Chapter 4: IS/IT Strategic Analysis: Assessing and Understanding The Current Situation

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Methodology Revisited

![Diagram](image)

**Figure 3.8 The IS/IT strategic model**

**IT Strategy**
Conducted at business unit level
1. Application portfolio management
2. Organization of IS / IT, management of resource & administrative
3. Managing the information resource & provision of information service
4. Managing application development
5. Managing technology
**IS/IT Management Strategy**

Common to all business unit / business function
1. IS function: organization, resourcing, authority
2. investment prioritization
3. vendor policies
4. human impact policies
5. IS accounting policies

**Business Process Reengineering**

Gambaran BPR versi Hammer & Champy (1993)
- Beberapa pekerjaan digabung jadi satu
- Staf banyak melakukan decision making
- Delinearisi: jadi proses tidak harus sekuensial, tapi mungkin ada yang bisa diparelelkan
- Membuat sebuah proses bisnis dengan beberapa versi: penting untuk mass production tetapi memungkinkan customization
- Relokasi pekerjaan ke lokasi yang paling tepat
- Meminimkan kontrol dan pemeriksaan
- Rekonsiliasi diperkecil, bisa dengan cara minimin kan jumlah point of contact
- Melakukan kombinasi sentralisasi dan desentralisasi
- “Single point of contact” untuk customer

Gambaran BPR versi Peppard & Rowland (1995)

<table>
<thead>
<tr>
<th>Eliminate</th>
<th>Simplify</th>
<th>Integrate</th>
<th>Automate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overproduction</td>
<td>Forms</td>
<td>Jobs</td>
<td>Dirty activities</td>
</tr>
<tr>
<td>Waiting time</td>
<td>Procedures</td>
<td>Teams</td>
<td>Difficult activities</td>
</tr>
<tr>
<td>Transport</td>
<td>Communication</td>
<td>Customers</td>
<td>Dangerous activities</td>
</tr>
<tr>
<td>Processing</td>
<td>Technology</td>
<td>Suppliers</td>
<td>activities</td>
</tr>
<tr>
<td>Inventory</td>
<td>Problem areas</td>
<td></td>
<td>Boring activities</td>
</tr>
<tr>
<td>Defects / Failures</td>
<td>Flows</td>
<td></td>
<td>Data capture</td>
</tr>
<tr>
<td>Duplication</td>
<td></td>
<td></td>
<td>Data transfer</td>
</tr>
<tr>
<td>Reformatting</td>
<td></td>
<td></td>
<td>Data analysis</td>
</tr>
<tr>
<td>Inspection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconciling</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples!
- Many BPR sprung from thorough understanding of business strategy (why?)
- Many BPR has significant IS/IT element. IS/IT is the enabler of BPR
- Common need of IS strategy & BPR to build a potential business model
Reconciling IS/IT and BPR

<table>
<thead>
<tr>
<th>Questions</th>
<th>BPR</th>
<th>IS/IT Strategy formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation</td>
<td>How can we reengineer our business to provide advantage?</td>
<td>How can IS/IT be exploited to provide business advantage (impact)</td>
</tr>
<tr>
<td>Implementation</td>
<td>How can we improve our process to ensure success of the strategy?</td>
<td>How can IS/IT ensure the success of the business strategy? (alignment)</td>
</tr>
</tbody>
</table>

Pandangan bahwa yang dilihat bukan “fungsional”, melainkan proses:

Traditional functional structure

![Diagram](image1.png)

Process flow

![Diagram](image2.png)

*Figure 4.8 Adopting a process orientation*

Ada 2 cara melakukan BPR:
1. Clean Sheet Method
2. Systemic Approach

Bagaimana mengidentifikasi proses yang penting?

**Figure 4.9** The importance-performance matrix

**IS Demand: Where do we get it?**

**Figure 4.2** Determine the IS demand

**Interpreting the Business Strategy**

**Internal Business Environment**
1. Business strategy
2. Current business process
3. Organization environment
**Apa isi dari Business Strategy?**

1. **Misi**
   What the company does in a long term overall purpose. Example:
   “To be the world mobile communication leader, enriching the lives of individuals and business customers in the networked society”

2. **Visi**
   What will the company look like in the future?

3. **Objectives**
   Measurable targets that the organization is setting to move towards its vision.
   Characteristics of an objective:
   a. unambiguous & result oriented
   b. measurable, verifiable and not too numerous
   c. relevant, achievable
   d. consistent with higher level objectives

Contoh:
“Reduce manufacturing cost by 10% each year for the next five years”.

Idenya adalah bagaimana menurunkan IS Strategy dari business strategy…!
Business process, Activities & Key Entities

Dapat dipakai untuk:
- proses mana yang tidak "menyambung"
- letak CSF
- menentukan posisi aplikasi IS
- proses mana yang sudah menggunakan komputer dan mana yang belum
- melihat dimana terjadi redundansi pekerjaan

Yang dapat dilihat adalah:
1. Business process
2. Activities
3. Key entities

IS model mencakup:
1. Process flows
2. functional decomposition diagrm
3. entity relationship
4. DFD
5. Activity / entity matriks
Examining the Current IS/IT Environment

Internal IS/IT environment

Mencakup:
- evaluasi portofolio aplikasi
- sumber daya informasi
- evaluasi infrastruktur

Beberapa pertanyaan yang mungkin dibuat dalam menanalisa portofolio saat ini:
1. Aktifitas bisnis apa yang sekarang didukung oleh IT?
2. Apakah proses bisnis utama menggunakan IT?
3. Bagaimana informasi mengalir dalam sistem kerja?
4. Bagaimana SI mendukung strategi bisnis saat ini?
5. Apakah ada problem dan kessenjangan yang muncul?

