Organizational structures to support innovation: how do companies decide?

Adriana Marotti de Mello

Production Engineering Department
Escola Politécnica da Universidade de São Paulo
Brasil
Agenda

- Introduction / Research Question
- Conceptual Basis
  - Organizational Project - “Classical” Approach
  - Innovation-directed Organizational Project
  - Innovation as a process
- Methodology
  - Study Cases
- Discussions / Conclusions
- Further Development
Introduction / Research Question

- Innovation – Complex / Multidisciplinary process
- “Classical” organizational project - division of labor, need for supervision, single center of authority and control – suitable for stable environments
- Innovative environments – turbulent, uncertain and complex
- Need for agility and flexibility
- Organization and communication structures that encourage and make use of experience-based learning, knowledge sharing, and interaction – such as project teams, problem solving groups, and task rotation
...but it seems that:

- Companies still adopt “classical” projects
- Innovation not as a process
- Focus only on R&D
How should companies seeking to increase innovative capacity make decisions regarding innovation-directed structures?
Conceptual Basis

- Organizational Project - “Classical” Approach
  - “Classical” Organization
    - Efficiency driven
    - Organization suitable for stable environments
    - Division of labour
    - Single authority center
    - Need for control
  - Do not cope with flexibility and agility demanded by innovative environments
Conceptual Basis

- Innovation-directed Organizational Project
  - Need for flexible organizations capable of responding to environmental changes
  - Interaction and communication among employees
  - Decision-making agility
  - Flexibly defined roles
Conceptual Basis

- Innovation as a process
  - If not “classical” organization, then which one?
  - There is no “optimal” organization for all
  - Innovation should be considered as a process
  - ...Not only R&D
## Conceptual Basis Synthesis

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Definition</th>
<th>Indicators in company (Jensen et al., 2007; Hansen &amp; Birkinshaw, 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis of the innovation value chain</strong></td>
<td>Assessment of which step in development constitutes the innovation bottleneck. Changes should be made considering the critical step and viewing the organization as a whole. Hansen and Birkinshaw, 2007</td>
<td>- Steps critical to innovation: Idea Generation Conversion Diffusion</td>
</tr>
<tr>
<td><strong>Flexibility and agility</strong></td>
<td>Adhocratic, organic, flexible structure, readily reacting to &quot;events&quot; and adapting to constantly changing environments Mintzberg, 2003; Zarifian, 2001; Brown and Eisenhardt, 1997; Worley and Lawler III, 2006; Hatchuel and Weil, 1999</td>
<td>- Decentralized decision-making - Low degree of formalization - Mutual adjustment between teams - Professionals specializing in their field, grouped by specialty</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Innovation-directed structures should foster the development and diffusion of knowledge through experience and interaction. Such knowledge boosts the company’s innovative capacity Jensen et al., 2007</td>
<td>- Integrated units - Flexible department/unit boundaries - Project teams with no unit coordination - Cooperation with clients</td>
</tr>
</tbody>
</table>
Methodology

- Qualitative Approach – Multiple Cases Study
- Innovative Brazilian Petrochemical company, undergoing organizational re-structuring, focusing on innovation
- A two-dimension approach was made to analyze interview data:
  - Innovation-directed organizational structure before and after restructuring
  - Analysis of two projects developed by company
# Discussions / Conclusions

<table>
<thead>
<tr>
<th>Characteristics of innovation-linked structures</th>
<th>Indicators in company</th>
<th>Indicators found at case company</th>
</tr>
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<tbody>
<tr>
<td>Analysis of the innovation value chain</td>
<td>- Steps critical to innovation: Idea Generation Conversion Diffusion</td>
<td>- <em>Conversion</em> and <em>diffusion</em> could be considered the critical steps, as shown by the analysis of NP1 and NP2.</td>
</tr>
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<td>Flexibility and agility</td>
<td>- Decentralized decision-making - Low degree of formalization - Mutual adjustment between teams - Professionals specializing in their field, grouped by specialty</td>
<td>- Decisions centralized in those responsible for each functional unit - Formalized behavior with rules and procedures for innovative activity - R&amp;D professionals grouped by specialty - Functions separated into departments and management units - Well-defined functions; strongly bounded responsibilities and roles, separated by area - Project teams are present, but are coordinated by functional area. - Clients propose ideas and assist in the innovation process; client relationship was considered overly focused on short-term projects. R&amp;D and Customer Service are separate areas.</td>
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Discussions / Conclusions

- Even after restructuring, most “classical” features remain
- There was no visible concern on the part of the company with analyzing innovation from a holistic standpoint
  - Restructuring focused on R&D
  - Little involvement of other areas – Production/Marketing
- Company’s innovation paradigm is still strongly based on formal, explicit knowledge of specialists in the field and R&D contributors, without consideration for the practical experience of line personnel (STI)
Further Development

- Paper was produced during “Work Organization for Innovation” classes
- First result of Doctoral Research
- Research Project – as in may/08:
  - Expand the research question, deepening in the reasons *why* companies decide upon organization for innovation in the way we found in this research
  - How internal (Strategic choice / structures) and external factors (Market, Industry, Institutional) interact in innovation development processes
Thank you very much!!

adiana.mello@poli.usp.br

adiana.marotti07@gmail.com
Questions?
Discussion