A Framework for Analysing Business / IS alignment requirements

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Motivation

The strategic alignment is the harmonization of the business processes and the IS with the strategy of the company

Purpose: Strengthen the use value of the IS to make an asset for the company

- The existing approaches treat:
  - The strategy / business alignment
  - The business / IS alignment
- Absence of complete alignment approaches (strategy / business / IS)
- Absence of an alignment approaches evaluation tool
Proposition

- Analysis framework based on the « four worlds » framework (Jarkes, 1990), (Rolland, 1998) evaluating the alignment approaches

- Positioning of some alignment approaches in this framework

Plan

1. Presentation of the « four worlds » reference framework
   - Meta – model of the reference framework
2. Presentation of the analysis framework
3. Discussion
4. Conclusion
5. Perspectives
Plan

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The « four worlds » reference framework (Jarkes, 1990)

- How the information concerning the subject world is used?
- How to represent the subject world?
- User interfaces
- Justification of the development purposes
- How to build the system?
Plan

1. Presentation of the « four worlds » reference framework
2. Presentation of the analysis framework
3. Discussion
4. Conclusion
5. Perspectives
Facets and attributes of the subject world

- Nature of alignment:
  - Strategy / business alignment
  - Business / IS alignment
  - Business strategy / IT strategy alignment
  - IT strategy / IS alignment

- Nature of change:
  - Nature: ad hoc, evolutionary, corrective
  - Origin: internal, external
Facets and attributes of the usage world

• Purpose of alignment: Adapt, build, improve, maintain
• Alignment perspectives: Strategy execution, Technology transformation, competitive potential, Service level (Henderson & Venkatraman, 1987)
• Communication: boolean
• Understanding of the user: boolean
Facets and attributes of the development world

- Development approach:
  - Nature of the development process: ad hoc, systematic
  - Paradigm of modelling: context, decision, intention, activity, product
  - Knowledge capitalization: boolean
- Execution support:
  - Software support: automatic, manual, mixed
  - Execution infrastructure: generic, inter operable
- Guidance:
  - Existence: boolean
  - Granularity: macro, micro
Facets and attributes of the system world

- Cover: product, activity, decision, context, intention
- Refinement: intentional, organisational, SI, technological
- Traceability: boolean
- Flexibility:
  - Modularization: boolean
  - Re-use: boolean
  - Capture of the change: none, trigger, other
Plan

1. Présentation du cadre de référence des quatre mondes
2. Présentation du cadre d’analyse
3. Discussion
4. Conclusion
5. Perspectives

Discussion (1/4)

- Two criteria:
  - Characteristics of IS engineering approaches
    - IS flexibility requirements
  - Alignment process requirements
    - Communication
    - Understanding of the strategy of the company
    - Link between the business and the IT worlds
### Discussion 2/4

**IS flexibility**

<table>
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<tr>
<th>Report</th>
<th>Comments</th>
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<tbody>
<tr>
<td>• Majority use of activity oriented models (Scheer &amp; Nuttgens, 2000), (Longepe, 2004), (Papazoglou &amp; Van den Heuvel, 2000) and (Wegman, 2005)</td>
<td>• Necessity of oriented context models to adapt the system to variable situations (Barrios &amp; Nurcan, 2004)</td>
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<td>• Negligence of the re-use of the existing components (Scheer, 2000), (Wegman, 2003), (Henderson &amp; Venkatraman, 1989), (Nurcan &amp; Barrios, 2003), (Bleistein, 2005)</td>
<td>• Facilitate the work of the designers to adapt the system to the environment changes</td>
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<td>• Modularization of the software components (Papazoglou &amp; Van den Heuvel, 2000), (Longepe, 2004), (Scheer &amp; Nuttgens, 2000),</td>
<td>• Easier adaptation to the evolutions</td>
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<td>• The capture of the change is almost absent in the studied frameworks</td>
<td>• Facilitate the re-use</td>
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<td>• How a system can be adapted to the change if nothing is foreseen to capture it?</td>
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### Discussion 3/4

**Alignment process requirements**

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<th>Constat</th>
<th>Commentaires</th>
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<tr>
<td>• Several frameworks granted certain importance with communication and understanding of the strategy by the collaborators (Wegman, 2003), (Nurcan &amp; Barrios, 2003), (CIGREF, 2003), (Bleistein, 2005), (Kaplan &amp; Norton, 1996)</td>
<td>• The communication is the major activator of alignment (Lauffman, 1996)</td>
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<td>• The link between the business and the IT worlds was treated only by the framework of Henderson (Henderson &amp; Venkatraman, 1987)</td>
<td>• The use and the sharing of information are the source of a competitive advantage (Maes, 1999)</td>
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<td>• Knowledge propagation</td>
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<td>Understanding of the strategy of the company</td>
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<td>• Incorporation of the business strategy understanding in the IS development</td>
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<td>• The importance of the IT component integration in the business strategy</td>
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Conclusion

IS flexible and ready to better serve the strategy of the company
Perspectives

- Futur research focus:
  - Improving IS engineering methods to anticipate the Business / IS alignment requirements
    - Integration of the IT component in the business strategy
    - IS more flexible to support the strategy of the company
  - Studying relationships between business / IT alignment and IT governance

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Bibliographie (1/2)


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Bibliographie (2/2)


Questions ?