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Is Innovation a Luxury or a Necessity for Developing Countries?

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How Developing Countries Can Best Maximize Innovation

1. Embrace a broader conception of innovation.
2. Get the “Innovation Triangle” right.
3. Focus on supporting innovation capacity at the firm level.
4. Support ICT deployment and adoption.
5. Recognize productivity as also a key economic growth driver.
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What is Innovation?

- Innovation: The *improvement of existing or the creation of entirely new* products, processes, services, business models, and organizational or institutional models.

- Innovation can be both technological and non-technological.

- Developing countries need innovation in both the private and public sectors.
## Target All Types and Phases of Innovation

<table>
<thead>
<tr>
<th>Type of Innovation</th>
<th>Phase of Development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conception</td>
</tr>
<tr>
<td>Products</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td></td>
</tr>
<tr>
<td>Production process</td>
<td></td>
</tr>
<tr>
<td>Organizational models</td>
<td></td>
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<tr>
<td>Business models</td>
<td></td>
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5. Don’t sacrifice productivity gains for short-run employment.
Maximizing Innovation: Get the Innovation Triangle Right

- Business Environment
- Regulatory Environment
- Innovation Policy Environment
Business Environment

1. Vibrant capital markets
2. Strong management skills
3. High levels of entrepreneurship
4. Strong ICT adoption, especially among business
5. Embrace dynamic churn and change (e.g. creative destruction)
1. Transparency and rule of law
2. Protection of intellectual property (and other property rights)
3. Ease of starting a business
4. Competitive and open trade regime
5. Pro-competition anti-trust regime
Innovation/Technology Policy Environment

1. Policies and institutions supporting private sector innovation
2. Policies to spur digital transformation (e.g., broadband & mobile deployment, e-government, health IT, smart grid, etc.)
3. Support for education, especially science, technology, engineering, math, and business (STEM-B)
4. Incentives for adoption of new capital equipment
5. Government investment in R&D in key targeted sectors
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Develop Institutions Supporting Firms’ Innovative Capacity

- Uruguay
- Argentina
- Brazil
- Chile
- Thailand
- South Africa
- Ghana
These Innovation and/or Technology-Support Agencies:

1. Promote “absorptive capacity” and help firms—especially manufacturers and SMEs—increase productivity by adopting best processes and technologies.

2. Train firms and entrepreneurs in innovation skills/competencies.

3. Promote knowledge/technology transfer from universities/labs to the private sector.

4. Help link domestic firms into global supply chains.

5. Promote deployment of digital technology platforms.
Keys to Innovation in Developing Countries

1. Leverage constraints as innovation potential.

2. Promote inclusive innovation and unleash local entrepreneurship.

3. Target only high-tech, R&D intensive-sectors where you have natural advantage.
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ICT Major Driver of Innovation in Developing Countries
Higher ICT Penetration Drives Economic Growth

Impact on GDP of a 10% Increase In Core ICTs*

* IBRD, “2009 Information and Communications for Development: Extending Reach and Increasing Impact”
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Economies can grow their productivity in two ways:

1. Through the “growth effect”:
   Firms in all sectors become more productive.

2. Through the “shift effect”:
   Replacing lower-productivity industries with higher-productivity industries
# Sector performance matters more than sector mix in developing countries

Contribution to total value added, 1995–2005  
Compound annual growth rate, %

<table>
<thead>
<tr>
<th>Growth</th>
<th>Total growth</th>
<th>Growth momentum (growth predicted by initial sector mix)¹</th>
<th>Differences in performance of sectors²</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>9.1</td>
<td>5.7</td>
<td>3.4</td>
</tr>
<tr>
<td>India</td>
<td>5.5</td>
<td>5.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>3.9</td>
<td>6.0</td>
<td>-2.1</td>
</tr>
<tr>
<td>Russia</td>
<td>3.6</td>
<td>6.7</td>
<td>-3.1</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.5</td>
<td>5.9</td>
<td>-2.5</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.9</td>
<td>6.0</td>
<td>-4.1</td>
</tr>
</tbody>
</table>

¹ Country growth rate calculated as if all sectors would have grown with the sector-specific growth rate average across all developing countries.  
² Actual country growth minus growth momentum of initial sector mix.

SOURCE: Global Insight; McKinsey Global Institute analysis
E.g. Retail Sector Productivity in Developing Countries

Argentinean Grocery Retail Sector Productivity*

* Gabriel Sanchez, “Understanding Productivity Levels, Growth and Dispersion in Argentina: The Case of Supermarkets”
Conclusion

- Innovation is a necessity—not a luxury—for all nations.
- Get the framework conditions right—then support firms’ capacity to innovate.
- ICT is the key “general purpose technology” driver of growth today.
- Across-the-board productivity growth is the major opportunity and challenge for developing countries.
Thank you!

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