

## Chapter 8: Strategic Management of IS/IT: Organizing & Resourcing

Arrianto Mukti Wibowo, S.Kom, M.Sc.  
*amwibowo@cs.ui.ac.id*

Agar sebuah organisasi dapat meraup keuntungan dari SI/TI secara efektif, ada beberapa hal yang membutuhkan koherensi dengan 'strategic management', antara lain:

1. Managing IT investment
2. Managing data, information & knowledge resource, sehingga dieksploitasi secara maksimal
3. Managing acquisition, development & utilization of IT
4. Organizational management dari IS/IT, mencakup 'IT Governance'. Lihat COBIT: Control Objectives for IT Governance.

### **Strategic Management Requirement**

Model yang sudah kita lihat tidak menampilkan sifat 'refinement', 'informal thinking' yang sebenarnya amat penting dalam manajemen strategik. Kemudian, proses feedback, baik dari dalam maupun luar juga amat penting. Jadi manajemen strategik itu adalah sebuah proses!

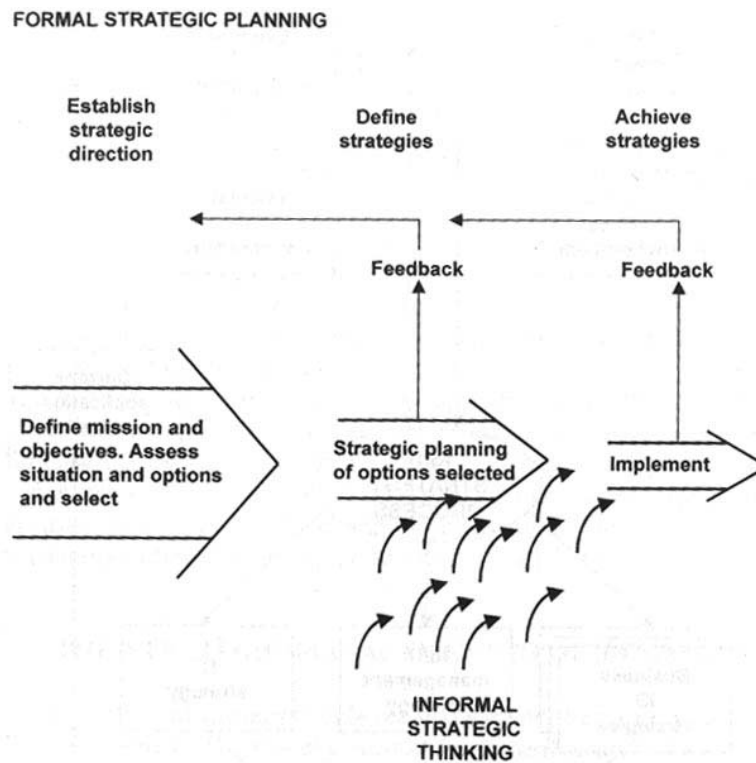


Figure 8.2 Strategic management processes

Dalam mengelola IS/IT, jangan sampai formal strategy, justru akan menghambat implementasi dari strategy tersebut. Banyak hambatan untuk melaksanakan strategi tersebut, antara lain bisa dilihat di bawah ini:

