

Case study:  
**Successful Knowledge Transfer from Foreign Parents  
to China Subsidiaries\***

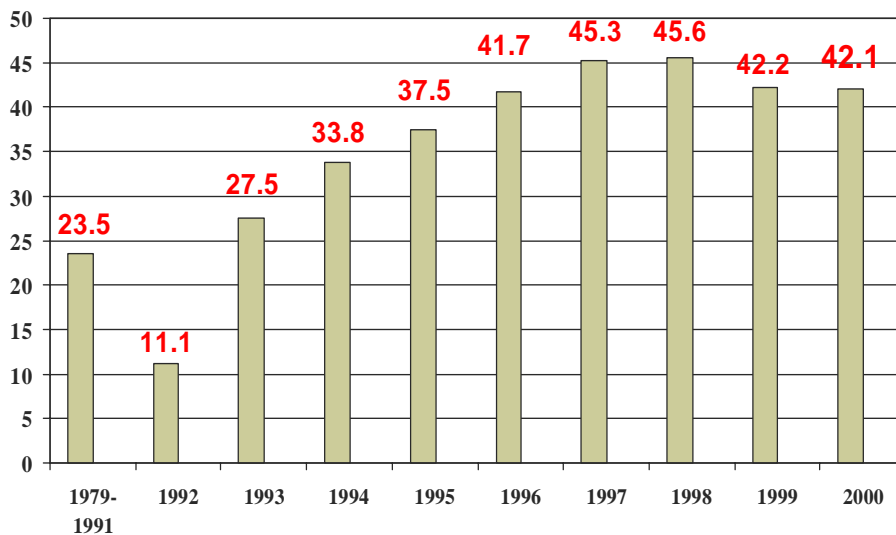
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## Outline

- 
- Foreign Direct Investment (FDI) in China, 1979 – 2000
  - Critical Success Factors
  - Knowledge Transfer from Foreign Parents to China Subsidiaries
    - Methods
    - Research Model & Hypotheses
    - Findings
    - Recommendations

## Realized Amount of FDI in China - 1979-2000

in US\$ billion



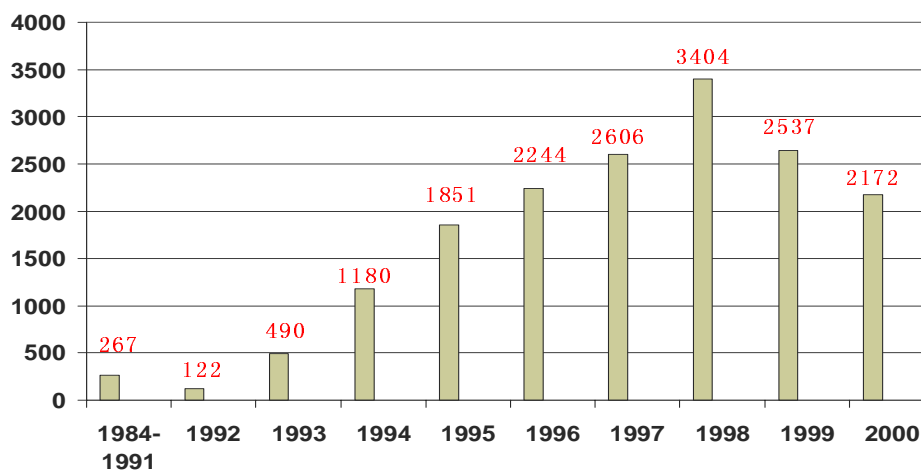
Sources: Almanac of China's Foreign Relations & Trade (中国对外经济贸易年鉴), 1979/83-1999/2000 Jan-July;  
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## Realized Amount of Singapore's FDI in China, 1979-2000

In US\$ M<sup>8</sup>



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Case - I

## Knowledge

- Knowledge is created through the transformation of experiences (Kolb, 1984).
- Knowledge is something that “firms create & deploy, that can be sold or used to modify current products or create new ones, change production processes, or alter the way executives manage a firm.” (Badaracco, 1990: 22)
- Knowledge provides the capacity for organisational action, and new knowledge provides the capacity for organisational renewal (Prahalad & Hamel, 1994).

