EMBEDDING ENTREPRENEURSHIP IN UNIVERSITY CURRICULA

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APEC HRD

An overview of issues in APEC Economies

The role of Higher Education and Entrepreneurship Training from the perspective of APEC member economies

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The main questions

What sort of business environment is suited to entrepreneurs?
What role do SMEs and entrepreneurs play in the APEC economy?
Are all entrepreneurs the same? Is there a curriculum for entrepreneurship?
Do entrepreneurs need education more than they used to as a result of globalisation and APEC?
If APEC needs more and better entrepreneurs - how can education help meet those needs?
How can universities better help entrepreneurs?
1. Entrepreneurs, and the SMEs they manage, make a major contribution to economic growth and dynamism.

2. The entrepreneurial engine relies on a lot of entrepreneurs willing to try, and acceptance that some fail in doing so.

3. Most developing APEC economies need many more experienced and educated entrepreneurial managers able to compete in a much more globalised world.

4. Entrepreneurs are a minority. Not all entrepreneurs are the same. A single curriculum approach is not appropriate.

5. Learning by doing is important in entrepreneurship education. So is assistance and mentoring when it is needed.

6. Education is only one of the links need in a chain of factors affecting entrepreneurial success; if other links (like finance or infrastructure) are weak or missing, education will not help as much as it could.
what sort of business environment is best for entrepreneurs and firm creation?

stable, predictable
turbulent, uncertain
What is an SME? Most entrepreneurs manage an SME

- 99.9% of all businesses are SMEs, employing less than 500 people,
- 98% employ less than 100,
- 80% employ less than 5 people

There is no consistent definition of SMEs across APEC, but the great bulk of SMEs employ less than 100, and most less than 20 people.
There are now about 77 million SMEs in APEC, about 30 million of them in China, but there should be about 100 to 120 million.
What do these SMEs contribute?

- Large firms make up less than 0.1% of businesses, contribute between 40% and 60% of employment, and about 50% of GDP.
- Large firms usually destroy jobs, i.e., are net job destroyers.

SMEs contribute about half of GDP, and about half of all jobs. About 20% of jobs are from medium, 20% from small, and 20% from micro.

But SMEs, especially new micro and small enterprises create most of the growth and flexibility in the face of change.
Most SMEs start with an entrepreneur, and entrepreneur rates differ.

GEM TEA (Total Entrepreneur Activity) Rates for APEC Economies 2003 Percent of Adult population starting or running a business less than 42 months old

- Australia
- Canada
- Chile
- China
- Hong Kong
- Japan
- Korea
- Malaysia
- Mexico
- New Zealand
- Russia
- Singapore
- Chinese Taipei
- Thailand
- USA
Entrepreneur densities suggest 5% of the population run an SME. For every 1 million people...

..GEM suggests about 5% (50,000) try to start a business each year, and of that 50,000, about 45,000 will not succeed.

If the successful start up rate is 10% of the firm population (50,000 firms for 1 million people), then 5,000 will start each year, and about 10% (5,000) exit each year.
a 5% benchmark suggests that 1 in 20 persons should have experience in managing a formal SME, but ...

2010 economies have 19% of APEC’s human population but have 35% of the SMEs. China has half of APEC’s population but only 18% of APEC’s SMEs.

2010 economies have about 20 people per SME, while 2020 economies have about 120 people per SME - there is a shortage of about 70m entrepreneurs in APEC!
Large firms employ about half the workforce, but add relatively few net jobs.

Fast growing firms contribute around 70% of net job growth.

Small firms churn, add and destroy a lot of jobs, - net addition varies with cycle and economy.

- About 1% of firms seek growth.
- About 5% of firms contribute around 70% of net job growth.
- Over 90% of firms.

How does the entrepreneurial Engine work?
94% Small, micro firms churn, add and destroy a lot of jobs, - net job creation varies with cycle and economy

5% A few fast growing firms contribute around 70% of net job growth, *but it takes a fast growth start up about 8 years to have much impact on net job growth, and by then they are not SMEs*

1% Large firms tend to be net job destroyers

so the engine has a fairly long cycle of 8 years or more
So in summary, the APEC Entrepreneurial Environment....

