



Hitotsubashi University
Institute of Innovation Research

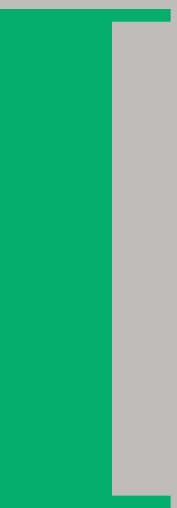
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ANNUAL REPORT 2008 - 2009



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ANNUAL REPORT FY2008 – FY2009

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‘To become a world-class of excellence for research in social processes of innovation’ — The Institute of Innovation Research (IIR) was established at Hitotsubashi University to achieve this aim in April 1997, as the result of the reorganization of the Institute of Business Research, whose main pursuit had been the theoretical and empirical analysis of business, society and management.

It is indispensable for a populous country with poor natural resources like Japan to generate innovation. The importance of innovation has considerably increased since 1990s when growth by catching up with Western competitors was no longer possible. At that time, however, we had only little understanding of how innovation was generated. Innovation was an agenda in the realm of technical development. People did not pay sufficient attention to the long, social process for turning technological invention into industrial development. Innovation is a complex social phenomenon in which economic, political, organizational, historical and legislative factors are correlated with each other. In order to clarify this process, there needed to be places for interdisciplinary, systematic research where people from various fields of social science could work together utilizing the knowledge of natural science. This is how the IIR was established as an interdisciplinary research institute concentrating on the innovation process.

Missions

The first mission of the IIR is to study the innovation generation process systematically and empirically, understanding innovation as something to bring about economic value, and to contribute to the improvement of theoretical and practical knowledge. The role of the IIR also encompasses the clarification of social and economical impacts of innovation.

The second mission is to build a bridge between theory and practice on innovation. Since innovation is “living phenomenon,” one needs to be deeply involved in the front line of practice and understand specific problems happening there. In order to achieve the ultimate objective of facilitating innovation, there should be certain mechanisms for applying theoretical knowledge to the front line of innovation. In this sense, the IIR has to play an important role in linking theory and practice.

The third mission is to be an open research center which serves as a place for knowledge fusions between researchers from different countries. As the importance of innovation is and will be growing in East Asian countries, promoting interactions with researchers from these countries is very important for Japan in contributing to the development of this region. Thus, the IIR's missions also include the accumulation of qualitative and quantitative information on Japanese innovation.

Research Areas

In order to pursue its mission of studying the innovation process systematically and empirically, the activities of IIR have covered the following areas of research since its establishment.

“Research on Technological Innovation” and “Research on Management Innovation” are the areas in which factors facilitating innovation such as technology, organizations and management methods are being studied. “Research on Entrepreneurs” analyzes the personal characteristics of entrepreneurs as innovation initiators in order to go deep into the realities of innovation. “Research on Social Networks” explores how networks of private firms, universities, individuals, and other entities and parties affect innovation.

“Business History Research” and “Technology History Research” look at the above areas of empirical research from a broader perspective, understand their historical contexts, and trace the development processes of innovation over time. “Research on Institutions for Innovation” focuses on clarifying the influences of accounting and legal systems (such as those about intellectual property rights) on innovation.

“Research on Knowledge Management” synthesizes and attempts to understand all these empirical areas of research from a broader, theoretical perspective. Finally, “International Comparative Research” involves comparison, demonstration and analysis on an international scale.

We believe that our research at the IIR offers an important opportunity to foster creativity and innovation in Japan in order to bring about transformation and development in business organizations and the economy. We wish to create a world-class, international research institute where people from all over the world can conduct research together.

I. Research Activities



1. Innovation Research Forum — Apr. 2008 ~ Mar. 2010

The following is the list of lectures given as part of the Innovation Research Forum during 2008-2009 academic year:

- Mar. 18, 2010 Steven White
Associate Professor, China Europe International Business School
“Entrepreneur-Investor Relational Configurations and Implications for Value ‘Beyond the Contract’”
- Mar. 09, 2010 Hyungsub Choi
Senior Research Fellow, Center for Contemporary History and Policy, Chemical Heritage Foundation, Philadelphia / JSPS Postdoctoral Fellow, History and Philosophy of Science, Graduate School of Arts and Sciences, University of Tokyo
“Manufacturing Knowledge in Transit: The Circulation of Transistor Technology in the U.S. and Japan, 1948-1960”
- Mar. 09, 2010 Akihiko Ishitani
IMEC Representative Japan
“Management of Research Consortium: Experience and Future of IMEC”
- Feb. 24, 2010 Akira Endo
General Director, Biopharm Research Laboratories, Inc. / Visiting Professor, IIR
“A Gift from Nature: The Invention of Statin and the Following Innovation (II)”
- Feb. 09, 2010 Akira Shibata
Chief Engineer, Engineering Planning Dept., Automatic Data Capture Division, DENSO WAVE INCORPORATED
“The Business Strategy of QR Code”
- Feb. 05, 2010 Bruno van Pottelsberghe
Professor, Universite Libre de Bruxelles
“The Quality Factor in Patent Systems”
- Jan. 20, 2010 Hiroshi Uematsu, Kenji Kato, Yasuhiko Awa, Michitaka Sakaida and Masato Sugiura
General Manager, Ironmaking Technical Div.; General Manager; Senior Manager; Senior Manager, Coke Plant, Plant Engineering Div.; Senior Researcher, Instrument & Control R&D Div., Nippon Steel Corporation
“A Diagnose and Repair Technologies Used in Enormously Harsh Space for the Realization of Coke-Oven Restoring”
(GCOE Research Project on Okochi Prize Cases)
- Nov. 04, 2009 Akira Endo
General Director, Biopharm Research Laboratories, Inc. / Visiting Professor, IIR
“A Gift from Nature: The Invention of Statin and the Following Innovation (I)”
- Oct. 06, 2009 Tom Nicholas
Associate Professor, Harvard Business School
“Inducement Prizes and Innovation”
- Sep. 29, 2009 Roberto Fontana
University of Pavia and Bocconi University, Italy
“Demand, Entry and Survival in the Semiconductor Industry” (with Franco Malerba)

- Sep. 29, 2009 Chih-Hai Yang
National Central University, Taiwan
“R&D, Technology Imports and Patents in China's High-tech Industries: Do Patent Reform and Ownership Matter?”
- Aug. 20, 2009 Atsushi Imai
Senior Engineer, Broadcasting Engineering Division, NHK Engineering Services, Inc.
“Development of Radio and Television Receiver with Functions of Speech Rate Conversion Technology”
(GCOE Research Project on Okochi Prize Cases)
- Aug. 19, 2009 Carlos Ramirez
Associate Professor, HEC Graduate School of Management / Visiting Associate Professor, IIR
“The Big 4 Audit Firms After Enron: Making Sense of Audit Quality in a Historical Perspective”
- Jul. 30, 2009 Katsumi Maeda and Kaichiro Nakano
Principal Researcher; Principal Researcher, Nano Electronics Research Laboratories, NEC Corporation
“Development of Novel Materials for ArF Resist Achieving the Mass-Production of Advanced LSIs”
(GCOE Research Project on Okochi Prize Cases)
- Jun. 25, 2009 Shozo Kaneko
Professor, Endowed Research Unit, Advanced Energy Conversion Engineering Institute of Industrial Science, University of Tokyo
“Innovation against the Global Warming (How to reduce CO2?)”
- Jun. 25, 2009 Yuzuru Sato
Associate Professor, Department of Mathematics, Hokkaido University
“Stability and Diversity in Collective Adaptation”
- Jun. 25, 2009 Jung-Kyoo Choi
Professor, School of Economics and Commerce, Kyungpook National University
“The Holocene Revolution: The Coevolution of Agricultural Technologies and Private Property Institutions”
- Jun. 18, 2009 Marc Henry
Professor, Universite de Montreal / Visiting Professor, University of Tokyo
“Partial Identification and Inference in Models of Discrete Choice with Interactions”
- Jun. 16, 2009 Ben Dankbaar
Professor, Nijmegen School of Management, Radboud University Nijmegen (Netherlands)
“Challenges of Open Innovation: A Sectoral Perspective”
- Jun. 12, 2009 Kenta Mikuriya
General Manager, Corporate R&D Headquarters, Yokogawa Electric Corporation
“Development and Application of High Speed Confocal Microscopy which can be used for the Observation and Analysis of Molecular Dynamism”
(GCOE Research Project on Okochi Prize Cases)

- Jun. 03, 2009 Youngjin Yoo
Associate Professor, Fox School of Business and Management, Temple University
“The Wicked Problem of Innovations in Doubly Distributed Innovation Networks: An Example from Architecture, Engineering and Construction Industry”
- Apr. 23, 2009 Yukio Ohsawa
Associate Professor, Department of Systems Innovation, School of Engineering, University of Tokyo
“Engineering in Post-visualization: From Chance Discovery to Value Sensing”
- Apr. 16, 2009 Keiki Takadama
Associate Professor, University of Electro-Communications
“Validation of Agent-based Social Simulations: Toward an Agent Design for Replicating Human-like Behaviors”
- Apr. 06, 2009 Hiroyuki Shinada and Tadashi Odaka
Manager, Advanced Measurement and Analysis Center / Chief Researcher, Central Research Laboratory, Hitachi, Ltd.; Senior Technical Advisor, R&D Division, Hitachi High-Technologies Corporation
“Development and Commercialization of Critical Dimension Scanning Electron Microscope for Measurement of Ultra-fine Semiconductor Patterns”
(GCOE Research Project on Okochi Prize Cases)
- Mar. 26, 2009 Jinyoung Kim
Professor, Department of Economics, Korea University / Research Associate, Center of Excellence on Human Capital, Technology Transfer, and Economic Growth and Development, State University of New York, Buffalo
“International Knowledge Flows: Evidence from an Inventor-Firm Matched Data Set”
- Mar. 18, 2009 Cornelia Storz
Professor, Faculty of Economics and Business Administration, Goethe University
“How Do New Industries Emerge? The Case of Japan's Game Software and Biotech Industry”
- Mar. 18, 2009 Nobuyuki Hanaki
Doctoral Program in Economics, Graduate School of Humanities and Social Sciences, University of Tsukuba
“Complexity, Uncertainty, and Organizational Congruency” (joint with Hideo Owan)
- Mar. 05, 2009 Takayoshi Mamine
Project Professor, Collaborative Research Development, Division of University Corporate Relations, University of Tokyo
“The Development of MOCVD: Mass Production of Compound Semiconductor Devices”
(GCOE Research Project on Okochi Prize Cases)
- Feb. 23, 2009 Ulrike Schaeede
Professor, University of California, San Diego
“The Demise of the Main Bank as a Last Resort: Changes in Corporate Restructuring in Japan, 1981-2007” (with Takeo Hoshi and Satoshi Koibuchi)

- Feb. 04, 2009 Hiroyoshi Kimura and Toshitake Kanno
 President; Director / R&D Department Director, Kimura Chuzosho Co., Ltd.
 “Development of Innovative Full Mold Casting System with Utilizing Information
 Technology as a Core”
 (GCOE Research Project on Okochi Prize Cases)
- Jan. 13, 2009 Matthias Kipping
 Professor, Schulich School of Business, York University (Canada)
 “Management Consultants as a Systemic Risk: McKinsey @ Enron”
- Dec. 18, 2008 Genichi Hatakoshi
 Fellow, Toshiba Research Consulting Corp. / Fellow, Center for Research and Development
 Strategy, Japan Science and Technology Agency
 “Development of 0.6 μ m-Band Visible Laser Diodes”
 (GCOE Research Project on Okochi Prize Cases)
- Dec. 05, 2008 Esther van Zimmeren
 Invited Researcher, Institute of Intellectual Property, Tokyo / Research Fellow, Center for
 Intellectual Property Rights, University of Leuven
 “Open Innovation in Medical Biotechnology in Europe”
- Dec. 05, 2008 Guido Cozzi
 Professor, Bonar-MacFie Chair of Political Economy, University of Glasgow
 “Privatization of Knowledge: Did the U.S. Get It Right?”
- Nov. 07, 2008 Takahiro Oshita
 President, Ebara Research Co., Ltd.
 “Development of Internally Circulating Fluidized-bed Technology”
 (GCOE Research Project on Okochi Prize Cases)
- Oct. 29, 2008 Clair Brown
 Professor of Economics and Director, Center for Work, Technology, and Society,
 University of California, Berkeley
 “Semiconductor Industry from Global Perspective”
- Oct. 24, 2008 Wim Vanhaverbeke
 Professor, Strategy & Organisation in the Department Business Studies, Hasselt University
 (Belgium)
 “Future Rresearch in Open Innovation”
- Oct. 07, 2008 Ishtiaq Pasha Mahmood
 Professor, School of Business, National University of Singapore
 “Hub or Federation? Network Centralization and Business Group Performance”
- Sep. 17, 2008 Jed De Varo
 The Wang Family Professor, College of Business and Economics, California State
 University, East Bay
 “Internal Promotion and External Recruitment: A Theoretical and Empirical Analysis” (with
 Hodaka Morita)
- Sep. 01, 2008 Kirankumar Momaya
 Associate Professor, Indian Institute of Technology Delhi / Visiting Associate Professor, IIR
 “Cooperative Strategies for Innovation: Exploring Contexts and Concepts”

2. Joint Research Projects — Apr. 2008 ~ Mar. 2010

At the IIR, we have the advantage of a team of researchers covering many areas of scholarship to carry out joint research into themes that have not previously been touched upon. The following are the joint research projects that researchers engaged in during the 2008-2009 academic year.