## Knowledge Transfer

- Knowledge transfer refers to the process of imparting knowledge from the transferor to the recipient, such that the latter accumulates or assimilates the new knowledge (Bresman et al., 1999; Zander, 1991).

## Different Forms of Knowledge

### Explicit Knowledge

Can be codified, articulated, and easily communicated.

e.g., manuals, procedures, product specifications, scientific formulas, trade publications, market research, patents

### Tacit Knowledge

Non-verbalizable, intuitive, unarticulated, context specific, and difficult to formalize, communicate & transfer.

e.g., thought processes, insights, intuition

## Motivation of the Study

- Knowledge is the most critical resource of firms.
- Successful knowledge transfer to China subsidiaries is both beneficial and necessary to foreign firms operating in China. However, it is also a major challenge confronting foreign investors.
- Acquiring advanced foreign knowledge is one of the major objectives of China's foreign direct investment policy.

## Challenges of Knowledge Transfer to China Subsidiaries

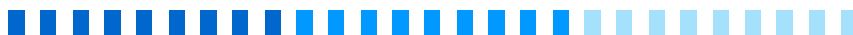


*“My biggest headache over the past eight years in China has been the transfer of management and technological knowledge into Chinese joint ventures.”*

-President & Vice-Chairman

A leading FIE in China's automobile industry

## Key Issues



- What factors affect the foreign parent's knowledge contribution to its China subsidiary?
- What factors affect the China subsidiary's knowledge acquisition from its foreign parent?
- Does knowledge acquired by the China subsidiary positively impact its performance?

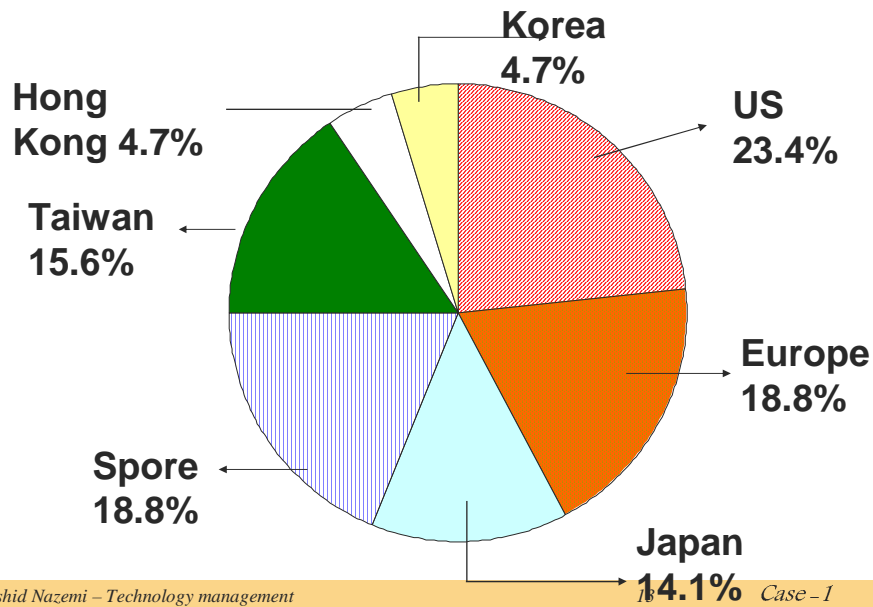
## Methods

- Literature – knowledge/technology transfer, strategic alliance, organization learning, FDI, knowledge-based view of the firm
- Model building
- Formal field interviews with 64 firms
- Mailed survey of subsidiaries in China
  - 297 responses (10% response rate)
- Informal interviews

## Personal Interviews - 1

- 64 companies - 4 HCs, 16 WOVs, 41 EJVs, 1CJV, & 2 ROs
- Origins of foreign investors:
  - US - 1 HC, 6 WOVs, 7 EJVs, 1 CJV
  - Europe - 3 HCs., 2 WOVs, 6 EJVs, 1 RO
  - Japan - 9 EJVs
  - Singapore - 11 EJVs, 1 RO
  - Taiwan - 8 WOVs, 2 EJVs
  - Hong Kong - 3 EJVs
  - Korea - 3 EJVs

