Objectives for this lecture

- Understand the concept of aligning IT with organisational objectives.

Assessment

- Examination (50%)
- Individual assignment:
  - Research report (25%) – Weeks 6 & 7
  - Business Case (25%) – Weeks 11 & 12

Lectures

- Inescapable truths:
  - Lectures identify and introduce the topics you need to understand – they do not supply all you need to know about the topic.
  - Learning comes from your own efforts at reading, questioning, comprehending and doing.
  - Assessment outcomes are usually directly proportional to your effort.

Tutorials

- Wk 1 No tutorial
- Wk 2-5 Research report writing; System failure;
- Wk 6-7 Assignment Presentations
- Wk 8-10 Business case writing; IT applications for organizations
- Wk 11-12 Assignment Presentations Attendance is expected every week and is mandatory for presentations by all students
- Research topics approved in week 3 & 8
Readings

- Prescribed text:
- Recommended texts

Topics

- Aligning IT with organisational objectives
- IT and contemporary businesses
- Management of IT in business today
- Impact of IT on business
- Relating IT to the rest of the business
- Assessing IT’s contribution
- It as a strategic business tool
- Using IT for competitive business advantage

Issues

- Issues:
  - eCommerce
  - Outsourcing
  - Security
  - Business re-engineering
  - System failure
  - Building a business case

Business Organisations

- What is an organisation?
  - a stable, formal social structure
  - takes resources from the environment and processes them to produce outputs
- What is a business?
  - an organisation which applies processes, information and knowledge to produce a service or product

Organisations

- levels – heirarchy of responsibility/ power
- functional structure – sales, manufacture, accounting, human resources etc.
- specialisation – skills and information
- division of labour

Organisations – purpose, objectives

- purpose
  - why is a formal social structure required?
  - what does the social structure allow?
- objectives
  - what outcome from the collective activities?
  - profit?
  - good corporate citizen?
  - altruism?
Market Pressures

- **Global Economy & Strong Competition.**
  
  Rapid and inexpensive communication and transportation modes increase the magnitude of international trade.

Market Pressures (cont.)

- **Changing Nature of the Workforce.**
  
  The workforce is becoming more diversified, with more females, single parents, minorities, and handicapped persons working in all types of positions.

- **Sophisticated Customers.**
  
  Consumer sophistication & expectations increase as customers become more knowledgeable about the availability and quality of products and services.

Technology Pressures

- **Technological Innovation & Obsolescence.**
  
  Some of today’s state-of-the-art products may be obsolete tomorrow. Competitors might move to better technology. Thus, technology accelerates the competitive forces.

- **Information Overload.**
  
  - The amount of information available on the Internet more than doubles every year. The management of information is critical.

Societal Pressures

- **Social Responsibility.**
  
  Issues range from the environment to political correctness.

- **Government Regulations.**
  
  Regulation issues involve health, safety, environmental control, and equal opportunity. Nanny state.

- **Government Deregulation.**
  
  Deregulation can be a blessing to one company but a curse to another company.

- **Ethical Issues.**
  
  Business ethics relates to standards of right and wrong in ‘new’ business practices.

Other trends – the Digital Economy

- Business environment based on digital technologies
  
  digital communications networks
  
  internet, intranets, private networks
  
  computers
  
  software
  
  other information technologies

Other trends – the Information Revolution

- Business activity characterised as the application of knowledge/information in the course of creating a business product
  
  knowledge workers
  
  knowledge work
Organizations' Major Responses

- Strategic systems for competitive advantage
- Continuous improvement efforts
- Business process reengineering (BPR)
- Business alliances
- Electronic commerce
- Best industry practice – BPR
- Downsizing – flatten the hierarchy
- Standardisation – processes and training
- Outsourcing

from Turban, McLean & Wetherbe

Organizations – strategic systems

- Provide organizations with strategies to increase their market share, better negotiate with suppliers, or stop competitors
- Strategy - art of war
  - Disposing resources
- Downsize – flatten the hierarchy
- Level of analysis – broad idea, specific project
- Orientation – direction - goal
- Justification – costs and benefits

from Turban, McLean & Wetherbe

Organizations – continuous improvement

- Continuous Improvement Efforts aim to improve a company’s productivity and quality.
  - Examples include:
    - Improved productivity
    - Just-in-time (JIT)
    - Total quality management
    - Knowledge management
    - Managing enterprise data
    - Innovation and creativity
    - Change management
    - Customer service

from Turban, McLean & Wetherbe

Information Systems

- Information systems (IS) collect, process, store, analyze, and disseminate information for a specific purpose.
- Information Systems are comprised of:
  - Inputs (data, instructions)
  - Outputs (reports, calculations)
  - Feedback mechanisms that control the operation
  - An environment that it works within

from Turban, McLean & Wetherbe

Computer-Based Information System

- A computer-based information system (CBIS) is an information system that uses computer technology to perform some or all of its intended tasks.
- Can provide:
  - High speed, high volume computations
  - Fast, accurate, inexpensive communications
  - Store huge amounts of information, easy to access, in a small space
  - Access worldwide information
  - Automate business processes
  - Application anywhere – wireless communications
  - Less expensive than manual

from Turban, McLean & Wetherbe

Information Technology (IT)

- Information technology (IT) is the individual components of information technology that can be applied.
Information Technology infrastructure

- IT Infrastructure
  - **The hardware** a set of devices such as processor, monitor, keyboard, and printer.
  - **The software** a set of programs that enable the hardware to process data.
  - **The databases** a collection of related files, tables, relations, and so on, that store data.
  - **The communications network elements** a connecting system that permits the sharing of resources between computers.
  - **The people** are those individuals who work with the system or use its output.
  - **The data**
  - **The procedures** are the set of instructions about how to combine the above components.

Critical Infrastructure Areas

(1) network design and management
(2) processing architecture
(3) desktop environment
(4) operations support strategy

Providing IT to the Business environment

- **Key terms = “reach” and “range”**
  - “Reach” refers to the locations and people the infrastructure can connect
  - “Range” refers to the business activities that can be automatically completed across each level of Reach

“Reach” and “Range”

- “Reach” for many firms is now global - the internet provides a natural extension of the internal network
- “Range” can vary widely - in an ascending hierarchy it may for instance be possible to
  - send messages (email)
  - access some stored information
  - perform simple transactions
  - perform complex transactions
  - access all stored information

Organization Security

- The reach and range of the infrastructure have been critical factors in raising the profile of security issues
- The longer the reach, the more numerous are the potential sources for trouble
- The wider the range of actions permitted, the more difficult it becomes to design adequate security systems
  - (i.e., different levels of range require different enabling mechanisms - passwords, update permissions, data encryption protections etc.)
IT Management

- What does an Information Technology manager manage?
  - people
    - staff
    - senior managers
    - users, consultants, vendors
  - technology infrastructure (equipment, networks, and operating software)
  - money
  - projects
  - capital investment programs
  - strategic plans and objectives
  - new systems directions
  - new technology directions

The role of the CIO

- align IT directions with those of the business
- apply IT to gain competitive advantage
- support an internet-commerce initiative
- build integrated system and technology structures
- prepare and apply corporate information management principles
- reengineer business processes
- transform the organization using IT

References

- Dr. Doug Hamilton
- Mr. Andrew Barnden