A population of about 2.5 billion implies about 0.5 billion potential entrepreneurs, but only a few actually seek to start a business.

About 70% + of job growth comes from about 5% of firms (2.5m) - which are high growth and internationalised.

About 20% of SMEs are growth oriented.

There are fewer SMEs than there should be - 1/20 rule suggests 100 - 150 million. The bulk (75% or so) of the actual 70 million SMEs in APEC are small and not growth oriented.

and is underpowered in APEC.
Not all Entrepreneurs are the same!

percent of adult population

- non entrepreneurs 75%
- wage earners, professionals etc
- less willing to bear uncertainty and risk

- aspiring entrepreneurs 20%
- willing to bear some uncertainty

- actual entrepreneurs 5%
- willing to bear some uncertainty

The Entrepreneurial Engine is what drives economies...

- about 75% (3.5%) are lifestyle entrepreneurs, not really interested in, or capable of growth
- about 25% (1.25%) are growth oriented
- only a very small proportion are heroes, who risk all for growth
But it is this small proportion of the adult population (about 1% or less) and less than about 5% of SME population that drive international success, provide much of the resilience, and create around 70% of net jobs!!
SMEs can benefit from government support in...

- information
- training
- administrative burden
- finance
- technology
- functional support
- infrastructure
- SME focus
- market opportunities
- administrative burden
- infrastructure
- SME focus
- technology
- finance
- administrative burden
- information
- training
- market opportunities
- SME focus

..but needs differ by enterprise, and a chain is as strong as its weakest link.

..who need appropriate government and private sector support
entrepreneurs need a better education now than before to cope with increased internationalisation

Activity

- Start up
- Home market growth, need for bigger market
- Use agents to test international market
- Establish corporate existence abroad
- Develop global network of offices or alliances
The political challenge facing APEC in designing the business environment best for entrepreneurs and firm creation

- suited to lifestyle, large businesses, wage earners
- suited to fast growing international opportunists
- stable, predictable
- turbulent, uncertain

what sort of business environment suits entrepreneurs?

- environment suited to electoral popularity and most micro enterprises and start ups
- environment suited to creating new jobs, innovation and international competitive advantage
<table>
<thead>
<tr>
<th>How can universities help entrepreneurs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entrepreneurship programs - courses and degrees in how to start and run successful businesses</td>
</tr>
<tr>
<td>2. Incubators and hatcheries - access to office facilities, IT support, etc</td>
</tr>
<tr>
<td>3. Mentoring - advice given by expert staff and alumni</td>
</tr>
<tr>
<td>4. Networking opportunities - SME can use alumni and student networks for advice, marketing etc</td>
</tr>
<tr>
<td>5. IP licensing - ie university licenses its own technology or sublicenses technology from MNCs to SMEs</td>
</tr>
<tr>
<td>6. Research - university provides R&amp;D facilities and testing</td>
</tr>
<tr>
<td>7. Credentialling - university runs competitions for SMEs good ideas etc, and then prize winners have better access to major businesses, banks etc</td>
</tr>
<tr>
<td>8. Whole of life education - giving people the ability to see new trends, opportunities and the knowledge to capture them</td>
</tr>
</tbody>
</table>
Key points to take away

1. Entrepreneurs, and the SMEs they manage, make a major contribution to economic growth and dynamism.

2. The entrepreneurial engine relies on a lot of entrepreneurs willing to try, and acceptance that some fail in doing so.

3. Most developing APEC economies need many more experienced and educated entrepreneurial managers able to compete in a much more globalised world.

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Thank you!
The Role of Higher Education in Entrepreneurship Training: A UK Perspective

Natalie Campbell
Enterprise Consultant
Natalie Campbell

- Student run events company
- Franchise operator for Morgan De Toi
- Campaign Manager for Further and Higher Education
- Lecturer in Entrepreneurship at Kingston University, Surrey UK
- Enterprise and Entrepreneurship Consultant
Overview

Entrepreneurship policy in the UK
Entrepreneurship delivery
Attitudes and characteristics
Enterprise and Entrepreneurship in the UK

• ‘Can-do’ People: Development of enterprise skills and qualities will result in confident, empowered, motivated students and innovative employees.