## Breakdown of Origin of 64 Firms Interviewed



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## Personal Interviews - 2

### Locations of Firms

- Beijing, Fuzhou, Shanghai, Shunde, Suzhou, Tianjin, Wuxi, Xiamen, Yantai, Singapore

### Industrial Sectors of Firms

- Air conditioner, automobile, auto parts, battery, bicycle, cable, cement, chemical, chip manufacturing, consulting, food, kitchen ware, pharmaceutical, power supply, real estate, telecommunication equipment, TV picture tube, etc.

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## China Subsidiaries of American Firms

- Arthur Anderson
- Andrew Telecommunications
- Delphi
- Lilly Suzhou Pharmaceutical
- Energizer
- Fisher Rosemount
- Ford Motor (China)
- Intel
- Jinmei Beverages
- Kraft
- McDonald
- Mecox Lane Int'l Mailorder
- Motorola
- Shanghai GM
- Tianjin Coca-Cola Bottling

**1 HC, 5 WOVs, 8 EJVs, 1 CJV**

## China Subsidiaries of European Firms

- ABB Beijing Drive Systems
- ABB (China) Investment
- Battenfeld Chen Extrusion Systems
- Beakeart
- Esab
- Euro-bike
- Hoechst (China) Investment
- Novo Nordisk China
- Philips Consumer Electronics
- Sino-Swed Pharmaceutical
- Volex Cable Assembly
- Xian-Jenssen Pharmaceutical

**3 HCs, 2 WOVs, 6 EJVs & 1 RO**

## China Subsidiaries of Singaporean Firms

- Asia Pacific Breweries
- DBSLCH Consulting
- Power Dragon Design & Decoration Works
- Dovechem
- Jurong Cement
- Keppel Engineering
- Nasteel
- Skills Development Center
- Starts Info-Creation
- Thiansheng Edible Oil
- Xinyan Foods
- Wuxi Int'l Mgmt Services

**11 EJVs, 1 RO**



## China Subsidiaries of Japanese Firms

- Epson
- Guangdong Rengo Packaging
- JVC
- Shanghai Hitachi Electrical Appliances
- Shanghai Hitachi Household Appliances
- Shinmei Electric
- Sokkia Instruments
- Yokogawa
- Yuasa Sunny Batteries

**9 EJVs**



## China Subsidiaries of Taiwanese Firms

- Eternal Chemical (China)
- Chunghwa Picture Tubes
- Dimerco
- Giant China
- Inventec Electronics
- Kingston
- Mou Yin Metal
- Sakura Bath & Kitchen Products
- Tien Yuan Aromatics
- Want Want



**8 WOVs, 2 EJVs**

## China Subsidiaries of Hong Kong Firms

- Fuguang Optical Instruments
- Chen De Plastics Machinery
- Xiaxing Electronics

**3 EJVs**



## China Subsidiaries of Korean Firms

- Mirim Sports Products
- Yantai Daewoo Electronic Components
- Yantai Konex Electronics

**3 EJVs**

## Demographics of 297 Survey Respondents

- Positions of respondents – GM (46.1%), DGM (12.1%), Chairman (6.7%), MD (5.1%), and others
- Origins of responding firms – Taiwan (28.0%), Europe (18.2%), US (17.2%), Japan (14.9%), Singapore (11.5%), Hong Kong/Macao (5.7%), and others (4.5%)
- Types of subsidiaries – WOVs (51.2%) and JVs (48.8%)
- Sector – manufacturing (91.9%)
- 56.7% of the firms invested less than US\$10 m
- 51.1% of the firms had been in China for 5 years or more

