**Computer Management**

**Overview of management**

- **Role of management**
  - Planning
  - Decision making
  - Organising
  - Leadership and motivation
  - Control

- **Levels of management**
  - Strategic
  - Tactical
  - Operational

**Evolution of Computer Management**

**Robson (1994)**

<table>
<thead>
<tr>
<th>Structure</th>
<th>Relationship</th>
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<tbody>
<tr>
<td>&quot;Traditional&quot; approach</td>
<td>IS group sets the rules</td>
</tr>
<tr>
<td>Database driven</td>
<td>Service oriented</td>
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<tr>
<td>Functional project groups</td>
<td>Bridges and partnerships</td>
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<tr>
<td>Information centre and decision support</td>
<td>Influence rather than control</td>
</tr>
<tr>
<td>Externally focused</td>
<td>Bridges between information providers and information users</td>
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**Evolution of Computer Management**

**Influencing factors**

- Organisational IS strategy
- Advances in technology
- End-user computing
- Cost
- External forces
- i.e.,
  - People
  - Organisation
  - Technology
  - Cost
  - Legal issues

**Stages of Growth** Model

**Nolan and Gibson (1974)**

- **Initiation** - Computers are introduced to the organisation by enthusiasts. No management interest and no long term plan.
- **Contagion** - Unmanaged growth when the technocrats provide solutions without considering organisational requirements.
- **Control** - Management take control and apply formal budgeting and planning. Structures and roles are clarified.
- **Integration** - Eases management control to encourage innovation. Re-organises the IS function and identifies user accountability. Expenditure on integration architecture.
- **Data Administration** - The importance of corporate data drives policy at this stage. Cross-functional data access.
- **Maturity** - A fully co-operating MIS triad. A balance between stability and innovation, control and chaos and between autonomy and cohesion.
Strategic Grid
McFarlan and McKenney (1982)

<table>
<thead>
<tr>
<th>Turnaround</th>
<th>Strategic</th>
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<tbody>
<tr>
<td>Support</td>
<td>Factory</td>
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Strategic - Firms that are heavily dependent on IT to deliver their everyday product or service, e.g., banks and insurance companies.

Turnaround - Firms that are not heavily dependent on IS at present but will look to their IS function to provide them with competitive advantage in the future.

Factory - IS applications are not seen as providing competitive advantage although they are heavily relied on for day-to-day operations.

Support - Use administrative systems to improve efficiency and have islands of specialist systems which innovate the manufacturing process.

Computing Installations

Mission

Mission
Role and Position
Stakeholders
Organisational Structure
Location

The style and structure that involves how and where systems are built, run, planned for, funded and where the IS professional are located.

- Reporting structure
- Distributed or centralised
- Provided in-house or outsourced

An organisational function

The IS function is the professional discipline with the authority and responsibility for organisational Information systems.

- Responsible to Board
- Properly funded
- Employs qualified IS professionals
- Critical to organisation’s competitive survival.

Role and position of the IS function

IS. The name of an organisational function which has responsibility for the DP, IT, MIS, DSS and SMIS requirements.
Role and position of the IS function

Immediate environment

IS

Role of the IS function

- Formulate the organisational IT vision.
- Advise Board and senior management re strategic issues.
- Maintain an architecture that supports the rapid development of systems.
- Communicate the vision and architecture to the organisation.
- Deploy efficient and effective IT resources in the entire organisation.

Role of the IS function

- Maintain managerial control and integrity of core IT services.
- Administer organisational data.
- Support the end-user use of systems.
- Comply with all International and national legal obligations.
- Be accountable for their own continued professional development.

Stakeholders

Organisational Structure

Traditional or Classic (1)

Reporting to Director of Finance

Organisational Structure

Traditional or Classic (1 Cont.)
Organisational Structure
Traditional or Classic (2)

Reporting to Managing Director

Organisational Structure
Functional IS

Organisational Structure
Service-oriented IS organisation

Organisational Structure
Distributed IS organisation

IS Professionals
Roles and responsibilities

- See handout

Steering committee

- An issue forum or a project advisory committee
### IS resource models

**Sullivan-Trainor (1989)**

- **The service model** - The organisation may not yet understand what IS it requires so it relies on IS professionals to provide a service.
- **The partnership model** - Close alignment between IS and the functional lines in the user community.
- **The vendor model** - IS is considered to be a cost centre that sells its services to the user community.
- **The expansion model** - IS create a flexible architecture for common systems to accommodate the user community's growing needs.
- **The strategic advantage model** - IS and the user community working in harmony to create systems for competitive advantage.

### Location

**Robson (1994)**

- **Centralised** - One single-access function. IS provides the service and retains control. Facilitates consistent data formats, compatibility and security.
- **Decentralised** - A number of single-access functions. A collection of mini "DP" departments.
- **Distributed** - Lots of connected functions. IS is a number of laterally linked multi-service providers.
- **Devolved** - As distributed with significant end-user control over processing and development.