ENTREPRENEURSHIP EDUCATION AND TRAINING IN INDIA:
An Assessment of SME Training Needs against Current Practices

Jay Mitra
University of Essex, UK

Mathew J. Manimala
Indian Institute of Management Bangalore, India

‘AC 21 International Forum:
Global Education: Universities in the 21 Century’
University of Warwick
4-6 July, 2006
Structure of Presentation

- Background – push and pull factors
- SMEs in India
- Entrepreneurship and SME Training Infrastructure
- SME Training Survey
- A Novel International Scheme
- Some Concluding Observations
Background: Push and Pull Factors -

One of the world's fastest growing economies over the last decade

Consistent growth in production and domestic demand

Currently ranked 4th in a PPP comparison
Driven by the services sector…

- Over the last decade the Indian economy has transitioned from an agrarian economy to a predominantly service based economy.
- Key services sectors – Personal services, trade, hotels, banking, communications and business services. The highest growth was in:
  - Business services 4.2% to 19.8%
  - Communications 6.7% to 13.6%
  - Banking 7.2% to 12.7%
India’s growing participation in international trade

- **Total earnings from foreign trade in FY 2003-04 exceeded USD 91 billion**
  - Exports of manufactured goods accounted for more than half
  - Receipts from trade in non-factor services (Tourism, transportation, IT-ITES, etc.) accounted for nearly 30%

- Indian foreign trade index has tripled over the last decade
  - Exports have grown by 180%
  - Imports have grown by 175%

---

**Composition of Exports**

- **100% = 91 billion**
  - Manufactured goods 52%
  - Petroleum products 4%
  - Agriculture and allied products 8%
  - Ores and minerals 3%
  - Non-factor Services 30%
  - Others 3%

- **Includes receipts for trade in factor services**

**India’s Foreign Trade Index**

- Total earnings from foreign trade in FY 2003-04 exceeded USD 91 billion
  - Exports of manufactured goods accounted for more than half
  - Receipts from trade in non-factor services (Tourism, transportation, IT-ITES, etc.) accounted for nearly 30%

- Indian foreign trade index has tripled over the last decade
  - Exports have grown by 180%
  - Imports have grown by 175%

---

**Source:** RBI, NASSCOM Analysis
Background: Push and Pull Factors

- Rise in literacy levels (65% in 2001-18% in 1951)

- ‘High birth and low death rate’

- Capital shortage v abundant labour (growing unemployment, growing economy but jobless growth & decline in labour sensitivity of production)

- Annual growth rate of 8% (from 6% in 1980s) = 30m work opps v 35 m added to work force

- Educated mass v unemployment

- Frontline technology sectors but regional imbalances

- Stagnation of employment in agriculture (fall in employment elasticity from 0.70 to 0.01 between 1983 and 93-94)

- Public sector job losses – disinvestment in PSUs

- Sickness in Indian industry
**SME Performance: India Data**

**SSIs IN INDIA**

- Estimated No. of Units: 3.57 Million
- Employment: 19.96 Million
- Share in Industrial Value Added: 39%
- Share in Total Exports:
  - Direct: 45%
  - Overall: 34%
- Total Number of Items Produced: Over 8000
- Number of Reserved Items: 675

*Source: www.smallindustryindia.com/ssiindia/statistics/economic -2003-4*
## SME Performance: India Data (contd.)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of units (million nos.)</th>
<th>Production (Billion Rs.)</th>
<th>Employment (Million nos.)</th>
<th>Exports (Billion Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>2.38</td>
<td>2416.48</td>
<td>13.93</td>
<td>253.07</td>
</tr>
<tr>
<td>1994-95</td>
<td>2.57</td>
<td>2988.86</td>
<td>14.65</td>
<td>290.68</td>
</tr>
<tr>
<td>1995-96</td>
<td>2.65</td>
<td>3626.56</td>
<td>15.26</td>
<td>364.70</td>
</tr>
<tr>
<td>1996-97</td>
<td>2.80</td>
<td>4118.58</td>
<td>16.00</td>
<td>392.70</td>
</tr>
<tr>
<td>1997-98</td>
<td>2.94</td>
<td>4626.41</td>
<td>16.72</td>
<td>444.42</td>
</tr>
<tr>
<td>1998-99</td>
<td>3.08</td>
<td>5206.50</td>
<td>17.15</td>
<td>489.79</td>
</tr>
<tr>
<td>1999-00</td>
<td>3.21</td>
<td>5728.87</td>
<td>17.85</td>
<td>542.00</td>
</tr>
<tr>
<td>2000-01</td>
<td>3.37</td>
<td>6454.96</td>
<td>18.56</td>
<td>599.78</td>
</tr>
</tbody>
</table>
SME Performance: World Data
(GEM)

