Entrepreneurship Education in India

Effective Models and Approaches
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4th UNESCO-APEID Meeting on Entrepreneurship Education

A Supportive Ecosystem for Entrepreneurship Education

12-14 October 2015
Integrated eco-system for entrepreneurship in India
Academic institutions’ eco-systems – aspiration, culture, interest

Entrepreneur organizations + Investors – knowledge, skills, experience, seed fund & confidence

Government agencies + Nat. & Intl Trade bodies - able to self advance, benefit from govt. Policies; contribute back to the eco-system

Mature Enterprises

New Start-ups

Educators

Mentors

Investors

Eco-system builders

Policies

Growth enterprises – stabilizing & growing
Entrepreneurship Education in India

• Full time programmes
• EE integrated through curricular and extra-curricular modules
Full time

• Entrepreneurship focussed organisations
  – EDII, NIESBUD
  – MIDAS, LSE, TES

• Institutions with a strong programme in entrepreneurship
  – TISS (Masters in Social Entrepreneurship)
  – Ashoka, SSRS

• Short term programmes
  – SPJIMR, IIMB

A total of 57 such organisations resulting in about 2500 ‘graduates’
Entrepreneurial Campus

• NEN – since 2005
• Involved in over 700 colleges
• Trained about 3000 faculty members
• Involved over 80,000 students in activities
• Programme to be expanded to 3000 colleges
Campus Entrepreneurship Eco-System
WF-NEN's approach to entrepreneurship development at academic institutions

1. Inspire and engage entrepreneurship exposure & interest

PARTICIPANTS
- Unaware Students
- Aspiring Entrepreneurs
- Student Entrepreneurs

ACTIVITIES
- E Talks & E Summits
- Exercises & Games
- Panel Discussions
- Competitions: Ideas & B-Plan
- 36-Hour Startups
- Startup Showcase
- Startup Jobs

EXPERT RESOURCES
- Alumni
- Entrepreneurs
- Faculty
- Advisors

2. Create entrepreneurial skills and experience

PARTICIPANTS
- Aspiring Entrepreneurs
- Student Entrepreneurs
- Startups

ACTIVITIES
- Hands-on Course
- Campus Company Program
- Structured Mentoring
- Advanced Topic Courses
- Startup Internship
- Startup Consulting
- Tech Product Development

EXPERT RESOURCES
- Entrepreneurs
- Educators
- Mentors

INCUBATOR / ENTREPRENEUR CENTRE

CREATE

3. Support entrepreneurial knowledge, resources, networks

PARTICIPANTS
- Startups
- Entrepreneur Firms in Community
- Alumni, Others

ACTIVITIES
- Mentoring
- Training
- Access to: Infrastructure, Funding, Networks

EXPERT RESOURCES
- Entrepreneurs
- Administrators
- Mentors
- Educators
- Investors

* IEDC: Innovation and Entrepreneurship Development Center
EDC: Entrepreneur Development Cell
FACULTY DEVELOPMENT APPROACH

**Output:** Faculty can train & mentor -
- entrepreneurs to help grow their company

**Goal:** Help create more jobs and revenue at the start-ups

**Output:** Faculty can -
- Facilitate training for student entrepreneurs & hand-hold them to start-up
- Run advanced level courses on campus

**Goal:** Create new start-ups by the graduating students & alumni

**Mentor Level**
- Hand-holding an entrepreneur to start-up
- Leading the entrepreneur to identify issues and solutions
- Draw expert help to outline critical strategies

**Advanced Teaching Level**
- Examine key areas of start-ups: business models, getting to market, hiring, raising funds, etc.
- Apply concepts & frameworks start-up issues
- Advanced pedagogies: live cases, panels, experts
- Infrastructure design: incubation, innovation centers

**Foundation Teaching Level**
- Orientation & relevance to students, institutes, faculty
- Life cycle of a typical venture / technology venture
- Core concepts & frameworks in venture creation
- Experiential, participant centric pedagogy: exercises, videos, cases
- Program design: courses, campus company program, internship
Samples

NEN Institution database ~ 700 capturing trends across time (2007-2014)

+ 

Students Survey ~ 2200 NEN Alumni
Students who were in entrepreneurship programs and graduated from college
What is the venture impact of the model?

The average number of ventures created per active member is going up.

Management Stream has the highest percentage of ventures, with over 30% of management institutes clocking over twice the average no. ventures.

Tier 1 geographies (developed City, & State) are twice and thrice as likely to produce such ventures than Tier 2/3 and Tier 4 locations respectively.
What is the job impact of the model?

We find an avg. of about 6.5 direct jobs, based on the Job survey. 15% of the ventures create over 13 jobs (Tier 1 Ventures)

These Tier 1 Ventures also exhibit greater market confidence, including being twice as likely as other ventures to be able to source external funding

Top programmatic interventions correlated with Tier 1 ventures include Start-up internships, Campus companies and E Cells
Infrastructure People & Program Capacities
This analysis was run with only 2013 data.

- **Sample Size:** (Total Sample Size = 714 of which 202 achieved the level of C or S)

- **Success Ratio:**
  Total number of institutions that meet a prescribed condition to the total number of institutions that have attempted to try that particular condition since the inception (From 2009).
Relative Importance of Interventions

• Across outcomes (support and create), the top four factors (within institutional capacity) linked to strong outcomes are (in the decreasing order)
  • Campus companies
  • E cell
  • Startup internships
  • Mentoring faculty

• These factors are fairly consistent across the four streams, irrespective of the status of current engagement with the NEN network

• These could indicate that in addition to E cells (which are fairly standard across institutions), market facing initiatives such as internships, exposure to companies and mentoring are critical to consistent outcomes. This is also a shot in the arm for the latest version of the intervention model, which lays strong emphasis on these elements
Establishing capacity
Infrastructure Capacity

Infrastructure units such as Incubation centre, Entrepreneur Support Centre and Patent/Tech Transfer office have been attempted in very few institutions. These have proven a very high Success Ratio.

