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Lessons from Asian Experiences of
Industrial Agglomeration and Trade

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**Only 300 hectares in
Africa for Industrial
agglomeration!**

**Africa will start its growth
from 300 hectares!
(3 Km²)**

**Objective: We will create
a Shenzhen in Africa !!!**

Industrial agglomeration in Asia
Kaohsiung in Taiwan in the 1960s.
Penang in Malaysia and Eastern
Seaboard in Thailand in the 1980s;
Shenzhen in China in the 1990s

Industrial Cluster Policy in Africa!

**Use ODA in
developing
300 hectares
in Africa!**



Contents and Conclusions:

1. The Electronics Industry

Cluster: ①300 hectares
in northern Vietnam
(Unbalanced growth)

2. ②Flowchart Approach to
industrial cluster policy:

Interview Method

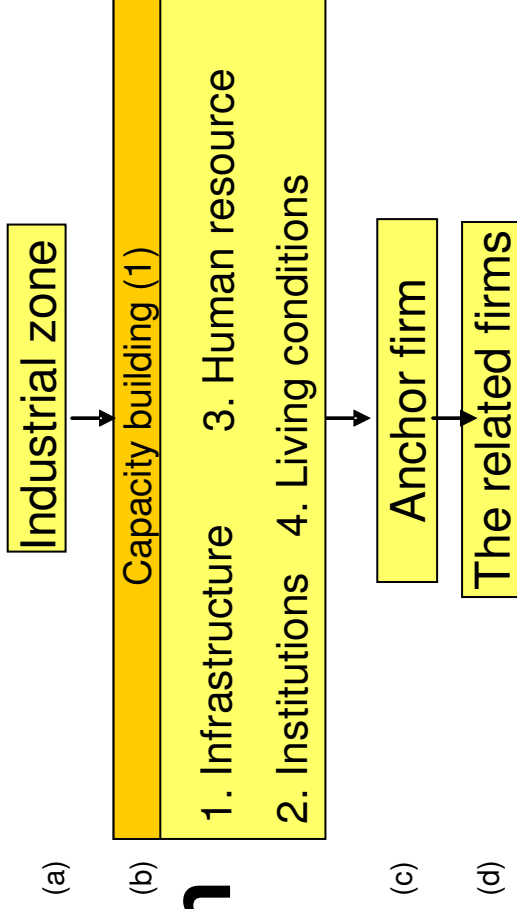
3. Application of flowchart
approach to Africa: ③Find actors

**1. Asian experience:
The Electronics Industry Cluster
in northern Vietnam:
Export Processing Zone:**

- The effects of ODA:**
- (1) Highway Route 5,**
 - (2) Haiphong Port,**
 - (3) Deregulations**

Prototype model of “Flowchart Approach” to Industrial cluster policy

Step 1: Agglomeration



Step 2: Innovation

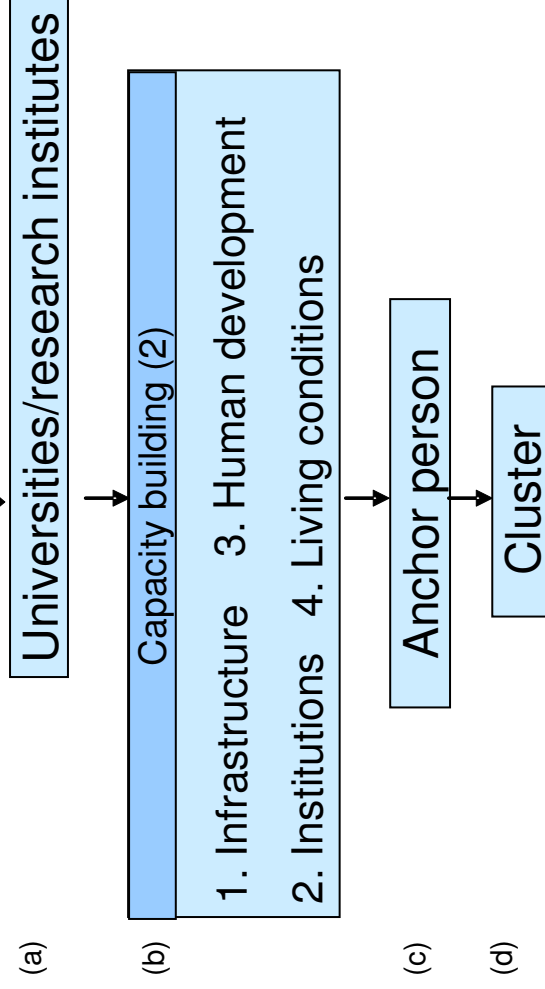
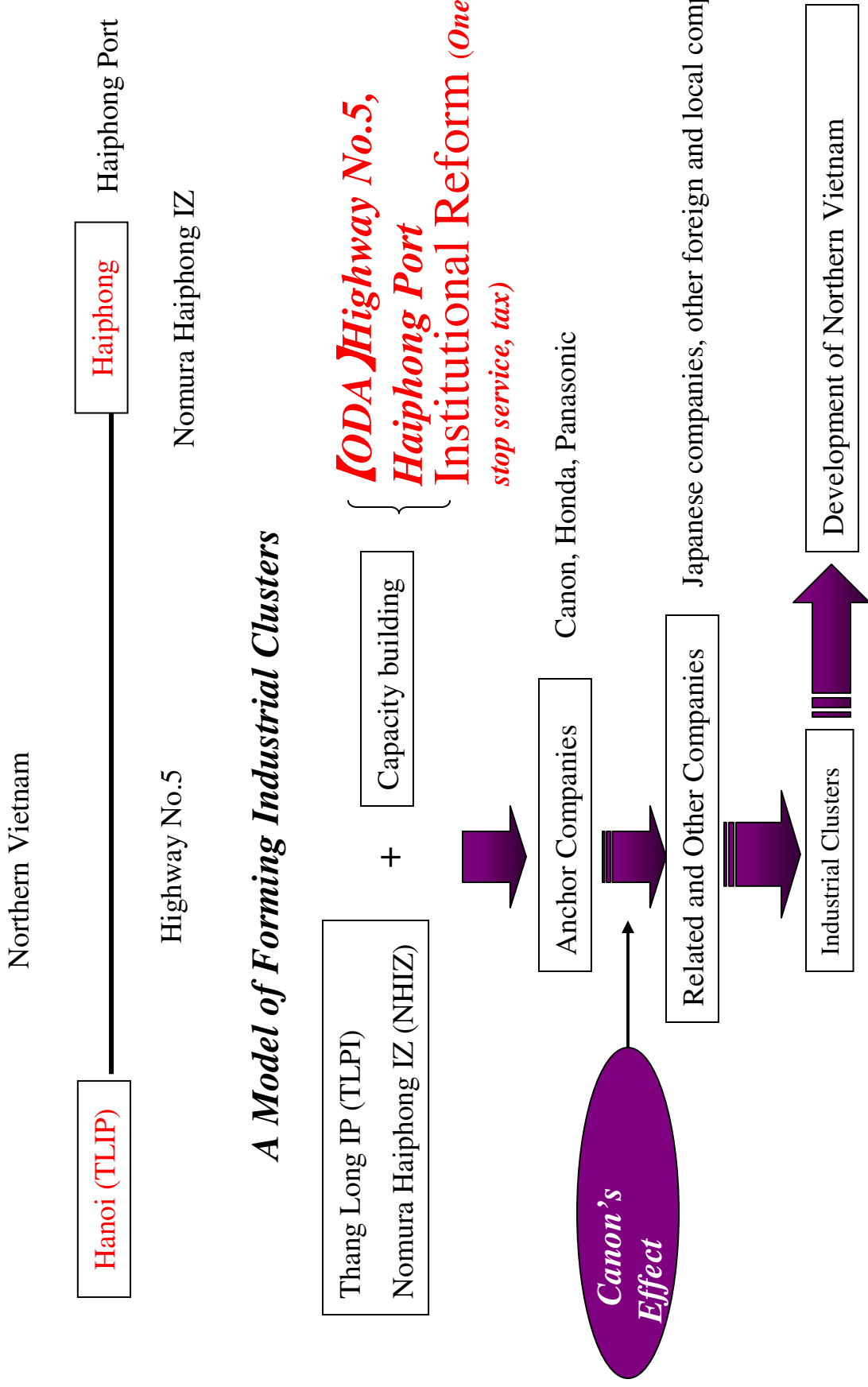