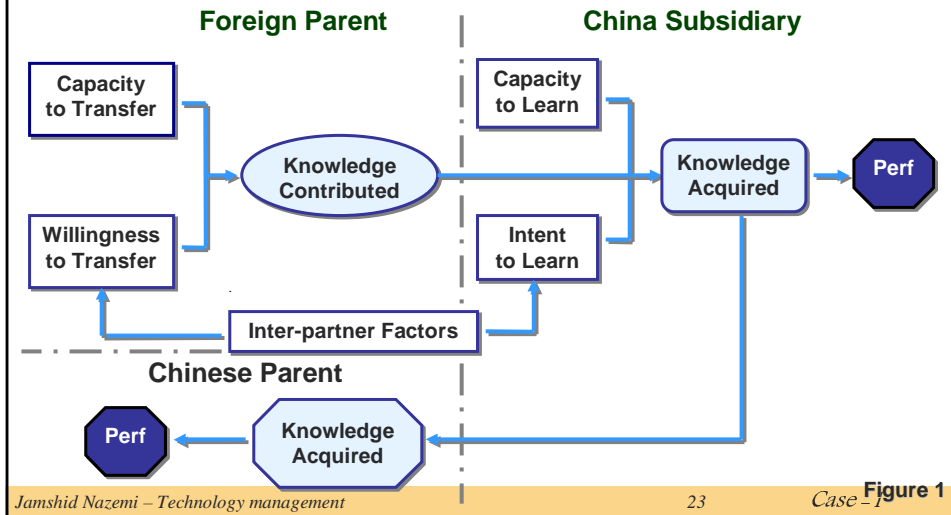
## Definition of Knowledge

**Knowledge** is defined as “the explicit and implicit practical skills, insights, judgments, and values required to run an operation.”

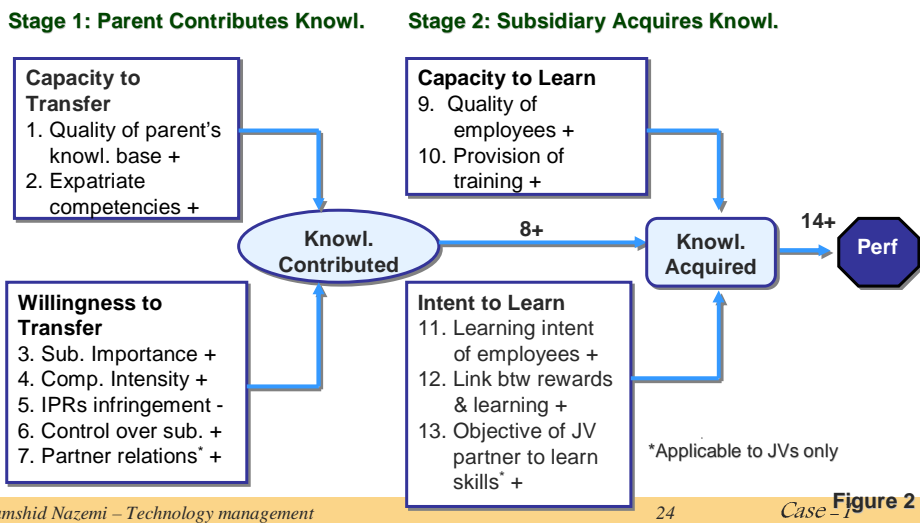
### Categories of Knowledge

- Manufacturing related technology
- Product related technology
- Managerial skills
- Marketing/sales skills
- HRM skills
- Business strategy thinking & techniques
- Corporate culture & values

# Knowledge Transfer from Foreign Parent to China Subsidiary



# Factors Affecting Knowledge Transfer from Foreign Parent to China Subsidiary



## Foreign Parent's Capacity to Transfer

H1: The better the **quality of the foreign parent's knowledge base**, the greater the knowledge the parent contributes to its China subsidiary.

H2: The more **competent the expatriates**, the greater the knowledge the foreign parent contributes to its China subsidiary.

## Foreign Parent's Willingness to Transfer

H3: The more **important the China subsidiary** to the foreign parent, the greater the knowledge the latter contributes to the former.

H4: The greater the competition in the China subsidiary's industry, the greater the amount of knowledge the foreign parent contributes.

H5: The weaker the **IPRs protection** in the China subsidiary's industry, the less the knowledge the foreign parent contributes to the subsidiary.

