Managing the New Trajectory of Global Innovation

Navi Radjou
Executive Director
Centre for India & Global Business
Judge Business School, University of Cambridge
Centre for India & Global Business

The Centre for India & Global Business at Judge Business School, University of Cambridge, acts as a platform for research and engagement with key partners in industry, academia and policy in India, the UK and across the world. Its primary focus is to understand, promote, and engage with innovators on India’s leading role in the global knowledge economy.

“To thrive in today’s turbulent world, we need creative leaders who act less as commanders and more as coaches, less as managers and more as facilitators, and who have a mission to work and succeed with integrity.”

Watch Dr Kalam’s address

Research Update

BP PhD Scholar Sourindra Banerjee offers a counter-intuitive explanation for why some firms from emerging markets like India succeed at international expansion while others fail.

Learn more about Sourindra’s research

Latest News & Forthcoming Events

Bollywood Goes Global: Opportunities for the West
19 Sep 2009, 12:00-22:00, Judge Business School and Arts Picturehouse, Cambridge
By invitation only

Innovation in India and China: How to Create Value from Emerging Markets,
18-20 May 2009, Judge Business School, Cambridge

Watch / listen to excerpts from the conference
“There are lot of operational ideas from a cash-constrained, entrepreneurial environment (like Africa, India) that you can immediately bring back to the developed world”

Vittorio Colao
CEO, Vodafone
Mr. Immelt said he expected health-care products developed in India to be exported to the rest of the world. "Some of these models and products have applicability in Europe and the U.S.," he said.
In the emerging multipolar (R&D) world, winners will be corporations and nations that can drive polycentric and globally-networked innovation.
Agenda

• How the emergence of a multipolar (R&D) world is driving polycentric and networked innovation

• How MNCs are driving polycentric and networked innovation out of emerging markets: the case of India

• Public policy implications
Agenda

• How the emergence of a multipolar (R&D) world is driving polycentric and networked innovation
BRIC Nations’ Huge Domestic Markets Are A Big Draw For MNCs

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BRIC economies are projected to eclipse developed nations’ economies within three decades

When BRICs’ $ GDP would exceed G6*

- China
- India
- Russia
- Brazil

*Points on line indicate when a BRIC’s US$ GDP exceeds US$ GDP in the G6
Why MNCs are attracted to BRIC?

1. Huge market potential
2. Vast reservoir of high-quality talent
3. Access to new technologies (as well as market insights and business models)
4. Cost reduction opportunities
Follow the money

1. Where to look for growth
   Mobile-phone subscriptions, bn

   - Developing countries
   - Developed countries

2. Voracious markets
   New mobile-phone subscriptions
   Year ending March 2009, m

   - India: 52
   - Africa: 32
   - China: 16
   - Indonesia: 46
   - Vietnam: 86
   - Brazil: 22

   Source: Informa Telecoms & Media

Sources: World Bank; ITU
*OECD members
But the BRIC markets won’t emerge ex nihilo

“GE’s top management finally realized there is a big gap between the growth potential of India and our own ability to actually seize that potential.

We realized we had a chance to actually SHAPE the Indian (healthcare) market by localizing more R&D and manufacturing work”

V Raja, President and CEO, GE Healthcare, South Asia
MNCs are moving more R&D work to India & China to first *shape* and then serve local markets

“Top-ranking destination countries by number of research and development projects”

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2005</th>
</tr>
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<tbody>
<tr>
<td>India</td>
<td>256</td>
<td>204</td>
</tr>
<tr>
<td>China</td>
<td>143</td>
<td>126</td>
</tr>
<tr>
<td>United States</td>
<td>84</td>
<td>104</td>
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<tr>
<td>United Kingdom</td>
<td>71</td>
<td>47</td>
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<tr>
<td>France</td>
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<td>40</td>
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<td>Singapore</td>
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<td>Canada</td>
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<td>Germany</td>
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<td>Denmark</td>
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<td>Ireland</td>
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<tr>
<td>Australia</td>
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<td>Poland</td>
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<td>13</td>
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<td>Japan</td>
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<td>12</td>
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<tr>
<td>Sweden</td>
<td>12</td>
<td>12</td>
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<tr>
<td>Hungary</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: IBM-Project Location International (IBM-PLI) Global Investment Locations Database (GILD)
The result? Multipolar R&D World and Polycentric Innovation
MNCs’ R&D activities in BRIC markets are becoming more “strategic”
Cisco’s R&D hub in India has a GLOBAL remit
MNCs are striving to *integrate* their Global Innovation Networks to drive global synergies.
Traditionally, global innovation networking happened through one-way knowledge flows...
...which need to be replaced with rich, fluid, multidirectional knowledge flows
New trajectories of global innovation

Developed markets

Emerging Markets

Inspired by  Developed in  Commercialized in

TIME

SCOPE & AUTHORITY
The “Trickle-Up” Innovation Phenomenon

Innovation Trickles in a New Direction
Products traditionally are created in rich nations and repackaged for emerging ones. But General Electric, Nokia, and others are reversing the process

By Reena Jana
New trajectories of global innovation

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But the trillion-dollar question is: WHO is charge of global innovation networking?