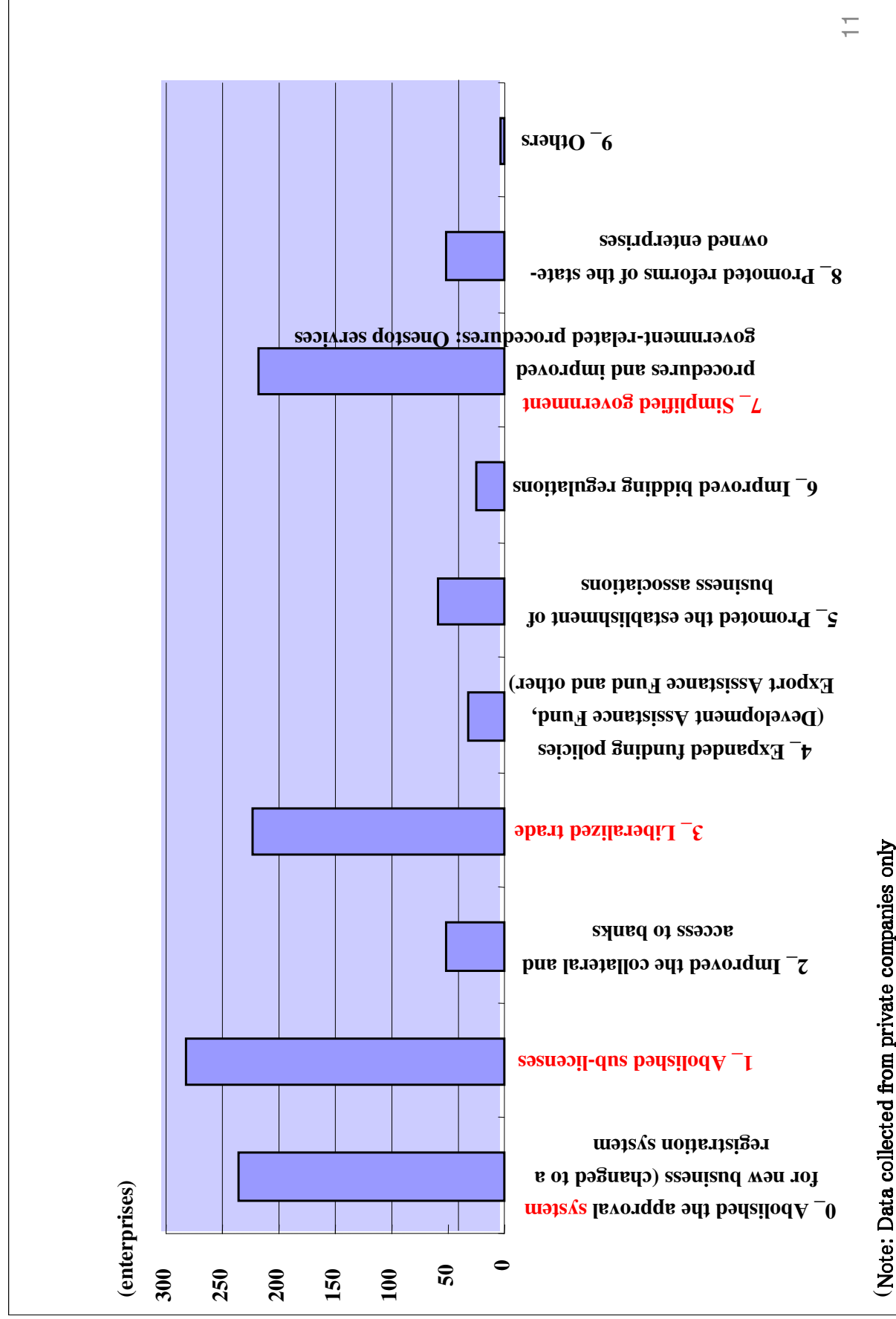
Figure 1: Industrial Clusters in Northern Vietnam



Hypothesis: Table 1. The Vietnamese Model of Fostering Industrial Clusters

	Contents	Items	Participation
Development of Land	Industrial zones	Site development	Central and local governments
		Tax incentives	Central and local governments
Capacity Building	Infrastructure	Roads, ports	ODA
	Institutions	Investment Climate	The government and ODA
		Human Resource: Technological Transfer	ODA
	Living conditions	Restaurants, Shops	Foreign direct investment

