On Sources of the Rigidity of Japanese Organizations: Why Japan is behind in ICT Investment and Applications? (Outline)

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I. Examples of the Rigidity of Japanese Organizations

A. Life-long employment
1. Career is determined by the "level" of the college one is graduated from.
2. Keen examination for college entrance.
3. Wages depend on the duration of employment, not on qualification or performance.
4. Formation of intimate human relations within an organization.
5. Domination of organization by males.

B. Vertically integrated, horizontally divided organization
1. Formation of tightly integrated and closed groups within an organization.
2. Communications dense within a group, thin between groups.
3. Closed organizations--seeking self sufficiency.
4. Difficulty of making decisions affecting multiple organizations/groups.

C. Short and simple laws (acts), slow decisions
1. Incomplete implementation of laws; discrepancy between a law and the reality is taken for granted.
2. Existence of "strong implicit laws," formed by traditions, social customs, and established authority with majority support.
3. Group decisions are made mostly on unanimity (implicit veto is allowed); no dictatorship; voting decisions are rare.

II.   Consequences of the Rigidity of Japanese Organizations

    A. Fitted to the post-war recovery and the 'proportional' expansion of Japan, but not to the changing economic environment in the 1990s and the new millennium.

    B. Useful to accelerate the growth of manufacturing industries--automobile assembly, electronic appliances, etc. ('deep coordination' was effective), but not to ICT industries (because of the lack of 'wide coordination').

    C. Inability to restructure organizations when the environment is changed:

        politics (e.g., in reforming electoral districts when population distribution is changed),

        industries (e.g., in moving the labor force from shrinking to growing industries),

        higher education (e.g., in changing the size of academic faculties to respond to outside needs).

III.   A Source of the Rigidity of Japanese Organizations--Information Aspects

    A. The "toolbox" for operating organizations (communication means)

      1. Three levels: low (L), medium (M), and high (H)

      2. Two categories: informal (type-A) and formal (type-B)

    B. The classification table for the toolbox entries:

    1.   Low level:

Type A: informal	Type B: formal
Human voice including face communication and gestures.	Letters, characters, symbols, numerals, tables, lists, etc.

    2.   Medium level:

Type A: informal	Type B: formal
Direct conversations, dialogues, informal meetings, telephone conversations, video telephones, video conferences, etc.	Documents sent/received, distributed, exchanged; mails, electronic mails, web communications.

3. High level:

Type A: informal	Type B: formal
Voice agreements, implicit agreements, social customs and understandings, common sense, implicit majority opinions, informal suggestions, etc.	Laws (acts), rules, orders, manuals, internal rules, contracts, written agreements, documented records, databases, statistics.

IV. Characteristics of the Functioning of Japanese Organizations with Respect to the Toolbox

A. Extremely strong reliance by Japanese organizations on the informal (type-A) means to function organizations (this is the main hypothesis of this presentation).

B. Complemented by:
1. direct and non-formatted agreements,
2. emotional and intuitive understandings,
3. try to avoid logical and explicit expressions (implicit suggestions are popular),
4. rare use of conditional decisions (dominance of unconditional decisions),
5. generalists are more important than specialists.

V. The Rigidity of Japanese Organizations and the Reliance on Type-A Means of Communication

A. Life-long employment:
   a way to avoid the cost of switching jobs or replacing workers.

B. Domination by males, keen entrance examination to colleges:
   a consequence of life-long employment.

C. Vertically integrated organizations:
   a way to avoid the cost of maintaining proper relations with other organizations (the cost of inter-organizational adjustments).

D. Slow group decisions:
   absence of written rules for group decision making (particularly when conflicts of interests are present).

E. Discrepancy between a law and the reality:
   consequence of slow revision of laws.

F. Rigidity is strong with large organizations:
   consequence of the fact that the amount of information to be exchanged
   within a large organization tends to be large.

VI.   Investment and Use of ICT in Japan

A. Why are ICT investment and applications in Japan behind other countries
   (particularly US)?
   ICT is a type-B means of communication; it did not fit to the Japanese way
   of operating organizations (which rely mainly on type-A means).

B. Japan is strong in hardware production, but weak in software production:
   Software products (particularly business software) is a representation of
   logical and formal set of instructions, which is intrinsically of type-B.
   (Note: Exceptions are games, animations, and karaoke.)

VII.   Policy Recommendations to Japan

A. Long-run:
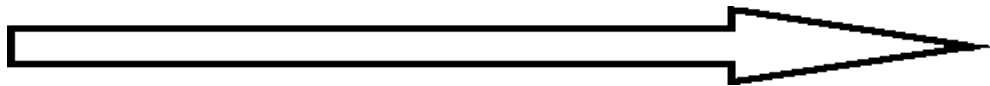   Promote education and training for a wide and systematic use of type-B means;
   i.e., raise the 'type-B literacy.'