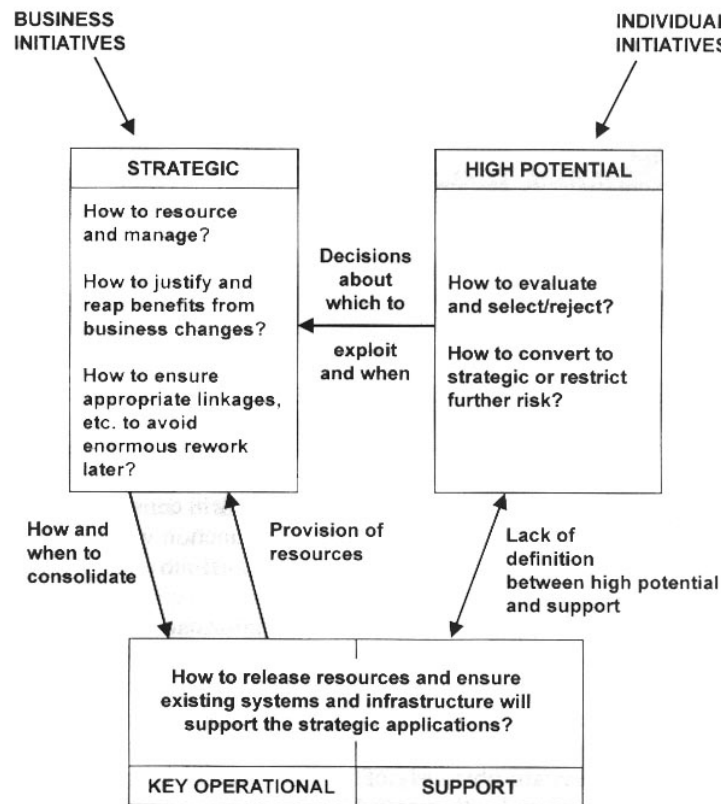


Figure 8.3 Avoiding the disintegration of the applications portfolio

Akibatnya apa?

1. Sistem yang dikembangkan tidak memenuhi kebutuhan
2. Sumber daya salah dikelola

Tujuan utama dari IS/IT management strategy adalah:

- memastikan bahwa IS/IT strategy, policy & rencana, sejalan dengan tujuan organisasi
- memastikan bahwa keuntungan dari SI/TI teridentifikasi dan dapat diraih
- memastikan bahwa strategy masih layak resikonya
- melakukan prioritas dari sumber daya untuk / dari SI/TI
- membuat kultur dari manajemen SI/TI yang selaras dengan kultur perusahaan
- memantau aktifitas SI/TI yang penting
- menentukan titik antara sentralisasi dan desentralisasi

Tahu bedanya dengan (business) IS Strategy?

## Organizing Strategies for IS/IT Management

Kita akan pelajari:

1. fungsi IS dalam organisasi
2. struktur
3. resourcing options
4. sentralisasi vs desentralisasi

### **Isu Sentralisasi & Desentralisasi**

Sifat dari mainframe: centralized computing, "production".

Multi business unit: ada tekanan desentralisasi yang besar. Tapi bagaimana bisa, kalau resource sedikit?

Sebagian resource perlu disentralisasikan, untuk mencegah duplikasi tenaga misalnya, Jadi sebenarnya harus balance!

Semua itu tergantung banyak faktor, antara lain:

1. Tingkat ketergantungan pada TI
2. Maturitas portofolio aplikasi
3. Lokasi geografis dari kantor-kantornya
4. Business diversity & tekanan kompetisi di industri tersebut.
5. Economies of resourcing & mendapatkan SDM
6. Keterkaitan atas data

Jadi harus ada alasan jelas, mengapa suatu hal disentralisasi atau didesentralisasi.

Contoh penelitian oleh La Belle & Nyce (1987) di Manufacturers Trust Co.:

<b>Function</b>	<b>Central IT Group</b>	<b>Business unit operations</b>
Develop & maintain information architecture	<ul style="list-style-type: none"> <li>• Monitor process</li> <li>• Menyediakan asistensi jika diperlukan</li> </ul>	<ul style="list-style-type: none"> <li>• Define information architecture</li> </ul>
Define and maintain application architecture	<ul style="list-style-type: none"> <li>• Set standards, monitor process</li> <li>• Ensure appropriate commonality</li> </ul>	<ul style="list-style-type: none"> <li>• Define requirements and develop architecture</li> <li>• Coordinate between units for common business</li> </ul>
Develop & maintain data architecture	<ul style="list-style-type: none"> <li>• Maintain corporate database</li> <li>• Coordinate development of common database management process</li> </ul>	<ul style="list-style-type: none"> <li>• Define requirements</li> <li>• Develop according to standards</li> </ul>
Develop & maintain hardware/operating system architectures	<ul style="list-style-type: none"> <li>• Monitor development / implementation</li> <li>• Maintain corporate user-support operation</li> </ul>	<ul style="list-style-type: none"> <li>• Develop in accordance to corporate standard &amp; business requirements</li> </ul>

## Balancing of IS Demand & IT Supply

Suatu usulan pola sentralisasi-desentralisasi untuk memenuhi demand-supply menurut Hodgkinson, yakni pola “federated”:

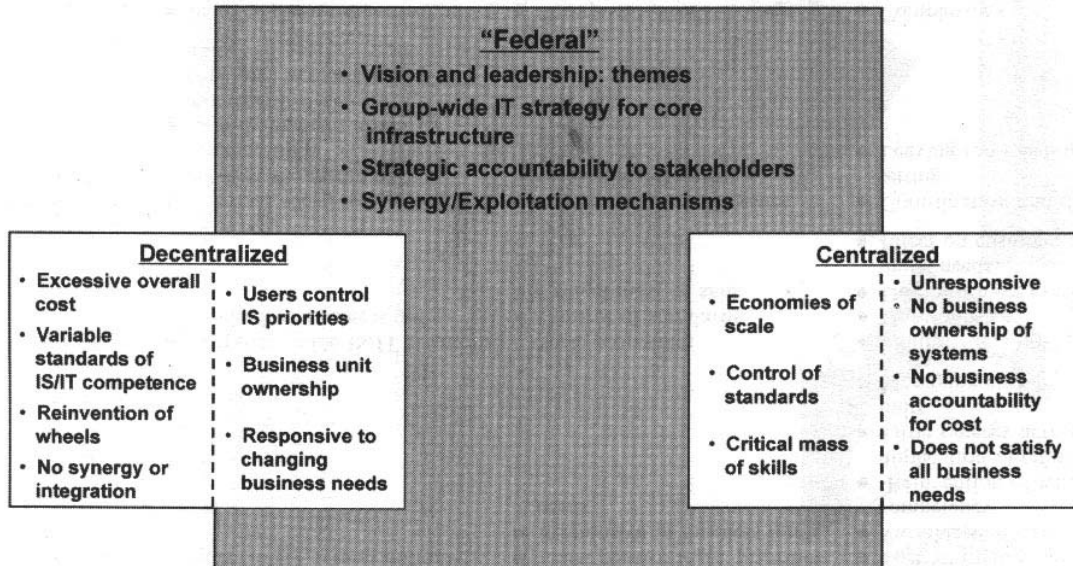


Figure 8.4 The ‘Federal IT Organisation’ (source: after Hodgkinson)

Structural arrangement for IS Function	Strategies for Managing IS/IT activities	Advantages	Critical issue
Independent IS/IT activities in BU	BU pursue independent system initiatives	<ul style="list-style-type: none"> <li>• BU have ownership</li> <li>• User control priorities</li> <li>• Responsive to business unit needs</li> </ul>	<ul style="list-style-type: none"> <li>• Integration</li> <li>• Lack of quality control</li> <li>• Variable standards</li> <li>• Duplication efforts</li> <li>• Little synergy</li> <li>• Managing cost</li> </ul>
Centrally driven IS/IT activities	Corporate wide IS/IT solutions imposed on BU	<ul style="list-style-type: none"> <li>• Economies of scale</li> <li>• Control standards</li> <li>• Critical mass of skill</li> </ul>	<ul style="list-style-type: none"> <li>• Politics</li> <li>• Unresponsive</li> <li>• Does not meet every business unit needs</li> <li>• May effect customers!</li> </ul>
Informal cooperation in IS/IT activities across BU	Informal social networking between centre & BU Usually by moving	<ul style="list-style-type: none"> <li>• Awareness of IS/IT issues across company</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination</li> <li>• Leaving too much chance</li> </ul>

	IS/IT personnel to BU		
Federalism		•	<ul style="list-style-type: none"> <li>• Complexity</li> <li>• Execution</li> <li>• Timing</li> </ul>

### Hal-hal penting dalam Manajemen SI/TI

Venkatraman mengatakan bahwa resource harus dikelola sebagai value centre:

Jenis	Keterangan
Cost centre	Sifatnya operasional: meminimalisir resiko dengan peningkatan efisiensi. Cocok untuk di-outsource.
Service centre	Juga berusaha meminimalisasikan resiko, namun tujuannya supaya perusahaan bisa "IT enabled" untuk mendukung strategi saat ini.
Investment centre	Maximize business opportunity from IT resources. Fokus jangka panjang, dan bertujuan untuk membangun kemampuan bisnis berbasis TI yang baru.
Profit centre	Mengelola IT service to external marketplace.