Figure 2: Institutional Reforms



(Note: Data collected from private companies only)

Figure 3: Canon's effects: Satellite Investment

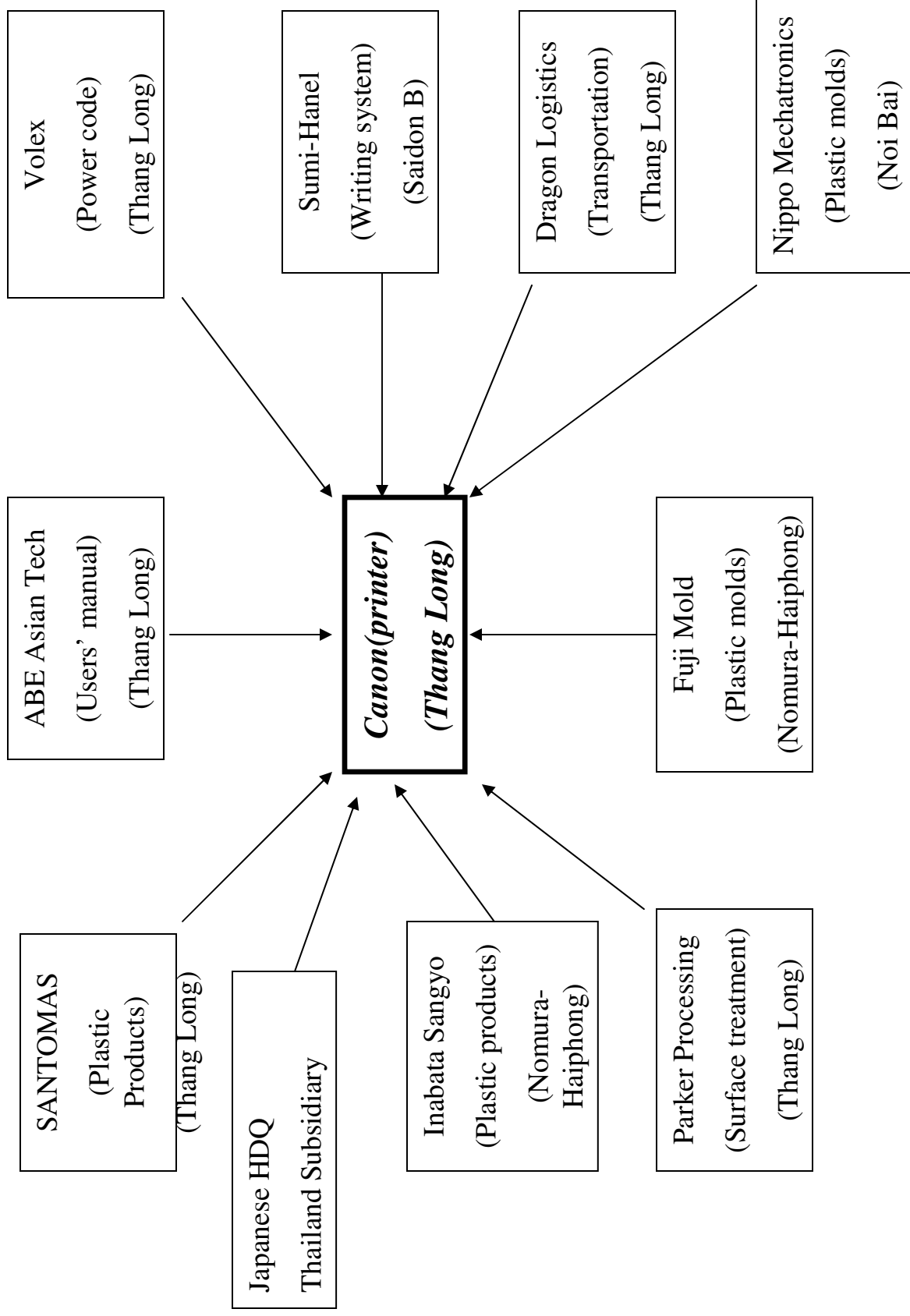


Table 2: Benefit of well-developed infrastructure

Type	Production	Market - Local	Market-Export	Import	Hai Phong Port	Highway No.5	Example
1	Hanoi		Hai Phong	Hai Phong	<u>XX</u>	<u>XX</u>	Canon
2	Hanoi	Local	Hai Phong	Hai Phong	<u>XX</u>	<u>XX</u>	TOTO
3	Hanoi	Local		Hai Phong	<u>XX</u>	<u>X</u>	Vietnam Float Glass
4	Hanoi		Computer	Com			Yabashi
5	Hanoi		Noi Bai	Hai Phong	<u>X</u>	<u>X</u>	Sumitomo Bakelite
6	Hai Phong		Hai Phong	Hai Phong	<u>XX</u>		As'ty
7	Hai Phong	Local		Hai Phong	<u>XX</u>	<u>X</u>	San Miguel Yamamura
8	Hai Phong	Local	Hai Phong	Hai Phong	<u>XXX</u> <u>(inc.local distribution by ship)</u>	<u>XX</u>	Han-Viet Heavy Industry & Construction
9	Hai Phong		Noi Bai	Noi Bai		<u>XX</u>	ESTELL
10	Vinh Phuc	Local		Hai Phong	<u>X</u>	<u>X</u>	Honda

Note: X shows frequency of use

Source: Company survey

- FDI to Northern Vietnam increased vis-a-vis the South
- Emergence of industrial agglomeration: e.g. “Canon’s effect”

Figure: Change in direct investment (registered amount) and number of investments by region

	2000	2001	2002	2003	2004	2004/2000
North	62.3 (61)	272.9 (89)	375.4 (176)	604.5 (204)	1195.9 (197)	19.2 3.2
Central	58.7 (18)	128 (35)	145.1 (39)	218.4 (59)	405.2 (39)	6.9 2.2
South	707.1 (284)	2102.2 (378)	992.1 (536)	1061.1 (484)	2609.6 (486)	3.7 1.7

Data Source: Reproduced from General Statistical Office, *Statistical Yearbook 2000-2004*

Policy Coherence for Development: Case Studies from East Asia, *Journal of JBIC Institute*, No.29, p.29 (2006)