B. Short-run:
   Develop some device/system to help people communicate in type-B without
   much effort (e.g., use of form documents).

C. European situations?
   Open question.

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Low   **High**

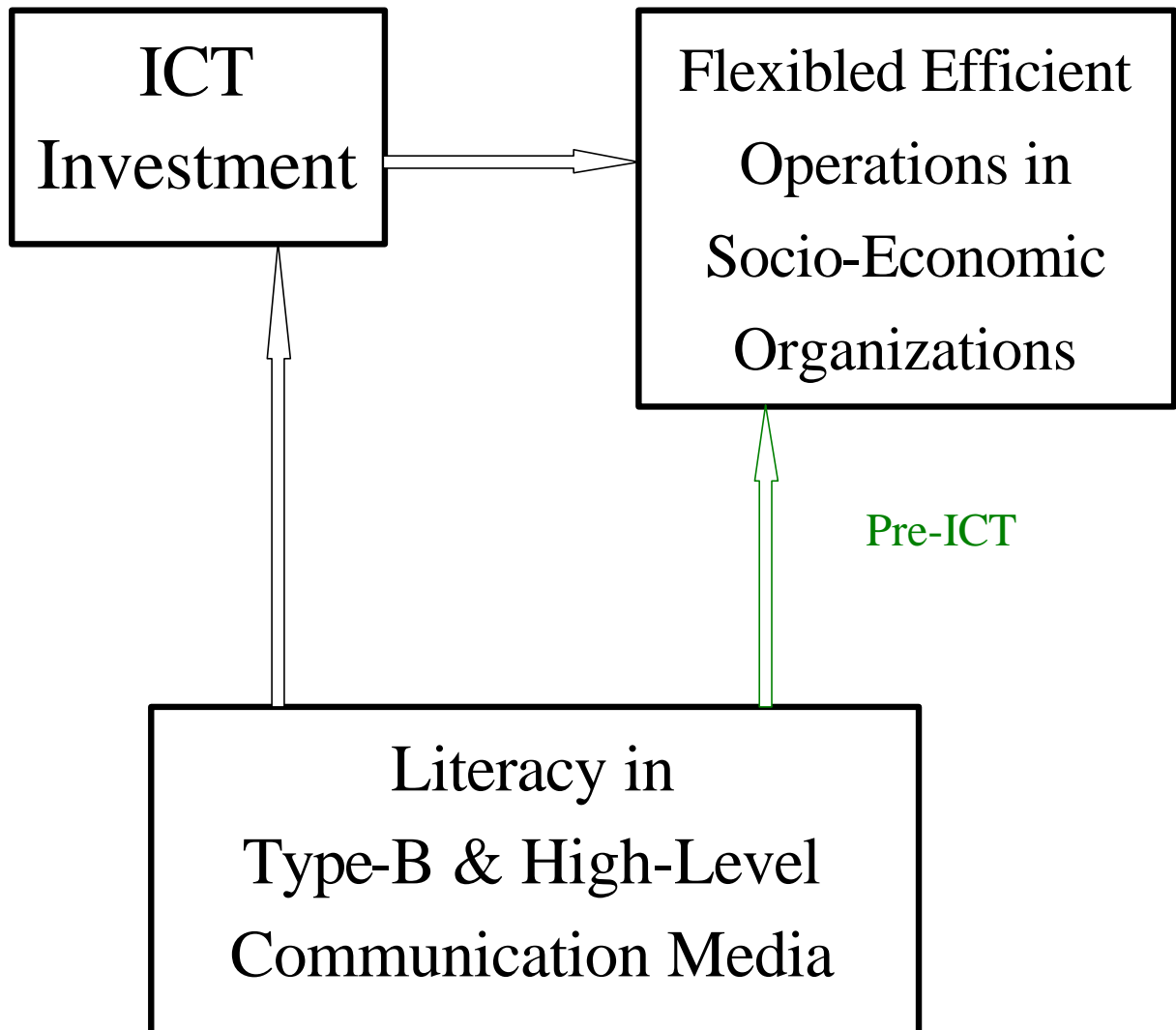Japan   EU   US

member countries

(?)

