

Organization & Management of Statistical Systems

Information Technology

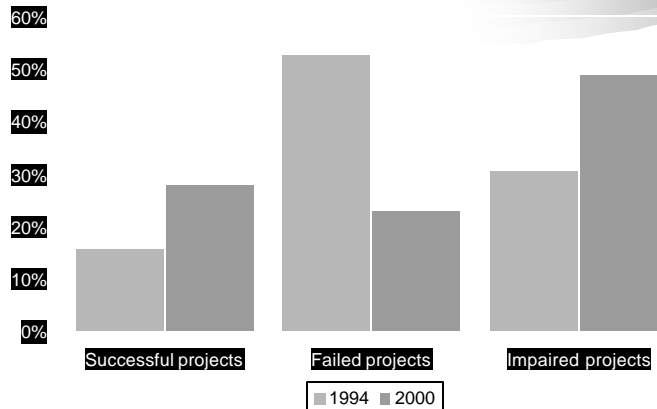
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Introduction

- Advances in capabilities related to the role of statistical agencies:
 - Powerful, inexpensive computers for all staff
 - User-friendly software providing staff direct control over key statistical functions
 - Computer networking facilitating data access
 - Internet technology providing world-wide access at all levels of organization

IT – the track record



IT management models

- Model 1:
 - Detailed, comprehensive framework for informatics in the agency
 - Common infrastructure, strong central support
- Model 2:
 - Standards promulgated for decentralized implementation by lower levels
 - Infrastructure grown across organization

Concerns from the 70's & 80's

- Recommendations with relevance today:
 - Specialized skills (programmers) are scarce & should be centrally managed
 - Document systems extensively
 - Balance functional & subject matter experience
 - Promote training activities & build in on-the-job training

Concerns from the 70's & 80's

- Recommendations not so relevant:
 - Don't subcontract systems work and programming outside
 - Don't assign new projects to specialized skills until all documentation and operation of ongoing projects is final
 - Don't leave administration of hardware to other parties unless guaranteed of statistical priority

Outsourcing

- Best value generally achieved using commercial products & services if they can be adapted to mission requirements
- Successful outsourcing requires specialized skills and management incentives

Outsourcing benefits

- Commodity products less expensive
- Vendors have specialized skills
- Agency concentrates on core mission
- Competition brings innovation
- Risks shared with a vendor
- Unique systems only available from a vendor

Outsourcing challenges

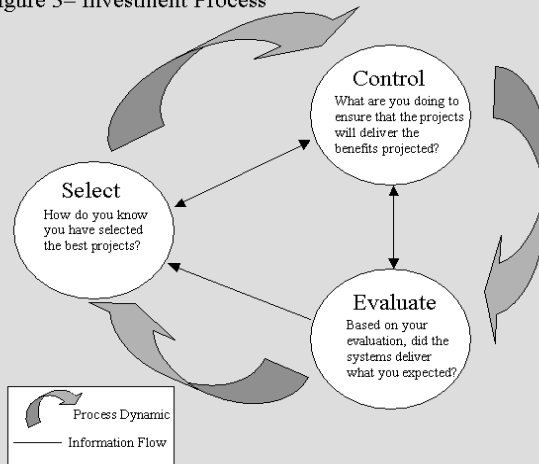
- Healthy business relationship
- Incentives vs. penalties
- Dependency on a monopoly player
- Management skills

Sound IT Management Practices

- Involve top-level management
- Employ effective risk analysis
- Avoid leading edge technologies
- Opt for small projects
- Involve end users in project formulation

Managing the IT Investment Process

Figure 3– Investment Process



Chief Statistician IT Demands:

- Continually new & different IT products
- Claims by vendors of amazing results
- Lobbying by internal staff for a product
- Continual pressure to reduce costs & improve delivery of products

Choosing appropriate IT products:

- Avoid new or “immature” technologies
- Assess results of others who have applied the product
- Determine if product is compatible with existing information/technology architecture of the organization
- Assess risks & price/performance of product

Conclusions

- Balance management discipline with innovative application of technology
- Risks in IT application can be reduced by:
 - Involving top-level management
 - Employing effective risk analysis
 - Avoiding leading edge technologies
 - Opting for small projects
 - Involving end users in project formulation