• World average: 96% of new start-ups are small

• India average: 98% of new startups are small

• Level of Entrepreneurial Activity in India: Growing from 8.97% (year 2000), to 11.55% (2001), to 17.88% (2002)

(Vibrancy due to Liberalization & Privatization)
Vulnerabilities of New Start-ups

• US data: Two-thirds of all new ventures perish in the first 5 years

• Liability of newness/Liability of smallness

• GEM/Traditional Indian business wisdom (42 months/1000 days)

• New ventures need special help
SME Development in India: Agencies & Programmes

- SME development less effective than in developed countries
- SME Focus since Independence (*Industrial Policy Resolution of 1956*)
- Pioneering status among developing countries
- Early start and variety of programmes
Agencies for SME Development in India

- Government of India
- State/Provincial Governments
- Financial Institutions
- Academic and Training Institutions
- Industry Associations
- NGOs and Consultants
Institutions under the Government of India

- Institutions/Activities under the Ministry of Small Scale Industries (DC-SSI/SIDO)

- Institutions/Activities under the Department of Science and Technology (DST/NSTEDB)
Development Commissioner (SSI) and Small Industries Development Organization (SIDO): Structure

DC (SSI)/SIDO

Autonomous Bodies

TR/TDI (9)  CFTI (2)  PPDC (6)

ESTC  IDEMI  CDGI  FFDC

Training Institutes

NSIC  SIDBI  KVIC

Note: Abbreviations expanded in subsequent slides
SIDO Structure: Expanded Listing

- Small Industries Service Institutes (30)
- Branch SISIs (28)
- Subcontract Exchanges for Ancillary Development (SCXs) – 61 (Mostly with SISIs and Branch SISIs, some with Industry Associations)
- Regional Testing Centres (RTCs) – 4
- Field Testing Stations (FTSs)
SIDO Structure – Autonomous Bodies

- Tool Rooms (TRs)/Tool Design Institutes (TDIs) – 9
- Central Footwear Training Institutes (CFTIs) – 2
- Product & Process Development Centres (PPDCs) – 6
- Electronics Service & Training Centre (ESTC)
- Institute for Design of Electrical Measuring Instruments (IDEMI)
- Fragrance & Flavour Development Centre (FFDC)
- Centre for the Development of Glass Industry (CDGI)
- National Small Industries Corporation (NSIC)
- Small Industries Development Bank of India (SIDBI)
- Khadi and Village Industries Corporation (KVIC)
- Training Institutes
Training Institutes Created under SIDO

• National Institute of Small Industry Extension Training (NISIET)

• National Institute of Entrepreneurship and Small Business Development (NIESBD)

• Integrated Training Centre for Industries (ITCI)

• Indian Institute of Entrepreneurship (IIE)

• Small Entrepreneurs Promotion & Training Institute (SEPTI)

• Entrepreneurship Development Institute of India (EDII)
Agencies under the State Government

• Directorate of Industries, and the District Industries Centres (DICs) under them

• State Financial Corporations

• State Industrial Development Corporations (SIDCs)/State Industrial Investment Corporations (SIICs)

• State Small Industries Development Corporation (SSIDCs)
Entrepreneurship Development System

Level I
Centre for Excellence

Level II
National-level Entrepreneurship Institutes (NIIESBUD, NISIET, IIE, EDCs)

