



e-Biz World Conference 2005

“Invitation to Emerging World of e-Business”

Date March 23(Wednesday), 2005
Place Grand Ballroom, Millennium Hilton Hotel, Seoul, Korea
Host Society for e-Business Studies
Co-Host Mael Business Newspaper
Mael Business TV

Sponsors Institute of Information Technology Assessment
Integrated Forum on Electronic Commerce

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- Host** Society for e-Business Studies
- Co-Host** Maeil Business Newspaper
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- Sponsors** Institute of Information Technology Assessment
Integrated Forum on Electronic Commerce
- General Chairs** Kwang Ho Kim, Chairman, Society for e-Business Studies
Dae Hwan Jang, Chairman, Maeil Business Newspaper
- Organizing Chair** Choon Seong Leem, Yonsei University
- Organizing Committee**
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Kyu Soo Kim, Vice Chairman, Electronic Commerce Integrated Forum
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Soonhung Han, Professor, KAIST
Duk-Hyun Kim, Professor, Sejong Cyber University
Sung Hyuk Kim, Professor, Sookmyung Women's University
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Seung Baek, Professor, Hanyang University
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"Invitation to Emerging World of e-Business" Program

Track A

Session/Chair	Presentations
13:00 ~ 14:00 TA-1 Int'l e-Biz Case Study Jinwha Kim Sogang University	Rural E-commerce : Challenges and Opportunities, Vason P. Srin, University of California Berkeley / 3 Brand strategy of global e-commerce Selective possibility of Korea, Japan, and America Government, Corporation and Consumer, Yohei NISHIMARU, Department of Economy Tokyo University, Takanari FUKUTA, Ken ITO, Interfaculty Initiative in Information Studies, Tokyo University, Yasunori FUJITA, Department of Economy, Keio University / 18 Integration of Strategic Issue Management and Knowledge in View of Strategic Information Paradigm-An Integrative Framework, M.Mallikarjun, Nirma Institute of Management Sarkhej Gandhingagr Highway Post, Jihwan Yum, Hanyang Cyber University / 25
14:10 ~ 15:10 TA-2 e-Government Beomsoo Kim Yonsei University	The Marriage between Technology and Ecology for a Center for G2G e-Government Excellence, Roberto Evaristo, University of Illinois at Chicago, Beomsoo Kim, Yonsei University / 53 An Ontology-based Knowledge Management System: Integrated System of Web information Extraction and Structuring Knowledge, Hideki Mima, University of Tokyo / 55 Enterprise Wide Centralized Application level Access Control Using XACML, Riaz A. Shaikh, S.M.H. Zaidi, Saeed Rajput, Kashif Sharif, Nust Institute of Information Technology, Florida Atlantic University / 62 The Role of Trust in Government and Perceived Transaction Risks in Adopting G4C e-Government Services, Jung Lee, Korea University, Beomsoo Kim, Yonsei University / 68
15:30 ~ 16:30 TA-3 e-Learning Myungmoo Lee Cyber University of Foreign Studies	Seductive Sirens : Dangers and Opportunities for E-learning, Michael J. Jacobson, New England Complex Systems Institute / 75 'Distant Learning' based on 'Technological Restructuring' ; Takanari FUKUTA and Ken ITO, Interfaculty Initiative in Information Studies The University of Tokyo / 81 Influencing Factors for Repurchase Intention in e-Learning Sites, Myungmoo Lee, In keun Chung, Cyber University of Foreign Studies / 96
16:40 ~ 17:40 TA-4 e-Biz Technology Chang Hee Han, Hanyang University	Design and Implementation of an Internet Auction System with Pricing Agents, Minjung Ko, Yongkyu Lee, Dongguk University / 103 Buying Point Recommendation for E-Commerce Systems, Eunsill Jang, Yongkyu Lee, Dongguk University / 108 The next ebXML based on UML 2.0, Jahee Kim, Seoul National University / 114 Event-based CRM: Framework and Case, Gouranga G. Das, Jaeho Heo, Chang Hee Han, Hanyang University, Jae Kwang Lee, EGN System / 120

