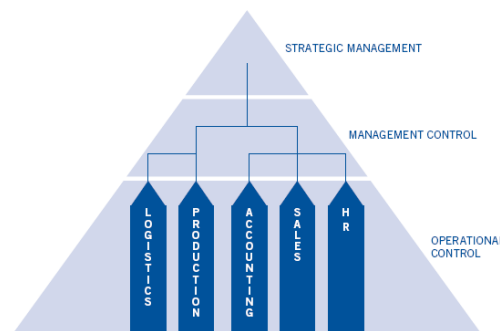| Advantages	Disadvantages
- Control and coordination - Specificity: highly defined and specified tasks exists	- Not effective of the reality of today - Information and communication problems - Slow to react to the environment - Focuses on the wrong things

FIGURE 2.3 A functionally based organisation
Source: Based on Sandoe, Corbitt & Boykin 2001.[27]

Business Processes
- A series of interlocking activities that work together, across the organisation, to achieve some predetermined organisational goal

	Functional Perspective	Process Perspective
Focus	What is done	How it is done
Orientation	Vertical hierarchical	Horizontal, across the organisation
Task Driven	Task driven	Customer driven
Personnel	Specialists – highly define tasks	Generalists – tasks across the process
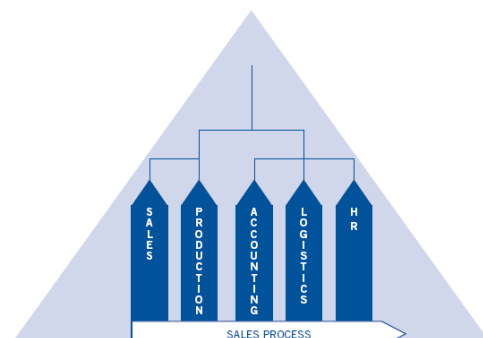
Porter's 5 Forces Model
1. Rivalry among existing competitors
2. Threat of substitute products or services
3. Bargaining power of suppliers – supplier can find itself in a strong bargaining position if it is the only business able to provide a particular product or service
4. Bargaining power of buyers – organisation that has small number of specialist customers can ill afford to lose them
5. Threat of new entrants

Cost Leadership vs. Differentiation
Strategy determines how an organisation deals with its competitors, and what products it sells in what markets and through what delivery method.
- Cost leadership – carry out their activities cheaper than its competitors, through economies of scale, technology, low overhead costs or efficient links with suppliers.
- Differentiation – adding that little bit extra for customers, offering unique products and services targeted to the customer's needs. This higher degree of customer attention and personalisation to meet customer demands allows the organisation to charge a higher price.

Total Quality Management (TQM) vs. Business Process Re-Engineering (BPR)

Total Quality Management	Business Process Re-Engineering
Progressive approach to organisational change that works on the principle that a series of small progressive steps is the best way to improve operations.	The fundamental rethinking and radical design of business processes to achieve dramatic improvements in contemporary measures of performance, such as cost, quality, service and speed.
4 main concepts 1. Quality – poor quality is costly 2. People – people within an organisation are valued for their contributions towards the process and their idea on how the process can be improved 3. Organisations – organisation does not operate as a series of independent departments 4. Management – support and endorsement of top management	4 key components: 1. Fundamental – what takes place in the current system and questioning whether it is really needed 2. Radical – start again, discard what already exists and redesign from scratch 3. Dramatic – expected large return on improvements 4. Process – emphasis on the processes that are actually performed
Pros: - **Improves reputation** – faults and problems are spotted and sorted quicker - **Higher employee morale** – workers motivated by extra responsibility, teamwork and involvement in decisions - **Lower costs** – decrease waste as fewer defective products - **Quality control inspectors** Cons: - **Initial introduction costs** – training workers and disrupting current production whilst being implemented - **Benefits may not been seen for several years** - **Workers may be resistant to change** – may feel less secure in jobs	Pros: - **Identifies waste** – pinpoints obsolete steps, items or workers in a business process - **Cut costs and improves functionality** – removing unnecessary steps cuts down on time and confusion among workers Cons: - **Requires investmen**t – must invest in software and training, which can be costly - **Lower worker morale** – workers may not adapt to the changes, and those assigned new responsibilities can become overwhelmed

In TQM, ideas for change and improvement to a process can be driven through the organisation from bottom up. Ideas from the factory floor can be filtered up to top management for official approval, and then put into place within the organisation. The impetus for change and improvement comes from the initial ideas of the lower-level employees in the organisation. By comparison, BPR is more of a top-down approach to process improvement.

Technology-Driven Process Improvements
Vendor-managed inventory – involves the buyer transferring to the seller the responsibility for determining what, when and how much is purchased
Evaluated receipts settlement – successfully remove the invoice from its accounts payable process
Electronic bill payment – allow customers to pay their bills via the internet or telephone

Enterprise Information Systems (EIS)
- Information systems software used by businesses to capture their transaction and to produce outputs that are used for planning, decision making and statutory reporting
- 3 categories of EIS:
  1. Single-entry systems
     - Record transaction and obligations
     - Designed for individual users and small businesses, in which the owner is the key decision makers
  2. Inwardly organised systems
     - Record and monitor business and manufacturing processes within organisations
     - Capture all the internal activities of an organisation
  3. Outwardly organised systems
     - Support organisation's internal activities
     - Extend the capture of data to suppliers and customers

Software Selection Using the Software Framework
- Define the business processes
- Develop business requirements
- Determine the systems requirements
- Software selection
- Vendor selection

Advantages and Disadvantages of Enterprise Resource Planning (ERP)
Quantifiable benefits:
- Reductions in inventory, materials, labour and overhead costs
- Improvements in customer service and sales

Intangible benefits:
- Provide a framework for working effectively together and devising a consistent plan for action
- With a common database, accounting no longer requires duplicate files and redundant data entry
- The product structure database offers engineering much greater control over products and process design
- Helps establish realistic schedules for production and communicates consistent priorities, so that staff in the organisation know the most important jobs to work on at all times

Disadvantages:
- Installation is costly
- Success depends on the skills and experience of the workforce, including education and how to make the system work properly
- Resistance in sharing internal information between departments can reduce the efficiency of the software
- Systems can be difficult to use

ERP Evaluation Criteria
- Functional fit
- Tight integration
- Flexibility
- Scalability
- User friendliness
- Implementation time
- Database technology
- Security
- Configuration
- Customisation
- Local support
- Reference sites
- Total cost