H6: The more the **foreign parent's control over** the China subsidiary, the more the knowledge the former contributes to the latter.

H7: The better the **relationship between the JV partners**, the greater the knowledge the foreign parent contributes to the JV.

## Results of Knowledge Contributed by Foreign Parents

IDVs	WOVs	JVs
	Knowledge Contributed by Foreign Parent	
<b>Foreign Parent's Capacity to Transfer</b>		
Quality of parent's knowledge base (H1+)	✓	✓
Expatriate competencies (H2+)	✓	✓
<b>Foreign Parent's Willingness to Transfer</b>		
Importance of subsidiary (H3+)	✓	✓
Competitive intensity (H4+)		
IPR infringement (H5-)		
Control over subsidiary (H6+)		✓
Partner relationship (H7+)		

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## Knowledge Contributed & Acquired

H8: The greater the knowledge contributed by the foreign parent, the greater the knowledge acquired by its China subsidiary.

## China Subsidiary's Capacity to Learn

- H9: The better the quality of China subsidiary employees, the greater the knowledge acquired by the subsidiary from its foreign parent
- H10: The more the provision of training in the China subsidiary, the greater the knowledge acquired by the subsidiary from its foreign parent.

## China Subsidiary's Intent to Learn

- H11: The greater the learning intent of the China subsidiary employees, the greater the knowledge acquired by the subsidiary from its foreign parent.
- H12: The greater the link between employees' rewards and their learning results, the greater the knowledge acquired by the subsidiary from its foreign parent.
- H13: The greater the emphasis on knowledge acquisition placed by the local partner, the greater the knowledge acquired by the subsidiary from its foreign parent.

## Results of Knowledge Acquired by China Subsidiaries

IDVs	WOVs	JVs
	Knowledge Acquired by China Subsidiary	
Foreign Parent's Knowledge Contributed (H8)	✓	✓
<b>China Subsidiary's Capacity to Learn</b>		
Employee quality (H9)		✓
Training (H10)	✓	
<b>China Subsidiary's Intent to Learn</b>		
Employees' learning intent (H11)	✓	
Link btw rewards and learning (H12)	✓	
Objectives of JV partner to learn management & technological skills (H13)		✓

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## Knowledge Acquired & Performance

**H14.** The greater the knowledge acquired by the China subsidiary from its foreign parent, the better the subsidiary's performance

## Results of Performance of China Subsidiaries

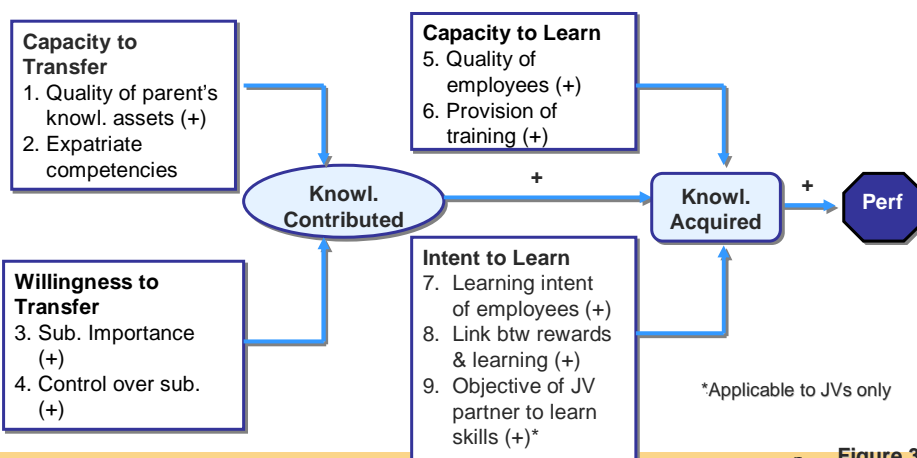
	Growth	Profit-ability	Overall Performance	Improved Capa-bility	Mgmt Locali-zation
<b>China Subsidiary's knowledge acquired</b>					
Mgmt. Knowledge Acquired	✓	✓	✓	✓	✓
Tech. Knowledge Acquired				✓	

✓ = beta coefficient is at predicted direction and significant at <.1

## Summary of the Findings

### Stage 1: Parent Contributes Knowl.

### Stage 2: China Subsidiary Acquires Knowl.



## Recommendations for Foreign Investor

Foreign investors are more likely to succeed if they:

- Continuously create, maintain, and diffuse new knowledge;
- Due diligence on HR issues in the feasibility study stage;
- Deploy competent expatriates to run the China operations and provide them with incentives for management localization;
- Employ workers with good absorptive capacity and good learning intent;
- Provide employees with adequate training; and
- Link employees' rewards with their learning results.