(* = Project Leader, or Coordinator)

■ Industry-Academia-Government Collaboration Research Program on Innovation Processes

1. Outline of Research

This research project tries to understand, from theoretical and empirical perspectives, the main characteristics of innovation processes in Japan and pursue for the scheme for overcoming the weakness. In particular, the special attention is paid to science-based industries such as semiconductor, biotechnology, and pharmaceuticals. This research is conducted as the joint research among industry, universities and government. Specifically, New Energy and Industrial Technology Development Organization (NEDO), National Institute of Science and Technology Policy (NISTEP), Semiconductor Technology Roadmap Committee of Japan (STRJ), Japan Bioindustry Association (JBA), Japan Pharmaceutical Manufacturers Association (JPMA), and Office of Pharmaceutical Industry Research (OPIR) actively participate in this joint research project. More concretely, the project tries to elucidate the following subjects: a) theoretical and empirical analyses about innovation processes that effectively combines knowledge-creation & integration and knowledge application & implementation activities, b) significance and limitation of International Technology Roadmap of Semiconductor (ITRS) activities, c) Japan-US comparative studies about the role of vertical collaboration systems among public and/or private research institutes represented by universities, bio-ventures, and pharmaceutical firms. This research is financially supported by the Japanese Government, Grants-in-Aid for Scientific Research (Japan Society for the Promotion of Science (JSPS)), etc.

2. Time Period

FY2008-present

3. Members

IIR Faculty Members (Project Leader: Hiroyuki Chuma and Sadao Nagaoka)
 Akira Endo, Visiting Professor, IIR / Biopharm Research Laboratories, Inc.
 Masaomi Kameyama, Professor (Special Appointment), IIR / Nikon Corporation
 Toshihiko Osada, Professor (Special Appointment), IIR / Fujitsu Microelectronics Limited
 Gensuke Tokoro, Professor (Special Appointment), IIR / aRigen Pharmaceuticals, Inc.
 Masatsura Igami, Associate Professor (Special Appointment), IIR / NISTEP
 Naotoshi Tsukada, Research Associate, IIR
 Yusuke Naito, A Life-laboratory
 Yuji Honjo, Chuo University
 Tomohiro Ijichi, Seijo University
 Kenta Nakamura, Kobe University
 Hideo Owan, University of Tokyo
 Katsushige Tsuno, Electron Optics Solutions

4. Research Activities and Outputs during FY2008-FY2009

1. Survey on the Knowledge Creation Process in Science

IIR and NISTEP jointly carried out a questionnaire survey in Japan, aiming at obtaining objective data to clarify Japan's structural characteristics in the knowledge creation process in science and in science-based innovation. To collect such data, we conducted this survey based on a comprehensive questionnaire for scientists in all categories in Japan (more than seven thousand scientists). A workshop will be held initially to report the main findings from this survey in October 2010. The parallel survey in the United States is expected to be conducted in summer 2010.

2. Workshops (see the following section for the detail)

- (1) US-Japan Workshop on Scientific Collaboration and Productivity, March 26, 2010, Tokyo
- (2) Industry-Academia Collaboration Workshop on Innovation Processes in Semiconductor / Bio Industries: From the Perspectives of Roadmap and Alliance," March 24, 2010, Tokyo
- (3) Industry-Academia Collaboration Workshop on Process and Strategy in Biotechnology Innovation, March 10, 2009, Tokyo

3. Working papers

- (1) Takatori, Toshiro, Kenta Nakamura, Sadao Nagaoka and Yuji Honjo, "Alliance Strategy and Performance of Major Pharmaceutical Firms in Japan, US and Europe" IIR Working Paper #09-07, November 2009 (in Japanese)
- (2) Honjo, Uji, Sadao Nagaoka, Kenta Nakamura, Setsuo Morishita, "Entry and Growth Performance of the Japanese Biotechnology Industry" IIR Working Paper #09-06, August 2009 (in Japanese)

■ Project on Networks and Innovations

1. Outline of Research

Incorporating a new perspective of small-world network theory, we are conducting comparative field research on regional economies and enterprise networks in Japan, China, and Europe. Our group is composed of researchers with diverse national or institutional backgrounds and is expected to keep on producing new findings for years to come.

2. Time Period

FY2004-present

3. Members

Toshihiro Nishiguchi*, Kentaro Nobeoka, Dan Xu (Tongji University (China)), Motoko Tsujita (Ryukoku University), Tomofumi Amano (University of Tokyo)

4. Research Activities and Outputs during FY2008-FY2009

We conducted extensive field research on the Chinese diaspora and returnees worldwide.

Publications

- (1) Nishiguchi, Toshihiro, *An Introduction to Network Thinking*, Tokyo: Toyo Keizai, August 2009 (in Japanese)
- (2) Tsujita, Motoko and Toshihiro Nishiguchi, "The Poor Can Prosper: the Strength of Qingtian Merchants' Overseas Networks," *Hitotsubashi Business Review*, Vol. 57, No. 2, September 2009, pp. 36-51 (in Japanese)

■ GCOE Okochi Award Case Study Research Program

1. Outline of Research

This project aims at building up cases of innovations by Japanese firms and examining the features and challenges of Japanese firms in creating innovations. While previous studies in technology management have paid attention to product development or industry-level analysis, this project focuses on individual firms from concept creation, through development and commercialization to subsequent consequences, in order to explore a new stream of innovation research.

In this five-year project, we make individual cases each year selected from those who won the Okochi Awards, which have been given to important technological innovations annually since 1954. We also conduct cross-case analysis to explore features and challenges of Japanese firms to succeed in innovations. Each case is written jointly by faculty members at IIR and the Graduate School of Commerce and Management at Hitotsubashi University and graduate students. This project is financially supported by Global COE "Innovation in the Japanese Corporation" at Hitotsubashi University.

2. Time Period

FY2008-present

3. Members

Yaichi Aoshima*, Hiroyuki Chuma, Manabu Eto, Masaru Karube, Kentaro Nobeoka, Hiroshi Shimizu, Takeishi Akira (University of Kyoto), Junji Miyahara (Tokyo University of Science), Masatoshi Fujiwara (Kyoto Sangyo University), Youngjae Koh (Konan University), Tomono Miki (Rikkyo University))

4. Research Activities and Outputs during FY2008-FY2009

Publications and Papers

- (1) Takeishi, Akira, Yaichi Aoshima and Masaru Karube, "Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Cases of Okochi Memorial Prize Winners," in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin; Heidelberg: Springer-Verlag, March 2010, pp. 65- 89
- (2) Takeishi, Akira, Yaichi Aoshima and Masaru Karube, "Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Case of Okochi Memorial Prize Winners," *Organizational Science*, Vol. 42, No. 1, September 2008, pp. 4-14 (in Japanese)

Case Study

Hitotsubashi Business Review, Business Case Series (in Japanese)

- (1) Takeishi, Akira, Junji Miyahara and Tomono Miki, "Fujifilm: Development of Computed Radiography System," *Hitotsubashi Business Review*, Vol. 56, No. 2, September 2008, pp. 126-147

IIR Case Study Series (in Japanese)

- (1) Yamaguchi, Hiroyuki, "Toray: Commercialization of Color Filter by Polyimide System," IIR Case Study CASE#10-02, March 2010
- (2) Kudo, Satoshi and Hiroshi Shimizu, "Toshiba: The Development of 0.6 μ m-Band Visible Laser Diodes," IIR Case Study CASE#10-01, January 2010

- (3) Fujiwara, Masatoshi and Atsushi Tsumita, "Kimura Chuzosho: Development of Innovative Full Mold Casting System with Utilizing Information Technology," IIR Case Study CASE#09-03, July 2009
- (4) Aoshima, Yaichi and Ken Okura, "Ebara: Development of Internally Circulating Fluidized-bed Technology," IIR Case Study CASE#09-02, June 2009
- (5) Kosaka, Genjiro and Akira Takeishi, "Noritake Itron: Development and Commercialization of Vacuum Fluorescent Displays," IIR Case Study CASE#08-05, September 2008
- (6) Takanashi, Chikako, Akira Takeishi and Hideaki Kohzu, "NEC: Development of Field-Effect Transistor," IIR Case Study CASE#08-04, September 2008
- (7) Aoshima, Yaichi and Makoto Kitamura, "Seiko Epson: Development of an Ink Jet Printer that Produces High Resolution Text and Pictorial Images," IIR Case Study CASE#08-03, May 2008

■ Industry-Academia-Government Collaboration Project on CO2 Reduction and Innovation

1. Outline of Research

How to reduce CO2 Emission without diminishing the international competitiveness is one of the most urgent and important issues. This research project is to scrutinize how to combine the new technological innovation with the coexistence of the international competitiveness and the global environmental responsibility. The research consortium is interdisciplinary consisted of University of Tokyo, Mitsubishi Heavy Industries and Nihon Keizai Shimbunsha.

2. Time Period

FY2009-present

3. Members

Seiichiro Yonekura*, Manabu Eto, Yaichi Aoshima, Shozo Kaneko (University of Tokyo), Mitsubshi Heavy Industries, Ltd., Nihon Keizai Shimbunsha

4. Research Activities in FY2009

We held the symposium on CO2 Reduction and Japan's Innovation on March 30, 2010 in Tokyo. This symposium was open to the general public of Japan (see the following section for the detail).

3. Conferences — Apr. 2008 ~ Mar. 2010

■ Symposium on CO2 Reduction and Japan's Innovation

March 30, 2010 at Hitotsubashi Memorial Hall, Kanda, Tokyo

Organized by
IIR
Nihon Keizai Shimbunsha
In Collaboration with
Mitsubishi Heavy Industries, Ltd.

Keynote Speech 1

“The Japanese Political Positioning in the International Perspective”
Yukio Okamoto (Okamoto Associates, Inc.)

Keynote Speech 2

“CO2 Reduction and Japan's Innovation”
Kazuo Tsukuda (Mitsubishi Heavy Industries, Ltd.)

Panel Discussion I: Japan's Strategy for CO2 Reduction

Moderator: Seiichiro Yonekura (IIR)
Shozo Kaneko (University of Tokyo)
Akihiro Sawa (The 21st Century Public Policy Institute)
Tetsuya Iida (Institute for Sustainable Energy Policies)
Tsuyoshi Nakamura (Mitsubishi Corporation)
Hiroataka Yamauchi (Hitotsubashi University)
Manabu Eto (IIR)

Panel Discussion II: CO2 Reduction Technology and Innovation Strategy

Moderator: Seiichiro Yonekura
Hiroshi Fujiwara (Nano-Optonics Energy, Inc. / SIM-Drive Corporation)
Takashi Kuroishi (Mitsubishi Heavy Industries, Ltd.)
Takeshi Matsumoto (Osaka Gas Co., Ltd.)
Yuji Akaba (Breakthrough Partners)
Yaichi Aoshima (IIR)

■ US-Japan Workshop on Scientific Collaboration and Productivity

March 26, 2010 at Conference Square M+, Marunouchi, Tokyo

Organized by

IIR

National Institute of Science and Technology Policy (NISTEP), Ministry of Education, Culture, Sports,
Science and Technology

Georgia Institute of Technology

Supported by

National Science Foundation (NSF)

Opening Remarks:

Tomoaki Wada (NISTEP)

Machi F. Dilworth (NSF)

Sadao Nagaoka (IIR)

Session I: Survey Framework and Initial Results in Japan

Chair: John Walsh (Georgia Institute of Technology)

[1] “Survey Design and Sample Characteristics of the Japanese Survey”

Masatsura Igami (NISTEP / IIR) (with Sadao Nagaoka)

[2] “Initial Results from the Japan Scientists Survey”

Sadao Nagaoka (with Masatsura Igami)

Comment: Akira Endo (Biopharm of Japan, Corporation / IIR)

Session II: Discovery Process in Science

Chair: Sadao Nagaoka

[3] “A Case of Astronomy”

Francis Halzen (University of Wisconsin)

Comments and questions: John Walsh

[4] “A Case of Biological Science”

Hirotsada Mori (Nara Institute of Science and Technology)

Session III: Research Staffing and Funding in the US and Japan

Chair: Machi F. Dilworth

[5] “Interpreting the Japanese Survey Results on Research Staffing and Funding in Light of the Japanese Staffing/Funding Mechanism”

Tomohiro Ijichi (Seijo University)

[6] “International Graduate Science Training, Scientific Collaboration, and Research Productivity”

Marcus Ynalvez (Texas A&M International University)

[7] “US Mechanism of Research Staffing and Funding: Implications for Studying Collaboration and Productivity”

Paula Stephan (Georgia State University / National Bureau of Economic Research (NBER))

