ANNUAL REPORT
2006 - 2007

Hitotsubashi University
Institute of Innovation Research
ANNUAL REPORT
FY2006 – FY2007
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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
The following is the list of lectures given as part of the Innovation Research Forum during 2006-2007 academic year:

Mar. 27, 2008 Akira Takeishi
Professor, IIR
“Boundaries of Innovation”

Mar. 19, 2008 Tomoyuki Shimbo
Junior Research Fellow, IIR
“Technology Imports and Firm Performance: A Case of Petrochemical Industry”

Mar. 19, 2008 Xiaomei Zhang
Junior Research Fellow, IIR
“The Current Situation and Issues of Banking in Hangzhou and Wenzhou”

Mar. 19, 2008 Yoko Furusawa
Research Associate, IIR
“A Case Study by Endowed Chair: How are Technology Start-ups Set up in Japan?”

Jan. 24, 2008 Hiroshi Shimizu
Post Doctoral Fellow, Department of Technology Management, Eindhoven University of Technology

Jan. 24, 2008 Makoto Nirei
Assistant Professor, Department of Economics, Carleton University
“Firms Dynamics under Strategic Complementarity”

Dec. 12, 2007 Suphawan Srisophaolarn
Associate Professor, Kasetsart University (Thailand)/Visiting Associate Professor, IIR
“Innovation in the Service Sector: A Theoretical Framework and the Case Study of the Japanese Service Firms”

Dec. 05, 2007 Xiaomei Zhang
Junior Research Fellow, IIR
“The Current Situation and Issues of Banking in Hangzhou and Wenzhou”

Dec. 05, 2007 Tomoyuki Shimbo
Junior Research Fellow, IIR
“Technology Imports and Firm Performance: A Case of Petrochemical Industry”

Nov. 28, 2007 Cornelius Herstatt
Professor, Institute for Technology and Innovation Management, Hamburg University of Technology
“Product Development for the Silver Markets”

Nov. 26, 2007 Jean-François Bellis
Senior Partner, Van Bael & Bellis
“The EU Antitrust Case on Microsoft: A View from the Microsoft Attorney”
Nov. 22, 2007  Sebastien Lechevalier  
Associate Professor, Ecole des Hautes Etudes en Science Sociales / Researcher of Maison Franco-Japonaise  
“The Effect of Government Consortia on the R&D Productivity of Firms: A Case Study of Robot Technology in Japan”

Jul. 25, 2007  Sea-Jin Chang  
Professor, Korea University / Visiting Professor, Institute of Economic Research, Hitotsubashi University  
“Sony and Samsung: Portraits of Two Global Competitors”

Jun. 19, 2007  Florian Kohlbacher  
German Institute for Japanese Studies  
“Fostering Innovation through Knowledge Co-creation in the Business Ecosystem”

Jun. 05, 2007  Aaron Schiff and Reiko Aoki  
Postdoctoral Fellow, Japan Society for the Promotion of Science; Professor, Institute of Economic Research, Hitotsubashi University  
“Licensing and Intellectual Property Clearinghouse”

May 24, 2007  Jinyoung Kim  
Associate Professor, Department of Economics, Korea University  
“The Influence of University Research on Industrial Innovation”

May 10, 2007  Tadashi Nakamura and Norihisa Hasegawa  
Honorary Chairman, Noritake Itron Corporation; Managing Director, Noritake Itron Corporation  
“Development of Vacuum Fluorescent Displays at Noritake Itron Corporation”  
(COE Research Project on Okochi Prize Cases)

Apr. 25, 2007  Annie Garanto  
Associate Professor, University of Paris X / Visiting Associate Professor, IIR  
“The Innovative Boundaries of the Firm within the Institutional Context: The Case of the Japanese Biopharmaceutical Industry”

Apr. 12, 2007  Hiroshi Kobayashi  
Toray Industries, Inc.  
“Development of High Performance Color Filter in Liquid Crystal Display for Mobile Phone by Polyimide System”  
(COE Research Project on Okochi Prize Cases)

Feb. 28, 2007  Makoto Kitamura  
Junior Research Fellow, IIR  
“Institutionalizing the Use of ‘Surrogate Consumer’: Its Influence on Consumers’ Decision Making”