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Success Ratio</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>E Cell</td>
<td>51%</td>
<td>20.30%</td>
</tr>
<tr>
<td>Student Innovation Centre (IEDC)</td>
<td>52%</td>
<td>36.14%</td>
</tr>
<tr>
<td>Student Entrepreneur Centre (EDC)</td>
<td>55%</td>
<td>60.89%</td>
</tr>
<tr>
<td>Incubation centre//STEP</td>
<td>67%</td>
<td>24.75%</td>
</tr>
<tr>
<td>Entrepreneur Support Centre</td>
<td>67%</td>
<td>4.95%</td>
</tr>
<tr>
<td>Patent /tech transfer office</td>
<td>89%</td>
<td>7.92%</td>
</tr>
</tbody>
</table>

High Success Ratio and Large Sample Size
High Success Ratio and Small – Medium Sample Size

<table>
<thead>
<tr>
<th>Titles</th>
<th>Universities that attained C or S</th>
<th>Universities Attempted since 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubation centre</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Entrepreneur Support Centre</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Patent /tech transfer office</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>
Lecture, talk, games, exercises, startup internship program and number of campus companies have clearly reflected high success ratio and sample size.

Programs such as hands on intro course (29/30), Adv W/S (27/29) and Adv Course (15/15) has been attempted by very few institutions but have proven more than 90% success ratio. Strong focus must be given to these programs in more institutions to try and understand whether these can aid institutions reach higher levels.
Analysis 2

Outcomes
## Infrastructure Capacity

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>E Cell</td>
<td></td>
</tr>
<tr>
<td>Student Innovation Centre (IEDC)</td>
<td>23%</td>
</tr>
<tr>
<td>Student Entrepreneurship Centre (EDC)</td>
<td>38%</td>
</tr>
<tr>
<td>Student Mentoring unit</td>
<td>75%</td>
</tr>
<tr>
<td>Incubation centre//STEP</td>
<td>27%</td>
</tr>
<tr>
<td>Entrepreneur Support Centre</td>
<td>7%</td>
</tr>
<tr>
<td>Patent /tech transfer office</td>
<td>13%</td>
</tr>
</tbody>
</table>

Student Mentoring Unit has been attempted by 75% of the institutions that have a track record of producing entrepreneurs.

Infrastructure units such as Entrepreneur Support Centre and Patent/Tech Transfer office have been attempted in very few institutions. Among those institutions that have attempted to have such infrastructure; majority of them have proved a positive outcome. Large focus must be on these non-conventional infrastructure units.
# Program Capacity

<table>
<thead>
<tr>
<th>Programs</th>
<th>Presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture, talk, games, exercises</td>
<td>58%</td>
</tr>
<tr>
<td>Workshops</td>
<td>44%</td>
</tr>
<tr>
<td>University course</td>
<td>30%</td>
</tr>
<tr>
<td>Hands on Intro course (self developed)</td>
<td>20%</td>
</tr>
<tr>
<td>Adv W/S</td>
<td>21%</td>
</tr>
<tr>
<td>Startup Internship Program</td>
<td>41%</td>
</tr>
<tr>
<td># Campus Company</td>
<td>51%</td>
</tr>
<tr>
<td>Regional /National Event</td>
<td>9%</td>
</tr>
</tbody>
</table>

Lecture, talk, games, exercises, startup internship program, workshops and number of campus companies have clearly reflected high presence.
Limitations

• Restricted by reporting
• Many may start but don’t report
• Many start years after graduating
Summary Sheet

• After analysing institutions that have
  – Attained high institutional levels
  – Attained High outcomes
  – Grown ground-up from N – C/S/CS

We interpret that the following could be key factors that might have influenced the universities positively.

Primary – Attempted in many universities and proven results
Secondary – Attempted in few universities but have proven results

Infrastructure Capacity

Primary: Student Mentoring Unit, Student Entrepreneurship Centre
Secondary: Patent/tech transfer office, Entrepreneur support centre, Incubation centre

People Capacity

Primary: # of Mentoring Faculty,

Program Capacity

Primary: Lecture, talk, games, exercises, # Campus Company 2013
Secondary: Hands on Intro course (self developed), Adv W/S, Adv Course, Startup Internship Program & University course
Student Survey Results

• A moderate relationship was found between participation in entrepreneurial activities and the use of mentoring and business incubators. The correlation with use of business incubators was 0.45 and with mentoring was 0.59.

• Participating in entrepreneurial activities in college leads to formation of entrepreneurial skills. A significant relationship is found between participating in entrepreneurial activities and formation of entrepreneurial skills. The correlation between the two variables is 0.74.

• A significant relationship is found between participating in entrepreneurial activities and recommending such activities to others. The correlation between the two variables is 0.83.

• In an analysis of the relative impact of various activities, **Student Venture** in combination with **Major Events** and **Campus Company** is found to have an impact of 86%.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Inducted faculty, started course on entrepreneurship, student mentoring unit</td>
</tr>
<tr>
<td>2006</td>
<td>Established e-cell, workshops games initiated</td>
</tr>
<tr>
<td>2007</td>
<td>Conducted national level event</td>
</tr>
<tr>
<td>2010</td>
<td>Started incubator</td>
</tr>
<tr>
<td>2011</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Started course for entrepreneurs</td>
</tr>
</tbody>
</table>
Thank you