EE-402T: Entrepreneurship in Asian High Tech Industries

Asia Entrepreneurship Update 2008

Stanford University
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Welcome!

♦ Public lecture / panel discussion series presented by the US-Asia Technology Management Center (http://asia.stanford.edu)

♦ Available for credit to Stanford students

♦ EE-402t “Entrepreneurship in Asian High-Tech Industries”

♦ Credit requirements: see Syllabus

♦ On-site attendance at eight (8) of ten (10) sessions

♦ Weekly comments on nine (9) sessions of ten (10) sessions, submitted by email to Dasher and to course assistant (see end slide) -- submit within two weeks

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Series mission

♦ Update: new information on entrepreneurship in Asia high-tech industries
  ♦ Yearly: the last 12 months or so
  ♦ Updates by region (country) / industry
  ♦ Special sessions on selected business areas: hot topics at present

♦ Today: Dasher’s perspectives into this theme
  ♦ Background, highlights of 2007
  ♦ What to watch for over the next year
Outline of today’s talk

♦ Why be interested in high-tech entrepreneurship in Asia?

♦ Entrepreneurship
  ♦ Special role of entrepreneurs / start-up companies in the growth of Asia business
  ♦ Differences in entrepreneurship in U.S. and Asia

♦ Entrepreneurship this year in major Asia economies

♦ Q&A
Why Asia is interesting to U.S. business

- Asia market growth = emergence of world’s largest new middle class
- Asia as a source of highly educated, skilled labor (at low cost up to now)
- Result: Asia has special place in business globalization (supply chains)
- Result: Asia is becoming a world incubator for new high-tech businesses
RISE OF THE DRAGON
Projected GDP in the 21st Century

2050
China = $44.5 trillion
U.S. = $35.2 trillion

2000
U.S. = $9.8 trillion
China = $1.1 trillion

China
Europe-4
India
Japan
United States

(in trillions of 2003 U.S. dollars)

2000 2010 2020 2030 2040 2050

Europe-4 = France, Germany, Italy, and the United Kingdom
Source: Goldman Sachs

AeA Competitiveness Series, China’s 15-Year S&T Plan, April 2007

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What Does High GDP Growth Mean?

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<tr>
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<th>1999</th>
<th>2003</th>
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<tbody>
<tr>
<td>China</td>
<td></td>
<td></td>
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<tr>
<td>Population</td>
<td>1.26 billion</td>
<td>1.29 bn</td>
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<tr>
<td>GDP</td>
<td>$519.6 billion</td>
<td>$1,409.9 bn</td>
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China
Asia: not just increasing market size -- robust early adopter markets

- Young people in Asia spend money, interested in “cool” things
- Some areas of major growth in Asia before U.S.
  - Mobile wireless and related services (payment systems, video over cellphones, etc.)
  - On-line multi-player electronic games (Shanda has had one game with 1.7 million players at once in real time)
  - Possibilities: disruptive low-cost solutions in IT, energy, cleantech, . . . ?
Asia: attractive markets for start-up companies

Develop new technology for existing market: big companies do this

Techno Risk
High

Low

New ideas for new markets: only start-up companies will carry both risks

Find new market for existing technology: big companies do this

Incremental product development: big companies do this

Market risk
High

Low

(based on Christensen 1997)

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Focus of this series: “Entrepreneurship”

(1) New (high-tech) start-up companies that:

- Aim at large multiples of growth (e.g. $500K into $5 billion)
- Therefore differ from traditional SMEs (small and medium sized enterprises)

(2) The skill sets, knowledge, and resources needed by key players in order to start and grow such companies

- There are differences between Silicon Valley and Asia!
Successful entrepreneur characteristics (universal)

- **Vision**: can imagine new possibilities
- **Passion**: has passion for an idea, can get other people excited (potential investors, workers, customers, business partners)
- **Will take risks**
- **Can analyze competitive strengths and limits of self and competition in each project**
- **Team-building skills**
- **Flexibility** to learn from others, especially about business planning and management
Not all entrepreneurs start companies

- See similarly entrepreneurial skills when individuals start new projects in big companies
- But, does the “entrepreneur” have the option of leaving the company if the idea is not accepted?
  - Availability of resources (funding, people, advice)
  - Social attitudes
Start-up company resource needs (universal)

- A great founding team with a great business idea and defense mechanisms
- Access to start-up and expansion capital
- Access to external specialist knowledge (advisors, lawyers, etc.)
- Access to additional employees, managers
- Access to markets that create a growth loop (Moore’s “bowling alley”)
Start-up company resource solutions: may differ according to culture

- Depending on the environment, entrepreneurs may use different techniques:
  - To build team
  - Find investment funds
  - Start and grow the new business
  - Measure project success
Typical start-up company differences between Silicon Valley and Asia

- Demographics of individual founders
  - Fewer interdisciplinary (heterogeneous) teams in Asia
  - Age of entrepreneurs tends to be older in Japan
- Different patterns of financing (reliance on loans versus sale of stock)
- Less well-established expectations about management-investor relations
- Less well-established expectations about IP management
Less obvious differences:
1. Exit strategies for founders

- The extent founders keep ownership even after company goes “public”
  - Typically company share diluted to ~ 6% in U.S., but may continue at over 50% in Japan, other Asia public markets

- The extent founders retain management control even after company goes “public”
  - Dynamics of board of directors

Implication: different strategies, expectations for U.S. investors, business partners, co-founders
Less obvious differences:

2. Consolidation versus grouping

- U.S.: companies consolidate through merger and acquisition (and conversely, spin-off completely independent companies)
- Asia: grouping (Japanese keiretsu, Korean chaebol, Chinese and Indian family dynasties)
- Implication: degree of independence of a new spin-off company
  - External relations may control business strategy
  - In turn affecting market access and growth potential
  - Stockholder identities may create external relations
Less obvious differences:
3. Entrepreneur career paths