Feb. 28, 2007  Ng Shuk Yee Sally  
Junior Research Fellow, IIR  
“‘Car Town’ in Huadu District, Guanzhou: Its Formation and Influence on the Smaller Peripheral Cities and Towns”
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<tr>
<th>Date</th>
<th>Name</th>
<th>Title</th>
<th>Institution/Company</th>
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| Jan. 26, 2007 | Minoru Usui               | Director, General Administrative Manager, Production Engineering & Development Division, Seiko Epson Corporation  
“Development of an Ink Jet Printer that Produces High Resolution Text and Pictorial Images”  
(COE Research Project on Okochi Prize Cases) |
| Dec. 22, 2006 | Takeshi Nomura            | Senior Vice President, TDK Corporation  
“Development of Highly Reliable Multilayer Ceramic Capacitors with Ni Electrode”  
(COE Research Project on Okochi Prize Cases) |
| Nov. 14, 2006 | Iain Cockburn             | School of Management, Boston University  
“Entry, Exit and Patenting in the Software Industry” |
| Sep. 27, 2006 | Fumikazu Itoh             | General Manager, Production Engineering Research Laboratory, Hitachi, Ltd.  
“Development of Direct On-chip Wiring Formation System for LSIs”  
(COE Research Project on Okochi Prize Cases) |
“Development and Commercial Viability of the Sodium-sulfur Battery for Electric Energy Storage”  
(COE Research Project on Okochi Prize Cases) |
| Jul. 26, 2006 | Ng Shuk Yee Sally         | Junior Research Fellow, IIR  
“Verification of the Ownership Structure of 150 State-owned Enterprises in China” |
| Jul. 26, 2006 | Franz Waldenberger        | Professor, University of Munich / Visiting Professor, IIR  
“Governmental Regulations as a Risk Factor in International Business” |
| Jul. 19, 2006 | Nathalie Cavasin          | Visiting Researcher, Global Information and Telecommunication Institute, Waseda University  
“Innovation in Optical Lenses” |
| Jul. 13, 2006 | Kojiro Ozu and Yukiharu Takahashi | Former Manager of Intellectual Property Division, Toshiba Corporation; Former Auditor, Toshiba Microelectronics Corporation  
“The Development of Microcomputer System and its LSI Family”  
(COE Research Project on Okochi Prize Cases) |
| Jun. 28, 2006 | Makoto Kitamura           | Junior Research Fellow, IIR  
““Beauty Journalist” as a Myth: An Institutionalized Process of a Surrogate Consumer in Japanese Cosmetic Industry” |
Apr. 30, 2006  Akira Takeishi and Masaru Karube
Professor, IIR; Associate Professor, IIR
“Reasons for Innovation: Legitimacy under Uncertainty in the Case of Okochi Memorial Prize Winners”

Apr. 26, 2006  Hwy-Chang Moon
Professor, Seoul National University / Visiting Professor, IIR
“How to Enhance Business Cooperation between Korea and Japan”
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 2006-2007 academic year.

(* = Project Leader, or Coordinator)

Project on Networks and Japanese Management

1. Outline of Research

Emphasizing network topology in relation to superior performance, small-world network theory has opened a new horizon for organization theory and social sciences. We intend to conduct path-finding research on interorganizational relations by seeking appropriate ways to operationalize small-world network theory.

2. Time Period

FY1997-present

3. Members

Toshihiro Nishiguchi*, Jonathan Brookfield (The Fletcher School, Tufts University)

4. Research Outputs during FY2006-FY2007

# Mobile Innovation Research Program (MIRP)

## 1. Outline of Research

This research program was carried out for 7 years from 2001 to 2007 with two objectives. One was to provide knowledge and perspectives valuable for practitioners and policymakers by conducting empirical research on the mobile communication market, industry, and business. The other was to build an infrastructure to support researchers and graduate students for their mobile innovation research in Japan.

With financial support from Japanese corporations (NTT DoCoMo, KDDI, J-Phone, NEC, and Fujitsu), participating researchers inside and outside Hitotsubashi University individually carried out empirical studies of the mobile communication market, industry, and business. Also, the program provided opportunities to facilitate communications and collaborations among researchers by organizing a series of international research meetings, Mobility Roundtables, around the world (see below).

Research outcomes include papers, thesis, and books published by participating researchers and graduate students. One example is the Special Issue “The Future is UNWIRED: Organizational and Strategic Perspectives” on *Journal of Strategic Information Systems*, Vol. 14, 2005, which collected papers presented at the Austin Mobility Roundtable. Furthermore, this program was given DoCoMo Mobile Science Award in 2005 from Mobile Communication Fund in 2006 for its contribution to mobile innovation research.

Additional information can be found at http://www.iir.hit-u.ac.jp/iir-w3/reserch/mobile.html.

## 2. Time Period

FY2001-FY2007

## 3. Members

Akira Takeishi*, Seiichiro Yonekura, Jeffrey Funk, Taro Kamioka (Associate Professor, Graduate School of Commerce and Management, Hitotsubashi University), Yoko Takeda (Associate Professor, Graduate School of Environment and Information Sciences, Yokohama National University), Tatsuo Tanaka (Associate Professor, Faculty of Economics, Keio University), Masanori Yasumoto (Associate Professor, Faculty of Economics, Shinshu University / Visiting Scholar, The Wharton School, University of Pennsylvania), Masatoshi Fujiwara (Graduate School of Commerce and Management, Hitotsubashi University), Koji Ikari (Graduate School of Environment and Information Sciences, Yokohama National University), Kyoung-Joo Lee (Graduate School of Commerce and Management, Hitotsubashi University), Yang-Joong Yun (Graduate School of Commerce and Management, Hitotsubashi University), Young-Jae Koh (Graduate School of Commerce and Management, Hitotsubashi University)

* (positions and organizations are at the time of participation)

## 4. Research Activities and Outputs during FY2006-FY2007

Participating researchers carried out their research individually, and the program assisted in organizing Helsinki and Los Angeles Mobility Roundtables.
Mobility Roundtable

A series of Mobility Roundtables had been set up and organized by this program and other institutions overseas, including University of Texas, Stockholm School of Economics, Helsinki School of Economics and Business Administration, and Hong Kong University of Science and Technology: in Tokyo, May 2002; in Stockholm, May 2003; in Austin (US), March 2004; in Hong Kong, June 2005; in Helsinki, June 2006; in Los Angeles, June 2007. See the following URLs for more details of these roundtables:
1. Tokyo Mobile Roundtable: http://www.iir.hit-u.ac.jp/researh/tmrt_e.html
2. Stockholm Roundtable: http://web.hhs.se/cic/about/roundtable.htm
3. Austin Mobility Roundtable: http://www.mccombs.utexas.edu/events/roundtable/
4. Hong Kong Mobility Roundtable: http://www.hongkongmobility.ust.hk/
5. Helsinki Mobility Roundtable: http://project.hkkk.fi/helsinkimobility/

Mobile Roundtable Organizing Committee

Per Andersson
Center for Communication and Information Research
Stockholm School of Economics, Sweden

Magnus Boman
Swedish Institute of Computer Science

Sirkka Jarvenpaa
Center for Business, Technology, and Law
University of Texas at Austin, U.S.A.