Table 5: Thang Long Industrial Park

LIST OF TENANTS IN TLIP						
	Company name	Date of I / L	Nationality	Land Rental	Products	
1	Mitsubishi Pencil VN Co., Ltd.	29 November 2001	Japan	3.8	Writing implements	
2	Vina KDC Wiring Industries Ltd.	15 January 2001	Japan	0.48 (Rental factory)	Wire harness & power supply cord	
C3	<i><u>Parker Processing VN Co., Ltd</u></i>	8 August 2001	Japan	2.31	Paint & Surface treatment parts	
C4	<i><u>Voilex Cable Assembly(VN) Co.,Ltd</u></i>	9 August 2001	Singapore	0.47(Rental I factory)	Power supply cord, Interconnectors	
C5	<i><u>Canon VN Co., Ltd.</u></i>	11 April 2001	Japan	20	Ink jet printers	

Conclusion:

1. We found the effects of Canon on the industrial cluster policy in the case of the electronics industry cluster in northern Vietnam. **GDP of TLIP = 23%, 80 firms, Labor = 40,000 (2007)**
2. We made it clear that ODA played a crucial role in succeeding industrial cluster policy.

Lessons from Asian Experiences !

(1) 300 hectares, SEZ

(2) Flowchart

approach= industrial
cluster

(3) Multinationals

Automobile Clusters in Asia

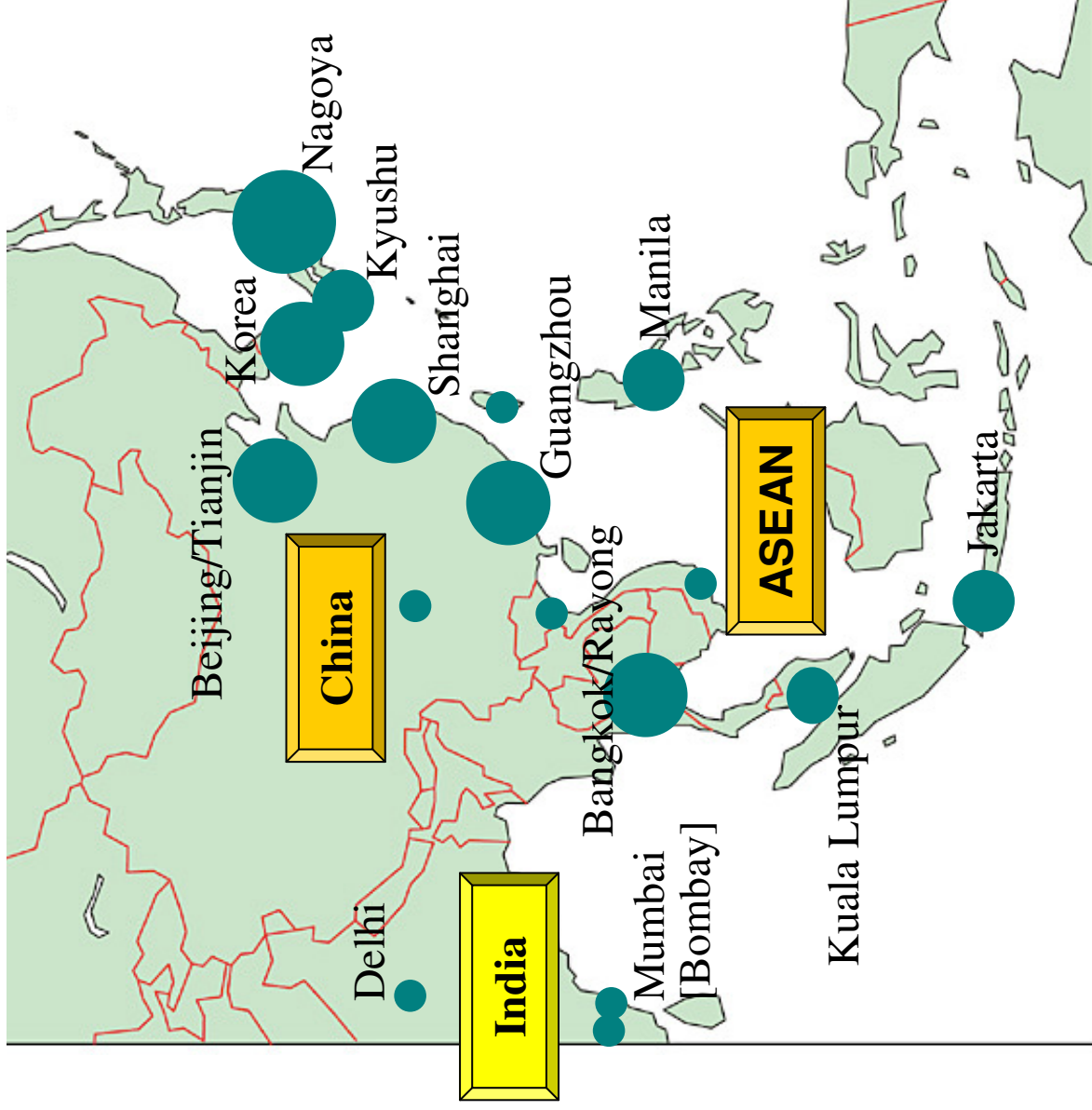
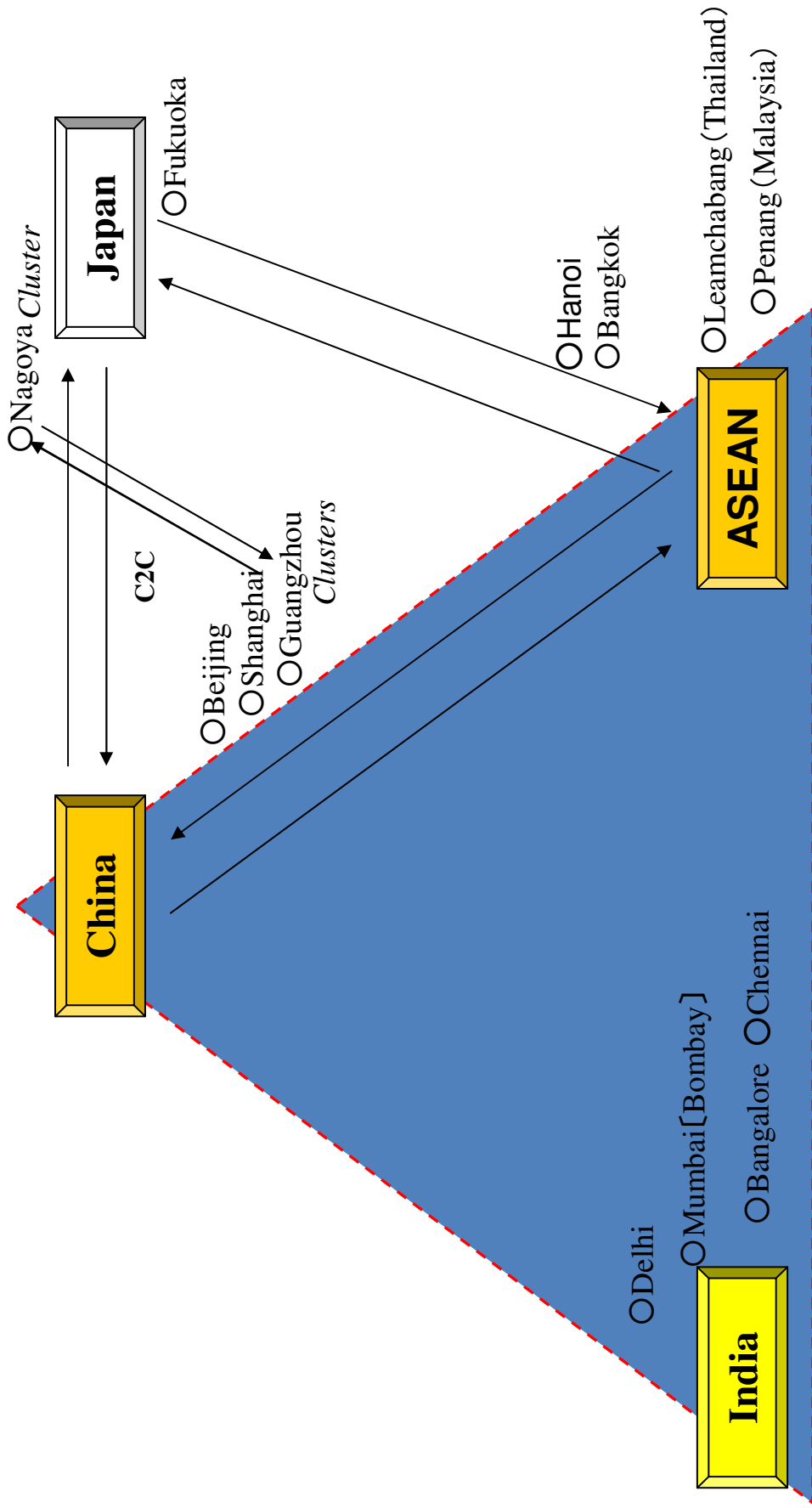