Level III
State-level CEDs/EDs; SSIs; KMEs; STEP; TBIs; TCOs; SMDCs

Level IV
DCs; NGOs; RUREDD Ts.; SIRD; CEDs for Women; STEDs; EDCs; EEBCs BIE T

Level V
Panchayati Raj Institutions (Gram Pradhans)
Institutions/Activities under the Department of Science & Technology (DST)

• National Science & Technology

• Entrepreneurship Development Board (NSTEDB)

• Activities under NSTEDB
  – Entrepreneurship Awareness Camp (EAC)
  – Entrepreneurship Development Programme (EDP)
  – Entrepreneurship Development Cell (EDC)
  – Science & Technology Entrepreneurs Park (STEP)
Activities under NSTEDB (contd.)

- Science & Technology Entrepreneurship Development Projects (STED)
- Faculty Development Programme (FDP)
- Skill Development through Science & Technology (STST)
- Technology Business Incubator (TBI)
- Technology Based EDP (TEDP)
- Open Learning Programme in Entrepreneurship (OLPE)
- Science-Tech Entrepreneur (Magazine)
## Achievements of NSTEDB

<table>
<thead>
<tr>
<th>Programme</th>
<th>Achievement (Nos.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entrepreneurship Awareness Camp (EAC)</strong></td>
<td></td>
</tr>
<tr>
<td>Conducted</td>
<td>1018</td>
</tr>
<tr>
<td>Students Exposed</td>
<td>71260</td>
</tr>
<tr>
<td><strong>Entrepreneurship Development Programme (EDP)</strong></td>
<td></td>
</tr>
<tr>
<td>Conducted</td>
<td>629</td>
</tr>
<tr>
<td>Persons Trained</td>
<td>14259</td>
</tr>
<tr>
<td>Units Set up</td>
<td>2684</td>
</tr>
<tr>
<td>Success</td>
<td>18.82%</td>
</tr>
<tr>
<td>Employment Generated</td>
<td>16,682</td>
</tr>
<tr>
<td><strong>Entrepreneurship Development Cell (EDC)</strong></td>
<td></td>
</tr>
<tr>
<td>ED Cells Established</td>
<td>30</td>
</tr>
<tr>
<td><strong>Science &amp; Technology Entrepreneurs Park (STEP)</strong></td>
<td></td>
</tr>
<tr>
<td>STEPs</td>
<td>32</td>
</tr>
<tr>
<td>Units Set up</td>
<td>433</td>
</tr>
<tr>
<td>Jobs Generated</td>
<td>3279</td>
</tr>
<tr>
<td><strong>Science &amp; Technology Entrepreneurship Development Scheme (STEDS)</strong></td>
<td></td>
</tr>
<tr>
<td>No. of STEDS</td>
<td>13</td>
</tr>
<tr>
<td><strong>Faculty Development Programme (FDP)</strong></td>
<td></td>
</tr>
<tr>
<td>Conducted</td>
<td>62</td>
</tr>
<tr>
<td>Faculty Trained</td>
<td>1575</td>
</tr>
<tr>
<td><strong>Skill Development through Science &amp; Technology (STST)</strong></td>
<td></td>
</tr>
<tr>
<td>No. of people trained</td>
<td>70,000</td>
</tr>
</tbody>
</table>
Programmes Outside the Government System

- Banks & Financial Institutions
- NGOs
- Academic Institutions
- Most of them having links with government programmes
Academic & Training Institutions: Three Categories

- Training institutions under the government, subsequently made autonomous

- Specialized institutes like IITs and IIMs taking up entrepreneurship development activities

- Universities and Colleges, both public and private

- Strengths and Weaknesses of each system
Activities of Education and Training Institutions in India

- Pre-start up training
- Pre-start up consultancy
- Incubation facilities
- Post-start up training
- Long duration diploma programmes
- Conferences, seminars & workshops
- Research projects
- Journals, newsletters & other publications
Academic Programmes: Inadequacies