Jeffrey Funk
Institute of Innovation Research
Hitotsubashi University, Japan
(Mobile Innovation Research Program)

Karl Reiner Lang
Hong Kong University of Science and Technology, Hong Kong

Timo Saarinen
Institute of Electronics Commerce
Helsinki School of Economics and Business Administration, Finland

Akira Takeishi
Institute of Innovation Research
Hitotsubashi University, Japan
(Mobile Innovation Research Program)

Bertil Thorngren
Center for Communication and Information Research
Stockholm School of Economics, Sweden

Virpi Tuunainen
Institute of Electronics Commerce
Helsinki School of Economics and Business Administration, Finland

Seiichiro Yonekura
Institute of Innovation Research
Hitotsubashi University, Japan
(Mobile Innovation Research Program)

(positions and organizations are at the time of participation)
MOT Case/Video Case Project

1. Outline of Research

One of IIR’s missions is to build a case database describing innovation processes in Japanese companies. Based on this recognition, we started to develop cases and video cases in 2003. The project also provides an important contribution to rapidly growing Management of Technology (MOT) educational programs in Japan. Since an innovation process tends to involve technological contents unfamiliar to non-technical persons, this project attempted to create professional movies to provide supplemental visual information.

Under the auspices of Ministry of Economy, Trade and Industry (METI), the project produced ten cases and three video cases in 2003, six cases and two video cases in 2004, and two video cases in 2005, and two cases and one video case in 2006. Video cases were created in collaboration with a professional video producer.

2. Time Period

FY2002-FY2006

3. Members

Yaichi Aoshima*, Shuzo Fujimura, Akira Takeishi, Seiichiro Yonekura, Masaru Karube

4. Outputs in FY2006

Two cases and one video case are as listed below.

Text (in Japanese)
(1) Sonny: FeliCa (A) Issues in Business Incubation and Technological Development
(2) Sonny: FeliCa (B) Business Model Development

DVD
(1) Sonny: Contactless IC Card Technology ‘FeliCa’ (60 minutes)
COE Semiconductor Forum

1. Outline of Research

The purpose of this project is to analyze the economic and management related reasons that the international competitiveness of the semiconductor (particularly devices and equipment) manufacturing industry has been rapidly declining since the late 1990s. It also aims at finding ways of overcoming that decline. The major point of difference separating this research from conventional studies is that the current research does not stop at a mere sociological analysis, but also seeks to delve into the technological aspects that have characterized the semiconductor manufacturing industry. At the same time, we analyze the characteristics of each era in the industry with proper attention to the innovation phases. More concretely, by including in the project’s membership not just the researchers and collaborators of this project’s department, but people who have extensive knowledge of semiconductor development and design, and equipment and process development, we conduct a style of research similar to improvisational jazz, i.e. having the researchers from both fields work responsively with respect to each other.

The analytical methodology comprises, inter alia: 1) information gathering through interviews with various scientists and engineers who have played important roles in the semiconductor industry; 2) organizing and analyzing existing data from an integrated perspective; 3) the creation and analysis of new data and materials based on published papers, patent data, etc. In addition, we plan to carry out a questionnaire survey and examination with a more generalized approach in order to verify the validity of knowledge gathered from analyses based on these methods. The project is included as a part of Hitotsubashi University’s 21st century COE programs, entitled “Dynamics of the enterprise, knowledge, and the innovation.”

2. Time Period

FY2003-FY2007

3. Members

Hiroyuki Chuma*, Yaichi Aoshima, Shuzo Fujimura

4. Research Activities and Outputs during FY2006-FY2007

Publications and Papers


Presentations


### COE 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 news 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 the 21st Century COE Program “Dynamics of Knowledge, Corporate System and Innovation” at Hitotsubashi University.

2. **Time Period**

   FY2003-FY2007

3. **Members**

   Akira Takeishi*, Yaichi Aoshima, Masaru Karube, Toshihiko Kato (Graduate School of Commerce and Management, Hitotsubashi University), Takeshi Matsui (Graduate School of Commerce and Management, Hitotsubashi University), Hideaki Kohzu (Former COE Visiting Professor, IIR), Junji Miyahara (Tokyo University of Science / Former professor, IIR), Fumihiko Ikuine (Bunkyo Gakuin University / Former Lecturer, IIR), Eishi Fukushima (Faculty of Business Administration, Hosei University)
4. Research Activities and Outputs during FY2006-FY2007

For five years, we have picked up twenty five cases, of which twenty have already been completed. The finished cases are made available on our website at http://www.iir.hit-u.ac.jp/iir-w3/reserch/COEokochiprize(A).html, and some of them have been published in *Hitotsubashi Business Review* and used as educational materials. In parallel, we have started cross-case analysis to examine common features of innovation processes among the cases we have developed. The outputs from FY2006 are as listed below.