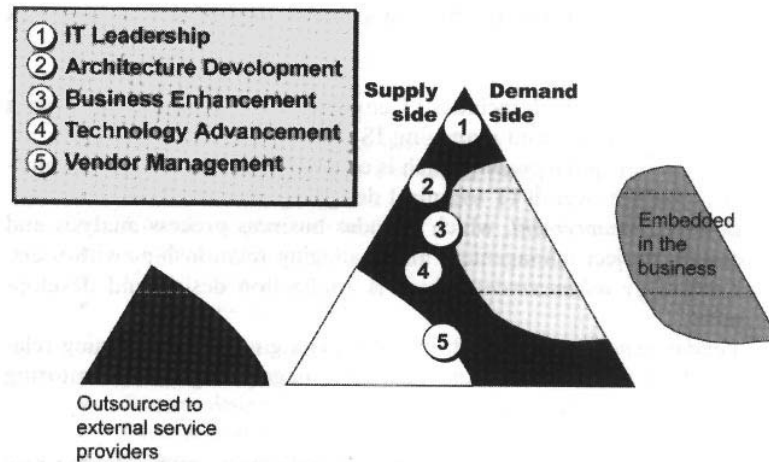


Figure 8.5 IS Lite (source: IS Lite: The Future, Research Report, GartnerGroup, Egham, UK, 1999, also Stamford, Connecticut)

### Framework for Guiding Action

#### What needs to be managed?

Lihat tabel 8.4 "Examples of IS Activities":

1. Strategy & Planning Service
  - IS strategy development
  - Contingency Plan

- Capacity planning
  - Technology road map
2. Application Development Service
    - System analysis
    - System desing
    - Software acquisition
    - Project management
  3. Application & technical Service
    - Training
    - Change control
    - First line user-support
  4. Technology delivery & maintenance services
    - Install cables & PC
    - Network mainenance
    - Vendor mangement

Ada 2 isue penting di sini:

1. Location of decision rights (authority)
2. Sourcing of IS/IT resources (where do we get it?)

Outsourcing rationales:

- alasan finansial: lebih murah, lebih cepat
- alasan teknis: lebih ahli
- alasan bisnis: untuk mendorong desentralisasi (misalnya), atau untuk menekan insourcing.

Menurut Laudon (2001), when to outsource?

- If firm won't distinguish itself by developing application
- Predictability of uninterrupted service not important
- If existing sytem is limited, ineffective and inferior

Klasifikasi sourcing:

Purchasing focus	Resource	BUY IN	PREFERRED SUPPLIER
	Result	CONTRACT OUT	PREFERRED CONTRACTOR
		Transaction	Relationship
		Purchasing style	

**Figure 8.7** Clarify sourcing options (sources: adapted from M.C. Lacity, L.P. Willcocks and D.F. Feeny, 'The value of selective IT sourcing', Sloan Management Review, Spring, 1996, 13–25;

## Siapa yang Mengelelola TI?

Penelitian yang dilakukan oleh Griffith:

	<b>Plusses</b>	<b>Minuses</b>
IT Directors	Technical expertise Accurate systems Sound technology Systems integration	IT not aligned Education omitted Information overload Technical solutions
Finance directors	Tight cost control Department coordination Training cost integrated Strict authorization	Not always the best value for money Insufficient time to devote to IT Opportunities missed Short term approach
Business-unit head	IT investment linked to the business direction Locally focused systems Continuous development Shorter reporting structure	Systems not coordinated Incompatibility across BU Duplication of data Unnecessary cost incurred
Board of directors	Strategic direction Appreciation of broader impact of decisions Major problems tackled Funding allocated	Logistical details omitted IS/IT underexploited Infrastructure weak Slow to exploit technology