Figure 1. The Asian Triangle of Growth: the location of Japan is very bad!



2. Flowchart Approach to industrial cluster policy

- (1) Establishment of **special economic zones (SEZ) or EPZ**
- (2) Invitation of an anchoring firm through capacity building and incentives of governments for **the anchor firm**

(5) Development theories in the past

(i) Vicious Cycle (Nurkse)

(ii) Big push (Leibenstein)

(iii) Dual economy. Lewis: exists.

➔ Traditional sector cannot lead

(iv) Hirschman: ① Unbalanced growth:

China: Special Economic Zone ② SEZ

India followed.

③ Backward linkage = Leadership

Unbalanced growth:

- 1. Thailand= Export processing zone
Leamchabang Port
Mitsubishi Automobile**
- 2. China= Special Economic Zone**
- 3. India = Special Economic Zone**

Hirschman (①Unbalanced
growth)+

External conditions:

Liberalization

International ②X = trade,

③I = investment

➔ Industrial cluster policy

Figure 1. An Asian growth model

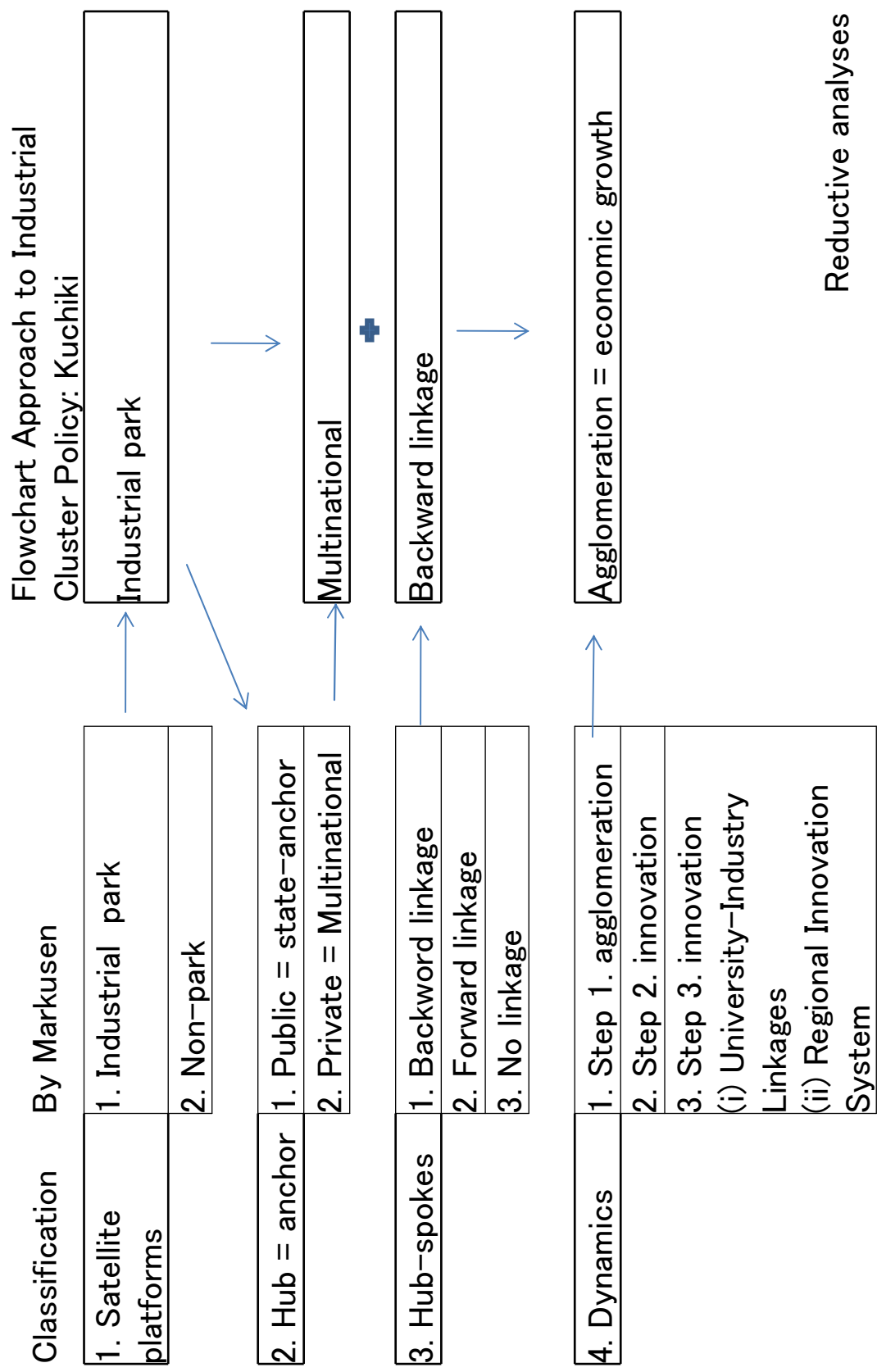
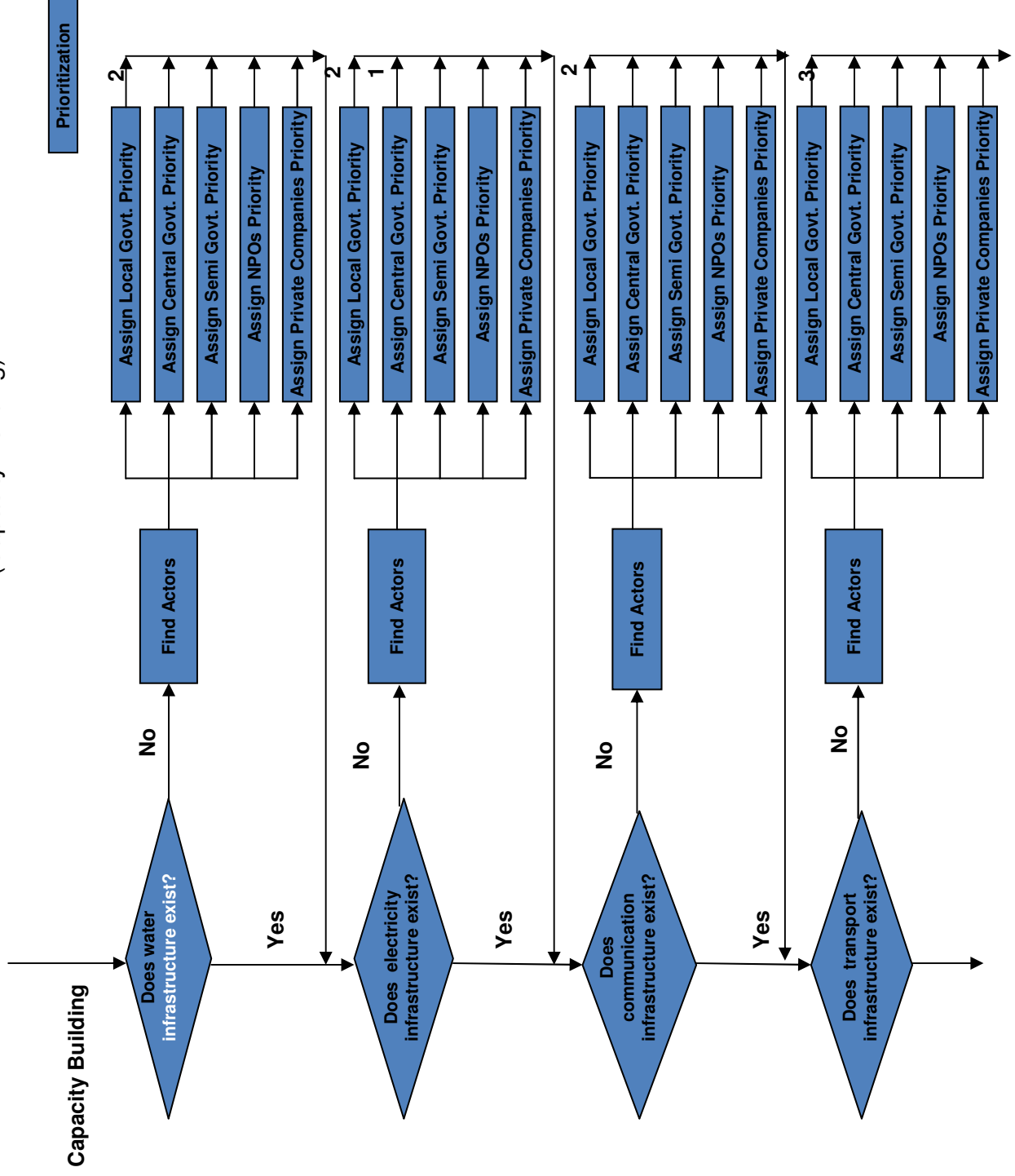


Fig. 3. Ex-ante Application: Step I . Infrastructure (Capacity Building)



Source: A. Kuchiki and J. Kabir

(6) Comparisons of cities in Africa

- ①. Special economic
zones
- ②. Capacity building
- ③. Invitation of anchor
firms

2. Infrastructure (1)

Please evaluate your environment related to the business operation (Question A through G) on a five-point scale.

If your answer is 1, or 2, please specify the reason(s).