Publications and Papers


Case Study


IIR Case Study Series (in Japanese)


10. Hirano, Sow and Masaru Karube, “JFE Steel: Short Term Revamping Technique of Large Scale Blast Furnace: Development of Large Block Ring Construction Method” IIR Case Study CASE#06-2, August 2006

Presentations


5. Takeishi, Akira, Masaru Karube and Yaichi Aoshima, “Legitimization under Uncertainty in the Cases of Okochi Award Winners,” presented at the Conference of the Academic Association for Organizational Science, Japan, June 10-11, 2006, Tokyo
Project on Networks and Innovations (I)

1. Outline of Research

The recent advancement of small-world network theory, with its focus on the relationship between network topology and performance, is likely to broaden the horizon of organization theory and social sciences. We are developing a new framework to interpret the evolution of the mobile technology industry in Japan.

2. Time Period

FY2004-present

3. Members

Jefferey Funk*, Toshihiro Nishiguchi

4. Research Activities and Outputs during FY2006-FY2007

Publications
(2) Funk, Jeffrey, “Solving the Startup Problem in Western Mobile Internet Markets,” Telecommunications Policy, Vol. 4, No. 1, February 2007, pp. 4-30

Presentations
(3) Funk, Jeffrey, “New Industry Formation, Inverse Demand Curves and the Rewiring of Networks,” presented at the Academy of Management, August 14-16, 2006, Atlanta, GA
Project on Networks and Innovations (II)

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*, Motoko Tsujita (Ryukoku University), Tomofumi Amano (University of Tokyo), Dan Xu (Tongji University (China)), Changxiang Zhao (Junior Research Fellow, IIR)

4. Research Activities and Outputs during FY2006-FY2007
We conducted field work in Sweden, Poland, Dubai, etc.

Publications

Project on Organization and Talent that Enable Innovation Based on Science Knowledge

1. Outline of Research
This research examines what knowledge and attitude are required for engineers to achieve innovation by turning their pure science knowledge into technology knowledge. The research also explores what kind of R&D organizations and systems are required for engineers with such knowledge and attitude to realize their potential, with main focus on the semiconductor industry, a typical science-oriented industry.
We try to clarify how relationships between innovation-enabling systems and engineers should be through interviews and questionnaire surveys of R&D engineers working for semiconductor consortia and semiconductor-related firms in Japan and the United States as well as interviews with a group of engineers who have produced outstanding outcomes in the promotion of innovation in the forms of papers and patents.

2. Time Period

3. Members
Shuzo Fujimura*, Yaichi Aoshima, Noriko Taji (Meisei University,) Hiroshi Fujii (Meisei University) and Masahiro Tsujimoto (University of Tokyo)
Project on Bio-medical Venturing Business Research

1. Outline of Research

We must construct a system of new medicine development for the 21st century. This is not only for the progress of Japan’s pharmaceutical industries, but also for the health care of the Japanese people. In the construction of the new system, it is important to nurture and support venture companies focused on biotechnology or medical technology. This project considers ways of nurturing these venture companies through the cooperation of industrial professionals, ministries and academic researchers.

To nurture and support venture companies in the biotechnology or medical technology fields, it is necessary to concentrate on a wide range of specialty areas. Established boundaries (specialty, organizations, section) must be broken down, specialists must get together and share the same goal. Such cooperation can be realized on a mutual platform. With this recognition, we promote (1) periodic meetings of the respective specialist from the industries, ministries, universities and research institutes, (2) a proposal for the support of venture companies with a focus on biotechnology or medical technology, (3) public information about the importance of venture companies focused on biotechnology or medical technology, and (4) presentation in academic societies.

2. Time Period

FY2004-FY2006

3. Members

Seiichiro Yonekura*, Akira Takeishi, Yaichi Aoshima, Minoru Shimamoto (Graduate School of Commerce and Management, Hitotsubashi University), Keio University, Tokyo Medical and Dental University, The Japan Biotechnology Association, Nihon Keizai Shimbun, Inc.

(Observers: Ministry of Health, Labour and Welfare (MHLW), Ministry of Economy, Trade and Industry (METI), Ministry of Education, Culture, Sports, Science and Technology (MEXT), etc.)

4. Research Activities in FY2006

We held the International Symposium on Japan’s Competitiveness and Bio Technology Innovation on September 28, 2006 in Tokyo (see the following section for the detail).
Project on Evaluation and Restructuring of R&D Capabilities of Japanese Firms: Strategy, Organization, and Governance

1. Outline of Research

While Japanese firms have applied for large numbers of patents in the 1990s and have been referred to maintain their outstanding technological competitiveness, many have faced low profitability. The root cause can be attributed to the fact that Japanese firms cannot fully utilize the technological potential, or the fact that they have not been deeply aware that linking the internal technological abilities with profitability is indispensable.

The aim of this project is to clarify systematically the real picture of R&D capabilities of Japanese firms and the major challenges that they face. The project is planned firstly to construct the statistical database in order to examine the performance of R&D activities, and secondly to analyze and evaluate the R&D activities of Japanese firms and the root cause of low profitability from three perspectives: valuation, strategy and governance.

