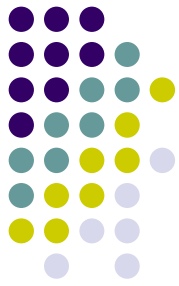


Global Innovation

What we have learned so far?



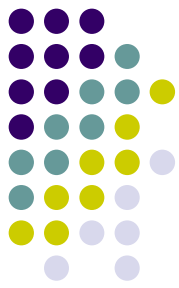
Bharat Rao

**Associate Professor of Management
Polytechnic University, New York**

**TMEDA Workshop @ Stevens
June 6th, 2006**

Global Innovation

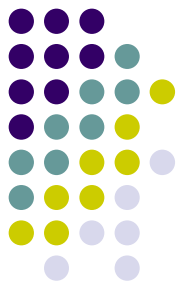
The Phenomenon



- Technology innovation activities carried out on a global scale (termed “Global Innovation”)
- Key issues include:
 - Finding sources of and markets for innovation
 - The ability to strategize, integrate and manage projects and organizations
 - Finding and managing talent
 - The ability to forecast broad technological and market trends
 - Delivering customized local solutions
- Research paths and issues for studying the global innovation phenomenon
- Incorporating global innovation into the TM education agenda

Global Innovation

Some questions



- What role do global regions and clusters play in creating and sustaining technological innovation?
- How does global innovation take place?
- What are the companies/regions we can learn from?
- How can global innovation strategies be developed and sustained?
- What is the future of global innovation?

Global Innovation

Key Pedagogical Issues



- How can we develop a curriculum for imparting state-of-the-art knowledge on global innovation?
- How do managers learn, assimilate and build models for solving global management problems?
- What are the prototypical case studies on firms and clusters that enrich classroom experience?

Global Innovation

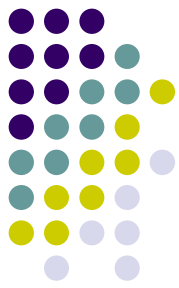
Pedagogical Outputs



- Graduate Course on Global Innovation (MG 795)
 - Offered in the MOT Executive Program since 2002
 - Introduces participants to top level research in global innovation and management
 - Highly participative class includes collaborative projects on global clusters and firms
 - Team outputs have led to creation of new content and research projects

Global Innovation

Broad Lessons



- **Location matters**

- Locate R&D investments and commercialize new technologies in environments with strong innovative capacity
- Proactively access the local strengths
- Enhance local innovative capacity

- **Managerial structures can make or break global innovation efforts**

- Top-down, bottom-up and mixed organizations exist and thrive depending on industry and need
- Flexibility is key (in financial, operational and human resources)
- TM leadership is in demand

Global Innovation

Broad Lessons

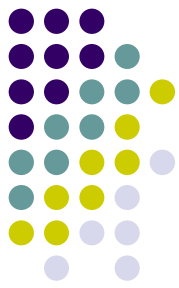


- Talent is the key differentiator

- Successful firms will seek the best talent irrespective of geography or discipline (JPM Chase, McKinsey, Microsoft)
- Multi-disciplinary and multi-cultural teams are already the norm at the leading firms (IBM, Samsung, Intel)
- There is a slow but ongoing migration of knowledge-based management practices and talent to developing economies, usually through entrepreneurs (OfficeTiger, SmartAnalyst, Wipro)
- There is a continuing flow of talent from developing economies to industrialized nations (India/Taiwan/S.Korea/China), and an increasing network of “global” entrepreneurs and VCs
- The ideal skill set is a “work in progress” –organizations like TMEDA needed to build the best portfolio of global innovation capabilities

Global Innovation

What have we learnt so far from the classroom?



- Student projects are critical

- Sample Clusters Studied

- Ghana, Nigeria, Scandinavian Cluster, India IT Clusters, Shanghai, Vietnam, Phillipines, Singapore, etc.

- Sample Industries Studied

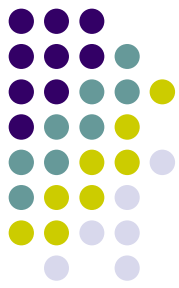
- IT, Entertainment, Media, Biotech, Pharma, Manufacturing, Retail, etc.

- Sample Firms & Organizations Studied

- Samsung, IBM, Infosys, ABB, Grameen Bank, J&J, etc.

Global Innovation

What have we learnt so far from the classroom?



● Student feedback

- Increased awareness of global trends
- Realized how interlinked the global economy really is
- Learnt from countries and firms that would not normally be on their radar screen
- Understood the increased importance of developing country business models, social entrepreneurship, and talent flows
- Got to see how technology can enable leapfrogging in a global context
- Gained exposure to the incredible diversity of global firms, strategies, and business models
- Learnt from classmates who had global backgrounds and/or experiences

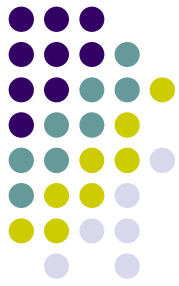
Global Innovation

Some Emerging Areas



- “Recent” trends in global innovation
 - Global sourcing of a range of services
 - Creating and managing a global R&D network
 - Managing global talent
 - Developing global brands
- Impact of emerging technologies
 - Bio, nano, info and cognitive sciences
 - Interdisciplinary innovation

High potential of collaboration with engineering departments



Thank you!