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Track B

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14:10 ~ 15:10 TB-2 e-Transformation Hoontae Kim Daejin University	Hybrid Channel and e-Transformation Strategies in Electronic Commerce, Sehak Chun, Seoul National University of technology, Jaecheol Kim, Korea Advanced Institute of Science and Technology / 143 e-Transformation Strategy: From EDI to Web-based e-Business Standard Framework, Minsoo Kim, Pukyong National University, Dongsoo Kim, Catholic University, Hoontae Kim, Daejin University, Junghee Yoon, National Computerization Agency / 149 Does the Consumer Knowledge Moderate the relationship between the Information Characteristics and Word of Mouth Performance in Online Environment?, Eunyoung Lee, Korea University of Technology and Education, Thaemin Lee, Dongseo University, Wonjun Lee, Seoul National University / 155
15:30 ~ 16:30 TB-3 e-Biz Services Gyoo Gun Lim, Sejong University	The Impact of the Vendor Firm's Competence on the Processes of IS Outsourcing Success: A Relationship Perspective, Yunweon Seo, Hyunsoo Han, Hanyang University, Jaenam Lee, Kookmin University / 163 A Taxonomy of Mobile Game Business, Changsu Kim, Eunhai Oh, Yeungnam University / 169 A Study on Construction & Standardization of the Mobile Banking Services based on Financial Chip for the Ubiquitous Banking, Myungjun Han, Woori Bank, Jeein Kim, Konkuk University / 174 The Research on the Concept and Characteristics of the Personal Community Service, Joongho Ahn, Minkyun Chae, Jiyoun Yang, Seoul National University / 180
16:40 ~ 17:40 TB-4 CRM Applications Hee Jun Park Yonsei University	Clustering Technique for XML Data using Data Mining, Chunsik Kim, Anyang University / 189 Workflow Mining based on Heuristic Approach using Log data, Myunghee Lee, Jeonbuk Polytechnic College, Cheoljung Yoo, Okbae Jang, Jeonbuk National University / 195 A Study of customer satisfaction on mobile banking service, Joongho Ahn, Jiyoun Yang, Junghee Ahn, Seoul National University / 201 An Iterative Refinement Approach for Mining in Large-Sized Data Dursun Delen, Merylin Kletke, Oklahoma State University, Jinhwa Kim, Sogang University / 207

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Track C

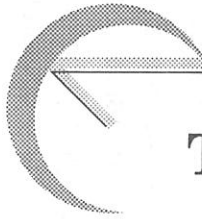
Session/Chair	Presentations
<p>13:00 ~ 14:00</p> <p>TC-1 u-Computing</p> <p>Okhyun, Ryou Korea Polytechnic University</p>	<p>RFID Middleware Framework for Ubiquitous Environment and Its Implementation, Youngil Kim, Taesu Cheong, Joosang Park, Electronics and Telecommunications Research Institute / 215</p> <p>RFID Middleware Roles in Digital Convergence Age, JeongsunPark, Myongji University, Yongjun Lee, Younghee Lee, Electronics and Telecommunications Research Institute / 221</p> <p>An Approach for developing RFID Applications, Okhyun Ryou, Jaekwang Lee, Sungho Noh, Korea Polytechnic University / 227</p> <p>A Design of Distributed PML Service Architecture for Ubiquitous Logistics, Jaewon Lee, Korea University of Technology and Education, Youngkoo Lee, Kyunghee University / 232</p>
<p>14:10 ~ 15:10</p> <p>TC-2 Next Generation of e-Biz Technology</p> <p>Junho Shim Sookmyung Women's University</p>	<p>Algorithms for Intelligent Web Service Discovery considering Process Information and QoS, Jeongyoun Yu, Soyoun Yu, Jyuchul Lee, Chungnam National University / 241</p> <p>Bid Pricing Based on the Learning Curve Method for Internet Bid Systems, Sungeun Park, Yong kyu Lee, Dongguk University / 247</p> <p>RFID-based Information management Service System Architecture, Sewon Oh, Yongjoon Lee, Electronics and Telecommunications Research Institute / 253</p>
<p>15:30 ~ 16:30</p> <p>TC-3 Web Service</p> <p>Jonghun Park Seoul National University</p>	<p>Designing an Efficient Web Service Transaction Protocol Using 2PC and THP, Seungkyun Han, Jonghun Park, Seoul National University, Kiseok Choi, Hankuk University of Foreign Studies / 261</p> <p>Consideration issues of Web Services in IPv6 Environment, Wonsuk Lee, Minkyoo In, Kangchan Lee, Jonghong Jeon, Seungyun Lee, Electronics and Telecommunications Research Institute / 267</p> <p>WS-CPP (Web Services Conversation Preference Profile), Kangchan Lee, Wonsuk Lee, Jonghong Jeon, Seungyun Lee, Electronics and Telecommunications Research Institute, Jonghun Park, Seoul National University / 272</p>
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Time \ Program	Invitation to Emerging World of e-Business		
9:30~10:20	Registration		
10:20~10:50	[Hot Message] Byungmoon Suh, President, Korea Culture & Content Agency		
10:50~11:00	[Greeting] Ministry of Information and Communication		
11:00~11:10	[Welcome] Society for e-Business Studies		
11:10~11:50	[Keynote 1] e-business on demand & Business Transformation Outsourcing, Sugyul Lee, CEO, IBM BCS		
12:00~13:00	Lunch		
13:00~14:00	Track A	Track B	Track C
	TA-1	TB-1	TC-1
	International e-biz Case Studies	e-Biz Frameworks	u-Computing
14:10~15:10	TA-2	TB-2	TC-2
	e-Government	e-Transformation	The Next Generation e-Biz Technology
15:10~15:30	Coffee Break		
15:30~16:30	TA-3	TB-3	TC-3
	e-Learning	e-Biz Service	Web Service
16:40~17:40	TA-4	TB-4	TC-4
	e-Biz Technology	CRM Applications	e-Biz Society
17:40~18:10	General Congress, Society for e-Business Studies		

