15.351 Managing Innovation and Entrepreneurship
Spring 2008

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Introduction
AGENDA

- Introductions
- Definitions & motivations
- Goals for the course
- Course outline
- Course deliverables
Introductions

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A pause for definitions:

- **Invention**
  - An object, process, or technique which displays an element of novelty

- **Innovation**
  
  Classic definitions include (Wikipedia):
  
  - *the act of introducing something new: something newly introduced* ([The American Heritage Dictionary](https://www.dictionary.com/browse/innovate)).
  - *the successful exploitation of new ideas* ([Department of Trade and Industry, UK](https://www.gov.uk/innovation)).
  - *a creative idea that is realized* ([Frans Johansson]) ([Harvard Business School Press, 2004](https://www.harvardbusiness.org/article/670352))
Technological innovation?

A Working Definition

- **Innovation** is the entire process by which an organization generates creative new technological ideas (invention) and converts them into novel, useful and viable commercial products, services, and business practices for (potential) economic gain.

Who Cares?

- **Top managers & entrepreneurs** - “competitive advantage lies in the ability to create an economy driven not by cost efficiencies but by ideas and intellectual know-how” (HBR 2007)
- **National Leaders** - “economic growth comes from effectively linking the twin powers of the competitive market & the scientific method” (Romer, 2004)

Where does innovation rank among your company’s strategic priorities for 2006?

Data: Boston consulting group

Image by MIT OpenCourseWare.
What are the key innovation challenges (BCG Survey 2006)

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development times too long</td>
<td>32%</td>
</tr>
<tr>
<td>Lack of coordination</td>
<td>28%</td>
</tr>
<tr>
<td>Risk-averse culture</td>
<td>26%</td>
</tr>
<tr>
<td>Limited customer insight</td>
<td>25%</td>
</tr>
<tr>
<td>Selecting the right ideas</td>
<td>21%</td>
</tr>
<tr>
<td>No good way to measure</td>
<td>21%</td>
</tr>
<tr>
<td>Not enough great ideas</td>
<td>18%</td>
</tr>
<tr>
<td>Marketing or communication</td>
<td>18%</td>
</tr>
<tr>
<td>Insufficient Sr. management support</td>
<td>17%</td>
</tr>
<tr>
<td>In-market performance is below expectations</td>
<td>9%</td>
</tr>
<tr>
<td>Competitors are more innovative</td>
<td>8%</td>
</tr>
</tbody>
</table>

Data: Boston consulting group
Goals for a Course on Managing Innovation

- Provide the industrial & strategic context for managing technological innovation (Classes 1 & 2)
- Analyze the foundations you need to design & build teams, organizations & strategies that are more effective at technological innovation (MODULES 1-3)
- Focus on how these challenges arise in established firms facing “disruption” (MODULE 4)
- Provide knowledge & skills to go into a firm and diagnose its innovation challenges & to organize your own innovative projects (iTeams, eLab, 100k)
Course Organization

Managing exploration, executing & exploitation in periods of disruption

Exploring Innovations
Key processes

Executing Innovations
Key organizational choices

Exploiting Innovations
Key strategic choices

Technologies
Markets
Your Responsibilities - Deliverables

- Class participation (50%)
  - Attendance (don’t miss more than 3 classes)
  - In-class discussion
  - Blogging related to assignments

- Assignments (40%)
  - Three assignments – one each for modules 1-3
  - Teams of 3
  - Short memos based on “live” interviews in local firms around module themes
  - Basis for the MIT Server-based blogging (using Forums on the MIT Server)

- Final Assignment (10%)
  - Individual reflections on module 4 – 3 pages