• Boost the Economy: Enterprising organisations will see the benefits, drive the economy and help motivate individuals to have ideas and make them happen.

• Stronger Communities: Releasing untapped potential in geographic areas and amongst women and ethnic groups will benefit individuals and communities.
## Competitiveness—a core driver

<table>
<thead>
<tr>
<th></th>
<th>I expect to start a business in the next 3 years</th>
<th>I know someone who has started a business in the last 2 years</th>
<th>There are good start-up opportunities where I live in the next 6 months</th>
<th>I have the skills, knowledge and experience to start a business</th>
<th>Fear of failure would prevent me starting a business</th>
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</thead>
<tbody>
<tr>
<td><strong>G7</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td>7.4</td>
<td>25.7</td>
<td>39.0</td>
<td>48.5</td>
<td>35.8</td>
</tr>
<tr>
<td>France</td>
<td>16.5</td>
<td>48.7</td>
<td>23.3</td>
<td>33.5</td>
<td>48.6</td>
</tr>
<tr>
<td>Italy</td>
<td>12.9</td>
<td>38.1</td>
<td>39.5</td>
<td>50.5</td>
<td>42.1</td>
</tr>
<tr>
<td>Japan</td>
<td>5.5</td>
<td>22.7</td>
<td>8.9</td>
<td>15.2</td>
<td>36.6</td>
</tr>
<tr>
<td>US</td>
<td>14.4</td>
<td>32.5</td>
<td>25.2</td>
<td>48.3</td>
<td>23.1</td>
</tr>
<tr>
<td><strong>G7 average</strong></td>
<td>11.3</td>
<td>33.5</td>
<td>27.2</td>
<td>39.2</td>
<td>37.2</td>
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<tr>
<td><strong>BRIC</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>25.1</td>
<td>34.4</td>
<td>39.1</td>
<td>53.7</td>
<td>33.5</td>
</tr>
<tr>
<td>Russia</td>
<td>5.0</td>
<td>16.9</td>
<td>10.6</td>
<td>8.7</td>
<td>28.4</td>
</tr>
<tr>
<td>India</td>
<td>49.9</td>
<td>77.4</td>
<td>71.0</td>
<td>73.0</td>
<td>46.9</td>
</tr>
<tr>
<td>China</td>
<td>37.2</td>
<td>64.5</td>
<td>39.2</td>
<td>38.9</td>
<td>29.5</td>
</tr>
</tbody>
</table>
## Attitude and Capability

<table>
<thead>
<tr>
<th></th>
<th>2006 All</th>
<th>2006 Male</th>
<th>2006 Female</th>
<th>2007 All</th>
<th>2007 Male</th>
<th>2007 Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>I expect to start a business in the next three years</td>
<td>8.0</td>
<td>10.7</td>
<td>5.4</td>
<td>9.6</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>I have closed a business in the 12 months (the business has not continued in another form)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.2</td>
<td>1.6</td>
<td>0.9</td>
</tr>
<tr>
<td>I personally know someone who has started a business in the last two years</td>
<td>27.3</td>
<td>31.9</td>
<td>22.6</td>
<td>29.6</td>
<td>21.6</td>
<td></td>
</tr>
<tr>
<td>There will be good start-up opportunities where I live in the next six months</td>
<td>36.9</td>
<td>41.3</td>
<td>32.3</td>
<td>44.0</td>
<td>33.9</td>
<td></td>
</tr>
<tr>
<td>I have the skills, knowledge and experience to start a business</td>
<td>49.3</td>
<td>58.7</td>
<td>39.8</td>
<td>57.1</td>
<td>39.5</td>
<td></td>
</tr>
<tr>
<td>Fear of failure would prevent me from starting a business</td>
<td>35.8</td>
<td>32.5</td>
<td>39.1</td>
<td>34.0</td>
<td>37.6</td>
<td></td>
</tr>
<tr>
<td>Most people consider that starting a business is a good career choice</td>
<td>54.2</td>
<td>55.3</td>
<td>53.1</td>
<td>54.1</td>
<td>55.5</td>
<td></td>
</tr>
<tr>
<td>Those successful at starting a business have a high level of status and respect in society</td>
<td>72.8</td>
<td>74.1</td>
<td>71.3</td>
<td>73.9</td>
<td>73.4</td>
<td></td>
</tr>
<tr>
<td>You will often see stories about people starting successful new businesses in the media</td>
<td>54.8</td>
<td>57.2</td>
<td>52.3</td>
<td>57.7</td>
<td>56.0</td>
<td></td>
</tr>
</tbody>
</table>
National and Regional Programmes