2. Time Period

July 2004-FY2006

3. Members

Masaru Karube*, Sadao Nagaoka, Tomohiro Ijichi, Tetsuyuki Kagaya (Graduate School of Commerce and Management, Hitotsubashi University), Makoto Nakano (Graduate School of International Corporate Strategy, Hitotsubashi University), Seki Obata (Keio Business School)

4. Research Activities and Outputs in FY2006

Publications and Papers


Presentations

Research Project on the Efficient Creation and Transfer of Upstream Inventions with a Focus on Co-inventions and Co-ownership

1. Outline of Research

This Research project aims at analyzing the efficient contract and institutional design for developing and commercializing upstream inventions. This project was selected by the Japan Patent Office as one of the “University Research Projects on Intellectual Property Rights” in 2006.

2. Time Period

FY2006

3. Members

Sadao Nagaoka*, Toshiko Takenaka (University of Washington School of Law), Reiko Aoki (Institute of Economic Research, Hitotsubashi University), Masabumi Suzuki (Graduate School of Law, Nagoya University), Tomohiro Ijichi, Hajimu Morioka (Ajinomoto)

4. Research Activities and Outputs

International Conference

(1) International Conference on Efficient Alliance for Commercializing Upstream Inventions with a Focus on Co-inventions and Co-ownership, Tokyo, December 11, 2006 (see the following section for the detail).

Research Reports


Project on Intellectual Property and Innovation: Collaboration for Commercializing Intellectual Property Right

1. Outline of Research

This project analyzes the mechanism of efficient collaboration and its constraints for commercializing intellectual properties which are the outputs of R&D.

2. Time Period

FY2006-present

3. Members

Sadao Nagaoka*, Tomohiro Ijichi (Seijo University, Former IIR Associate Professor), Yoichiro Nishimura (Kanagawa University), Reiko Aoki (Institute of Economic Research, Hitotsubashi University), Tomoyuki Shimbo (IIR Junior Research Fellow, Former Researcher at the Institute of Intellectual Property), Naotoshi Tsukada (Institute of Intellectual Property, Former Ph.D. Student at Hitotsubashi University)

4. Research Activities and Outputs during FY2006-FY2007

International Workshop

(1) International Workshop on Management of Foreign R&D: Experiences and Lessons from Japanese and German Multinationals, organized by IIR and Mercator School of Management, Duisburg-Essen University (Germany), March 10, 2007, Tokyo (see the following section for the detail).

Presentations


International Conference on R&D and Firm Performance

Organized by IIR
March 22, 2008 at Hitotsubashi Sano-Shoin Hall, Kunitachi, Tokyo

This conference was held in honor of Professor Bronwyn Hall who visited IIR in early 2008. It invited 6 presentations mainly by young scholars and Ph.D. students for advice by Professor Hall and others.

Keynote Speech
Chair: Akira Goto (Commissioner of Japan Fair Trade Commission (JFTC))
“Financing R&D”
Bronwyn. H. Hall (University of California, Berkeley / Visiting Professor, IIR)

Session I
Chair: Tetsuo Wada (Gakushuin University)
   Hideo Owan (Aoyama Gakuin University)
   Hiroyuki Okamuro (Hitotsubashi University)

Session II
Chair: Kazuyuki Motohashi (University of Tokyo)
   Sadao Nagaoka (IIR) and Bronwyn H. Hall
   Tomoko Iwasa (Yokohama City University)

Session III
Chair: Yuji Honjo (Chuo University)
   Youngak Kim (Hitotsubashi University)
   Naotoshi Tsukada (Institute of Intellectual Property)
International Workshop on Market for Technology and Digital Products

September 12, 2007 at IIR Conference Room

This workshop addressed the mechanism of the market for technology and digital music, using theoretical models. They talked such issues as why the price of CD has roughly remained constant, despite of its apparent sales decline as well as whether it is feasible to form a patent pool with all essential patents without ex-ante commitments.

   Kiho Yoon (Korea University / Visiting Associate Professor, IIR)
   Discussant:
   Sadao Nagaoka (IIR)

   Reiko Aoki (Institute of Economic Research, Hitotsubashi University)
   Discussant:
   Kiho Yoon

   Sadao Nagaoka
   Discussant:
   Yoshihito Yasaki (Kogakuin University)
International Workshop on Management of Foreign R&D: Experiences and Lessons from Japanese and German Multinationals

March 10, 2007 at Hitotsubashi Mercury Tower, Kunicachi, Tokyo

Organizers:
Roman Bartnik, Mercator School of Management, Duisburg-Essen University
Sadao Nagaoka, IIR

Size and strategic importance of foreign R&D have grown strongly since the 1990s. Consequently, the coordination of R&D conducted in foreign subsidiaries, choice of knowledge sourcing and foreign R&D collaborations have become increasingly urgent issues to innovative firms in both Japan and Germany. While Japanese organizations have become famous for efficiently integrating R&D processes across organizational units and hierarchical layers, experience in managing R&D across country borders is quite limited. German companies, while being less integrative on the domestic level, have internationalized their R&D earlier and more extensively. It would thus seem that both parts can learn from each other and this workshop was held hopefully to be a first step in this direction.