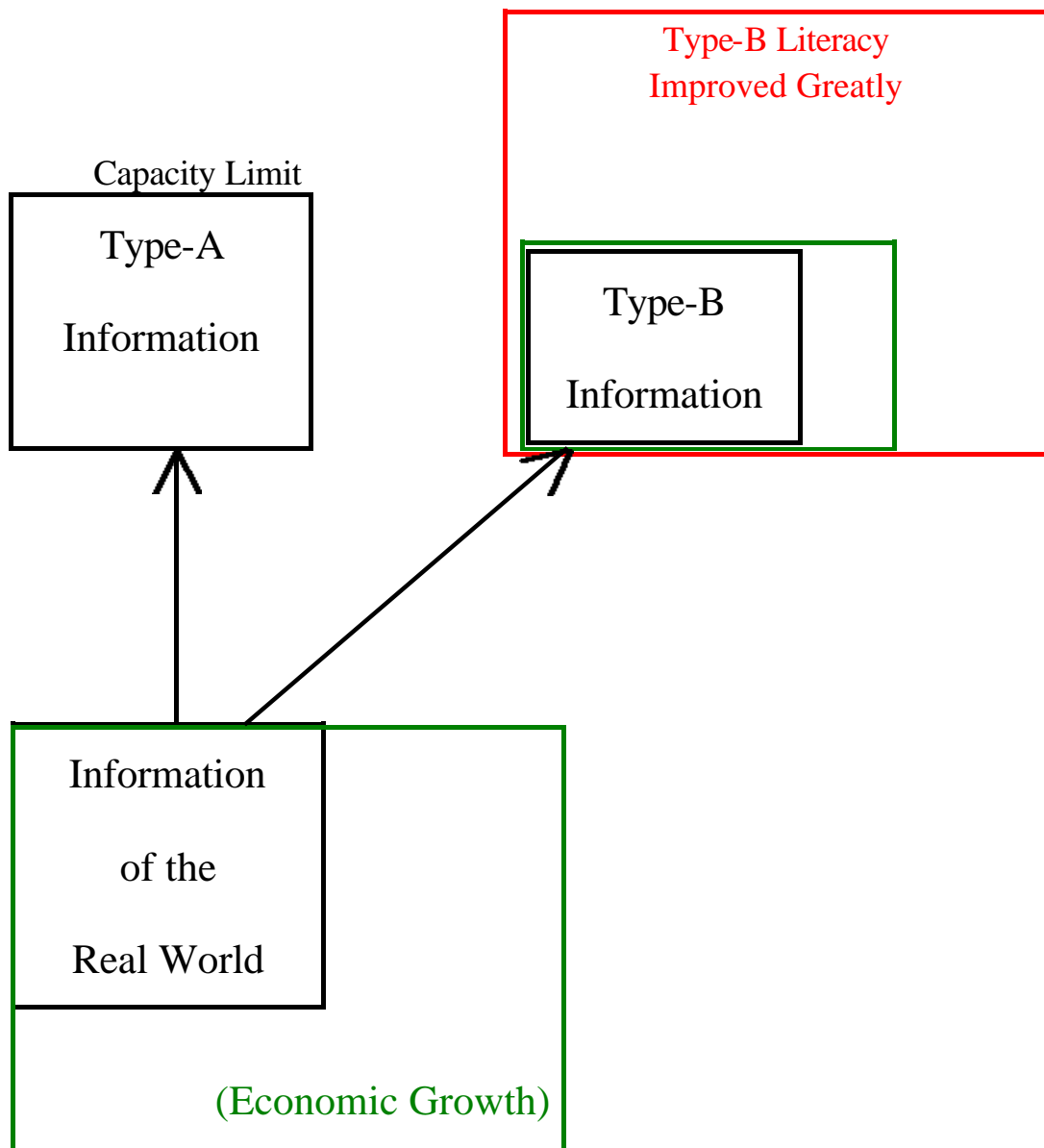Remarks: No patriotic prejudice implied, or no cultural discrimination intended; this is for advancement of every people!!

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│     ICT     │ ════════════════▷  │  Flexibled Efficient │
│  Investment │                    │     Operations in    │
│             │                    │    Socio-Economic    │
└─────────────┘                    │     Organizations    │
       △                           └──────────────────────┘
       ║                                      △
       ║                                      ║  Pre-ICT
       ║                                      ║
┌──────────────────────────────┐
│          Literacy in         │
│    Type-B & High-Level       │
│     Communication Media      │
└──────────────────────────────┘
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	easy 2-way communication	recordable distributable
	type A	type B
(Level) Low	Voice, face communication	letters, characters, etc.
Medium	direct conversation, meeting, video telephone	documents, mails, web communication
High	voice agreements, social customs, common sense, etc.	laws, rules, contracts, databases, statistics

Capacity Limit

Type-A
Information

Type-B Literacy
Improved Greatly

Type-B
Information

Information
of the
Real World

(Economic Growth)

Japan:1950's

Japan:1990's (actual)

Japan:1990's (ideal)