Integrasi Strategi Bisnis Dan Strategi Sistem Informasi

Kuliah Sessi – 9:
Dukungan Sistem Informasi

Dosen:
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Outline

• IT Services Strategies
• Application Development And Provisioning Strategies
• Aligning The Development Approach To The Applications Portfolio
• Strategies For Managing IT Infrastructure
Strategic Issues

- The management of supply-side IS strategies
- Buying or renting of IT services, ensure the development or provisioning process work properly.
- Planning for, justifying and managing investment in IT infrastructure is always problematic.
- IT services provided by external parties (outsource).
IT SERVICES STRATEGIES

• 1980, IS function changed from production mode to service mode of operation, create Information Center
• Enabling business users to obtain and utilize information, system and technology to meet their needs, as and when requirement arise.
Service Process-based Classification

Degree of customization
Low → High

Degree of user contact
Low → High

- Service Factory
- Job Shop
- Mass Service
- Professional Services

Generic Model
Service Model, Management Issues

Degree of customization of services

Low → High

Service Factory
- Service Agreement
- Resource scheduling
- Demand forecasting and capacity development

Mass Service
- Service agreement
- Staff service ‘skill’ and attitude
- Matching resources to demand cycles

Job Shop
- Flexibility of resources
- Priorization
- Performance measurement

Professional Services
- Staff Development
- Knowledge Management
- Resource planning and allocation

Degree of user contact

Low → High
Service Model, Example of IT Services

- **Service Factory**
  - Low Degree of customization
  - Low Degree of user contact
  - Contingency planning
  - Desktop installation
  - Security/access control
  - Software upgrades
  - Investment management
  - Project management
  - Training
  - Contracts management

- **Job Shop**
  - High Degree of customization
  - High Degree of user contact
  - Programming
  - Technology options evaluation
  - Information procurement
  - Database design
  - Consultancy
  - Systems analysis and design
  - Advice center
  - Account management

- **Mass Service**
  - Low Degree of customization
  - Low Degree of user contact
  - Consultancy
  - Systems analysis and design
  - Advice center
  - Account management

- **Professional Services**
  - High Degree of customization
  - High Degree of user contact
  - Programming
  - Technology options evaluation
  - Information procurement
  - Database design
  - Consultancy
  - Systems analysis and design
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The Gaps in the IS Service Delivery

Word of mouth communication
Personal need
Past experience

What the user expects
Gap 5

What the user receives (how it actually is)
Gap 3

The specification of the service (how it is supposed to be)
Gap 2

The intended service (how management want it to be)

The IS function

The business

Gap 4

The promotional image of services (what the IS function says it will be)

Source: Parasuraman
Causes of The Gaps - 1

1. Not understanding what user expect or value due to:
   • a lack of user needs analysis;
   • ineffective communication by either or both parties;
   • excessive bureaucracy in the IS function.

2. Setting the wrong IT Service Standard due to:
   • lack of commitment to IT services by IS management;
   • perception of infeasibility in meeting user demand;
   • inadequate task definition and standardization or inadequate to standard set;
   • absence of objectives for the service to achieve and/or inappropriate performance measurements.
Causes of The Gaps

3. Underperformance of the service, due to:
   - role ambiguity, including the user’s role in service delivery;
   - lack of resource availability;
   - lack of actual or perceived control;
   - lack of teamwork and inappropriate resource use, or inappropriate use of the service;

4. Poor communication of what the service is and can deliver, due to:
   - a propensity to overpromise and/or overact to ‘complaints’;
   - inconsistent communication across the user communities;
   - lack of visibility of the service process.