Session I
Chair: Sadao Nagaoka (IIR)

[1] “Strategic Alliances in Global Biotech Pharma Industries”
Dr. Hans Göttinger
Comment:
Masau Takayanagi (Mitsubishi Pharma Corporation)

Roman Bartnik (Hitotsubashi University / Duisburg-Essen University)
Comment:
Kazuhiro Asakawa (Keio University)
Koichiro Nakamura (Kao Corporation)

Session II
Chair: Hiroyuki Odagiri (Hitotsubashi University)

Kazuhiro Asakawa (Keio University)
Comment:
Hiroyuki Okamuro (Hitotsubashi University)
Joerg Raupack (NEC-Schott Components Corporation)

Sadao Nagaoka and Naotoshi Tsukada (Hitotsubashi University)
Comment:
Banri Ito (Keio University)
Matthias Wegener (Henkel Japan, Ltd./ Kinki University)

Tomoko Iwasa (Yokohama City University)
Comment:
Yasuyuki Todo (Aoyama Gakuin University)
Dirk Ebert (Kostal Japan Co., Ltd.)
IIR Decennial International Symposium on Frontiers of Innovation Research: Towards an Internationally Competitive Nation

March 4-5, 2007 at Hitotsubashi Memorial Hall, Kanda, Tokyo

Organized by
IIR and Nihon Keizai Shimbun

In collaboration with
Josuikai (Hitotsubashi alumni association)

This symposium was held to commemorate the 10th anniversary of IIR, aiming at learning the lessons on the future strategy for innovation research from the leaders of innovation research, highlighting some research outcomes of IIR and discussing their managerial and policy implications. The symposium was open to the general public of Japan.

Day 1: March 4, 2007

Welcome
Sadao Nagaoka (Director, IIR)

Opening Address
Takehiko Sugiyama (President, Hitotsubashi University)

Guest Speeches
Koji Omi (Minister of Finance, Japan)
Kakutaro Kitashiro (Chairman, Japan Association of Corporate Executives)

Keynote Lecture 1
Michael A. Cusumano (Professor, Sloan School of Management, Massachusetts Institute of Technology)
“The Importance of Services Innovation in Software and Other Industries”

Session I: The Strengths and Weakness of Japanese Firms: From a Perspective of Innovation Process

Presentations
Hiroyuki Chuma (IIR)
“Moore’s Law, Increasing Complexities, and Limits of Organization: Modern Implications of Japanese DRAM ERA”
Yaichi Aoshima (IIR)
“Technology and Competition in the Digital Still Camera Industry”

Panel Discussion
Moderator: Kentaro Nobeoka (Kobe University)
Hidemi Ishiuichi (Toshiba Semiconductor Co.)
Masahiro Konishi (Fujifilm Corporation)
Ken Kusunoki (Graduate School of International Corporate Strategy, Hitotsubashi University)
Hiroyuki Chuma
Yaichi Aoshima
Session II: Who Take the Central Role in Innovation: Entrepreneurs or Intrapreneurs?

Presentations
Akira Takeishi (IIR)
“Intrapreneurships within Large Corporations: Reasons and Consequences of Innovation in the Cases of Okochi Award Winners”
Seiichiro Yonekura (IIR)
“Japan’s Venture Spirit: A Scientific Approach to Entrepreneurship”

Panel Discussion
Moderator: Seiichiro Yonekura
Ikuiro Nonaka (Emeritus Professor, Hitotsubashi University)
Hirosi Fukino (Josui/ NanoGeometry Research, Inc. / Former Chair of Dell, Inc., Japan)
Junji Miyahara (Tokyo University of Science)
Hirosi Fujiwara (Internet Research Institute, Inc.)
Tetsuya Iizuka (THine Electonics, Inc.)
Akira Takeishi

Day 2: March 5, 2007

Guest Speeches
Hirosi Fukino (Josui/ NanoGeometry Research, Inc. / Former Chair of Dell, Inc., Japan)
Hiroyuki Abe (Member, Intellectual Property Strategy Headquarters Cabinet / ex-Member, Council for Science and Technology Policy, Cabinet Office)
“Towards an Industrial and Social Restructuring Based on Innovations of Japanese Origin”

Keynote Lecture 2
Alfonso Gambardella (Professor, Department of Business Administration, Bocconi University)
“Innovations for Products, Innovations for Licensing: When and Why We See Them and Why We Should Care”

Session III: Pro-innovation Intellectual Property System

Presentations
Sadao Nagaoka (IIR)
“Competition and Collaboration in Innovation”
Tomohiro Ijichi (IIR)
“Industry-academia Collaborations and Intellectual Property Right System in Japan”

Panel Discussion
Moderator: Hiroyuki Odagiri (Graduate School of Economics, Hitotsubashi University)
Hisashi Kato (Mitsubishi Electric Corporation)
Hajimu Morioka (Ajinomoto Co., Inc.)
Hideshi Itoh (Graduate School of Commerce and Management, Hitotsubashi University)
Sadao Nagaoka
Tomohiro Ijichi
Session IV: Network and Innovation

Presentations
Toshihiro Nishiguchi (IIR)
  “Global Neighborhoods: Strategies of Successful Organizational Networks”
Jeffrey L. Funk (IIR)
  “Technological Discontinuities and Vertical Disintegration: Case of IT Industry in North America”

Panel Discussion
Moderator: Toshihiro Nishiguchi
Kenichi Imai (Emeritus Professor, Hitotsubashi University)
Nobuaki Miyama (Ministry of Defense, Japan)
Motoko Tsujita (Ryukoku University)
Jeffrey L. Funk

Closing Remarks
Sadao Nagaoka
20th Annual TRIO Conference on Organizational Innovation and Firm Performance

December 15-16, 2006 at Hitotsubashi Sano-Shoin Hall, Kunitachi, Tokyo

Supported by
NBER-CEPR-TCER, and Hitotsubashi University

Organizers
George Baker, Harvard University and NBER
Takeo Hoshi, University of California, San Diego, NBER and TCER
Hideshi Itoh, Hitotsubashi University and TCER
Sadao Nagaoka, IIR and TCER