- No degree-awarding programmes

- Limited focus on research and publications

- Missing culture of educating for long-term impact
Higher Education and Entrepreneurship: Mistrust and Mismatch

• Sentiments of mistrust: Example from India
  – Comment about the ownership disputes at Reliance Industries (India’s largest private sector company)

(“A poor ill-educated man created the billion-dollar Reliance Industries. Two business graduates from Stanford and Wharton are busy trying to break it up. That is education!”)
SME Training Survey

Some Findings
Training Needs of SMEs in India: Major Findings - 1/7

Perception of Training Need:

- 38%: No need for any training
- 47%: Need for some training
- 15%: SMEs need training

(Mostly medium sized firms)
## Priority Areas of Training - 2/7

<table>
<thead>
<tr>
<th>Directors</th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing – 38%</td>
<td>Finance – 24%</td>
<td>Team skills – 21%</td>
</tr>
<tr>
<td>Finance – 27%</td>
<td>Team Skills – 18%</td>
<td>Quality Assurance – 19%</td>
</tr>
<tr>
<td>Quality Assurance – 18%</td>
<td>Quality Assurance – 12%</td>
<td>Interpersonal skills- 10%</td>
</tr>
<tr>
<td>Leadership skills -18%</td>
<td>Marketing – 10%</td>
<td>Production Management – 8%</td>
</tr>
<tr>
<td>Technology Management – 17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venture Capital &amp; Funds Management – 16%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Networking skills – 16%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selling Skills – 16%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation skills – 15%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Training Needs of SMEs in India: Major Findings - 3/7

The most preferred training provider:

- Individual trainers and consultants 30%
- Training institutes 28%
- Consultant organizations 17%
- Industry associations 8%
- Universities 7%
- Others 10%
Training Needs of SMEs in India:
Major Findings - 4/7

Preference of duration and timing:

– Short duration *(2-4 hours)* preferably on week-ends

– Short on-campus training programmes
Training Needs of SMEs in India: Major Findings - 5/7

‘Felt-need’ for Training in practice: Training imparted:

Directors 6%, Managers 3%, and Employees 1%

Actual use of training providers:

Accountants, family members, colleagues in the industry, technology associates (suppliers of machines, customers, etc.)
Serious constraints for SMEs to undertake training

Gap between “espoused theory” and “theory-in-use”

(SMEs need training, but not my unit!)
Aversion to Training due to:

- Self-confidence
- Perceived irrelevance
- Lack of tangible effects
- Inability of unwillingness to pay
- Apprehension of loss of trained employees
- Internal exigencies
- Genuine constraints
The Learning Loop

The connectivity loop

The Essex Cluster-Based Entrepreneurship Programme
Some Concluding Observations

• Undistinguished in scope of provision but distinctive in structure of provision

• Confused state of affairs but widely spread and diverse forms

• Wide range of stakeholders but high level of state dependence

• Entrepreneurship training has higher premium than entrepreneurship education

• Current Status: Attention to Entrepreneurship only at the higher education level

• Early stage education in entrepreneurial attitudes neglected

• Recognize the dual role of education and focus on its value for facilitating the general as well as the task environments
Some Concluding Observations

• Need for

  – pro-active response to trends
  – distinction between entrepreneurship and small business training
  – internationalisation
  – Integration with R&D, information search, policy development
  – evaluation
Contacts

• Professor Jay Mitra
  • Head of School of Entrepreneurship and Business
  • University of Essex
  • Princess Caroline House
  • 1 High Street
  • Southend-on-Sea
  • Essex SS1 1JE
  • UK

• Tel: +44(0) 1702 238649
• Fax: +44 (0) 1702 238659
• E-mail: jmitra@essex.ac.uk

• Professor Mathew J Manimala
  • Professor of OB and Jamuna Raghavan Chair of Entrepreneurship
  • Indian Institute of Management,
  • Bannerghatta Road Bangalore-76
  • India

• Tel: +91-80-26993107
• Fax: +91-80-26584050
• Email: manimala@iimb.ernet.in
•