5. Expectation versus perception gap, due to:
   - not understanding user requirement and reasons for them;
   - user not understand the service process and implications of their demands;
   - user expectations actually being impossible to satisfy.
APPLICATION DEVELOPMENT AND PROVISIONING STRATEGIES

• Trend for applications designed and developed by s/w house or “busol” increases
• Main issues:
  – Providing new application more quickly in response to changing business demands;
  – More cost-effective production or acquisition of more types of application and reduce ongoing maintenance costs;
  – Increasing the quality and reliability of the software as it becomes integral to the business process;
  – Developing more customer-focused applications that can be used easily by untrained people;
  – Devising more flexible or adaptable applications than can be enhanced or modified quickly at low incremental cost;
  – Providing efficient, seamless integration of business activities across different applications from desktop.
  – Ensuring maximum value can be gained from the information assets of the organization.
IT cost/service Trade-off

<table>
<thead>
<tr>
<th>Premium service</th>
<th>Minimal service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Superstar</strong></td>
<td><strong>Commodity</strong></td>
</tr>
<tr>
<td>Meet senior management and users’ ideal expectations</td>
<td>Meet senior manager expectations but Users may go elsewhere</td>
</tr>
<tr>
<td><strong>Differentiator</strong></td>
<td><strong>Black hole</strong></td>
</tr>
<tr>
<td>Meet user expectations but needs to find more cust-effective ways of sustaining performance</td>
<td>Failure to meet either groups Expectations!</td>
</tr>
</tbody>
</table>
ALIGNING THE DEVELOPMENT APPROACH TO THE APPLICATIONS PORTFOLIO
Strategic Applications

- Application generators
- Dynamic Systems Development Methodologies (DSDM)
- Joint Application Development (JAD) team – share knowledge
- Iterative development via prototype/pilots
- Create new processes and database
- Effective links to key operational systems – but protect core systems
- Packages unlikely to meet needs unless modified for unique version
- Design for adaptability to meet changing needs
High Potential Applications

- Prototyping and business pilots of applications to test performance, scaling, acceptance
- Evaluation of benefits and how to achieve them
- Rapid, low-cost, iterative development
- Business champion
- Fixed time/cost allowance
- New skills/skills transfer from external expertise
- Independent-low integration
Key Operational Applications

- Structured System Development Methodologies (SSDM)
- Software engineering
- Industry-specific packages
  - Integrate/interface across packages but minimal customization
- Corporate data management controls
- Combined systems and business knowledge in development team
- Process re-engineering
- Strict specification and change control process
- Design for performance
Support Applications

- Standard functional package – compromise business needs to package capabilities. No customization
- Low-risk, proven solutions
- Outsource operation and maintenance – if cost effective
- Interface, not integrate
- Use package databases dan data standards
- Design procedures and processes to use software efficiency
- Buy, not build
STRATEGIES FOR MANAGING IT INFRASTRUCTURE

• Enabling base of shared IT capabilities which provide the foundation of other business systems (McKay & Brockway)

• Managerial expertise to provide IT services as well as the technology.

• Comprises:
  – Physical infrastructure
  – Architectures
  – Policies and standards,
  – Management process
Linking IT Infrastructure with Business Strategy

- **REACH**: to whom can be connected?
- **INTEGRATION**: to fully open systems
- **RANGE**: what services can we share?

- **Anyone, anywhere**
- **Customers, suppliers regardless of IT infrastructure**
- **Customers, suppliers with the same IT infrastructure**
- **Intra-company, locations abroad**
- **Internal locations**

- Keen, 1991

- **Standard messages**
- **Access to stored data**
- **Independent transactions**
- **Corporate transactions**
- **Any application anywhere**

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Strategi & Kebijakan SI-TI-MasWig
Integrasi Strategi dan Kebijakan Sistem Informasi

Justifying Infrastructure Investment

- New business capability
  - Create benefit opportunities by alignment to strategic drivers
  - Define role of IT in creating the capability
  - Reduce current costs (IT and business)

- Estimate resulting performance-related benefits
  - Define and measure changes in working practices
  - Emergent and planned changes to current ways of working

- Realize application benefits
  - Application justification
  - For known/planned applications
    - St HP
    - KO Su
  - Meet growth in business volume
  - Define and measure changes in working practices

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