

# Chapter 5

# Information technology for SMEs

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## Learning outcomes

- Explain the term technology
- Distinguish between information-technology management and information technology
- Explain how to obtain promised benefits from information technology
- Discuss business information risks associated with information technology
- Describe how to plan for information technology as a business grows
- Describe the basic principles when selecting technology products and services
- Explain how to implement and coordinate business technology and avoiding wasting money

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## Define technology

- Affects all of us and our surroundings in so many ways.
- Greek word *technolia* means “skill”, “art” or “craft”, the study of a discipline or knowledge.

The term is also generally applied

- Environment technology
- Business technology
- Technology examples include the cellphone, the iPod, Internet



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## Information technology management vs. Information technology

### **Information Technology**

**Management (ITM)** is the integration of information systems, technology, and business management for two purposes.

### **Information Technology (IT)**

includes the people, processes, hardware, and software that determine the flow of information within an organisation

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## Information technology

### Business Information Alignment

- Occurs when a business organisation is able to use Information Technology (IT) effectively
- Includes business transformation
- It requires work to achieve
- Business-information alignment takes effort to establish trust between business and IT professionals groups

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## Business information alignment risks

Three separate risks associated with information technology projects:

- **Technical risk** - Will the system function as it should?
- **Organisational risk** - Will individuals within the organisation use the system
- **Business risk** - Will the implementation and adoption of the system translate

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## Important qualities of an IT member

- Adaptability
- Knowledgeable on latest technologies and trends
- Consistently back-up data
- Aware of new vulnerabilities and threats to the system
- Have contingency plans in place
- Trustworthy



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## Information technology and planning

Three basic abilities that technology brings to the business system:

- **Data** – Re-usable Information
- **Logic** – Workflow Model
- **Network** – Virtualise the Enterprise

Technology uses data, logic and networking to enable processes that are designed to deliver enhanced performance



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## IT enabled business system ideally consists of:

- **Data management system:** creates templates that capture information from all sources in the business system
- **Workflow management system:** The workflow management system consists of a model that maps out various tasks and actions that are required to be performed in various scenarios
- **Network integrated solution:** If the workflow involves significant interaction between multiple divisions of the enterprise that are geographically distant, then the technical solution and processes need to be networked

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## Basic principles when selecting information technology

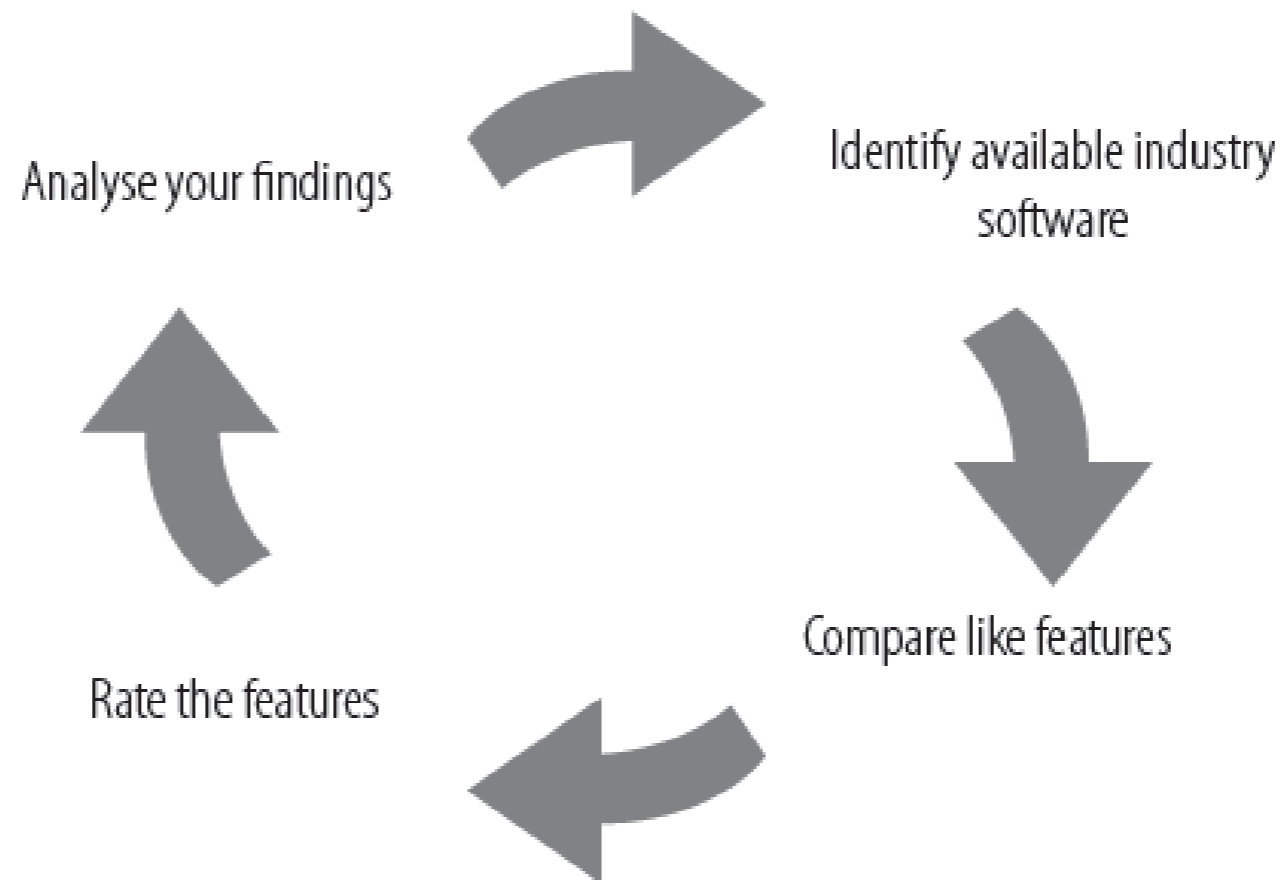
- **Facts** - Business computer systems can be large or small depending on a company's operations
- **Features** - Most business software applications will have multiple modules, like purchasing, production, accounting, payroll and others
- **Considerations** - Software applications may have a limited number of user accesses for each company. Also inquire about the fees for technical support and upgrades. These typically result in ongoing costs for the company depending on the manufacturer

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## Systems management software (SMS)

**Figure 5.1** Software option considerations



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## SMS (cont.)

**Systems management software (SMS)** can run a complete or major part of a company's IT system. There are many different types of systems and it's nearly impossible to find a one that works for every business



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## Software option considerations

- **Industry** - First, identify software products that service your business' particular market
- **Features** - When you compare software compare only features that are alike to make an accurate, objective analysis
- **Rate** - The good and the bad features of the software in terms of importance
- **Analyze** - Consider the products with the highest ratings

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## Implementation of information technology

- Work directly and cooperatively with your IT manager before the business purchases the equipment and software
- Consult non-industry sources such as **www.consumerreports.org** for evaluation of computer systems
- Match your IT needs with your business goals
- IT must support business plan
- The venture must have a solid backbone with servers, networks and switches
- Back-up solutions

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## New trends

- Cloud Computing: off-site delivery model for IT services
- Hosting solutions for cloud computing:
  - Basic hosting
  - Managed hosting
  - Dedicated virtual hosting
  - Shared virtual hosting

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## New trends (cont.)

- Benefits:
  - Decreased expenses
  - Low barriers to entry
  - Shared infrastructure and costs
  - Low management overheads
  - Immediate access to range of applications
- Security is a concern