Selain itu, kita juga harus melihat
- bagaimana kebijakan policy IT terhadap vendor, user,
- organisasi SI: fungsi, ukuran, struktur, tingkatan, ada/tidaknya steering committee, pola anggaran, dsb. (nanti lihat chap.8)

External IS/IT Environment

Tujuannya adalah untuk mendapatkan gambaran mengenai trend teknologi beserta pemanfaatannya. Juga termasuk melihat apa yang dilakukan oleh kompetitor. Bisas juga dengan melihat hasil-hasil survey

Teknik-teknik Analisa Keadaan Sekarang

Teknik untuk membuat IS Demand

<table>
<thead>
<tr>
<th>Teknik</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business strategy analysis</td>
<td>Misi, objective..</td>
</tr>
<tr>
<td></td>
<td>Ruang lingkup bisnis</td>
</tr>
<tr>
<td></td>
<td>Prioritas</td>
</tr>
<tr>
<td></td>
<td>IS requirement utk mendukungnya</td>
</tr>
<tr>
<td>CSF</td>
<td>Area dimana beberapa aktifitas harus “benar”.</td>
</tr>
<tr>
<td></td>
<td>Pengukuran</td>
</tr>
<tr>
<td>SWOT</td>
<td>SWOT terhadap internal &amp; external business &amp; IS/IT environment</td>
</tr>
<tr>
<td>Balance Scorecard</td>
<td>Business objectives &amp; key information requirements</td>
</tr>
<tr>
<td></td>
<td>Pegukuran</td>
</tr>
<tr>
<td>Process analysis / BPR</td>
<td>Identification of core business process</td>
</tr>
<tr>
<td></td>
<td>Opsi-opsi perbaikan proses</td>
</tr>
<tr>
<td>Organizational modeling</td>
<td>Memberikan gambaran menyeluruh</td>
</tr>
</tbody>
</table>
Balanced Scorecard

Diciptakan oleh Kaplan & Norton.

Figure 4.5 Information and the Balanced Scorecard (source: R.S. Kaplan and D.P. Norton, ‘Using the Balanced Scorecard as a strategic management system’, Harvard Business Review, January–February 1996, 76. Used with permission)

1. Financial: How do we look to our shareholders and those with a financial interest in the organization.
2. Internal business perspective: what do we have to excel at if we are to meet expectations of our employees and trading partners?
3. Customer perspectives: How do our customers perceive us in term of products, service, relationships & value added?
4. Innovation and learning perspective: How do we continue to improve?
Critical Success Factors

Kegunaannya:
1. involving top management in IS/IT strategy and gain their commitment
2. develop a consensus view of IS applications
3. linking IS activity to business strategy
4. providing guidance for defining executive information needs

Kelemahannya:
1. CSF tend to be internally focused and analytical, not creative
2. Penentuan CSF menunjukkan gaya setiap manager
3. Tidak terlalu berguna kalau dipakai pada lapisan bawah.
CSF & Balance Scorecard

Contoh:
Objectives
To: reduce stock costs

Measures
(a) Stock turn
(b) Write-offs
(c) Stock handling costs

Critical Success Factors
By: taking action
By: earlier identification of obsolete items
By: better forecasting to reduce safety stocks etc.

Information and systems required
(i) New analysis of stock turn to separate fast-moving/slow-moving items (A, B, C based)
(ii) Improved stock forecasting based on more accurate sales forecasts/actuals
(iii) New stock replenishment algorithms for different types of stock

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure(s)</th>
<th>Action (CSF)</th>
<th>IS Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>To reduce stock costs</td>
<td>a) Stock turn</td>
<td>By earlier identification of obsolete items</td>
<td>i) New stock turn analysis (ABC)</td>
</tr>
<tr>
<td></td>
<td>b) Write-offs</td>
<td>By better forecasting to reduce safety stocks</td>
<td>ii) Improved sales and stock forecasting</td>
</tr>
<tr>
<td></td>
<td>c) Stock handling costs</td>
<td></td>
<td>iii) New stock replenishment algorithms</td>
</tr>
</tbody>
</table>

Customer perspective

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure(s)</th>
<th>Action (CSF)</th>
<th>IS Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>To increase responsiveness</td>
<td>a) Order to delivery lead time</td>
<td>By identifying causes of all late deliveries</td>
<td>i) New accurate measure of all order/delivery times</td>
</tr>
<tr>
<td></td>
<td>b) Enquiry response time</td>
<td>By informing customers in advance of problems</td>
<td>ii) Analysis of all types of delivery failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>By tracking all enquiries/progress daily</td>
<td>iii) New dynamic customer/order monitoring system to instigate action</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>iv) New enquiry recording/tracking process and system</td>
</tr>
</tbody>
</table>
Organizational Modeling

Contoh pertanyaan yang bisa dikaitkan dengan IT:

A. External environment:
   - bagaimana pertumbuhan industrianya?
   - Industry value chain?
   - Apakah IT bisa dipergunakan untuk meningkatkan switching cost customer?
   - Bagaimana customer/supplier/kompetitor menggunakan IT?

B. Formal Organizational arrangements?
   - bagaimana kebijakan IT/IS
   - bagaimana menentukan strategi setiap SBU?

Dsb… (lihat buku)

Mengapa kita melakukan organizational modelling?

1. Effective filtering system, because we have the “feeling” of the organization.
2. If changes are to be made, we could guess how the culture would impede, and we can develop a strategy to change the culture (& change management)