## Expatriate Competencies

- Possess excellent management skills
- Possess excellent technical skills
- Able to adapt management styles to China's context
- Skilful in impart knowledge to Chinese employees
- Unreservedly transfer know-how to Chinese employees
- Undertake great effort to develop Chinese successors
- Delegate important tasks to Chinese managers
- Frequently communicate with Chinese employees in Mandarin

## Why Some Expatriates Are Less Competent?

- Expats assuming the GM position in China subs were previously dept heads in the parent firms.
- Expats are of technical background with little management experience.
- Expats possessing good professional skills might not be good teachers.
- Parent firms appoint less competent mgrs to run China operations.
- Expats do not receive training to upgrade their skills.

## Recommendations for the PRC Government

- Attract foreign investors with superior management and technological skills;
- Continue to grow and open the economy;
- Provide good education to improve the absorptive capacity of the Chinese;
- Recommend Chinese firms with strong learning intent to form joint ventures with foreign investors;
- Encourage Chinese firms to acquire advanced foreign management knowledge; and
- Don't discriminate against WOVs;

**Knowledge Contributed by Foreign Parents  
to WOVs & JVs Subsidiaries**

Knowledge Contribution by Parents <sup>1</sup>	WOVs (N=152)	JVs (N=145)	t-value
1. Advanced manufacturing related tech.	5.58 <sup>1</sup>	4.68	4.84***
2. Advanced product related tech.	5.41	4.61	3.96***
3. Advanced managerial skills	5.23	4.83	2.30*
4. Corporate culture & values	5.29	4.63	3.74***
5. Advanced business strategy & Techniques	5.22	4.55	3.65***
6. Advanced marketing & sales skills	4.99	4.59	2.07*
7. Advanced HRM skills	4.65	4.03	3.36*
8. Knowledge contributed (mean of 1-7)	5.17	4.55	4.33***

<sup>1</sup>1= little, 4= moderately, 7= extensively

**Learning Results of WOVs & JVs Subsidiaries**

Learning Results of China Subsidiaries <sup>1</sup>	WOVs (N=152)	JVs (N=145)	t-value
1. Advanced manufacturing related tech.	5.40	4.70	3.65***
2. Advanced product related tech.	5.15	4.53	3.16**
3. Advanced managerial skills	4.98	4.68	1.78 <sup>+</sup>
4. Advanced corporate culture & values	5.17	4.60	3.31**
5. Advanced business strategy thinking & techniques	5.03	4.41	3.53**
6. Advanced marketing & sales skills	4.83	4.55	
7. Advanced HRM skills	4.58	4.09	2.71*
8. Knowledge learned (mean of 1-7)	5.01	4.51	3.59***

<sup>1</sup>1= little, 4=moderately, 7= extensively

## Critical Success Factors of Investing in China - 1



Conduct a thorough feasibility to assess:

- Technical & management skills of the parent
- Market for China venture's products
- Competition in the China market
- Investment environment of prospective localities in China
- Investment policy, laws & taxes relevant to the China venture
- Human resource of the parent and China sub.
- Financial resource of the parent
- Prospective Chinese JV partners

## Critical Success Factors of Investing in China - 2



- Top management of the parent supports China projects;
- Top management devotes sufficient time in keeping up with continuously changing China environment;
- Develop & implement effective China business strategy;
- Send best expatriates to run the China ventures;
- Develop strong local management team;
- Eat bitterness & bear hardship; and
- Maintain good *guanxi* with relevant Chinese parties.