♦ U.S.: After success, most common pattern may be to become serial entrepreneur or venture investor
  ♦ Stay on in management of large company may be rare

♦ Asia: some success stories, but still very few serial entrepreneurs, entrepreneur > venture investor instances

♦ Implications:
  ♦ Less knowledge transfer to next generation start-ups
  ♦ Less shared sense of possible success for entrepreneurs
Additional challenges in Asia

♦ Social (cultural) expectations about how young people should act
  ♦ May lead to disconnect between need for experienced managers (to get capital, business partners) and need for market knowledge
  ♦ Relationships with mentors (listen but reserve the right to say “no”)

♦ Difficult to obtain business partners, make first sales without giving up future
  ♦ For example, technology evaluation “hell” when selling to large companies in Japan
Update: current trends
General trend: Investor interest in China and India continues to be high.
Rapid growth of VC in India as well as China

Money Tree Report, by Price Waterhouse Coopers and NVCA, January 2008:

♦ 2007: 133 deals in China, total $US 1.4 billion
♦ 2007: 91 VC deals in India, total $US 1.1 billion
  ♦ Note: India had practically no VC funding in 2000

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UBS-sponsored UK Venture Backed Report 2007:

♦ India VC growing at 90% per year, will overtake UK by 2009, all Europe in four years
♦ China VC: Has already surpassed UK, will overtake all Europe (amount of funds) in 2 - 3 years
Current trends: volatile public markets (especially in greater China)

Alibaba.com

- 340% jump in net profit FY 2007, due to:
  - General China economic growth
  - Increasing Internet access
  - Growth in number of paying members

- Registered users up by 40% (increase of 27.6 million)
- Paying members increase by 39% to 305,000

- But: shares (listed on Hong Kong exchange) had dropped by 44% until yearly results announced
  - Sell-off of China Internet stocks as result of concern about impact of U.S. economy
Current trends: Impact of U.S. economic slowdown

♦ Increase cross-border business and investing within Asia to capture high market growth
  ♦ Up to now, had been largely part of Asia-wide supply chains: flow of parts and assembly

♦ Increase in Asian investments in U.S.
  ♦ Especially notable: investment from China
  ♦ Dollars are cheap
  ♦ Seeking to gain knowledge as well as profit
Country-specific trends
Investors have been flocking to China for several years

- Moving to Shanghai
  - E.g. Qiming Fund: two execs from Seattle, Gary Rieschel (Mobius), Duane Kuang (Intel Cap. China), Ed Zhao (Cisco) (announced 3/05/06)
- U.S. VCs investing as limited partners in locally run firms
  - Motorola Ventures: in New Margin VC Enterprise (Shanghai) (ann. 3/28/06)
  - Also syndicating with New Margin in Happy Digital co.
- Some knowledgeable investors focusing on “private equity” for now
  - Larger deal size (typically $10 - 40 M)
  - Often involve buyout / restructuring of SOE
China: domestic industry policy shift to innovation-based business

- See in various government decisions and policies
  - High-speed train between Shanghai & Beijing to use domestic technology (1/06)
  - Increasingly pro-business attitude toward IP protection
  - Policy to strengthen select universities into world-class institutions

- Questions:
  - What role will government play in investing? (compare Singapore)
  - Will this increase the gold rush, even though the economy is slowing?
China: possible problems

- Asset bubble
  - Real estate in Shanghai, elsewhere
  - What about stock values?
- Successful entrepreneurship is highly dependent on personal connections
  - Impact on quality of deals, investor-management relations
  - Also possible impact on governance after IPO
- Future reaction against M&A, FDI from foreign sources...?
India: expansion of role (from provider of outsourcing services)

- Major increases in R&D activities in India by multinational corporations (MNCs)
  - McKinsey survey (2005) of 5,500 executives of $1bn+ companies: India is preferred location for R&D offshoring
  - Large pharmaceutical MNCs (over $1 billion sales) plan $1.5 billion in R&D spending in India 2006-10
  - Typically driven first by desire to access India market (focus on special product development and localization)
    - Sharp rise in patent filings by MNCs in India since 2000
  - Also integrate with global technology development in selected fields
    - Motorola: India leads its software development activities: 40% of cellphone software developed in India

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India: Building on strengths

♦ Workforce in India: globally mobile as well as well-educated

♦ Successful entrepreneurs / investors in U.S.

♦ Areas of focus
  ♦ Service industries (call-centers, etc.)
  ♦ Software
  ♦ Contract R&D (especially in bio-med)
  ♦ Energy
Japan: Rise of foreign private equity

3/25/08 issue

M&A of Japanese firms by foreign firms: 33% more deals in FY 2007 than in FY 2006 (Nihon Keizai Shimbun 4/02/08)

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NIEs: Each with own solution

- Singapore: government investment in targeted fields
- Korea: build on strengths in consumer electronics, mobile communications
- Hong Kong: become an IP trading center for Asia
- All: continue to invest in more sophisticated research infrastructure (compared to China)
Troubled Waters Ahead?

- China bubble…
  - Olympic disappointments
  - Political problems: UTube…?
- Slowdown in U.S. consumer spending
- Industry clustering > rich versus poor gap
Summary

♦ Asia is the growth engine of the world economy
  ♦ Its growth brings opportunities especially suited to entrepreneurs
♦ Entrepreneurship patterns differ between the U.S. and Asia
♦ 2008 will be a volatile year
♦ In all Asia countries, China is an implicit factor in policies and strategies to promote entrepreneurship