- Western HQ?
- Emerging market units?
Agenda

• How MNCs are driving polycentric and networked innovation out of emerging markets: the case of India
India Will Boast Highest Growth Rate of BRICs

BRICs = Brazil, Russia, India, China
Source: Goldman Sachs, “Dreaming with the BRICs”
Changing Class Structure

2005

Upper-Middle
$10,000+ PPP
17m

Middle
$5,000-10,000 PPP
94m

Emerging
$2,500-5,000 PPP
391m

Poor
Under $2,500 PPP
588m

2020

Upper-Middle
$10,000+ PPP
123m

Middle
$5,000-10,000 PPP
478m

Emerging
$2,500-5,000 PPP
628m

Poor
Under $2,500 PPP
101m
Demographic Dividend

Source: Exhibitions India Pvt. Ltd.
Diversity

- Geographical
- Cultural
- Social
- Economic
- Biological
Scarcity

- Natural resources
- Capital
- Land
- Skilled labour
- Infrastructure
Success criteria for made-in-India innovations:

1. Simple (hassle-free, intuitive use)
2. Low-cost
3. High-value
4. High-volume
Indian firms are driving innovations that deliver more value for less cost

Source: Scott Eells for The New York Times
Amazing innovations are led by Indian social entrepreneurs at base of the economic pyramid.
Amazing innovations are led by Indian social entrepreneurs at base of the economic pyramid.

Digamber Jha
Retired school teacher, Mangauri South village
I am confident that the doctors there will be more qualified than those in Madhubani. Despite my poverty.
Coming soon to a city near you: Scar-city!
GE’s global innovation trajectory

- **Developed markets**
- **India**

**SCOPE & AUTHORITY**

**TIME**

- Inspired by
- Developed in
- Commercialized in
John Deere’s Passage to India
John Deere’s global innovation trajectory

Developed markets

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Commercialized in

TIME

India
“A new corporate entity based on collaborative innovation, integrated production, and outsourcing to specialists is emerging in response to globalization and new technology. Such ‘globally integrated enterprises’ will end up reshaping geopolitics, trade, and education.”

Samuel J. Palmisano, CEO, IBM
Global Innovation Networks In Action: IBM

Dr Guruduth Banavar
Director
IBM India Research Lab
IBM’s multiple global innovation trajectories

Developed markets

SCOPE & AUTHORITY

India

TIME

Inspired by Developed in Commercialized in
Cisco’s R&D hub in India has a GLOBAL remit
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• Public policy implications
Global Innovation Networking (e.g., Trickle-Up Innovation) Could Actually Help US Citizens

“Telemedicine solutions can save the US healthcare system $4 billion/year just from reducing patient transportation”

Source: Center for IT Leadership
In the emerging Global Innovation Networks...

<table>
<thead>
<tr>
<th>Role</th>
<th>Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventor</td>
<td>Creates a new idea or a new product, service, or business model</td>
</tr>
<tr>
<td>Transformer</td>
<td>Converts input from Inventors into market-relevant and usable products or services.</td>
</tr>
<tr>
<td>Financier</td>
<td>Funds activities of Inventors and Transformers.</td>
</tr>
<tr>
<td>Broker</td>
<td>Finds and connects Inventors, Transformers, and Financiers and facilitates their global interactions.</td>
</tr>
</tbody>
</table>
...You Don’t Need To Invent (in the US) To Compete Globally

1. Knowledge is NOT power
   Finding and sharing knowledge is power

2. Smart firms (countries) will trade ideas with competitors, enabling global “brain circulation”

3. Patents are NOT an indicator of innovation
   Market (and societal) value is the BEST indicator of innovation
Policy Makers Should Strive To Strengthen US Capability As Global **Broker** and **Transformer**

“The role of the economic development practitioners should be to **broker** innovation networks, connecting inventors, financiers, and transformers to produce results”
The White House should use its Social Innovation Fund to broker “trickle-up innovation” at grassroots level

Sonal Shah
Director
White House Office of Social Innovation and Civic Participation
Summary

• In the emerging multipolar world, innovation is becoming *polycentric*…

• …But the onus is on MNCs to tightly *integrate* their globally-distributed innovation networks

• India presents itself as a both a lucrative innovation market -- and a fertile source of innovative solutions that can be replicated worldwide

• US policy makers should *encourage* polycentric and networked innovation by bolstering US capabilities to broker and transform global inventions
Why the US Should Import Ideas from India

I am quite pleased about Hillary Clinton’s five-day visit to India— for one main reason. Her unorthodox itinerary denotes a radical upgrade in US foreign policy toward India from version 1.0 to version 2.0: unlike previous US Secretaries of State, she started off her visit in Mumbai, the economic capital of India, before heading to New Delhi, India’s political capital, to meet with government leaders including Prime Minister Manmohan Singh. And yet I think Secretary Clinton can do herself one better.

Let me elaborate a bit. As the fourth US President to visit India in 2000, former President Bill Clinton ushered in a new era of diplomacy between India and US, one characterized by mutual trust and admiration, after five long decades of mutual suspicion and ideological antagonism, as India sided with the former USSR during the Cold War. Bill Clinton ushered in version 1.0 of the US-India partnership, characterized by “political diplomacy”—i.e., fostering political synergies between the world’s oldest democracy and the world’s largest one. This version 1.0 of Indo-US state-level partnership culminated in late 2008 with the signing of the US-India nuclear deal by former President George W. Bush, just before he left office.

http://blogs.harvardbusiness.org/ radjou
Thank you

Navi Radjou
n.radjou@jbs.cam.ac.uk
+44 (0) 1223766892
www.india.jbs.cam.ac.uk