Innovation:
The Case for Strategy
1. The Data

We know that innovation is hard and that most fails.

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<table>
<thead>
<tr>
<th>Stage</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovery &amp; Preclinical</td>
<td>3-6 years</td>
</tr>
<tr>
<td>Clinical Trials</td>
<td>6-7 years</td>
</tr>
<tr>
<td>Approval</td>
<td>½-2 years</td>
</tr>
</tbody>
</table>

5,000 Compounds → 125 Leads → 2-3 drugs tested → 1 drug

Rx
1. The Data

We also know that there are systematic differences in the activity that underlies…

successful innovation and unsuccessful innovation;


…and breakthrough innovation and incremental innovation.

Schilling, MA. 2018. *Quirky: The remarkable story of the traits, foibles, and genius of breakthrough innovators who changed the world*. New York: Public Affairs. Video of key themes: [https://www.youtube.com/watch?v=qzqJSsCPSTk](https://www.youtube.com/watch?v=qzqJSsCPSTk);

Choosing Innovation Projects

• Some innovation bets are better than others.
  • Schilling, MA. 2017. What’s your best innovation bet? Harvard Business Review

• There are many tools for improving R&D Portfolio selection
  • Short animated video on choosing innovation projects: https://youtu.be/0QOdd45aZl0
Organizing for Innovation

• How you structure the organization, and teams within the organization, and culture and norms all influence innovation outcomes

  • Short animated video on organizing for innovation: https://youtu.be/0sPwbcqNwE1
New Research Questions...


• “Does exploration versus exploitation matter?” *Long sigh* Yes, we know it matters. So let’s learn how to parameterize it and manage it within the firm.

• What we haven’t seen at all that we would LOVE to see:
  • The difference in innovation at a firm with a lot of slack (e.g., Google) versus a firm without much slack (e.g., Boeing)
  • The difference in innovation at a firm with a fairly simple production function (e.g., Starbucks) versus a firm with a complex production function (e.g., Microsoft, Apple)
Thanks for listening!

- If you want a free copy of Strategic Management of Technological Innovation add your name here:
  - https://docs.google.com/spreadsheets/d/1NreDjnNbdcfKOoEkcbHuKwcBHTiILgrd1fSNx8VBrb4/edit?usp=sharing

- And please check out my free instructional videos here!
  - Strategy: https://www.youtube.com/watch?v=u1QoucGH5CE&list=PLPUjc1MwpfB91eZPOlatwIrkJvJzh7D
  - Innovation Strategy: https://www.youtube.com/playlist?list=PLPUjc1MwpfD3FKpU1nKPNXSJzYGzUATJ

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