## **Role of Chief Information Officer**

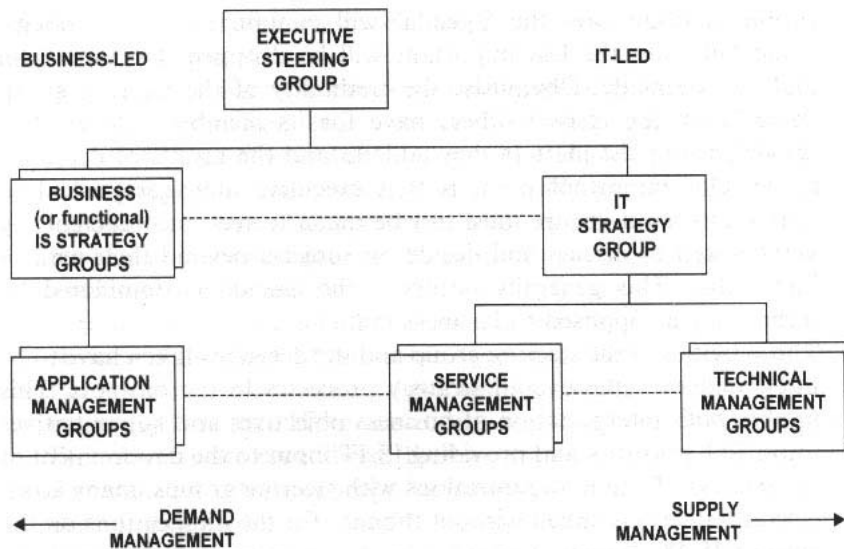
	<b>Mainframe era</b>	<b>Distributed Era</b>	<b>Internet Era</b>
Senior executive view to IS/IT	IT for automation & cost displacement	Polarized: asset vs cost	Transformational tool Part of 'business conversation'
Major task of IS/IT	On-time delivery Reliable IT operations	Manage IS function Provide infrastructure Manage vendors	Jointly develop business / IT model Introduce management process using technology
Role	Functional head Operations manager Deliver on promises	Strategic partner Relationship builder Technology advisor Align IS/IT with business	Visionary Relationship builder Technology opportunist Drive & shape strategy

## Coordinatin Mechanism for Strategic Management of IS/IT

Keuntungan adanya 'steering committees':

- memastikan top management involvement in IS planning
- Keselarasan IS dan strategi bisnis
- Improving communication with top and middle mangement
- Changing user attitudes to IT

Contoh:



*Figure 8.8 Steering organization for IS/IT strategic management*

### **Responsibilities within the IS/IT coordination governance**

Executive steering group

- Interpreting business strategy
- Ensure (cross BU) strategic application achieve the objectives

Business IS strategy group

- identify business needs, interpreting CSF, SWOT in each BU
- resource allocation for projects

IT Strategy group

- Interpreting IT trends
- Deployment of resources
- Managing supply of IT

Application management group

- identify requirements & cost for applications
- managing application development

Service management group

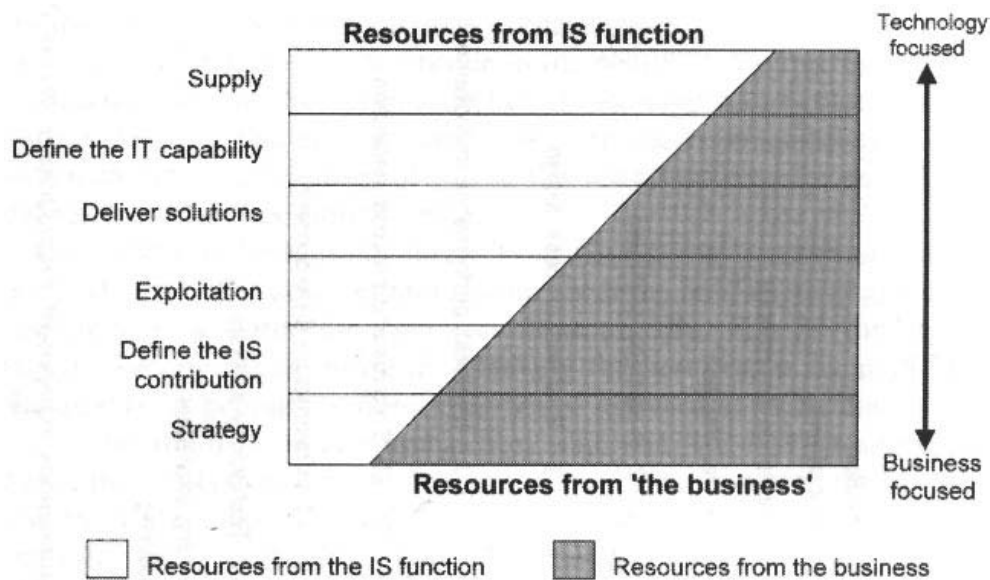


- Translate business needs into technical requirements
- Ensuring technical solutions are tested and quality assured
- Selecting optimum means of meeting business needs