• England-Enterprise Insight (The Make Your Mark Campaign)
• The National Council for Graduate Entrepreneurship
• Enterprise Educators Network
• Scottish Institute for Enterprise (SiE)
• Wales-Dynamo
Enterprise Policy and Education

• Schools have 5 days compulsory enterprise education
• £30 million to extend provision from secondary to primary and FE to create a continuous enterprise journey (14-19)
• AoC Northern Way Programme
• CoVE’s for Enterprise
• NESTA/SEEDA partnership
shifthappens
DID YOU KNOW?
Sometimes size does matter
If you’re one in a million in China...
...there are 1,300 people just like you
In India there are 1,100 people just like you.
The 5% of the population in China with the highest IQ’s...
...is greater than the total population of the UK
In India, it’s the top 7%
Translation:
They have more gifted & talented students, than we have students.
DID YOU KNOW?
China will soon become the number one English speaking country in the world.
During the course of this presentation...
15 babies will be born in the UK

244 babies will be born in China

351 babies will be born in India
It is estimated that today’s learner will have 10-14 jobs...
...by the age of 38
1 out of 4 workers today is working for a company they have been employed by for less than one year.
more than 1 out of 2 are working for a company they have worked for less than five years.
According to former US Secretary of Education Richard Riley...
...the top 10 in-demand jobs in 2010 did not exist in 2004
We are currently preparing students for jobs that don’t yet exist...
using technologies that haven’t been invented...
in order to solve problems we don’t even know are problems yet.
POP QUIZ
Name this country...
✓ Richest in the world
✓ Largest military
✓ Center of world business and finance
✓ Strongest education system
✓ World center of innovation and invention
✓ Currency the world standard of value
✓ Highest standard of living
England... in 1900
DID YOU KNOW?
According to BBC News, a new blog is created every second.
There are over 106 million registered users of MySpace (as of September 2006)
If MySpace were a country, it would be the 11th-largest in the world (between Japan and Mexico)
The average MySpace page is visited 30 times per day.
DID YOU KNOW?
We are living in exponential times
There are over 2.7 billion searches performed on Google each month.
To whom were these questions addressed before Google?
The number of text messages sent and received every day exceeds the total population of the planet.
There are about 540,000 words in the English language...
about 5X as many as during Shakespeare’s time.
More than 3,000 new books are published every day
It is estimated that a week’s worth of The Times...
...contains more information than a person was likely to come across in a lifetime in the 18th century.
It is estimated that 40 exabytes \((4.0 \times 10^{19})\) of unique new information will be generated worldwide this year.
That is more than in the previous 5,000 years.
The amount of new technical information is doubling every 2 years.
For students starting a three-year university degree, this means that . . .
half of what they learn in their first year of study will be outdated by the end of their studies.
By 2010 it is predicted to double every 72 hours
Third generation fiber optics have recently been separately tested by NEC and Alcatel...
...that carry 10 trillion bits per second down a single strand of fibre
That is 1,900 CDs or 150 million phone calls every second
It is currently tripling every 6 months and is expected to do so for the next 20 years.
47 million laptops were shipped worldwide last year.
Predictions are that by 2013 a supercomputer will be built that exceeds the computation capability of the human brain.
And while technical predictions further out than about 15 years are hard to do...
predictions are that by 2049 a £500 computer will exceed the computational capabilities of the entire human species
So, what does it all mean?
ventureshifthappens
NOW YOU KNOW
HE Overview

HESA - Destinations of leavers from higher education in the United Kingdom for the academic year 2006/07

• 190,385 full-time first degree graduates
• 64% were in employment, the same as in 2005/06
• 9% were in a combination of work and study (+1%)
• 16% were in further study (equal); and 6% were assumed to be unemployed (equal).
The National Council for Graduate Entrepreneurship
Mapping Provision