Track A



TA-1) Int'l e-Biz Case Study

(Jinwha Kim, Sogang University)



TA-1-1) Rural E-commerce : Challenges and Opportunities, Vason P. Srin, University of California Berkeley



TA-1-2) Brand strategy of global e-commerce Selective possibility of Korea, Japan, and America Government, Corporation and Consumer, Yohei NISHIMARU, Department of Economy Tokyo University, Takanari FUKUTA, Ken ITO, Interfaculty Initiative in Information Studies, Tokyo University, Yasunori FUJITA, Department of Economy, Keio University



TA-1-3) Integration of Strategic Issue Management and Knowledge in View of Strategic Information Paradigm-An Integrative Framework, M.Mallikarjun, Nirma Institute of Management Sarkhej Gandhingagr Highway Post, Jihwan Yum, Hanyang Cyber University

**Brand strategy of global
e- commerce**
**Selective possibility of Korea,
Japan, and America**
Government, Corporation and Consumer

Yohei NISHIMARU*
Takanari FUKUTA**
Yasunori FUJITA***
Ken ITO **

*) Department of Economy, Tokyo University
**) Interfaculty Initiative in Information Studies, Tokyo University
***) Department of Economy, Keio University

Outline

- What decide the win and loss of global e-commerce?
- Net infrastructure is not decisive
 - In Korea broad band coverage is 98%, but in the world, the market exists where net infrastructure has not spread, for example America and Japan and so on.
- As for deciding the success or failure of business is "Brand identity" \supseteq affinity, reliability and safety etc.....

Achievement of Brand identity by IT corporation(recent Japanese case)

- Fukuoka Softbank Hawks
 - Son Masayoshi president: Resident South Korean.
 - Ou Sadaharu director: Former resident Taiwan type Chinese.
- Rakuten gorlden EAGLES
 - (Rakuten President :Mikitani)

=>professional baseball, professional sport management

- By the "live door" purchase of the Fuji Telecasting Co.

**The boom of brand identity of
“Korea style “**

- the IT corporation which succeeds and survive in 1990's makes people acknowledge "the national corporation" brand of Japan by management of professional baseball and professional soccer etc. as the most direct method.
- Brand strategy to general consumer
 - => Strengthening the competitiveness

- From world cup soccer 2002, Japan corporations want to add brand identity to themselves by the Korean popular actor.
 - for ex. Bae Yong Joon KDDI, Lotte Co., Ltd.
- Cf "Kimutaku" "日式" (イルシク) brand identity all over the east asia

Topic of analysis

- To familiarize e-commerce, though corporations invest net infrastructure, the effect often stays in the back ground.
- => what kind of investment should be done?
- For example: though the corporations raise Broadband coverage, their profits may not rises directly. (As for Korea bb coverage is advanced)
- When, 1) as corporations 2) as the country, what kind of informatization investment should be done, will e-commerce develop?

What is e- commerce like?

- E-commerce has global market, can decrease costs (such as inventory control costs etc...)
- => The possibility of exceeding space-time until now without being
- T-commerce as an anti concept
- "The general" (local) market has more cost, but its risk is small.
- => Stable, basic market.
- Both T-commerce and e-commerce have their advantage.

Demerit

- Limit of e- commerce
 - Existence of inflation, bubble and risk
- Limit of t- commerce
 - Not growth (the opposite of stability)
- T-commerce will continue forever: So as a whole what strategy to win in e- commerce market should have been raised?

The consideration by the macro mathematical model

- Suppose the economy which is formed only from the consumer and enterprise.
- "Information infrastructure coverage" θ is given.
- Under that, we consider optimum level of profit of e-commerce and t-commerce of corporation.
- How does information infrastructure coverage affect the above-mentioned optimum level.

