

**10<sup>th</sup> Anniversary of the ITSD, HKSAR**  
**Electronic Government in the New Millennium**

**Critical Issues of Information  
Systems Management in H.K.**

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# Agenda



- Background and Objectives
- Research Design and Survey
- Top 10 IS Management Issues in HKSAR
- Future Projections
- Conclusions

# Objectives of Presentation

- Identify & Discuss Most Critical IS Management Issues Facing IS Executives in HK
  - Evolutionary Shift in IS Management Issues
  - Expected Changes in Next 3-5 Years
- Assess the Use of Critical Issues Study
  - Directions for Emphasis
  - Rough Measure for Benchmarking
  - Impact on IS Planning, Educational Mission and Research Direction
- Collect valuable comments and advice from **you**

# Background

- Conducted by Society of Information Management in the USA
  - Studies in the USA: 1980, 1983, 1986, 1990, 1994
  - UK, Australia, Taiwan, Singapore, ...
- Hong Kong Studies
  - 1990 by Burn/Saxena/Ma
  - 1994 by Moores
  - 1999 by Ma

# Critical Issues of IS Management

- Business Relationship (BR): 7 issues
- Internal Effectiveness (IE): 7 issues
- Technology Application (TA): 4 issues
- Technology Infrastructure (TI): 6 issues

# Business Relationship Issues

- Aligning the IS Organization within the Enterprise
- Facilitating and Managing Business Process Redesign
- Facilitating Organization Learning
- Improving IS Strategic Planning
- Increasing Understanding of IS Role and Contribution
- Making Effective Use of the Data Resource
- Using Information System for Competitive Advantage

# Internal Effectiveness issues

- Establishing Effective Disaster Recovery Capabilities
- Improving Information Security and Control
- Improving the Effectiveness of Software Development
- Managing the Existing Portfolio of Legacy Application
- Measuring IS Effectiveness and Productivity
- Outsourcing Selected Information Services
- Recruiting and Developing IS Human Resources

# Technology Application Issues

- Facilitating and Managing End-User Computing
- Facilitating/Managing Decision and Executive Support Systems
- Implementing and Managing Collaborative Support System
- Planning and Using CASE Technology

# Technology Infrastructure issues

- Building a Responsive IT Infrastructure
- Developing & Implementing an Information Architecture
- Developing and Managing Distributed Systems
- Developing and Managing Electronic Data Interchange (EDI)
- Planning and Integrating Multi-Vendor Open System Technologies
- Planning and Managing Communication Networks

# Research Design and Survey

- 20+4 issues based on 1994 study in USA
  - Unsolicited issues to be filled in by CIOs
  - 10-point scale to be rated by CIOs
- Questionnaires sent to CIOs or IT managers
- 200 to IT Management Club
  - 100 to Personal Contacts in HK

# Top 10 Issues of IS Management (1999)

- #1: Improving the Effectiveness of Software Development
- #2: Building a Responsive IT Infrastructure
- #3: Increasing Understanding of IS Role and Contribution
- #4: Making Effective Use of the Data Resource
- #5: Developing & Implementing an Information Architecture
- #6: Aligning the IS Organization within the Enterprise
- #7: Improving IS Strategic Planning
- #8: Using Information System for Competitive Advantage
- #9: Facilitating and Managing End-User Computing
- #10: Managing the Existing Portfolio of Legacy Applications

# #1: Improving the Effectiveness of Software Development

■ Year	1990	1994	1999	2004
■ Rank	5.5	1	1	5
			7.57	

- Known problem over 30 years!
- Any effective solutions?

## #2: Building a Responsive IT Infrastructure

■ Year	1990	1994	1999	2004
■ Rank	n.a.	16	2	2
			7.43	
■ Gaining popularity				

# #3: Increasing Understanding of IS Role and Contribution

■ Year	1990	1994	1999	2004
■ Rank	-	13	3	13
			7.29	

## ■ Changing role of IT

# #4: Making Effective Use of the Data Resource

■ Year	1990	1994	1999	2004
■ Rank	5	2	4	3
			7.18	

- Basis for information analysis

# #5: Developing & Implementing an Information Architecture

■ Year	1990	1994	1999	2004
■ Rank	n.a.	4	5.5 7.11	7
■	More attention is needed			

# #6: Aligning the IS Organization within the Enterprise

■ Year	1990	1994	1999	2004
■ Rank	3	10	5.5 7.11	8

- Greater impact by e-business

# #7: Improving IS Strategic Planning

■ Year	1990	1994	1999	2004
■ Rank	2	3	7	4

7.04

- Need for better planning & design

# #8: Using Information System for Competitive Advantage

■ Year	1990	1994	1999	2004
■ Rank	6.5	5	8	1
			7.00	8.00

- Competitive advantage versus competitive necessity

# #9: Facilitating and Managing End-User Computing

■ Year	1990	1994	1999	2004
■ Rank	n.a.	15	9	16
			6.96	

- Which type of IS should be developed by Users?

# #10: Managing the Existing Portfolio of Legacy Applications

■ Year	1990	1994	1999	2004
■ Rank	n.a.	14	10	23
			6.89	
■	Different scenarios beyond Y2K!			

# More Important Issues for 2004

- Outsourcing Selected Information Services
- Facilitating/Managing Decision and Executive Support Systems
- Developing and Managing Electronic Data Interchange (EDI)
- Using Information System for Competitive Advantage.

# Less Important Issues for 2004

- Managing the Existing Portfolio of Legacy Applications
- Increasing Understanding of IS Role and Contribution
- Recruiting and Developing IS Human Resources
  - Need for Certification of IT Professionals!

# Comparisons with Other Studies

- USA 1994
- Taiwan 1994
- Australia 1996
- Others

# Conclusion

- Need for Larger Sample Size in private & public sectors

- Assess the Usefulness of the Key ISM Issue Framework in the study of Strategies and Practices in several countries

- Project Key ISM Issues in the Near Future and their Impact on IS Planning, Educational Mission and Research Direction

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- Best wishes to you all.

**Louis Ma**

# Q & A