The National Council for Graduate Entrepreneurship (NCGE) 2007 survey of Enterprise and Entrepreneurship in Higher Education, conducted across 127 universities in England serving a student population of 1.76 million, achieved a 96% response rate.
Student engagement

• Overall rates of engagement have grown
• The Student Engagement Rate is now 11%
• Gender split is relatively balanced at 53% male; 47% female
In-curricula provision

- Accounts for 36% of enterprise and entrepreneurship activity
- Business and management schools are responsible for 61% of provision (9% engineering; 8% creative; 1% health)
- 80% of provision is at undergraduate level; 87% for full-time study
In-curricula provision

![Bar graph showing the provision of in-curricula courses across different fields: Business (61%), Engineering (9%), Art/Design (8%), Math/Computing (4%), Natural/Pure Science (4%), Medicine/Health (1%)].
Extra-curricula provision

- Accounts for 64% of enterprise and entrepreneurship activity
- Wide range of opportunities provided
- Strong reliance on short-term funding
- More than 80% of funding for extracurricular activity is from the public sector
Extra-curricula provision

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise workshops</td>
<td>9%</td>
</tr>
<tr>
<td>Business Plan Competitions</td>
<td>7%</td>
</tr>
<tr>
<td>Mentoring for Start-up</td>
<td>6%</td>
</tr>
<tr>
<td>Specialist advice</td>
<td>5%</td>
</tr>
<tr>
<td>Careers events</td>
<td>5%</td>
</tr>
<tr>
<td>Access to funds</td>
<td>4%</td>
</tr>
<tr>
<td>Summer schools</td>
<td>3%</td>
</tr>
</tbody>
</table>
Funding

- HBF: 31%
- University: 15%
- RDA Funds: 13%
- EU Funding: 9%
- Sponsorship: 6%
- Endowments: 1%
Infrastructure

- Incubator: 55%
- Startup funds: 53%
- Student enterprise club: 52%
- Hot-desk/Drop-in facility: 53%
The Make Your Mark Campaign

A business-led, government-backed campaign to inspire young people to be enterprising

Founded by BCC, CBI, FSB and IoD, funded by BERR

• Works with corporate partners, RDAs, celebrity ambassadors and role models. In partnership with the 25-member Enterprise Campaign Coalition

• Five geographical hubs – Liverpool, Wakefield, Lowestoft, Coventry, Tees Valley

• Specific campaigns – in women’s enterprise, FE, HE, schools, BME, social enterprise
Rebranding Entrepreneurship in Higher Education

“Enterprise is about having ideas and making them happen”

“Employees being enterprising in the workplace, business start-ups or social enterprise”
Young Self Starters

- They believe they have the skills to start their own business.
- 90% would rather work for themselves than work for a large company.

Most likely of all segments to feel that the best time to start a business is in their twenties (46%).
Hesitant Creatives

- Most likely segment to say that they would rather work for themselves than a large company
- Perfectionists who prefer to work on their own (rather than in a team)
- Will bend rules in order to reach their goal
Corporate Strivers

- Team players who are keen to be socially accepted and fit in
- Less likely than other segments to want to work for themselves rather than a large company
- Over a third say their current job encourages them to develop new ideas/do things differently

Corporate Strivers - Total

Not individualistic

Under Pressure

Confident in own abilities

Self-belief

Enterprising

Risk Taker

Embracing change (Freedom Aspiring)

Good Work/Life balance

Long term view
Drifting Opportunists

• Risk takers, who are happy to bend the rules to reach their goals

• 38% have only a vague idea about their future career path

• Most likely segment to ‘live in the moment’
Enterprise Week 2008

• Enterprise Week (17-23 November 2008), part of Global Entrepreneurship Week, is a national celebration of enterprise with thousands of events and activities happening across the UK. Last year there were over 5,000 events and more than half a million people took part!

• Over 2,000 organisations run events and activities during the week to encourage people to have ideas and make them happen. This can be by starting up a new business or social enterprise, or by having ideas and making them happen in the workplace.
Session 2

• Case studies from across the UK
• Successful delivery projects
• Opportunities in the UK
• Global Entrepreneurship Week 2008
• International Educators Conference
Thank you
Nataliedcampbell@gmail.com