Characters of mathematical model

- Consumer
 - purchase commodity corporation produced in e-commerce or t-commerce.
- Corporation
 - possesses the both section of E-commerce and t-commerce.
 - their sale is the sum of e-commerce and t-commerce.
- T-commerce is basic and fixed, and important, but its growth is difficult to face.
- E-commerce has possibility of high growth, while it has a risk.
- To tell the truth, we would like to know appropriate balance between e-commerce and t-commerce. (This time it is unsolved)

Hypothesis

- We supposed quantity of the commodity which the consumer purchases is given from "fundamental quantity" and the information send by corporation.
- "Fundamental quantity"... can be a fixed portion in consumption
- Consumption is made from a fixed portion and a fluid portion.
- ... we can estate what we would like to buy beforehand.
- (ex. "1 hamburger, please.")
- "Information"... (ex. "How about French fries?" and so on)

Hypothesis 2

- Corporation
 - As for e-commerce, in only ratio of domestic information infrastructure coverage, corporations give consumers an amount of information.
 - As for T-commerce, corporations give the small amount of information.
- It is supposed that corporation and consumers behavior according to the principle of maximizing behavior.
- The government sets up information infrastructure.
- => Role of the government
- I analyze the corporation's, the government's, and the consumer's behavior from the mathematical model.

First introduction : Conclusion of mathematical principle

- Object of corporation.
 - Improvement rise of their income.
- Object of government
 - the increase of profit in the country as a whole.
- To achieve their objects, what they should invest?
- => They should set up "fundamental" information infrastructure which increase e-commerce's brand identity responding to each equity of the government and corporations.

- For example, as for corporations, from raising internet security to getting lots of consumers by image strategy.
 - "Fukuoka Softbank Hawks"
- If the country does not establish the national brand in internet environment, there is no guarantee that it remains undefeated while global e-commerce spreads.
- Though the government simply sets up "information infrastructure", the corporations' profits cannot increase.
- => Importance of strategic investment

Variable

- X, "fundamental quantity" of the commodity which the y consumers purchase
- P, q price of the commodity
- i2 "Information" to e-commerce
- i3 "Information" to t-commerce
- α Brand parameter to e-commerce ()
- β Brand parameter to t-commerce ()
- θ information infrastructure rate

Pay-off function of consumer and corporation

消費者

$u = \text{効用} - \text{費用}$

企業

$\pi = \pi_2 + \pi_3$

$\pi_2 = \text{e-コマースの売り上げ} - \text{費用}$

$\pi_3 = \text{t-コマースの売り上げ} - \text{費用}$

Determine functions under hypothesis

$$u = \alpha\sqrt{x\theta i_2} + \beta\sqrt{y i_3} - px\theta i_2 - qy i_3$$

$$\pi_2 = px\theta i_2 - bi_2^2$$

$$\pi_3 = qy i_3 - ci_3^2$$

Maximizing behavior

$$\frac{\partial u}{\partial x} = \frac{\alpha\sqrt{\theta i_2}}{2\sqrt{x}} - p\theta i_2 = 0$$

$$\frac{\partial u}{\partial y} = \frac{\beta\sqrt{i_3}}{2\sqrt{y}} - qi_3 = 0$$

$$\frac{\partial \pi_2}{\partial i_2} = p\theta x - 2bi_2 = 0$$

$$\frac{\partial \pi_3}{\partial i_3} = qy - 2ci_3 = 0$$

Optimum value

$$x^* = \frac{\alpha\sqrt{2b}}{2p^{\frac{3}{2}}\theta} \quad i_3^* = \frac{\beta}{\sqrt{8cq}}$$

$$y^* = \frac{\beta\sqrt{2c}}{2q^{\frac{3}{2}}} \quad x\theta i_2 = \frac{\alpha^2}{4p}$$

$$i_2^* = \frac{\alpha}{\sqrt{8bp}} \quad y i_3 = \frac{\beta^2}{4q}$$

$$\theta = \frac{\alpha\sqrt{2b}}{2p^{\frac{3}{2}}x^*}$$

Pay-off function under maximizing

$$u = \frac{\alpha^2}{4p} + \frac{\beta^2}{4q}$$

$$\pi^* = \pi_2^* + \pi_3^* = \frac{\alpha^2}{8p} + \frac{\beta^2}{8q}$$

Proposition to corporations

- IT revolution
- => Setting up information infrastructure is almost done
- => With intensification of the corporations' strength, fixation of brand identity is needed.
- Mutual complement relationship of e- commerce and t- commerce
 - => t- commerce is fixed market
 - => e- commerce is developing market
- Importance of brand strategy of e-commerce

Proposition to governments: Korea, Japan US and...

- By regulating the price of the commodity, θ is raised ,and it is possible to raise α .
- How to construct the national brand?

What should it be,

the Brand Strategy of

KOREA

in good harmonization of
international

e-commerce world ?

Thank you for your kind attension

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