New IT Business Models in the “Asian Age”
- Multilateral Collaboration and Business Innovation –

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National Innovation Initiative Final Report:
Innovate America(December 2004)
- Vision Statement -

• Innovation fosters the new ideas, technologies, and processes that lead to better jobs, higher wages and a higher standard of living.

• The United States stands apart from the rest of the world in its record of sustained innovation over decades, across industries, and through economic cycles.

• But the United States now finds itself at a potential inflection point facing new realities that pose significant challenges to our global innovation leadership.

• How the United States responds to these realities is critically important and is the goal of the National Innovation Initiative.
Major Challenges
- Two Unprecedented Shifts –

• Nature of global competition
  – *The world is becoming dramatically more interconnected and competitive. At the same time that economic interdependencies are growing, America is in the unfamiliar position of the world’s sole superpower.*

• Nature of innovation itself
  – *Where, how and why innovation occurs are in flux.....the playing field is leveling, and the barriers to innovations are falling.*
Electronics Industry and the “Asian Age”
Market Shift to Asia-Pacific

![World Semiconductor Shipments](image)

(Source) Semiconductor Industry Association

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World PC Industry

• PC Market in 2004
  – Worldwide 189 M sets, U.S. 60 M sets, China 15 M sets, Japan 12 M sets
• 30% of world production in China
• 70% of world note PC produced by Taiwanese companies
Mobile Phone Production in Asia

- Asian production is over 70% of the world
- 50% of Asian production is in China
- 60% of China production is for exports, while 40% goes to domestic market
- China local producers heavily depend on OEM supply

Figure 6
World Telephone Handsets Production (2003)

- China 34%
- Europe 20%
- Korea 19%
- Japan 10%
- Taiwan 7%
- Others 10%

Total 523 Million Units
(Source) DRN, Tokyo
Historical Development of China’s Electronics Industry(1)

• Products originating from U.S.A. or Europe
• (e.g.) USA: Televisions, PC’s, Semiconductor & IC’s
  Europe: GSM Mobile Phones

- USA ➔ Japan ➔ Korea
- ➔ Taiwan ➔ China

• Different business models have been built up during the process of technology and production site transfer
Historical Development of China’s Electronics Industry (2)

China Shift and Industry Formation
Build-up of Local Industry

U.S.
Japanese
European
Korean
Taiwanese
China Local
Business Models in Asia

PCs and Mobile Phones
PC Business Models in Greater China Region

Smile Curve
(Stan Shih, Acer)

Technology
Mass Production

Service
Brand
Sales Channel
Logistics

Value

PC System

Parts

Assembly, Production

Sales & Marketing

Mao, Gong, Ji Model
(Liu Chuanzhi, Lenovo)

Ji (Technology) → Gong (Manufacturing) → Mao (Sales)

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Lenovo Group

柳傳志 Liu Chuanzhi
60 years old

楊元慶 Yang Yuanqing
40 years old
Lenovo Acquires IBM PC Business  
- 24 years after IBM entered PC -

• Lenovo 81%, IBM 19%
• Maintain IBM brand
• Yang Yuanqing moves to U.S.A.
• JV operations will start this year
PC Industry in the “Asian Age”

- Enormous R&D, Manufacturing shift to Asia
- A higher degree of industrial accumulation
- Impact of Asian markets
- Business communications and collaboration in Asian region are crucial
Mobile Phones Business in China

Value of Design Houses in China business models

Mobile Phone Firms
(Sales, Production, Design)

OEM Suppliers
(Production)

Design Houses
(Design, EMS)

Bird, TCL, Konka
Lenovo etc.

Korean, Taiwanese etc.

CECW, Techfaith, Yuhua
Simcom etc.
Chinese Design Houses

• Global business in R & D solutions
• CEC Wireless, Beijing
  Established in 1999
  – Acquired Philips R & D in Le Mans in 2001
  – Cellon International - Headquarters in Silicon Valley
• SIM Technology Group Ltd.
  – Simcom(Shanghai) established in 2002
  – Partnership with Analog Devices(US) and TTP communications(UK)
• Business Week (Mar. 21, 2005)
  Cover Story “Outsourcing Innovation” touches on Cellon
  First came manufacturing. Now companies are farming out R& D
to cut costs and get new products to market faster. Are they going too far?
Apple Computer Develops In-house

Designed by Apple in California Assembled in China

Apple iPod
Multilateral Collaboration and Business Innovation
## Greater China Region and Japan

--- Business Models ---

Strength in upper column, Weakness in lower column

<table>
<thead>
<tr>
<th></th>
<th>Strength (Upper)</th>
<th>Weakness (Lower)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td>R&amp;D, Manufacturing (High tech)</td>
<td>Japanese people orientation</td>
</tr>
<tr>
<td><strong>Taiwan</strong></td>
<td>OEM/ODM business, Management in China</td>
<td>R&amp;D, Brand business</td>
</tr>
<tr>
<td><strong>Hong Kong</strong></td>
<td>General trading, Marketing &amp; service</td>
<td>R&amp;D</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td>Manufacturing (Low tech), Sales in domestic markets</td>
<td>R&amp;D, Overall management, Human resources</td>
</tr>
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</table>
Cases of Japan’s China Shifts

• Joint Venture with Taiwanese firms  
  – 249 cases (*Mizuho Report*)  
  – Taiwanese management capability, Use of Taiwanese industry in China

• Use of Hong Kong firms in “Consignment Processing” trades  
  – Consignment processing in SME’s  
  – Joint venture operations with Hong Kong firms
Complementarity and Symbiosis(1)

- **Japanese and Taiwanese firms**
  - Taiwanese to use Japanese technology
  - Japanese to use Taiwanese management capability in China

- **Japanese and Chinese firms**
  - Chinese to use Japanese technology
  - Japanese to use Chinese manufacturing and sales capability in China
Complementarity and Symbiosis(2)

• Making use of “unutilized” technologies in Japan
  – “Sleeping technologies” in large firms
  – Technology capability in SME’s
Asia Orientation and Human Resources

- Japanese business models
  - Historically advanced markets oriented
  - Weak in “Volume Zone” markets in Asia
- Collaborations to generate business innovation
- “Asian talents” facilitate “Asia oriented business”
  - To make better use of human resources in Asia
Multilateral Business Collaborations
— Activity Review —

• International forums
  – UNESCAP ”Asia – Pacific Business Forum”(April 2004, Shanghai)

• Workshops
  – Workshop for the study of Japan – China business partnerships

• Initiation of NPO activity
  – “Organization for studies of Asian IT business” (To be launched in autumn 2005)
Multilateral Business Collaboration
— Summary —

• Business model enhancement in Asia
• Business strategy based on Asian markets
• Business innovation originating from Asia
• Global business collaboration and innovation