		Very Poor	Poor	Fair	Good	Excellent	Reason
A	Electricity	1	2	3	4	5	
B	Water	1	2	3	4	5	
C	Gas/Fuel	1	2	3	4	5	
D	Transportation	1	2	3	4	5	
E	Telecommunication	1	2	3	4	5	
F	Industrial estates	1	2	3	4	5	
G	Accommodation for foreigners	1	2	3	4	5	

B. Table 1. Questionnaires on industrial cluster policy: Hanoi

	1	2	3	4	5	6	7	8	9	10	Results	Problems
1. Does industrial zones exist sufficiently?	0	0	0	0	0	0	0	0	0	0	10	
Capacity building: Physical infrastructure												
2. Does transport infrastructure exist sufficiently?	X	X	X	X	X	X	X	X	X	X	0X	0X
3. Does electricity infrastructure exist sufficiently?	X	X	X	X	X	X	X	0	0	0	3X	3X
4. Does communication infrastructure exist sufficiently?	0	0	0	0	0	0	0	X	0	X	8	8
5. Does port infrastructure exist sufficiently?	X	X	0	0	X	X	X	X	X	X	2X	2X
6. Do institutions exist sufficiently?	X	X	X	X	X	X	X	X	X	X	0X	0X
Human resources												
6. Unskilled labor	X	X	X	X	X	X	X	X	X	X	0X	0X
7. Skilled labor	X	X	0	0	0	0	0	0	0	0	8	8
Living conditions												
8. Do hospitals exist sufficiently?	0	0	X	X	0	0	X	0	0	X	6	6
9. Do schools exist sufficiently?	0	0	0	0	0	0	0	0	0	0	10	10
10. Do entertainments exist sufficiently?	0	0	X	X	X	X	X	0	0	0	5X	5X
11. Don't thefts happen?	X	X	X	X	X	0	0	0	0	0	5X	5X

Source: A. Kuchiki and T. Gokan (interviews in Hanoi on Aug. 28–30, 2008)

V. Conclusions: Policy
proposal for inviting
foreign investors:

1. Demand =

Export

(EPZ) =>

Port

Vietnam, Thailand, Malaysia

2. Capacity building

(1) Roads, ports

Important:

(2) Education:
40,000 unskilled

labor (primary
schools!!!)

3. Find anchor firms! (Multinationals)

(1) Firms with high **Backward linkage** (eg. Toyota, Tata, Hyundai)

i. **Automobile** = more than 20,000 parts

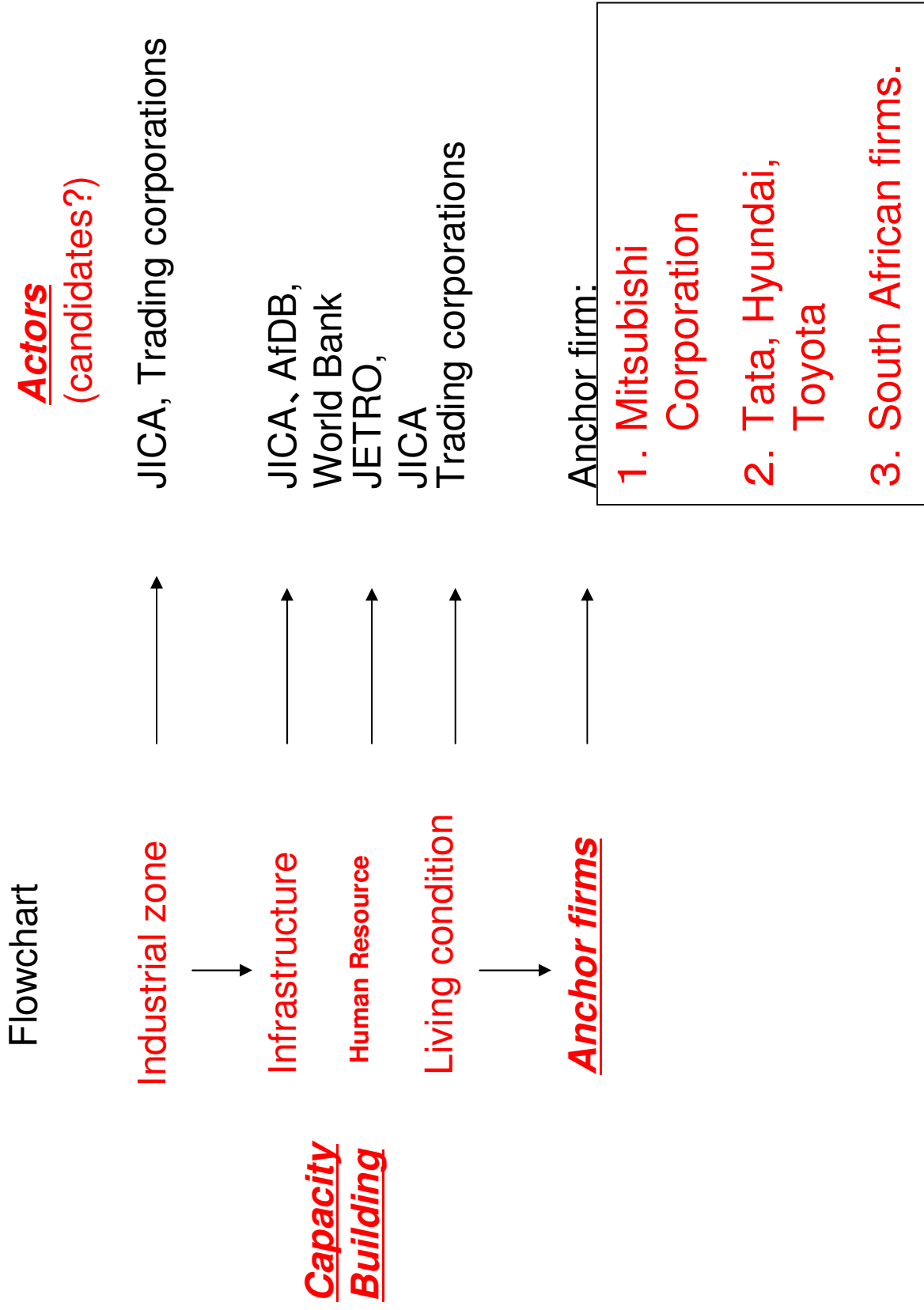
ii. **Electronics** (ink-jet printers)= 800 parts

(2) **Trading corporations** (eg. Mitsubishi corporation) bring customers (tenants).

Lock-in effect !