Session IV: Commercialization Process and the Use of IT in Science

Chair: Hideo Owan (University of Tokyo)

[8] “Interpreting the Japanese Survey Results on Commercialization in Light of the Japanese Mechanism of Commercialization”

Manabu Eto (IIR)

Session IV: Commercialization Process and the Use of IT in Science

Chair: Hideo Owan (University of Tokyo)

[8] “Interpreting the Japanese Survey Results on Commercialization in Light of the Japanese Mechanism of Commercialization”

Manabu Eto (IIR)

[9] “The Impact of Information Technology on Academic Scientists' Productivity”

Waverly Ding (University of California, Berkeley)

Session V: Wrap-up Discussions toward Scientist Survey in the US

Chair: Paula Stephan

[10] “US Science Institutions and Sample Construction for the US Survey”

John Walsh

■ Industry-Academia Collaboration Workshop on Innovation Process in Semiconductor/ Bio Industries: From the Perspective of Roadmap and Alliance

March 24, 2010 at Conference Square M+, Marunouchi, Tokyo

Organized by
IIR

Supported by

Japan Bioindustry Association (JBA)

Japan Pharmaceutical Manufacturers Association (Office of Pharmaceutical Industry Research (OPIR))
New Energy and Industrial Technology Development Organization (NEDO)

With the assistance of

Japan Electronics and Information Technology Industries Association, Semiconductor Technology
Roadmap Committee of Japan (STRJ),

Opening Address

Seiichiro Yonekura (IIR)

Keynote Speech

Chair: Sadao Nagaoka (IIR)

“NIH’s Funding Strategy: Current Status and Future Prospects”

Paula Stephan (Georgia State University / NBER)

Session I: Roadmap for Semiconductors and Innovation Process of the Industry

Chair: Hiroyuki Chuma (IIR)

[1] “The Role of International Technology Roadmap of Semiconductor (ITRS): Tracking the History of ITRS”

Toshihiko Osada (Formerly Fujitsu Microelectronics, Ltd. / IIR)

[2] “Lithography and ITRS”

Masaomi Kameyama (Formerly Nikon Corporation / IIR)

[3] “ITRS and R&D Collaboration among Business Enterprises and Organizations: From the Case Study of High-k/Metal Gate Technology”

Hiroyuki Chuma

General Comment: Shuzo Fujimura (Tokyo Institute of Technology)

Session II: Bio Startups and Alliance

Chair: Manabu Eto (IIR)

[4] “Bio Startups in Japan: Acquisition of Core Technology, Alliance, and Challenges of Growth”

Yuji Honjo (Chuo University / IIR)

[5] “Alliance Structure and Performance in Pharmaceutical Organizations in Japan, U.S. and Europe”

Sadao Nagaoka and Kenta Nakamura (University of Kobe / IIR)

General Comment: Hiroyuki Odagiri (Hitotsubashi University)

■ International Workshop on PATSTAT and Patent Statistics

January 19, 2010 at 7F Conference Room, Institute of Intellectual Property, Kanda, Tokyo

Organized by
Institute of Intellectual Property
Supported by
IIR

Opening Address

Tateo Takiuchi (Institute of Intellectual Property)
Dominique Guellec (OECD Senior Economist)

[1] “Guide to the PATSTAT”

James Rollinson (European Patent Office)

[2] “Linking of PATSTAT and IIP Patent Database”

Kazuyuki Motohashi (University of Tokyo)

[3] “Evaluating Continuing Applications in the US, Using PATSTAT Database”

Naotoshi Tsukada (IIR)

[4] “An Econometric Assessment of the Effects of Patent Thickets”

Yoichiro Nishimura (Kanagawa University) and Sadao Nagaoka (IIR)

Closing Remarks

Sadao Nagaoka

■ Industry-Academia Collaboration Workshop on Process and Strategy in Biotechnology Innovation

March 10, 2009 at Roppongi Academy Hills 49F, Tokyo

Organized by

IIR

Supported by

Japan Bioindustry Association (JBA)

Japan Pharmaceutical Manufacturers Association (Office of Pharmaceutical Industry Research (OPIR))

New Energy and Industrial Technology Development Organization (NEDO)

Opening Address

Seiichiro Yonekura (IIR)

Session I: Government Support to the Commercialization of Scientific Discovery

Chair: Sadao Nagaoka (IIR)

Keynote Speech 1: “Lessons from NIH SBIR Program”

Charles Wessner (US National Academies)

Comment: Katsushi Takehiro (Ministry of Economy, Trade and Industry)

Session II: Bio-based Innovation—Issues as Seen from the Industry

Chair: Kentaro Nobeoka (IIR)

Keynote Speech 2: “Exploiting the Biotechnology for Pharmaceutical Industry in Japan”

Hiroshi Akimoto (University of Tokyo / Kyushu University / JPMA)

Keynote Speech 3: “Opportunities and Barriers to Biotechnology Firm Growth in Japan”

Ichiro Nakatomi (NanoCarrier Co., Ltd.)

Comment: Gensuke Tokoro (aRigen Pharmaceuticals, Inc.)

Yaichi Aoshima (IIR)

Session III: Mechanism of Commercialization of Biotechnology—Bio-startups and Alliance (Report of the findings of joint research)

Chair: Hiroyuki Chuma (IIR)

(1) “Strategic Alliance as an Alternative Strategy for Bio-ventures”

Seiichiro Yonekura and Eyo Shiaw Jia (IIR)

Comment: Kiyokazu Yamazaki (Ichiyoshi Research Institute Inc.)

(2) “Entry and Growth Performance of the Japanese Biotechnology Industry”

Sadao Nagaoka (IIR), Yuji Honjo (Chuo University / IIR), Kenta Nakamura (Kobe University /

IIR), Setsuo Morishita (JBA) and Yumi Shimizu (JBA)

Comment: Akihiko Shimauchi (M’s Science Corporation)

(3) “Alliance Strategy and Performance of Major Pharmaceutical Firms in US, Europe and Japan”

Sadao Nagaoka, Kenta Nakamura, Yuji Honjo, Toshiro Takashima (OPIR)

Comment: Masayuki Tsuchiya (Chugai Pharmaceutical Co., Ltd.)

Closing Remarks:

Setsuo Morishita

■ 97th Applied Econometrics Association (AEA) Conference on Patents and Innovations:
Economics Studies

December 19-20, 2008 at Sano-Shoin Hall and
Mercury Tower, Hitotsubashi University, Kunitachi, Tokyo

Organized by

AEA and IIR

Supported by

Research Institute of Economy, Trade and Industry (RIETI)

European Patent Office (EPO)

Intellectual Property Association of Japan (IPAJ)

Law and Economics Group of Hitotsubashi University

December 19

Welcome:

Takehiko Sugiyama (President of Hitotsubashi University)

Seiichiro Yonekura (IIR)

Keynote Speeches:

Hiroyuki Odagiri (Hitotsubashi University)

Dietmar Harhoff (Ludwig-Maximilians-Universität München)

Session 1 Mergers and Market for Technology

Session 2 Inventors

Session 3 Knowledge Spillover

December 20

Keynote Speech:

Beth Webster (University of Melbourne)

Session 4-1 IPR and Innovation Policy

Session 4-2 Firm Strategies and Performances

Session 5-1 National Innovative Performance

Session 5-2 R&D Productivity

Session 6-1 Theoretical Search for the Efficient IPR System

Session 6-2 Portfolio and Value

Keynote Speeches:

Bronwyn Hall (University of California)

Robert Hunt (Federal Reserve Bank of Philadelphia)

II. Researchers



1. Full-time Researchers

Profiles & List of Research Achievements — Apr. 2008 ~ Sep. 2010



Yaichi Aoshima

■ Education

- 1996 Ph.D. (Management), Sloan School of Management, Massachusetts Institute of Technology
- 1989 M.C. (Business Administration), Hitotsubashi University
- 1987 B.C. (Commerce), Hitotsubashi University

■ Professional Positions

- 1999~ Associate Professor, Institute of Innovation Research, Hitotsubashi University
- 1997 Assistant Professor, Institute of Innovation Research, Hitotsubashi University
- 1996 Assistant Professor, Institute of Business Research, Hitotsubashi University

■ Research Achievements

1. Publications

1.1. Books

(In Japanese)

Aoshima, Yaichi, Akira Takeishi and Michael A. Cusumano, eds., *End of “Made in Japan”?*, Tokyo: Toyo Keizai, August 2010, 374 pages

Aoshima, Yaichi, ed., *Misled Companies / Straying Education: A Lost Decade of Human Resource Development*, Tokyo: Toshindo, August 2008, 196 pages

1.2. Articles and Chapters in Books

Kusunoki, Ken and Yaichi Aoshima, “Redefining Innovation as System Re-Definition,” in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin Heidelberg: Springer, 2010, pp. 43-75

Takeishi, Akira, Yaichi Aoshima and Masaru Karube, “Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Cases of Okochi Memorial Prize Winners,” in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin Heidelberg: Springer, 2010, pp. 165-189

Aoshima, Yaichi, “Mobility of R&D Workers and Technological Performance,” *Japan Labor Review*, Vol. 5, No. 3, July 2008, pp. 33-60

(In Japanese)

Yonekura, Seiichiro, Kentaro Nobeoka and Yaichi Aoshima, “No More Lost Decade for Japan: How to Revitalize her Competitiveness,” *Hitotsubashi Business Review*, Vol. 58, No. 2, September 2010, pp. 12-31

- Takeishi, Akira, Yaichi Aoshima, Masaru Karube, Kazuhiro Motohashi, and Tomohiro Ijichi, "Status of the Two Major Japanese Industries: Positions and Performance of Automobile and Electronics Industries," in Aoshima, Yaichi, Akira Takeishi, and Michael A. Cusumano, eds., *End of "Made in Japan"?*, Tokyo: Toyo Keizai, August 2010, pp. 68-92
- Aoshima, Yaichi, "Pros and Cons of Technological Progress Pushed by Performance Illusion: Digital Still Camera Industry," *ibid.*, pp. 93-144
- Aoshima, Yaichi and Akira Takeishi, "Threat of the New Industrial System Brought by Technological Progress," *ibid.*, pp. 294-323
- Aoshima, Yaichi and Akira Takeishi, "Alternatives Given to Japanese Companies," *ibid.*, pp. 324-342
- Aoshima, Yaichi, "Delayed Strategy Shift: The Role of 'Performance Illusion' in the Digital Still Camera Industry," *The Journal of Science Policy and Research Management*, The Japan Society for Science Policy and Research Management, Vol. 24, No. 1, August 2009, pp. 16-34
- Aoshima, Yaichi, Osamu Suzuki and Atsushi Osanai, "Business Case / BitWallet: Creation of the Electronic Money Market and Business Strategy," *Hitotsubashi Business Review*, Vol. 57, No. 1, June 2009, pp. 82-102
- Takeda, Yoko, Yaichi Aoshima, Kentaro Nobeoka, Chaisung Lim and Shide Won, "Comparative Study of Impact of 3D-Based Design on Product Development Process and Performance in Japan, China and Korea," *Yokohama Journal of Technology Management Studies*, Academic Society of Technology Management, Yokohama National University, No. 8, March 2009, pp. 53-61
- Takeishi, Akira, Yaichi Aoshima and Masaru Karube, "Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Case of Okochi Memorial Prize Winners," *Organizational Science*, Vol. 42, No. 1, September 2008, pp. 4-14
- Aoshima, Yaichi, "A Lost Decade and Revolution of Education / Human Resource Development," in Aoshima, Yaichi, ed., *Misled Companies / Straying Education: A Lost Decade of Human Resource Development*, Tokyo: Toshindo, August 2008, pp. 3-26
- Aoshima, Yaichi, "Lack of Holistic View and a Trap of Individuality," in Aoshima, Yaichi, ed., *Misled Companies / Straying Education: A Lost Decade of Human Resource Development*, Tokyo: Toshindo, August 2008, pp. 183-195
- Aoshima, Yaichi, Jinwei Zhu and Ng Shuk Yee Sally, "Business Case / Wuxi Little Swan Co., Ltd.: Development and Pitfalls of China's Home Appliances Makers," *Hitotsubashi Business Review*, Vol. 56, No. 1, June 2008, pp. 128-145

1.3. Others

Aoshima, Yaichi, “Distress & Prospects for Japan’s Electronics Industry,” *Japan Spotlight*, Japan Economic Foundation, Vol. 27, No. 5, Sep-Oct 2008, pp. 13-15

2. Unpublished Work

2.1. Working Papers

(In Japanese)

Aoshima Yaichi and Ken Okura, “Ebara Corporation: Development of Internally Circulating Fluidized-bed Technology,” IIR Case Study CASE#09-02, June 2009

Aoshima Yaichi and Makoto Kitamura, “Seiko Epson: Development of an Ink Jet Printer that Produces High Resolution Text and Pictorial Images,” IIR Case Study CASE#08-03, May 2008

3. Conference Papers, Presentations

Aoshima, Yaichi, “The 'Performance Illusion' that Deters Commoditization: The Case of the Digital Still Camera Industry,” presented at the 2008 Annual Conference of the Chinese Society for Management of Technology, December 12-13, 2008, Taipei

Aoshima, Yaichi, “The 'Performance Illusion' that Deters Commoditization: The Case of the Digital Still Camera Industry,” presented at the Mitsubishi Bank Foundation International Conference, August 26-28, 2008, Mishima

Kusunoki, Ken and Yaichi Aoshima, “Innovation as System Re-definition,” presented at the 2008 Annual Conference of the Academic Association for Organizational Science, June 7-8, 2008, Kobe (in Japanese)



Hiroyuki Chuma

■ Education

- 1984 Ph.D. (Economics), State University of New York at Buffalo
- 1975 B.A. (Economics), Hitotsubashi University

■ Professional Positions

- 2009~ Committee Member, Expert Panel on Basic Policy Promotion, Council for Science and Technology Policy (CSTP)
- 2004 Affiliated Senior Fellow, National Institute of Science and Technology Policy, Ministry of Education, Culture, Sports, Science and Technology (~2007)
- 2000~ Faculty Fellow, Research Institute of Economy, Trade and Industry
- 2000 Visiting Professor, Department of Economics, Yale University (~2001)
- 1999~ Professor, Institute of Innovation Research, Hitotsubashi University
- 1993 Professor, Faculty of Economics, Hitotsubashi University
- 1992 Associate Professor, Faculty of Economics, Hitotsubashi University
- 1986 Visiting Research Fellow, Department of Economics, Yale University (~1987)
- 1985 Associate Professor, Faculty of Economics, Tokyo Metropolitan University
- 1984 Assistant Professor, Department of Economics, Southern Illinois University at Carbondale

■ Research Achievements

1. Publications

1.1. Articles and Chapters in Books

Chuma, Hiroyuki and Norikazu Hashimoto, "Moore's Law, Increasing Complexity and the Limits of Organization: The Modern Significance of Japanese Chipmakers' Commodity DRAM Business," in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin Heidelberg: Springer, 2010, pp. 209-245

(In Japanese)

Chuma, Hiroyuki, Ichiro Anjo and Norikazu Hashimoto, "DRAM Reconsideration of the Cause and Effect of the Weakening Japanese DRAM Business: From the Overlooked View Point of System Packaging Technologies," *Nikkei Microdevices*, October 2009, pp. 69-76

Chuma, Hiroyuki, "Business Case / JSR: The Challenge to the Increasing Complexity in Technology and Market," *Hitotsubashi Business Review*, Vol. 57, No. 2, September 2009, pp. 108-124

Chuma, Hiroyuki, "JSR's Challenge to the Complexity in Technology & Market: Investigating Her Transformation Process," in JSR and Japan Business History Institute, eds., *With Chemistry, We Can: A Half-Century Step of JSR*, JSR, December 2008, pp. 1-31

Chuma, Hiroyuki, "Implications of 'The Innovation Process Survey in the Science-based Industries'," *Journal of IEICE*, The Institute of Electronics, Information and Communication Engineers, Vol. 91, No. 9, September 2008, pp. 798-803

Chuma, Hiroyuki, "Implication of Innovation Process Survey for Japan Society of Applied Physics (JSAP)," *Oyo Butsuri* (A Monthly Publication of JSAP), Vol. 77, No. 7, July 2008, pp. 787-793

2. Unpublished Work

2.1. Working Papers

Chuma, Hiroyuki and Daiji Kawaguchi, "Does Information Technology Induce the De-skilling of Contingent Workers?: Experiences in the Japanese Electrical and Electronic Industry," Bank of Japan Working Paper Series No. 10-E-3, March 2010

Chuma, Hiroyuki and Akio Kondo, "The Innovation Process Survey in the Science-based Industries: The Report of the Questionnaire Survey for the Physical Society of Japan," NISTEP Report No. 172, National Institute of Science and Technology Policy, October 2009, pp. 787-793 (in Japanese)

3. Conference Papers, Presentations

(In Japanese)

Chuma, Hiroyuki, "ITRS and the Inter-organizational R&D Activities: Based on the High-k/Metal Gate Technologies," Industry-Academia Collaboration Workshop "Innovation Process in Semiconductor / Bio Industries: From the Perspectives of Roadmap and Alliance," Organized by IIR, March 24, 2010, Tokyo

Chuma, Hiroyuki, "Organizational Innovation in the Science-based Industries: How to Cope with Increasing Complexity?," (Keynote Speech), RIETI Policy Symposium "Innovation under the Current World Economic Crisis: Capability Enhancement and Institutional Reform," July 2, 2009, Tokyo

Chuma, Hiroyuki, "Searching for the Causes of Structural Changes in Semiconductor Industries: In View of Neutrality and Modularity," SEMICON Japan 2008, International Packaging Strategy Symposium (IPSS) 2008, December 4, 2008, Chiba (Invited Speech)



Manabu Eto

■ Education

- 2008 Ph.D. (Engineering), Tohoku University
- 1985 M.E. (Engineering Science), Osaka University
- 1983 B.E. (Engineering Science), Osaka University

■ Professional Positions

- 2008~ Professor, Institute of Innovation Research, Hitotsubashi University
- 2006~ Consulting Fellow, Research Institute of Economy, Trade and Industry (RIETI)
- 2006 Director, Conformity Assessment Division, Industry Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry (METI)
- 2004 National Institute of Advanced Industrial Science and Technology (~2005)
- 2000 Delegation of Japan to the OECD (~2004)
- 1995 Assistant Professor, University of Tsukuba (~1997)
- 1994 Visiting Scholar, University of New Mexico
- 1989 Science and Technology Agency (~1990)
- 1985 Ministry of International Trade and Industry (MITI)

■ Research Achievements

1. Publications

1.1. Books

(In Japanese)

Fujino, Jinzo and Manabu Eto, eds., *Business in Standardization*, Tokyo: Hakuto-Shobo, December 2009, 167 pages

Shintaku, Junjiro and Manabu Eto, eds., *Strategic Use of Consensus-based Standards*, Tokyo: Nihon Keizai Shimbun, July 2008, 281 pages

1.2. Articles and Chapters in Books

Eto, Manabu, “Definitions and Functions,” in Choi, Donggeun and Byung-Goo Kang, eds., *Standardization: Fundamentals, Impact, and Business Strategy (APEC Subcommittee on Standards and Conformance (SCSC) Education Guideline 3)*, Chapter 1, June 2010

Eto, Manabu, “Lifecycle, Organizations and Development Procedures,” in Choi, Donggeun and Byung-Goo Kang, eds., *Standardization: Fundamentals, Impact, and Business Strategy (APEC SCSC Education Guideline 3)*, Chapter 2, June 2010

(In Japanese)

Eto, Manabu, “Business Impacts of Global Standards: Competition Has Changed by the Testing Standards,” *Hitotsubashi Business Review*, Vol. 57, No. 3, December 2009, pp. 6-19

- Eto, Manabu, "Technological Effect of Standard," in Fujino, Jinzo and Manabu Eto, eds., *Business in Standardization*, Tokyo: Hakuto-Shobo, December 2009, Chapter 3, pp. 23-34
- Eto, Manabu, "Standard Making Process and its Effect," *ibid.*, Chapter 4, pp. 35-46
- Eto, Manabu, "Internationalization of Standard," *ibid.*, Chapter 5, pp. 47-62
- Eto, Manabu, "New Type of Standard and Conformity Assessment Business," *ibid.*, Chapter 6, pp. 63-77
- Eto, Manabu, "Business Strategy with Standard," *ibid.*, Chapter 9, pp. 100-113
- Eto, Manabu, "The Role of Patents Built into Standard," *Japan Academy of International Business Studies*, Vol. 14, September 2008, pp. 29-41
- Eto, Manabu, "What Is the Consensus Standard?," in Shintaku, Junjiro and Manabu Eto, eds., *Strategic Use of Consensus-based Standards*, Tokyo: Nihon Keizai Shimbun, July 2008, Chapter 1, pp. 1-35
- Eto, Manabu, "The Role of the Intellectual Property Right in the Consensus-based Standards," *ibid.*, Chapter 6, pp. 146-183
- Eto, Manabu and Junjiro Shintaku, "Conclusion of the Strategic Use of Consensus-based Standards," *ibid.*, Chapter 8, pp. 207-234

1.3. Others

(In Japanese)

- Eto, Manabu, "Standardization Personnel Training," *Newsletter of the Information Processing Society of Japan*, No. 80, December 2008, pp. 2-5
- Eto, Manabu, "Strategic Use of Consensus-based Standards," *Clean Technology*, Nihon Kogyo Shuppan, Vol. 18, No. 12, December 2008, pp. 29-33
- Eto, Manabu, "Strategic Use of Consensus-based Standards (1)," *Chizai Prism*, Research Institute of Economy, Trade and Industry, No. 71, August 2008, pp. 104-115
- Eto, Manabu, "Consensus-based Standards: For Business Strategy," *World Economic Review*, Vol. 52, No. 8, August 2008, pp. 33-42

2. Unpublished Work

2.1. Research Reports

- Eto, Manabu, ed., "A Guide to Standardization Business (Experimental Version)," Japanese Industrial Standards Committee, July 2010 (in Japanese)
- Eto, Manabu, "Research for Examination of Soft IP System," Institute of Intellectual Property, Contribution of Chapter IV-2, 2009 (in Japanese)

3. Conference Papers, Presentations

Eto, Manabu, “Promotion & Obstacles in Testing Standards Innovations,” presented at the Portland International Conference on Management of Engineering and Technology (PICMET2010), July 2010, Thailand

Eto, Manabu, “Interpreting the Japanese Survey Results on Commercialization in Light of the Japanese Mechanism of Commercialization,” presented at the US-Japan Workshop on Scientific Collaboration and Productivity, IIR, NISTEP and Georgia Institute of Technology, March 26, 2010, Tokyo

(In Japanese)

Eto, Manbu, “Weak Points of Japan’s Standardization Policy,” presented at the 38th Annual Meeting of the Institute of Image Electronics Engineers of Japan, June 26, 2010, Kanagawa Institute of Technology

Eto, Manbu, “The Background and Consideration about the Movement toward Patent Right Restrictions in the China National Standard,” presented at the 8th Annual Meeting of the Intellectual Property Association of Japan, June 13, 2010, Tokyo University of Technology

Eto, Manbu, “Correlation of the Innovation and Standardization in the Field of LCD Technology Development,” presented at the 24th Annual Meeting of the Japan Society for Science Policy and Research Management, October 25, 2009, Seijo University, Tokyo

Eto, Manbu, “Standardization Personnel Training in the Ministry of Economy, Trade and Industry, and What Lacks in It,” presented at the 37th Annual Meeting of the Institute of Image Electronics Engineers of Japan, June 26, 2009, Asahikawa

Eto, Manbu, “Innovation and Standardization,” presented at the 7th Annual Meeting of the Intellectual Property Association of Japan, June 13, 2009, Tokyo Institute of Technology

Eto, Manbu, “Strategy Arrangement for Use of Consensus-based Standards,” presented at the 23rd Annual Meeting of the Japan Society for Science Policy and Research Management, October 12, 2008, Tokyo

Eto, Manbu, “Inclusion Methods and Role of Patents in the Consensus-based Standards,” presented at the 6th Annual Meeting of Intellectual Property Association of Japan, June 29, 2008, Tokyo

Eto, Manbu, “What is the Patent Policy and its Problems,” presented at the 6th Annual Meeting of Intellectual Property Association of Japan, June 28, 2008, Tokyo



Masaru Karube

■ Education

- 1998 Doctor of Commerce, Hitotsubashi University
- 1995 Master of Commerce, Hitotsubashi University
- 1993 B.A. (Commerce), Hitotsubashi University

■ Professional Positions

- 2006 Fulbright Visiting Scholar, Bryn Mawr College/The Wharton School of the University of Pennsylvania (~2007)
- 2002~ Associate Professor, Institute of Innovation Research, Hitotsubashi University
- 1998 Lecturer, Faculty of Business Administration, Tokyo Keizai University

■ Research Achievements

1. Publications

1.1. Books

Itoh, Hideshi, Tsuyoshi Numagami, Kazuhiro Tanaka and Masaru Karube, eds., *Modern Theories of Management*, Tokyo: Yuhikaku, November 2008 (in Japanese)

1.2. Articles and Chapters in Books

Kato, Toshihiko, Masaru Karube and Tsuyoshi Numagami, "Organizational Deadweight and the Internal Functioning of Japanese Firms: An Explorative Analysis of Organizational Dysfunction," in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin Heidelberg: Springer, 2010, pp. 125-164

Takeishi, Akira, Yaichi Aoshima and Masaru Karube, "Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Cases of the Okochi Memorial Prize Winners," in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin Heidelberg: Springer, 2010, pp. 165-189

Karube, Masaru and Toshihiko Kato, "Blind Pursuit of Strategic Goals: An Examination of Middle Managers' Strategic Orientations in Japanese Firms," *Hitotsubashi Journal of Commerce and Management*, Vol. 43, No. 1, October 2009, pp. 27-45

Karube, Masaru, Tsuyoshi Numagami and Toshihiko Kato, "Exploring Organisational Deterioration: 'Organisational Deadweight' as a Cause of Malfunction of Strategic Initiatives in Japanese Firms," *Long Range Planning*, Vol. 42, No. 4, August 2009, pp. 518-544

(In Japanese)

Kato, Toshihiko, Masaru Karube and Tsuyoshi Numagami, "Validity of Organizational Deadweight: Time Series Analysis of Questionnaire Surveys from 2004 through 2006," in Center for Japanese Business Studies, Hitotsubashi University, ed., *Frontier of Japanese Business Studies 6*, Tokyo: Yuhikaku, March 2010, Chap. 7, pp. 133-156

- Karube, Masaru, "A New Perspective on Innovation Studies," in the Japan Society of Business Administration, ed., *The 79th Journal of Business Management*, Tokyo: Chikura Shobo, September 2009, pp. 17-29
- Kato, Toshihiko, Tsuyoshi Numagami and Masaru Karube, "Cognitive Gaps between Business Unit Head and Middle Managers: A Second Questionnaire Survey," in Center for Japanese Business Studies, Hitotsubashi University, ed., *Frontier of Japanese Business Studies* 5, Tokyo: Yuhikaku, March 2009, Chap. 4, pp. 71-96
- Kato, Toshihiko and Masaru Karube, "Business Strategies among Japanese Firms: An Examination Based on the Questionnaire Survey," *Organizational Science*, Vol. 42, No. 3, March 2009, pp. 4-15
- Karube, Masaru, "Organizational Adaptability and Stretched Goal-based Strategy among Japanese Firms," in Itoh, Hideshi, Tsuyoshi Numagami, Kazuhiro Tanaka and Masaru Karube, eds., *Modern Theories of Management*, Yuhikaku, November 2008, Chap. 3, pp. 105-143
- Takeishi, Akira, Yaichi Aoshima and Masaru Karube, "Reasons for Innovation: Legitimatizing Resource Mobilization for Innovation in the Case of Okochi Memorial Prize Winners," *Organizational Science*, Vol. 42, No. 1, September 2008, pp. 4-14

2. Conference Papers, Presentations

- Tsuyoshi Numagami, Masaru Karube, Toshihiko Kato, Masato Sasaki, Hiroshi Watanabe and Yoshiki Murakami, "Intra-organizational Networks and Information Flows within an Organization," presented at the 30th Strategic Management Society Conference, September 12-15, 2010, Rome, Italy
- Numagami, Tsuyoshi, Masaru Karube, Toshihiko Kato, Yuko Yamashita, Wataru Uehara, Masato Sasaki, Gen Fukutomi, Hiroyuki Fukuchi, Hiroshi Watanabe and Yoshinori Murakami, "Vertical Strategic Information Flow and Market Orientation," presented at the 2010 Academy of Management Annual Meeting, August 6-10, 2010, Montreal, Canada
- Numagami, Tsuyoshi, Masaru Karube, Toshihiko Kato, Yuko Yamashita, Wataru Uehara, Masato Sasaki, Gen Fukutomi, Hiroyuki Fukuchi, Hiroshi Watanabe and Yoshinori Murakami, "Functions and Dysfunctions of Lateral and Diagonal Networks in Advancing Market Orientation: A Preliminary Step toward Bridging the Gap between Market Orientation Research and Intra-organizational Network Research," presented at the 2010 European Group for Organizational Studies (EGOS), July 1-3, 2010, Faculdade de Economia, Universidade Nova de Lisboa, Lisbon, Portugal
- Yamashita, Yuko, Wataru Uehara, Masato Sasaki, Gen Fukutomi, Hiroyuki Fukuchi, Tsuyoshi Numagami, Toshihiko Kato and Masaru Karube, "Dynamism Inside the MO Box: The Credibility of Marketing Information as a Key Factor in Market Orientation," presented at the 2010 Academy of Marketing Science Annual Conference, May 26-29, 2010, Oregon, USA
- Karube, Masaru, Toshihiko Kato and Tsuyoshi Numagami, "Why Can't Elephants Dance?: A New Perspective on Organizational Deterioration in Large Established Firms," presented at the 24th Cardiff Employment Research Unit (ERU) Annual Conference, September 3-4, 2009, Cardiff, UK

Karube, Masaru, Toshihiko Kato and Tsuyoshi Numagami, “How Does Openness of Vertical Communication Matter?: The Effects of Formal/informal Characteristics,” presented at the 2009 Academy of Management Annual Meeting, August 7-11, 2009, Chicago

Karube, Masaru, Toshihiko Kato and Tsuyoshi Numagami, “A New Perspective on Organizational Deterioration within Japanese,” presented at the 2009 European Group for Organizational Studies (EGOS) Colloquium, July 2-4, 2009, Barcelona, Spain

Karube, Masaru, Tsuyoshi Numagami and Toshihiko Kato, “Organizational Deadweight' as a Source of Organizational Dysfunction,” presented at the 2008 Academy of Management Annual Meeting, 'The Questions We Ask', August 8-13, 2008, Anaheim, CA, U.S.A

(In Japanese)

Karube, Masaru, “A New Perspective on Innovation Studies,” presented at the 82nd Conference of the Japan Society of Business Administration Conference, September 3-6, 2008, Tokyo

Kato, Toshihiko, Tsuyoshi Numagami and Masaru Karube, “Organizational Deadweight and Organizational Deterioration among Japanese Firms,” presented at the 2008 Conference of the Japanese Academic Association for Organizational Science, June 7-8, 2008, Kobe



Sadao Nagaoka

■ Education

- 1990 Ph.D. (Economics), Massachusetts Institute of Technology
- 1980 M.S. (Management), Massachusetts Institute of Technology
- 1975 B.E. (Engineering), The University of Tokyo

■ Professional Positions

- 2004 Director, Institute of Innovation Research, Hitotsubashi University (~2008)
- 1997~ Professor, Institute of Innovation Research, Hitotsubashi University
- 1996 Professor, Institute of Business Research, Hitotsubashi University
- 1992 Professor, Faculty of Economics, Seikei University
- 1990 Director of the Office for Russia and Eastern Europe, the Ministry of International Trade and Industry of Japan
- 1986 Economist, the World Bank (~1990)
- 1975 The Ministry of International Trade and Industry of Japan (~1992)

■ Research Achievements

1. Publications

1.1. Books

Nagaoka, Sadao, Masayuki Kondo, Kenneth Flamm and Charles Wessner, eds., *21st Century Innovation Systems for Japan and the United States: Lessons from a Decade of Change: Report of a Symposium*, Washington, D.C.: The National Academies Press, 2009, 302 pages

1.2. Articles and Chapters in Books

Nagaoka, Sadao, Kazuyuki Motohashi and Akira Goto, "Patent Statistics as an Innovation Indicator," in Hall, Bronwyn H. and Nathan Rosenberg, eds., *Handbook of the Economics of Innovation*, Vol. 2, Oxford: Elsevier Science & Technology, 2010, pp. 1083-1127

Nagaoka, Sadao, "M&As and Corporate Performance in Japan: Transferring vs. Sharing of Control Right," in Itami, Hiroyuki, Ken Kusunoki, Tsuyoshi Numagami and Akira Takeishi, eds., *Dynamics of Knowledge, Corporate Systems and Innovation*, Berlin and Heidelberg: Springer, 2010, pp. 247-265

Nagaoka, Sadao, "Does Strong Patent Protection Facilitate International Technology Transfer?: Some Evidence from Licensing Contracts of Japanese Firms," *Journal of Technology Transfer*, Vol. 34, No. 2, April 2009, pp. 128-144

Nagaoka, Sadao, Naotoshi Tsukada and Tomoyuki Shimbo, "The Structure and the Emergence of Essential Patents for Standards: Lessons from Three IT Standards," in Canter, Uwe, Jean-Luc Gaffard and Lionel Nesta, eds., *Schumpeterian Perspectives on Innovation, Competition and Growth*, Berlin:Springers, 2009, pp. 433-448

Nagaoka, Sadao and Kenneth Flamm, "Introduction: The Chrysanthemum Meets the Eagle: The Co-evolution of Innovation Policies in Japan and the United States," in Nagaoka, Sadao et al. eds., *21st Century Innovation Systems for Japan and the United States: Lessons from a Decade of Change: Report of a Symposium*, Washington, D.C.: The National Academies Press, 2009, pp. 3-18

Nagaoka, Sadao, Kenneth Flamm and Masayuki Kondo, "Overview," *ibid.*, pp. 21-26

Nagaoka, Sadao, "Reform of Patent System in Japan and Challenges," *ibid.*, pp. 153-168

Nagaoka, Sadao, Akira Takeishi and Yoshihisa Noro, "Determinants of Firm Boundaries: Empirical Analysis of the Japanese Auto Industry from 1984 to 2002," *Journal of the Japanese and International Economies*, Vol. 22, No. 2, June 2008, pp. 87-206

(In Japanese)

Nagaoka, Sadao, "Diversification, its Relatedness and Profitability of Japanese Firms: 1991-2002," *Keizaitoikeikenkyu* (Journal of the Economy, Trade and Industry Statistics Association), Vol. 37, No. III • IV, March 2010, pp. 12-27

Nagaoka, Sadao and Naotoshi Tsukada, "Standard-making R&D and Standard-using R&D: A First Look at their Characteristics Based on Inventor Survey," *Hitotsubashi Business Review*, Vol. 57, No. 3, December 2009, pp. 50-65

Onishi, Koichiro and Sadao Nagaoka, "Structural Characteristics of the Patent Applications and their Examinations of Important Upstream Inventions in Life Science Area," *Patent Studies (Tokkyo Kenkyu)*, No. 48, September 2009, pp. 5-18

Nagaoka, Sadao, "Major Characteristics of Inventive Activities of Japanese University Researchers: Findings from the Japan-US Inventor Surveys," *Science Journal KAGAKU*, Iwanami Shoten, Vol. 78, No. 9, September 2008, pp. 1030-1034

1.3. Others

Nagaoka, Sadao, "Inventors & Invention Process in Japan: Some Implications on R&D Governance," *Spotlight*, Vol. 27, No. 3, May/June 2008, pp. 14-16

(In Japanese)

Nagaoka, Sadao, "R&D and the Role of Government under a Depression: A Need for Investment Stimulation," Keizai Kyoshitsu, *Nihon Keizai Shimbun*, March 10, 2009, p. 25

Nagaoka, Sadao, "Toward Frontier-opening R&D," *Kigyokaikei* (Accounting Magazine), Chuo Keizaisha, Vol. 60, No. 7, July 2008, pp. 2-3

2. Unpublished Work

2.1. Working Papers

Walsh, John and Sadao Nagaoka, “Who Invents?: Evidence from the Japan-US Inventor Survey,” RIETI Discussion Paper 09-E-034, Research Institute of Economy, Trade and Industry, July 2009

Walsh, John and Sadao Nagaoka, “How 'Open' is Innovation in the U.S. and Japan?: Evidence from the RIETI-Georgia Tech Inventor Survey,” RIETI Discussion Paper 09-E-022, May 2009

Nagaoka, Sadao and John Walsh, “The R&D Process in the U.S. and Japan: Major Findings from the RIETI-Georgia Tech Inventor Survey,” RIETI Discussion Paper 09-E-010, March 2009

Nagaoka, Sadao and John Walsh, “Commercialization and Other Uses of Patents in Japan and the U.S.: Major Findings from the RIETI-Georgia Tech Inventor Survey,” RIETI Discussion Paper 09-E-011, March 2009

Yamauchi, Isamu and Sadao Nagaoka, “Complementary Reforms of Patent Examination Request System in Japan,” IIR Working Paper WP#08-07, December 2008

(In Japanese)

Takatori, Toshiro, Kenta Nakamura, Sadao Nagaoka and Yuji Honjo, “Alliance between Pharmaceutical Firms and Bio Startups: A Comparison of Major Japanese, US and European Pharmaceutical Firms,” IIR Working Paper WP#09-07, November 2009

Nishimura, Junichi, Tingting Wang and Sadao Nagaoka, “Issues for Reforming Japanese R&D System as Seen from Inventors: Summarizing the Inventors' Views,” RIETI Discussion Paper 09-J-031, October 2009

Honjo, Yuji, Sadao Nagaoka, Kenta Nakamura, Setsuo Morishita and Yumi Shimizu, “Entry and Growth of Japanese Bio Startups,” IIR Working Paper WP#09-06, August 2009

2.2. Research Reports

“Innovation Competition and Antitrust Policy: Focusing on Merger Regulations,” Japan Fair Trade Commission (JFTC), Competition Policy Research Center (Research Project Leader: Sadao Nagaoka), March 2009 (in Japanese)

“New Intellectual Right Policy for Innovation: Intellectual Property System as Global Infrastructure,” Japan Patent Office, A Report of the Study Group on Innovation and Intellectual Property Right Policy, (Working Group Chair: Sadao Nagaoka), August 2008 (in Japanese)

3. Conference Papers, Presentations

- Nagaoka, Sadao and Masakatsu Igami, "Initial Results from the Japan Scientists Survey," presented at the US-Japan Workshop on Science Collaboration and Productivity, IIR, National Institute of Science and Technology Policy (NISTEP) and Georgia Institute of Technology, March 26, 2010, Tokyo
- Nagaoka, Sadao, "Contribution of Science to Industrial Innovation in Japan: Overview of Evidence from RIETI Inventor Survey," presented at the Workshop on Science for Innovation: Exploiting and Strengthening the Linkage, RIETI, March 23, 2010, Tokyo
- Nagaoka, Sadao and Natoshi Tsukada, "Standard-Making R&D and Standard-Using R&D: A First Look at their Characteristics Based on Inventor Survey," presented at IPRIA Pacific Rim Innovation Conference 2010, January 21-22, 2010, Melbourne
- Nagaoka, Sadao, "Standard-setting and Licensing of Intellectual Property Rights: Some Lessons and Policy Agenda for Consortium Standard," presented at OECD Conference on Knowledge Networks and Markets in Global Economies, November 9, 2009, Paris
- Nagaoka, Sadao, "Ownership of Collaborative Research," presented at the Business Law and Innovation Conference, Hitotsubashi University, RIETI and Waseda University, October 30-31, 2009, Tokyo
- Yamaguchi, Isamu and Sadao Nagaoka, "Complementary Reforms of Japanese Patent Examination System," presented at the 2009 Far East and South Asia Meeting of the Econometric Society, August 3-5, 2009, Tokyo
- Aoki, Reiko and Sadao Nagaoka, "An Economic Analysis of Patent Law Exemption for Research on a Patented Invention," presented at the 97th International Applied Econometrics Association (AEA) Conference, December 19-20, 2008, Tokyo
- Nishimura, Yoichiro and Sadao Nagaoka, "An Econometric Assessment of the Effects of Patent Thickets," presented at the 97th International AEA Conference, December 19-20, 2008, Tokyo
- Yamauchi, Isamu and Sadao Nagaoka, "Complementary Reforms of Japanese Patent Examination System," presented at the 97th International AEA Conference, December 19-20, 2008, Tokyo
- Nagaoka, Sadao, "An Analysis of Unilateral and Cross-licensing: New Evidence from the Inventor Survey in Japan," (Keynote Speech), The 97th International AEA Conference, December 19-20, 2008, Tokyo
- Nagaoka, Sadao, "Invention and Innovation Process of Small Firms in Japan and the US: A Comparative Analysis," presented at the 2008 TIER-RIETI International Workshop on Promoting Innovation and Strengthening International Competitiveness of SMEs, Taiwan Institute of Economic Research (TIER) and RIETI, December 2, 2008, Taipei
- Owan, Hideo and Sadao Nagaoka, "Intrinsic and Extrinsic Motivation for Inventors," presented at the 13th International Joseph A. Schumpeter Society (ISS) Conference, July 2-5, 2008, Rio de Janeiro

Nagaoka, Sadao and John Walsh, “Invention, Commercialization and the Uses of Patents in Japan and the US: Results from the RIETI-Georgia Tech Inventor Survey,” presented at the 13th International Conference on Technological Innovation and Development, ISS, July 2-5, 2008, Rio de Janeiro, Brazil

Nagaoka, Sadao, “An Analysis of Unilateral and Cross-licensing: New Evidence from the Inventor Survey in Japan,” (Keynote Speech), The 25th DRUID Celebration Conference 2008 on Entrepreneurship and Innovation, June 16, 2008, Copenhagen

Nagaoka, Sadao, “An Analysis of Unilateral and Cross-licensing: New Evidence from the Inventor Survey in Japan,” (Keynote Speech), The 25th DRUID Celebration Conference 2008 on Entrepreneurship and Innovation, June 16, 2008, Copenhagen

(In Japanese)

Nagaoka, Sadao and Kenta Nakamura, “The Structure of Alliance and Performance of Major Japanese, US and European Pharmaceutical Firms,” presented at the Industry-Academia Collaboration Workshop “Innovation Process in Semiconductor / Bio Industries: From the Perspectives of Roadmap and Alliance” Organized by IIR, March 24, 2010, Tokyo

Nishimura, Yoichiro and Sadao Nagaoka, “Assessment of 'Patent Thickets' based on Survey of Intellectual Property Activities of Japanese Firms,” presented at the International Workshop “PATSTAT and Patent Statistics,” organized by the Institute of Intellectual Property and IIR, January 19, 2010, Tokyo

Nagaoka, Sadao, Yuji Honjo, Kenta Nakamura, Setsuo Morishita and Yumi Shimizu, “Mechanism of Entry and Growth of Japanese Biotechnology Firms,” Industry-Academia Collaboration Workshop “Process and Strategy in Biotechnology Innovation,” organized by IIR, March 10, 2009, Tokyo

Nagaoka, Sadao, Kenta Nakamura, Yuji Honjo and Toshiro Takatori, “Alliance and Pharmaceutical Firms’ Performance: A Comparison of Major Japanese, US, and European Pharmaceutical Firms,” Industry-Academia Collaboration Workshop “Process and Strategy for Biotechnology Innovation,” organized by IIR, March 10, 2009, Tokyo



Makoto Nirei

■ Education

- 2002 Ph.D. (Economics), University of Chicago
- 1996 M.S. (Economics), The University of Tokyo
- 1994 B.A. (Economics), The University of Tokyo

■ Professional Positions

- 2008~ Associate Professor, Institute of Innovation Research, Hitotsubashi University
- 2006 Assistant Professor, Department of Economics, Carleton University (~2008)
- 2004 Assistant Professor, Department of Economics, Utah State University (~2006)
- 2001 Postdoctoral Fellow, Santa Fe Institute (~2004)

■ Research Achievements

1. Publications

1.1. Articles and Chapters in Books

- Mizuno, Takayuki, Makoto Nirei and Tsutomu Watanabe, “Closely Competing Firms and Price Adjustment: Some Findings from an Online Marketplace,” *Scandinavian Journal of Economics*, forthcoming
- Nirei, Makoto and Vladyslav Sushko, “Jumps in Foreign Exchange Rates and Stochastic Unwinding of Carry Trades,” *International Review of Economics and Finance*, doi:10.1016/j.iref.2010.07.010, 2010
- Nirei, Makoto, “Self-Organized Criticality in a Herd Behavior Model of Financial Markets,” *Journal of Economic Interaction and Coordination*, Vol. 3, No. 1, June 2008, pp. 89-97

2. Unpublished Work

2.1. Working Papers

- Nirei, Makoto and Vladyslav Sushko, “Stochastic Herding by Institutional Investment Managers,” University of California, Santa Cruz, November 2009
- Nirei, Makoto, “Pareto Distributions in Economic Growth Models,” IIR Working Paper WP#09-05, July 2009
- Lai, Chaoqun and Makoto Nirei, “Detecting Endogenous Effects by Aggregate Distributions: A Case of Lumpy Investments,” IIR Working Paper WP#09-03, May 2009
- Nirei, Makoto, “Endogenous Fluctuations of Investment and Output in a Model of Discrete Capital Adjustments,” IIR Working Paper WP#09-01, April 2009
- Nirei, Makoto, “Aggregate Fluctuations of Discrete Investments,” IIR Working Paper WP#08-08, December 2008

Nirei, Makoto and Sanjib Sarker, "Time-varying Employment Risks and Consumption: A Quantitative General Equilibrium Study," IIR Working Paper WP#08-04, September 2008

3. Conference Papers, Presentations

Nirei, Makoto, "Power Laws in Economic Phenomena," presented at Virtual Center for Advanced Studies in Institution (VCASI), September 16, 2010

Nirei, Makoto, "Pareto Distributions in Economic Growth Models," presented at the Income Distribution and Macroeconomics meetings, NBER Summer Institute, July 20, 2010

Nirei, Makoto, "Pareto Distributions in Economic Growth Models," presented at Chuo University, July 7, 2010

Mizuno, Takayuki, Makoto Nirei and Tsutomu Watanabe, "Closely Competing Firms and Price Adjustment: Some Findings from an Online Marketplace," NBER Japan Project Meeting (presented by T. Watanabe), June 26, 2010

Nirei, Makoto and Vladyslav Sushko, "Jumps in Foreign Exchange Rates and Stochastic Unwinding of Carry Trades," Monetary Policy Workshop, Bank of Japan (presented by V. Sushko), June 4, 2010

Nirei, Makoto, "Aggregate Fluctuations of Discrete Investments," presented at Development Bank of Japan, March 12, 2010

Lai, Chaoqun and Makoto Nirei, "Detecting Domino Effects by Aggregate Distributions: The Case of Lumpy Investments," presented at the Workshop on Firm Dynamics at Nihon University, March 6, 2010

Nirei, Makoto, "Aggregate Fluctuations of Discrete Investments," presented at University of California at Santa Cruz, November 6, 2009

Nirei, Makoto, "Detecting Endogeneous Effects by Aggregate Distributions: The Case of Lumpy Investments," presented at the Fall Meetings of the Japanese Economic Association, October 11, 2009

Nirei, Makoto, "Detecting Endogenous Effects by Aggregate Distributions: The Case of Lumpy Investments," presented at the Comparative Analysis of Enterprise Data 2009 Conference, Hitotsubashi University and RIETI, October 4, 2009

Lai, Chaoqun and Makoto Nirei, "Detecting Endogenous Effects by Aggregate Distributions: A Case of Lumpy Investments," presented at the University of Tokyo, April 30, 2009

Nirei, Makoto, "Aggregate Fluctuations of Discrete Investments," presented at Keio University, April 13, 2009

Lai, Chaoqun and Makoto Nirei, "Distributional Test for Endogenous Effects: A Case of Lumpy Investments," presented at the Applications of Physics in Financial Analysis 7th International Conference, March 1-5, 2009

Nirei, Makoto, "Aggregate Fluctuation of Discrete Investments," presented at Tohoku University, February 21, 2009

Nirei, Makoto, "Information Aggregation and Fat Tails in Financial Markets," presented at Institute for Monetary and Economic Studies, Bank of Japan, January 12, 2009

Nirei, Makoto, "Aggregate Fluctuations of Discrete Investments," presented at Nihon University, December 4, 2008

Nirei, Makoto, "Endogenous Fluctuations of Investment and Output," presented at Institute of Economic Research, Kyoto University, November 25, 2008



Toshihiro Nishiguchi

■ Education

- 1990 D.Phil. (Sociology), University of Oxford
- 1981 M.Sc., Imperial College, University of London
- 1977 B.A., Waseda University

■ Professional Positions

- 2007 Part-time Director, Defense Procurement Structure Improvement Foundation
- 2004 Fall; 2005 Summer
Visiting Scholar, Center for International Studies, Massachusetts Institute of Technology
- 2002 Summer; 2003 Summer
Visiting Senior Research Scholar, School of Public Affairs, Center for Public Policy and Private Enterprise, University of Maryland
- 2001 Summer
Academic Visitor, The Judge Institute of Management, University of Cambridge
- 1997~ Professor, Institute of Innovation Research, Hitotsubashi University
- 1994 Associate Professor, Institute of Business Research, Hitotsubashi University
- 1991 Assistant Professor, The Wharton School, University of Pennsylvania
- 1990~ Post-Doctoral Fellow, INSEAD (European Institute of Business Administration)
- 1986 Research Fellow, International Motor Vehicle Program, Massachusetts Institute of Technology (~1989)

■ Research Achievements

1. Publications

1.1. Books

Nishiguchi, Toshihiro, *An Introduction to Network Thinking: Organizational Strategies in the Netcentric Age*, Tokyo: Toyo Keizai, August 2009, 217 pages

1.2. Articles

(In Japanese)

Nishiguchi, Toshihiro, "An Opus Called Asuka Matsumoto: Her Pilgrimage as an Artist in the Light of Network Theory," *Hitotsubashi Business Review*, Vol. 57, No. 2, September 2009, pp. 6-23

Tsujita, Motoko and Toshihiro Nishiguchi, "The Poor Can Prosper: The Strength of Qingtian Merchants' Overseas Networks," *Hitotsubashi Business Review*, Vol. 57, No. 2, September 2009, pp. 36-51

Tsujita, Motoko and Toshihiro Nishiguchi, "Small-firm Networks in Wenzhou, China: An Original Study of the Local Apparel Industry," *Shokokinyu*, Shoko Research Institute, Vol. 58, No. 4, April 2008, pp. 25-44

1.3. Others

(In Japanese)

Nishiguchi, Toshihiro, "A Reply to Professor Tsutomu Nakano's Critique," *Sociological Theory and Methods*, Japanese Association for Mathematical Sociology (JAMS), Vol. 24, No. 2, 2009, pp. 357-359

Nishiguchi, Toshihiro, "Network Thinking and its Applications," *Communication Seed*, Nippon Keidanren Business Services, September 2009-July 2010, A Serial (1-10)

Nishiguchi, Toshihiro, "Secrets of One's Life: Structuring Luck," *Organizational Science*, Shiten (Point of View), Vol. 41, No. 4, June 20, 2008, p. 83

Nishiguchi, Toshihiro, "Social Systems Theory," *Social Welfare Research Quarterly*, Meiji Yasuda Institute of Life and Wellness, Vol. 17, No.2, 2008, pp. 4-23

2.1. Research Reports

(In Japanese)

"An Exploratory Study of New Models of Defense Procurement (3): From a Standpoint of Management Accounting," Defense Procurement Structure Improvement Foundation, (Research Project Leader: Toshihiro Nishiguchi), March 2010

"An International Comparative Study of Accounting Officers and Chief Financial Officers in Central Government: Toward Institutional Reforms in Defense Procurement," Defense Procurement Structure Improvement Foundation (Research Project Leader: Toshihiro Nishiguchi), March 2009

"An Exploratory Study of New Models of Defense Procurement (2)," Defense Procurement Structure Improvement Foundation (Research Project Leader: Toshihiro Nishiguchi), March 2009

3. Conference Papers, Presentations

Nishiguchi, Toshihiro, "An Introduction to Network Thinking: Organizational Strategies in the Netcentric Age," Japan Academy of International Business Studies, Kanto Division, September 18, 2009, Tokyo (Invited Speech, in Japanese)



Kentaro Nobeoka

■ Education

- 2001 Ph.D. (Business Administration), Kobe University
- 1993 Ph.D. (Business Administration), Sloan School of Management, Massachusetts Institute of Technology
- 1988 M.B.A., Sloan School of Management, Massachusetts Institute of Technology
- 1981 B.S. (Engineering), Osaka University

■ Professional Positions

- 2008~ Professor, Institute of Innovation Research, Hitotsubashi University
- 1999 Professor, Research Institute for Economics & Business Administration, Kobe University (~2008)
- 1994 Associate Professor, Research Institute for Economics & Business Administration, Kobe University (~1999)
- 1981 Mazda Motor Corporation (~1989)

■ Research Achievements

1. Publications

1.1. Articles and Chapters in Books

(In Japanese)

- Kudo, Hideo and Kentaro Nobeoka, “Business Case / Panasonic: Development of IH Cooking Heater,” *Hitotsubashi Business Review*, Vol. 58, No. 2, September 2010, pp. 124-141
- Yonekura, Seiichiro, Kentaro Nobeoka and Yaichi Aoshima, “No More Lost Decade for Japan: How to Revitalize her Competitiveness,” *Hitotsubashi Business Review*, Vol. 58, No. 2, September 2010, pp. 12-31
- Nobeoka, Kentaro, “Management of Technology to Capture Value: Importance of Non-functional Value,” *Hitotsubashi Business Review*, Vol. 57, No. 4, March 2010, pp. 6-19
- Nobeoka, Kentaro and Yasunari Takasugi, “Creating Non-functional Value of Industrial Products: Keyence Case,” *Hitotsubashi Business Review*, Vol. 57, No. 4, March 2010, pp. 52-64
- Nobeoka, Kentaro, “Problems for Japanese Manufacturing Firms to Create Value,” in Sunder, Shyam and Hidetoshi Yamaji, eds., *Manufacturing and Technology Management in Japan: Organization-oriented Accounting and International Accounting*, Kobe Economic & Business Research Series, Kobe University, March 2009, Chapter 3, pp. 57-76
- Takeda, Yoko, Yaichi Aoshima, Kentaro Nobeoka, Chaisung Lim and Shide Won, “Comparative Study of Impact of 3D-Based Design on Product Development Process and Performance in Japan, China and Korea,” *Yokohama Journal of Technology Management Studies*, No. 8, March 2009, pp. 53-61

Nobeoka, Kentaro and Komei Iwasaki, "Business Case / Keyence: Management Philosophy that Aims at Contributions to the Society by Creating Value," *Hitotsubashi Business Review*, Vol. 56, No. 4, March 2009, pp. 112-128

1.2. Others

(In Japanese)

Nobeoka, Kentaro, "Frontier of Management Studies: the Essence of Technology Management and Value Creation (1)-(8) ," Yasashii Keizaigaku, *Nihon Keizai Shimbun*, January 15-26, 2009

Nobeoka, Kentaro, "Strategy and Management that Strengthen Japanese Manufacturing Firms," *Management Trend*, Keiei-Kenkyujo, Vol. 12, No. 4, 2008, pp. 2-10

2. Unpublished Work

2.1. Working Papers

(In Japanese)

Nobeoka, Kentaro, "Technology that Produces Sustainable Competitiveness: A Comparison of Innovative Technologies and Accumulated-knowledge Technologies," IIR Working Paper WP#10-04, August 2010

Takeda, Yoko, Yaichi Aoshima and Kentaro Nobeoka, "Capabilities of Technology Utilization and Technology Integration: Impact of 3D Technologies on Product Development Process and Performance in Japan and China," IIR Working Paper WP#10-02, June 2010

Nobeoka, Kentaro, "Value Creation and Value Capture at Manufacturing Firms: Importance of Non-functional Value," IIR Working Paper WP#10-01, April 2010

Nobeoka, Kentaro, "Technology Management to Create Value: Creation and Management of Non-functional Premium Value," IIR Working Paper WP#08-05, October 2008

3. Conference Papers, Presentations

(In Japanese)

Nobeoka, Kentaro, "Technology Management to Create Value: Management of Non-functional Premium Value," presented at the Conference Series of the Academic Association for Organizational Science, September 28, 2010, Mitsubishi Building Conference Square M+, Tokyo

Nobeoka, Kentaro, "Technology Management to Create Value," presented at the Manufacturing Management Research Center, the University of Tokyo, 65th Tokyo University MMRC Consortium Meeting, February 18, 2010, the University of Tokyo

Nobeoka, Kentaro, "Technology Management to Create Value: Management of Non-functional Premium Value," presented at the 2009 Symposium of the Institute of Image Information and Television Engineers, August 28, 2009, Kogakuin University

Nobeoka, Kentaro, "Management of Non-functional Premium Value," presented at the 2009 Conference of the Academic Association for Organizational Science, June 7, 2009, Tohoku University



Hiroshi Shimizu

■ Education

- 2007 Ph.D. (Economic History) London School of Economics and Political Science, University of London
- 2002 M.A. (History) Northwestern University
- 1999 M.A. (Commerce) Hitotsubashi University
- 1997 B.A. (Commerce) Chuo University

■ Professional Positions

- 2008~ Assistant Professor, Institute of Innovation Research, Hitotsubashi University
- 2007 Postdoctoral Fellow, Department of Technology Management, Eindhoven University of Technology

■ Research Achievements

1. Publications

1.1. Articles and Chapters in Books

- Shimizu, Hiroshi, “Pitfalls of Open Innovation: Technological Trajectory in Laser Diodes in the United States and Japan,” *Business and Economic History On-Line*, Vol. 9, forthcoming 2010
- Yonekura, Seiichiro and Hiroshi Shimizu, “Entrepreneurship in Pre-world War II Japan: The Role and Logic of the Zaibatsu,” in Landes, David, Joel Mokyr and William Baumol, eds., *The Invention of Enterprise: Entrepreneurship from Ancient Mesopotamia to Modern Times*, NJ: Princeton University Press, March 2010, pp. 501-526
- Shimizu, Hiroshi and Takashi Hirao, “Inter-Organizational Collaboration in Semiconductor Laser Technology in the U.S. and Japan: University-Industry Relation,” *International Journal of Global Business and Competitiveness*, Vol. 4, No. 1, December 2009, pp. 15-21
- Shimizu, Hiroshi and Takashi Hirao, “Inter-organizational Collaborative Research Networks in Semiconductor Lasers 1975-1994,” *The Social Science Journal*, Vol. 46, No. 2, June 2009, pp. 233-251
- (In Japanese)
- Yonekura, Seiichiro and Hiroshi Shimizu “Industrial Association in Japan: Coevolution of Industrial Policy and Firms’ Capability,” in Okazaki, Tetsuji, ed., *Seido Tenkanki no Kigyō to Shijō* (Firms and Markets at Institutional Transition), Minerva Shobō, forthcoming 2010
- Shimizu, Hiroshi, “Science and Technology in the Lost Two Decades: R&D Efficiency and Changes in Resource Allocation,” *Hitotsubashi Business Review*, Vol. 58, No. 2, 2010, pp. 58-72

1.2. Others

(Book Review)

Kim, Yongdo, *Japan's Integrated Circuit (IC) Industry in the 1960s and 1970s: the Dynamics of Cooperative Development by Users and Manufactures / Business History Review*, forthcoming 2010

Schaede, Ulrike, *Choose and Focus: Japanese Business Strategies for the 21st Century / The Journal of Asian Studies*, Vol. 69, No. 3, August 2010, pp. 916-918

2. Unpublished Work

2.1. Working Papers

Fontana, Roberto, Alessandro Nuvolari, Hiroshi Shimizu and Andrea Vezzulli, "The Nature of Inventive Activities: Evidence from a Data-Set of R&D Awards," IIR Working Paper WP#09-09, December 2009

Shimizu, Hiroshi and Takashi Hirao, "Collaborative Research Networks in Semiconductor Laser Technology, 1960-2000: A Comparative Perspective on Networks and Breakthroughs in the United States and Japan," *Business and Economic History On-Line*, Vol. 6, 2008

(In Japanese)

Kudo, Satoshi and Hiroshi Shimizu, "Toshiba: the Development of 0.6 μ m Visible Light Semiconductor Lasers," IIR Case Study CASE#10-01, January 2010

3. Conference Papers, Presentations

Shimizu, Hiroshi, "Pitfalls of Open Innovation: Technological Trajectory in Laser Diodes in the United States and Japan," presented at the Business History Conference 2010 Annual Meeting, March 26, 2010, University of Georgia, Athens, Georgia, USA

Shimizu, Hiroshi, "Scientific and Technological Breakthroughs and Networks in the Case of Semiconductor Laser Technology in the U.S. and Japan," presented at the International Conference on Business History (Formerly Fuji Conference), January 9-10, 2010, Hitotsubashi University

Shimizu, Hiroshi and Takashi Hirao, "Networking and Scientific Breakthrough in Semiconductor Laser Technology in the U.S. and Japan," presented at the 4th European Conference on Entrepreneurship and Innovation, September 10-11, 2009, The University of Antwerp, Belgium

Fontana, Roberto, Alessandro Nuvolari, Hiroshi Shimizu and Andrea Vezzulli, "The Sources of Invention 1963-2005, Evidence from a Dataset of R&D Awards," presented at the 6th European Meeting on Applied Evolutionary Economics, May 22, 2009, Max Planck Institute of Economics

Shimizu, Hiroshi, "Breakthrough Illusions in the Case of Semiconductor Laser Technology in the US and Japan," presented at the Asia-Pacific Economic and Business History Conference, Economic History Society of Australia and New Zealand, February 18-20, 2009, Tokyo

Shimizu, Hiroshi, “The Ingenious Crowd: Great British Inventors and their Patents” (coauthors: Christine MacLeod and Alessandro Nuvolari), presented at the 97th International Conference on Patent and Innovation, Applied Econometrics Association, December 19-20, 2008, Tokyo

Shimizu, Hiroshi, “Collaborative Research Networks in Semiconductor Laser Technology, 1960-2000: A Comparative Perspective on Networks and Breakthroughs in the United States and Japan,” presented at the Business History Conference, Annual Meeting, April 10-12, 2008, Sacramento, California

(In Japanese)

Shimizu, Hiroshi and Takashi Hirao, “Scientific Breakthroughs in Semiconductor Lasers: Scientists’ Mobility and Network,” presented at the 59th Annual Meeting of the Japan Society for Commodity Science, June 2008, Nagano



Seiichiro Yonekura

■ Education

- 1990 Ph.D. (History), Harvard Graduate School of Arts and Sciences
- 1981 M.A. (Japanese Business History), Faculty of Social Studies, Hitotsubashi University
- 1979 B.A. (Japanese Economic History), Faculty of Economics, Hitotsubashi University
- 1977 B.A. (Japanese History), Faculty of Social Studies, Hitotsubashi University

■ Professional Positions

- 2008~ Director, Institute of Innovation Research, Hitotsubashi University
- 2004 Spring
Visiting Professor, Institute du Management Bouygues, HEC, (France)
- 2003 Co-president, Institute of Strategy, Sony Corporation (~2004)
- 2003 Spring
Visiting Professor, Institute du Management Bouygues, HEC (France)
- 2001 Fall
J.A. Valentine Visiting Professor, Department of Marketing, University of Otago (New Zealand)
- 1999 Director, Institute of Innovation Research, Hitotsubashi University (~2001)
- 1997~ Professor, Institute of Innovation Research, Hitotsubashi University
- 1995 Professor, Institute of Business Research, Hitotsubashi University
- 1992 Core Faculty of Global Leadership Program at the University of Michigan (An Executive Program for Action Learning) (~1995)
- 1988 Associate Professor, Institute of Business Research, Hitotsubashi University
- 1984 Assistant Professor, Institute of Business Research, Hitotsubashi University
- 1982 Senior Research Assistant, Institute of Business Research, Hitotsubashi University

■ Research Achievements

1. Publications

1.1. Articles and Chapters in Books

Yonekura, Seiichiro and Hiroshi Shimizu, “Entrepreneurship in Pre-world War II Japan: The Role and Logic of the Zaibatsu,” in Landes, David, Joel Mokyr and William Baumol, eds., *The Invention of Enterprise: Entrepreneurship from Ancient Mesopotamia to Modern Times*, NJ: Princeton University Press, 2010, pp. 501-526