Technology management group

- Understand technology development, formulating options and communicating the implications
- Manage infrastructures
- Resolve technical problems with suppliers

### Manage IS Function as a bundle of resource



*Figure 8.11 Mapping location of resources against IS components*

### Human resource in IS/IT

Alternatif kalau kurang SDM

1. Train new recruits from university
2. Recruit experienced staff from other organization
3. Train existing non-IS people, especially in user area
4. Using external resource, short term basis

Kejadian yang umum: staf TI untuk key operational, sedangkan pengembangan di outsource. Bisa bahaya!

Lihat halaman 394...!



Figure 8.13 Use of resources

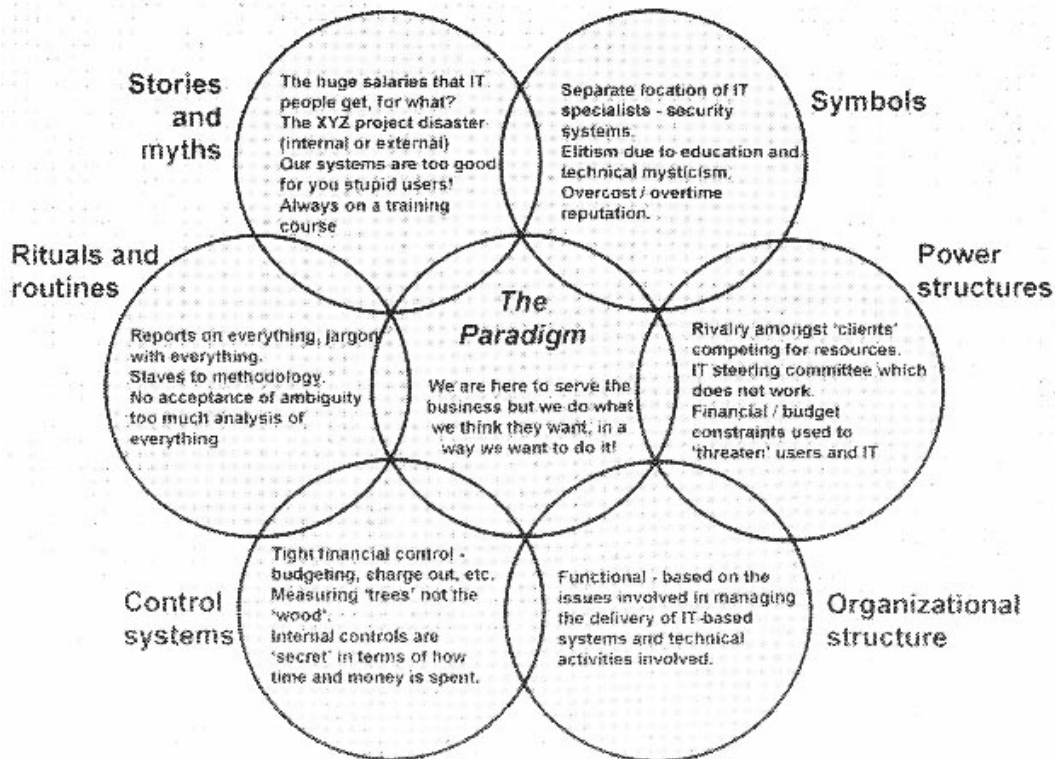
## Managing Relationship

Yang harus diperhatikan adalah, hubungan dengan:

1. outside IT supplier
2. with the business manager & system users
3. with IT specialist in other company: e-commerce, SCM

## **Cultural Web**

Ada hal-hal yang intangible yang harus diperhatikan dalam change management.



## Cara meningkatkan nilai tambah SI/TI

Menurut Peppard (2001) ada beberapa langkah untuk 'bridging the gap' antara IS dengan bisnis:

