

## Networked Keynesian Cradle:

How MOT Carrier Make a Voyage Over the "Darwinian Sea"?;  
Innovation and Core-competence in e-commerce

e-Biz World Conference  
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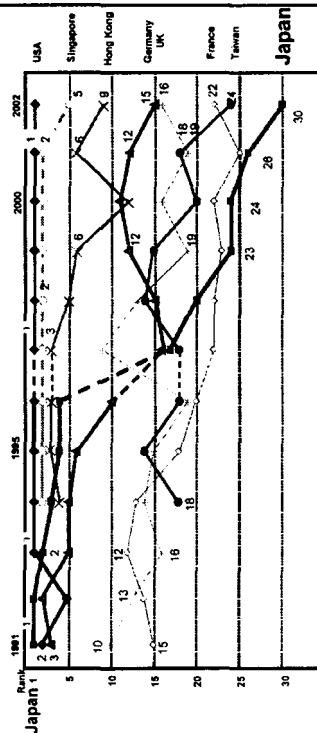
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## Outline

1. Changing Business Environment;  
Before and After IT Revolution
2. Network as a Public Innovation;  
its Possibility and Fundamental Problem
3. e-Aircraft Career System; Reconstruction of  
'Keynesian Cradle' from the viewpoint of MOT
4. Short Conclusion: For Plentiful Future of e-Biz  
Circumstances

## 1. Changing Business Environment; Before and After IT Revolution

Decline of Japanese Competitiveness (1991~2002)



※from IMD's World Competitiveness Ranking ,1991-2002

## Loss of Competitiveness; One of the Reasons

Competitiveness of JAPAN (in detail)

Licensing (No.1)

Expenditure for R&D (No.2)



Entrepreneurship (No.49)

Industrialization (No.48)

Fundamental Problem:

Lack of MOT(Management of Technology)

## Competitiveness and Usage of IT

“There is a close relationship between  
one nation’s competitiveness  
and IT usage rate”  
(IMD, 2002)



Q. Is this an appropriate statement?

## cf. Semiconductor Industry in Japan

1980’s: **No.1** in the World Market  
1990’s: **Lost** the Position

Why?

## One of the Reasons

Japanese ‘Vertical Integrated’ Business Model



The Trend of the time:  
Transition to Horizontal Division of Labor

Base of ‘Horizontal Model’:  
Networked IT Business Environment

Necessity of **MOT**  
handling **Business Model**  
in **Networked Society**

**2. Network as a Public Innovation ;  
its Possibility and Fundamental Problem**

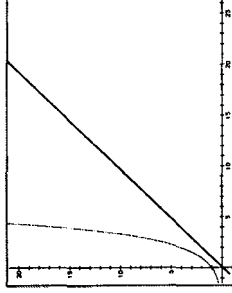
Digitize+Network (in 1990's~):  
'Info-Infra' Revolution



Public Innovation  
useful for all stakeholders

**Critical Point of Business in  
Networked Society**

**Exponential (=Non-Linear) Increase of Needs**  
**Linear Increase of its Solution**  
(production, maintenance...)



**'Multinationalization' as  
a Countermeasure for the Critical State**

**Outsourcing Business**(to China, India, Taiwan...)  
→ Cutting of Labor Costs

Some Asian Countries:  
'Frontline' of Outsourcing (cf. EMS)

**Question:**

... Can We Call This a 'Win-Win' Business Model?  
... Is this a **REAL SOLUTION** for the Critical State?

**Answer:**  
**NO!**

## Problems of Outsourcing Business

### Examples of Evils

- After the Collapse of 'NET BUBBLE' (USA):  
⇒ Increase of Domestic Unemployment Rate;  
(Outsourcing to other countries)
- Excessive Competition of Manufacturers (cf. EMS)

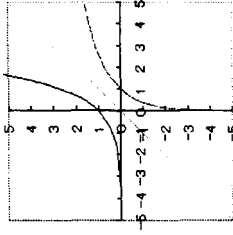


Needs for **Alternative Fundamental Solution**

## A Solution : 'Renormalization'

Exponential Increase='Anomaly' State  
⇒ Renormalization

Logarithmic Convergence of Solution



Marx=Weber-Fechner's  
Qualitative Renormalization  
of Quantitative Cognition

cf. **Object-Oriented Programming for  
'Software Crisis'**

## 3. e-Aircraft Career System; Reconstruction of 'Keynesian Cradle' from the Viewpoint of MOT

Necessity of appropriate 'Cradle'(Keynes)  
For Newborn Technologies

**MOT CARRIER**

as a Cradle for Networked Business Environment

## Possible 'Two Cradles'

We must take these Two Points into account :

- (1) Cradle based on Physical Reality  
⇒ Our Focus of Discussion in this Presentation
- (2) Cradle based on Financial Reality

## What is 'the Cradle based on Physical Reality'?

Feature: **PRODUCT INNOVATION Oriented;**  
(Utterback, 1994)



cf. **'GO! JAPAN' Project**  
by Cabinet Office & UT

## Where is the Value of the Products?

Value ≠ Technological Superiority  
...Importance of Users' Acceptance  
(=Observed Information)  
**Products: Information with the Material Basis**

To Grasp the Value of Products:  
...Necessity to Reexamine the issue  
'Product Innovation'  
from the point of Information and its Acceptance

## 'Experience Innovation' (C. K. Prahalad, 2003)

Focus of Innovation:  
Each User's Experience = Acceptance  
Experience Environment:  
**Network** composed by Enterprises and User  
Communities

↓  
Possibility of  
**REAL TIME TAILORMADE INNOVATION**

## 'Co-Creation' of Value (Prahalad)

**Value Creation:Users' Participation**  
to the Experience Environment  
= 'Co-Creation'  
(Beyond 'Supply Push' / 'Demand Pull' Model)

**Technology: Facilitator of Various Experiences**  
(Users' Acceptance)

## Experience Innovation and Tacit Knowledge

Experience: Basically 'Tacit Knowledge'  
(M. Polanyi, I. Nonaka)

Tacit Knowledge: Unable to Express  
in Textual Representation

⇒ Merit: Core Competence

⇒ Demerit: Difficulty to Succeed the Knowledge

## For Sustainable Competence

From  
**'Tacit Knowledge'**  
To  
**'System Knowledge'**

(Atsunobu Ichikawa)

## Possibility of Type-2 Basic Research; for Systematization of Knowledge

Notion of 'Type-2 Basic Research'  
(Hiroyuki Yoshikawa, President of AIST, Japan)

Process of R&D	Type-1 Basic Research	Type-2 Basic Research
Disciplinary Features	Traditional Discipline	Inter-discipline
Logical Features	Linear	Non-Linear Abduction

Development Of Products

Role of MOT as Cradle

## 4. Short Conclusion : For Plentiful Future of e-Biz Circumstances

1. **Process Innovation:**  
Importance of 'Renormalization' in Networked Business  
... 'Logarithmic Convergence'
2. **Product Innovation:**  
Importance of Business Strategy for Sustainable Competence  
... 'Experience Innovation', 'Type-2 Basic Research'
3. **Role of MOT:**  
Creation of a 'Business Model' Working as a Cradle  
in e-Business Circumstances without Distinction of  
Process or Product