Day 1: December 15, 2006

Morning Session
Chair: Hiroyuki Odagiri (Hitotsubashi University and TCER)

[1] “Strategic Alliances: Bridges Between Islands of Conscious Power”
George Baker (Harvard University and NBER)
Robert Gibbons (Massachusetts Institute of Technology, co-author)
Kevin J. Murphy (University of Southern California, co-author)

Discussants:
Hideshi Itoh (Hitotsubashi University and TCER)
Hodaka Morita (University of New South Wales)

[2] “Peer-dependent Incentives and Ownership Rights”
Ola Kvaloy (University of Stavanger)
Trond E. Olsen (Norwegian School of Economics and Business Administration, co-author)

Discussants:
Makoto Hanazono (Nagoya University)
Paul Oyer (Stanford University and NBER)

Afternoon Session
Chair: George Baker

Hideshi Itoh
Tatsuya Kikuntani (Kyoto University)
Osamu Hayashida (Osaka Keizai University, co-author)

Discussants:
Wako Watanabe (Tohoku University)
Steven Tadelis (University of California, Berkeley and NBER)

*This conference was supported by the Hitotsubashi University 21st Century COE program on Dynamics of Knowledge, Corporate System and Innovation.
Steven Tadelis  
Jonathan Levin (Stanford University, co-author)  
Discussants:  
Sadao Nagaoka (IIR and TCER)  
Ola Kvaloy

Akira Takeishi (IIR)  
Yoshihisa Noro (Mitsubishi Research Institute, Inc., co-author)  
Sadao Nagaoka  
Discussants:  
Tatsuya Kikutani  
George Baker

Hirofumi Uchida (Wakayama University)  
Gregory F. Udell (Indiana University, co-author)  
Wako Watanabe  
Discussants:  
Takeo Hoshi (University of California, San Diego, NBER and TCER)  
Ayako Yasuda (The Wharton School, University of Pennsylvania)

**Day 2: December 16, 2006**  
Chair: Takeo Hoshi

Paul Oyer  
Discussants:  
Hideo Owan (Aoyama Gakuin University)  
Daiji Kawaguchi (Hitotsubashi University and TCER)

Hodaka Morita (University of New South Wales)  
Arghya Ghosh (University of New South Wales, co-author)  
Discussants:  
Reiko Aoki (Hitotsubashi University and TCER) et al.
International Conference on Efficient Alliance for Commercializing Upstream Inventions with a Focus on Co-inventions and Co-ownership

December 11, 2006 at Hitotsubashi Sano-Shoin Hall, Kunitachi, Tokyo

Supported by Japan Patent Office (JPO)

This conference was held, aiming at analyzing the efficient contract and institutional design for developing and commercializing upstream inventions. One focal issue was co-ownership of an invention.

Welcome
Shinya Aramaki (JPO)

Session I: Empirical Analysis of Ownership and Inventor Structure of Upstream Inventions, and of the Alliance Contracts for their Development and Use
Chair: Hiroyuki Odagiri (Professor, Graduate School of Economics, Hitotsubashi University)

[1] “Structural Characteristics of Key Upstream Inventions: Co-inventions, Co-ownership and their Effects”
    Sadao Nagaoka (Professor, IIR)
    Discussant:
    Tomohiko Koseki (Senior Manager of Legal Department, Toppan Printing Co., Ltd.)

    Tomohiro Ijichi (Associate Professor, IIR)
    Discussants:
    Koichi Sumikura (Associate Professor, National Graduate Institute for Policy Studies)
    Masau Takayanagi (Intellectual Property Executive, Patent Attorney, Intellectual Property Department, Mitsubishi Pharma Corp.)

    Kenta Nakamura (Research Fellow, Japan Society for the Promotion of Science)
    Discussant:
    Sean O’Connor (Associate Professor, University of Washington School of Law, and Associate Director, Center for Advanced Study & Research on Intellectual Property)

Session II: A global Picture of Strategic Alliances and Lessons from the US Experiences
Chair: Reiko Aoki (Professor, Institute of Economic Research, Hitotsubashi University)

    Dr. Hans-Werner Gottinger
    Discussant:
    Hiroshi Akimoto (Managing Director, Takeda Pharmaceutical Co., Ltd.)
Session III: Efficient Contract and Institutional Design for Commercialization of Upstream Inventions
Chair: Sadao Nagaoka

Hajimu Morioka (Deputy Director, Intellectual Property Center, Ajinomoto Co., Inc.)
Discussant:
Reiko Aoki

Masabumi Suzuki (Professor, Graduate School of Law, Nagoya University)
Discussant:
Ryuta Hirashima (Associate Professor of Law, University of Tsukuba)
International Symposium on Japan’s Competitiveness and Bio Technology Innovation

September 28, 2006 at Roppongi Academy Hills, Tokyo

Organized by
IIR and Nihon Keizai Shimbun

Supported by
Ministry of Education, Culture, Sports, Science and Technology, Japan
Ministry of Health, Labour and Welfare, Japan
Ministry of Economy, Trade and Industry, Japan

Opening Address
Seiichiro Yonekura (Professor, IIR)
Takehiko Sugiyama (President, Hitotsubashi University)

Keynote Speech 1
Scott Foraker (Vice President, Licensing, Amgen, Inc.)
“Amgen: Pioneer and Innovator in the Promise of Biotechnology”