(In Japanese)

Yonekura, Seiichiro, Kentaro Nobeoka and Yaichi Aoshima, “No More Lost Decade for Japan: How to Revitalize her Competitiveness,” *Hitotsubashi Business Review*, Vol. 58, No. 2, September 2010, pp. 12-31

Yonekura, Seiichiro, “Innovation Activities at SME in Japan: Analysis on 'the Good Company Award',” *The 2009 Annual Report of the Small and Medium Business Research Institute*, 2009, pp. 3-29

Yonekura, Seiichiro and Hiroshi Shimizu “Industrial Association in Japan: Coevolution of Industrial Policy and Firms’ Capability,” in Okazaki, Tetsuji, ed., *Seido Tenkanki no Kigyō to Shijō* (Firms and Markets at Institutional Transition), Minerva Shobō, forthcoming 2010

Yonekura, Seiichiro and Yasushi Hara “From Visible Hand to Vanishing Hand,” in Shiomi, Haruhito and Takeo Kikkawa, eds., *Global Strategy: A Comparative Analysis in the US-Japan*, The University of Nagoya Press, October 2008, pp. 12-43

1.2. Others

(In Japanese)

Yonekura, Seiichiro, “Innovation and Entrepreneurship,” *Business Risk Management*, Business Education Center Co., Ltd., Vol. 24, No. 4, 2009, pp. 4-7

Yonekura, Seiichiro and Rieko Ota, tr. “Historical Learning for the 21st Century: The Last Words of Professor Alfred D. Chandler, Jr. (5)-(11),” *Hitotsubashi Business Review*, Vol. 56, No. 1-Vol. 57, No. 3, June 2008-December 2009

Yonekura, Seiichiro, “Japan Should Launch Human Rocket?,” *Ronten, Mainichi Shimbun*, June 27, 2008, p. 7

Yonekura, Seiichiro, “Post Information Asymmetry: A New Role of Top and Middle Management,” *Omni-Management*, Nippon Omni-Management Association, Vol. 17, No. 11, November 2008, pp. 2-7

(Book Review)

Schaede, Ulrike, *Choose and Focus: Japanese Business Strategies for the 21st Century* / *Japanese Journal of Political Science*, forthcoming 2010

2. Conference Papers, Presentations

Yonekura, Seiichiro, “Decision Science in Japan,” presented at the International Decision Science Academy, January 5, 2009, Indian Institute of Technology, Bombay

3. International Visiting Researchers — Apr. 2008~ Mar. 2010

Carlos Ramirez

Associate Professor, HEC Graduate School of Management
May 25, 2009 – August 27, 2009

Induk Suh

Professor, Yeungnam University
September 1, 2008 – November 28, 2008

Kirankumar Momaya

Associate Professor, Indian Institute of Technology Delhi
July 1, 2008 – December 26, 2008

III. Education



1. Courses Given by the IIR Faculty Members — Apr. 2008 ~ Mar. 2010

	Fiscal Year	
	2008	2009
Graduate School of Commerce and Management		
Master's and Doctoral Program		
<i>[Courses provided by the Innovation kozas]</i>		
Advanced Innovation Management	Karube	Aoshima
Innovation, Strategy and Organization	Nobeoka	Nobeoka
Interorganizational Relations	Nishiguchi	Nishiguchi
History of Technology and Entrepreneurship	Yonekura	Yonekura
Innovation, the Firm and Institution		Eto
Economic Analysis of Innovation	Nagaoka	Nagaoka
Innovation and Human Resource Development	Chuma	
Special Lecture: International Comparison of Innovation (including those by the IIR Visiting Professors)	Yonekura/Momaya	Yonekura/Shimizu/Ramirez
<i>[Courses provided by the Business Economics kozas]</i>		
Advanced Industrial Economics		Nirei
MBA Program		
Business Economics (Competition and Strategy)	Nagaoka	Nagaoka
Entrepreneurship	Yonekura	
Corporate Organization	Aoshima	Aoshima
Technology Strategy		Nobeoka
Strategic Analysis	Karube	Karube
Workshop: Innovation	Chuma	
Workshop: Industry	Nagaoka	
Workshop: Technology and Organization	Aoshima	
Special Lecture: Innovation and Modularity		Chuma
Workshop: Management B (Industry and Technology)		Nagaoka
Senior Executive Program		
	Nobeoka, Aoshima, Karube	Karube
Undergraduate Program in the Faculty of Commerce and Management		
Innovation Management	Chuma/Nishiguchi	Chuma/Nishiguchi
Business History	Yonekura	
Production and Operation Management		Karube
Proseminar (Intensive Readings)		Nirei, Shimizu
Undergraduate Introductory Seminar I	Karube	Nishiguchi
Undergraduate Introductory Seminar II		Chuma, Yonekura, Eto, Aoshima, Shimizu
Graduate School of Economics		
Master's and Doctoral Program		
Workshop: Industry and Labor	Chuma/Nagaoka*	Chuma/Nagaoka*

Note: * indicates a joint lecture with other faculty member(s) than those in the IIR.

2. The IIR Library

The IIR library has collected basic resources for research on private firms since the days of its predecessor, the Institute of Business Research (IBR), and offers its services to researchers and students inside and outside the university. The library has 95,158 books (Japanese, 75,582; Foreign, 19,576) and 872 magazines (Japanese, 621; Foreign, 251) as of April 2010.

The most distinctive characteristic of the IIR Library is that it has large collections of financial statements, company histories, and biographies and profiles of top executives. The collection of company histories includes 8,912 books (Japanese, 7,400; Foreign, 1,512), and biographies and profiles of top executives, 6,897 books (Japanese, 6,245; Foreign, 652) as of April 2010. Upon the reorganization from the IBR to the IIR, the library has made some changes in the types of books and magazines it has been available. More specifically, it has increased the number of books on innovation research, almanacs and resources on the hi-tech industry, and magazines of technology management.

IV. Research Results / Publications



1. Hitotsubashi Business Review — Apr. 2008 ~ Mar. 2010

To publish the findings of its research activities, the IIR issues a quarterly journal, called the *Hitotsubashi Business Review* (in Japanese). The rationale in editing the journal is to promote the theoretical and empirical study of innovation in a social and economic context. The editorial board comprises professors from several universities and company advisors, as well as IIR professors.

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Title of Special Issues

Vol.57 No.4	“Management of Technology for Value Creation”
Vol.57 No.3	“Global Standards Can Change the Competition”
Vol.57 No.2	“Network Frontiers”
Vol.57 No.1	“Social Innovation”
Vol.56 No.4	“Sports as Business”
Vol.56 No.3	“M&A and Corporate Value”
Vol.56 No.2	“Monodukuri (Open Manufacturing) Management: A Concept from Japan”
Vol.56 No.1	“Japanese Business System”

Featured Papers

Issue	Vol. / No.	Title	Author(s)
Mar. 2010	Vol.57 No.4	“Management of Technology to Capture Value: Importance of Non-functional Value”	Kentaro Nobeoka (Professor, IIR)
		“Marketing Management of Emerging Values”	Junzo Ishii (President, University of Marketing and Distribution Sciences)
		“Too Visible to Profit: Visibility Trap in Managing Innovation”	Ken Kusunoki (Associate Professor, ICS, Hitotsubashi University)
		“Creating Non-functional Value of Industrial Products: Keyence Case”	Kentaro Nobeoka/Yasunari Takasugi (Professor, IIR; CEO, Kigyo kyosoryoku kenkyujo)
		“Changes of the Value-space in Past, Present and Future”	Junji Miyahara (Professor, Graduate School of Management of Science and Technology, Tokyo University of Science)

Featured Papers (continued)

Issue	Vol. / No.	Title	Author(s)
Dec. 2009	Vol.57 No.3	“Business Impacts of Global Standards: Competition Has Changed by the Testing Standards”	Manabu Eto (Professor, IIR)
		“International Standardization and Business Model: International Standardization as a Global Innovation System”	Koichi Ogawa (Professor, Intellectual Asset Based Management Endowed Chair, Organization for Interdisciplinary Research Projects, University of Tokyo)
		“Running a Global Business or Setting International Standards: JR East's "Suica" as an Example”	Setsuo Harada (Japanese Standards Association)
		“Standard-making R&D and Standard-using R&D: A First Look at Their Characteristics Based on Inventor Survey”	Sadao Nagaoka/Naotoshi Tsukada (Professor; Research Associate, IIR)
		“Strategic Miscalculation of Qualcomm: Consequences of Patent Battles with Competitors”	Jinzo Fujino (Professor, Graduate School of Management of Science and Technology, Tokyo University of Science)
		“Strategic Implications on IBM's IT Standards Policy”	Yoshihiko Enomoto (Yamato Laboratory, IBM Japan, Ltd.)
		“Business Model Innovation”	Ikujiro Nonaka/Koichiro Tokuoka (Emeritus Professor, ICS, Hitotsubashi University; Senior Vice President, Fleishman-Hillard Japan Inc.)
Sep. 2009	Vol.57 No.2	“An Opus Called Asuka Matsumoto: Her Pilgrimage as an Artist in the Light of Network Theory”	Toshihiro Nishiguchi (Professor, IIR)
		“Problems of Current Network-Analysis Research”	Yuki Yasuda (Professor, Faculty of Sociology, Kansai University)
		“The Poor Can Prosper: The Strength of Qingtian Merchants' Overseas Networks”	Motoko Tsujita/Toshihiro Nishiguchi (Associate Professor, Department of Economics, Ryukoku University; Professor, IIR)
		“How to Apply Network Analysis to Your Business: A Practical Introduction”	Jun Kanamitsu (Associate Professor, Faculty of Business Administration, Kyoto Sangyo University)
		“Regional Industrial Structure from a Network Perspective: Discovery of Small World”	Ichiro Sakata/Yuya Kajikawa (Professor, Todai Policy Alternatives Research Institute, University of Tokyo; Assistant Professor, School of Engineering, University of Tokyo)
		“Business Architectures, Service-oriented Approaches and ICT Support: The Relevance and Adaptation of Commercial Solutions to UK Military Needs”	Anthony Jordan/Geoff Markham (Consultant; QinetiQ)

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		“Social Innovation: Guidance to the Discussion”	Takashi Watanabe (Professor, Graduate School of Engineering Management, Shibaura Institute of Technology)
		“Social Business and Social Innovation”	Kanji Tanimoto (Professor, C&M, Hitotsubashi University)
		“Social Recognition and Enterprise Creation by Entrepreneur Eiichi Shibusawa in the Meiji Era”	Masakazu Shimada (Professor, Faculty of Business Administration, Bunkyo Gakuin University)
		“Reports: Future-oriented Local Community and Social Business”	[1] Hiroki Hayashi/Tomoko Tsuji (Professor, Soc., Hitotsubashi University; Business Consultant) [2] Kenichi Goto (LLP Basho bunka kiko) [3] Hideto Kawakita (International Institute for Human, Organization and the Earth)
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		“Managerial Economics of the Grand Sumo”	Takanobu Nakajima (Visiting Professor, Faculty of Business and Commerce, Keio University)
		“The State of Baseball Business”	Itaru Kobayashi (Professor, Faculty of Sociology, Edogawa University)
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		“The Application of the Concept of "Monodukuri" into the Service Industry”	Seunghwan Ku/Ryusuke Kosuge/Hidenori Sato/Takashi Matsuo (Asso. Prof., GS of Mgt., Kyoto Sangyo Univ.; Researcher; PhD Student, Univ. of Tokyo; Asso. Prof., Tokyo Metropolitan Univ.)
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		“Multi-dimensional Competition by Business Systems in Video Game Industry”	Kei Kuriki (Associate Professor, Graduate School of Business Administration, Kobe University)
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Mar. 2009	Vol.56 No.4	“Academic Landscape of Innovation Research and Innovation Policy by Network Science”	Masahiro Hashimoto/Ichiro Sakata/Yuya Kajikawa/Yoshiyuki Takeda/Katsumori Matsushima (NEDO; Professor, Policy Alternatives Research Institute, University of Tokyo; Assistant Professor; Assistant Professor; Professor, School of Engineering, University of Tokyo)
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WP#09-08	Nov. 2009	“The Differential and Logic of Commoditization in Digital Products: Why Does a Commoditization of Flat Panel Display TV March Faster than Digital Steel Camera?” (in Japanese)	Hideo Kudo
WP#09-07	Nov. 2009	“Alliance Strategy and Performance of Major Pharmaceutical Firms in Japan, US and Europe” (in Japanese)	Toshiro Takatori/ Kenta Nakamura/ Sadao Nagaoka/Yuji Honjo
WP#09-06	Aug. 2009	“Entry and Growth Performance of the Japanese Biotechnology Industry” (in Japanese)	Yuji Honjo/Sadao Nagaoka/Kenta Nakamura/Setsuo Morishita/ Yumi Shimizu
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‘The new combinations appear discontinuously, then the phenomenon characterising development emerges.’

Joseph A. Schumpeter
The Theory of Economic Development

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