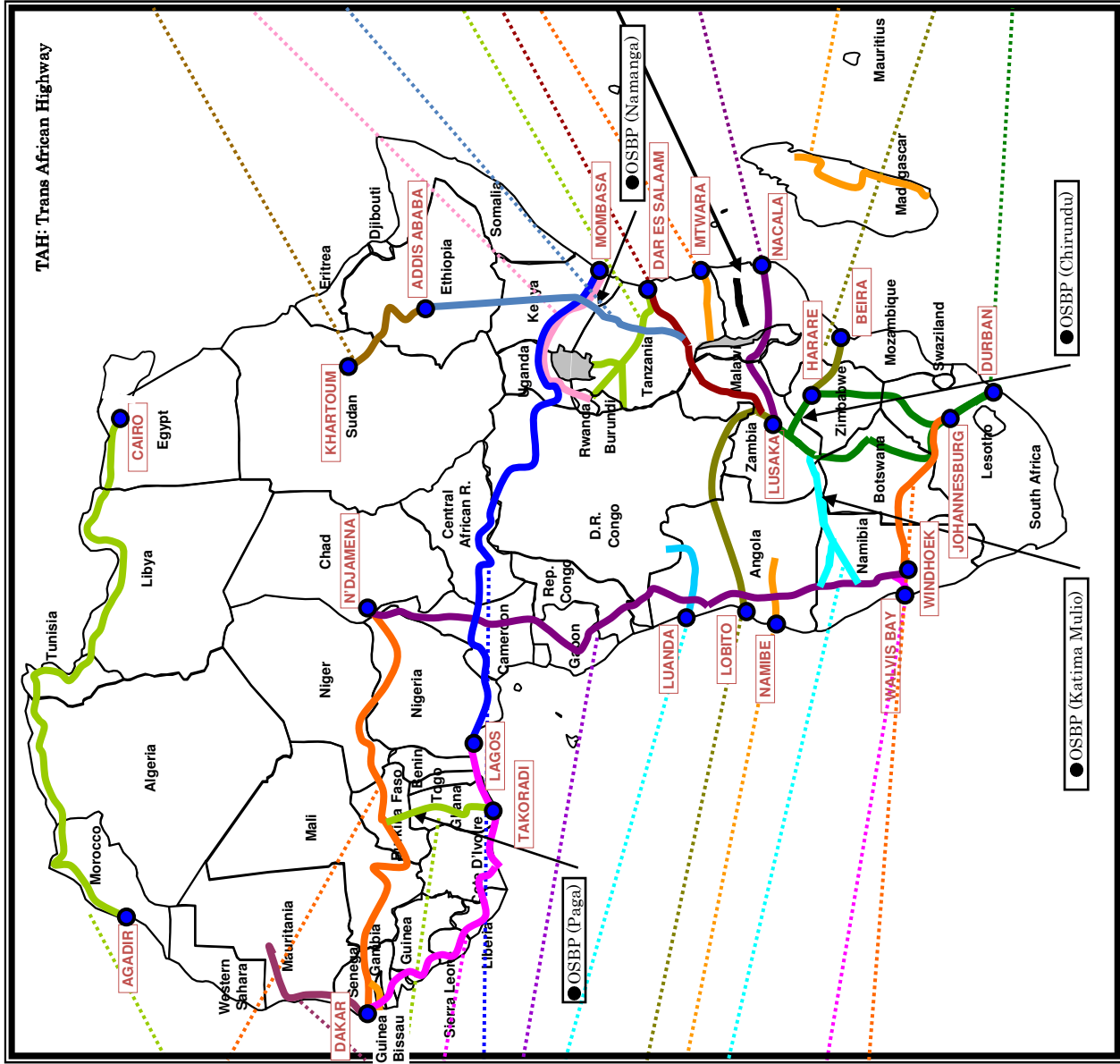
5. Incentives for anchor firms:
 - Examples in Asia
 - (1) Favorable land prices
 - (2) Exemption or reduction of taxes
 - (3) Transportation for the firms.
 - (4) Hospitals and schools

6. Policy Recommendations: Actors



Major Economic Corridor and Japan's Assistance

● : T/A
 ★ : Grant
 ★ : Loans
 Red-Color: Incl. Japan's Assistance
 * Only on-going/candidate projects are shown on this sheet



- #14 Ethiopia-Sudan Corridor (TAH: Cairo-Gaborone Corridor)
 ☆ Rehabilitation of Trunk Road (I-III)
- #15 Northern Corridor (TAH: Lagos-Mombasa Corridor)
 ★ Mombasa Ports Development Project
- #16 TAH: Cairo-Gaborone Corridor
 ★ Arusha-Namanga-Athi river Road Development Project
 ● OSBP at Namanga
- #17 Central Corridor
- #18 Tazara Corridor
- #19 Mtwara Corridor
 ☆ Masasi-Mangaka Road Rehabilitation Project
- #20 Nacala Corridor
 ☆ Reconstruction of Main Road 5 Bridges between Balaka and Salima
 ● Study of Upgrading of Nampula-Cuamba Road
- #21 Madagascar SDI
 ☆ Construction of the Connecting Road in the Southern Part of the Capital and By pass road
- #22 Beira Corridor
 ☆ Reinforcement of Dredging Capabilities for Beira Port
- #23 North-South Corridor
 ● OSBP at Chirundu

- #1 Agadir-Cairo Development Corridor
 ☆ Mediterranean Road Construction
- #2 TAH: Dakar - N'djamena Corridor
 ★ Road Improvement and Transport Program on the Southbound Bamako-Dakar Corridor
 ☆ Construction of Bridges on the Mali/Senegal South Corridor
- #3 Senegal-Mauritania Corridor
- #4 Takoradi Development Corridor
- #5 TAH: Dakar - Lagos Corridor
- #6 TAH: Lagos-Mombasa Corridor
- #7 TAH: Tripoli-Windhoek Corridor
 ● OSBP (Paga)
- #8 Malange Corridor
 ● Study on Urgent Rehabilitation Program of Ports
- #9 Lobito Corridor
- #10 Namibe Corridor
- #11 Trans-Caprivi Corridor
 ★ Rundu-Etundu Road Upgrading Project (by-pass from Rundu to TAH: Tripoli-Windhoek Corridor)
- #12 Walvis Bay Corridor
- #13 Trans-Kalahari Corridor
 ● OSBP (Katima Mulilo)

Conclusions: **Leadership!**

1. Focus ①300 hectare
(3 Km²) in Africa
(Unbalanced growth):
2. ②Flowchart Approach to
industrial cluster policy:
Interview Method
3. Find actors: ③anchor firms

Create a Shenzhen in Africa!

**Arrange labor force (40,000
unskilled labor) for**

Maputo in Mozambique.

Accra in Ghana.

Others?

Compare cities in Africa.

Thank you!

References:

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