Keynote Speech 2
Kenichi Arai (Emeritus Professor, University of Tokyo)
“The Japanese Innovators who led the Pharmaceutical Innovation”

Keynote Speech 3
Akira Endo (Head, Biopharm of Japan Corporation)
“The Development of Statin”

Panel Discussion 1: Japan’s Potential as the Biotechnology Innovator
Akira Endo
Yoshiaki Kodoi (Investment Manager, Mizuho Capital Co., Ltd.)
Makoto Shiragami (Professor, College of Pharmacy, Nihon University)
Hiroyuki Chuma (Professor, IIR)
Kenji Tsujimoto (Investment Senior Manager, Nomura Research & Advisory Co., Ltd.)
Gensuke Tokoro (President and CEO, aRigen Pharmaceuticals, Inc.)
Ei Yamada (President and CEO, AnGes MG, Inc.)

Panel Discussion 2: For the Future Solution of the Competitiveness
Masaharu Ito (President, LIEVENCE)
Shunsuke Ono (Associate Professor, Graduate School of Pharmaceutical Sciences, University of Tokyo)
Koichi Kawabuchi (Professor, Tokyo Medical and Dental University)
Jin Shiomura (President, Nobelpharma, Co., Ltd.)
Yasuhiro Suzuki (Manager, R&D Promoting Division, Ministry of Health, Labour and Welfare, Japan)
Hidemaru Yamaguchi (Managing Director, Nikko Citygroup, Ltd.)
Seiichiro Yonekura
I. Research Activities

4. The Hiroshi Fujiwara Endowed Chair in Venture Finance

Objective     To promote research into venture finance in Japan, and
to educate the future cadre of chief financial officers (CFOs)
for venture businesses

Donator      Hiroshi Fujiwara, President and CEO, Internet Research Institute, Inc.

Period      April 2002 ~ March 2008

Chaired Professor   Shuzo Fujimura

In April 2002, the Hiroshi Fujiwara Endowed Chair in Venture Finance was established at the Institute of Innovation Research. This was made possible by the generous donation of Mr. Hiroshi Fujiwara, President and CEO of the Internet Research Institute, Inc. The primary objectives of the Chair are to promote research into venture finance in Japan, and to educate the future cadre of chief financial officers (CFOs) for venture businesses.

There is a pressing need in Japan to foster the establishment and growth of venture businesses, particularly in high technology fields. Such businesses are expected to be a source of dynamism and rejuvenation for the Japanese economy. However, the rate of start-ups and closures of small and medium sized enterprises has declined in recent years, and is only about one third of that of the United States. Moreover, it is recognized that the successful development of such venture firms is contingent on sound financial management, and hence there is a need to educate specialists in finance who can contribute to such firms.

Against this background, and from his own experience as the founder of a technology venture business, Mr. Fujiwara kindly donated to the foundation of the Chair as a means of encouraging the growth of venture firms for Japan's economic vitality. The Internet Research Institute, Inc., which Mr. Fujiwara founded with other executives in 1996, comprises computer network specialists from universities and internet access providers who design internet-based technology solutions and provide a range of consulting services. The company is listed on the Tokyo Stock Exchange's Mothers (market of the high-growth and emerging stocks) market, which was created for start-up firms in 1999.

In the United States, a number of new ventures which have achieved IPO status have donated some of their capital gains to universities as a means of disseminating knowledge. Stanford is perhaps the best known example because of its position in Silicon Valley. Likewise, the creation of this new Chair at the Institute of Innovation Research is an attempt to circulate timely knowledge in Japan on business creation, and is an important step in the collaboration between industry and the university.

■ Research Achievement

Summary Conference was held as below, and the achievement of the Hiroshi Fujiwara Endowed Chair in Venture Finance will be summarized in a forthcoming book from Toyokeizai. IIR believes it would be a great contribution to the study of venture finance.
Summary Conference of the Hiroshi Fujiwara Endowed Chair in Venture Finance

March 10, 2008 at Sano-Shoin Hall, Kunitachi, Tokyo

Opening Address
Seiichiro Yonekura (Professor, IIR)

Keynote Speech
Hiroshi Fujiwara (President and CEO, Internet Research Institute, Inc.)
“Industrial Revolution and the Role of Entrepreneur”

The Achievement of the Hiroshi Fujiwara Endowed Chair in Venture Finance
Shuzo Fujiwara (Visiting Professor, IIR)

Panel Discussion: Past, Present, and Future of the Japanese Venture Finance
Hiroshi Fujiwara
Hiroshi Uchikoga (CEO, Visionare Corporation)
Tomoyasu Oba (President, i’s Factory Co., Ltd.)
Yoichiro Hirano (President and CEO, Infoteria Corporation)
Kazutaka Muraguchi (General Partner, Nippon Technology Venture Partners, Ltd.)
Moderator: Shuzo Fujimura

Closing Remarks
Sadao Nagaoka (Director and Professor, IIR)
II. Researchers

Hitotsubashi University Institute of Innovation Research
II. Researchers

1. Full-time Researchers

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

1.2. Articles
(In Japanese)
1.3. Others


2. Unpublished Work
2.1. Working Papers


Aoshima, Yaichi, “Hitachi: Development of Direct On-chip Wiring Formation System for LSIs,” IIR Case Study CASE#07-06, September 2007

Aoshima, Yaichi and Osamu Suzuki, “Sony: FeliCa (A); Issues in Business Incubation and Technological Development,” IIR Case Study CASE#07-02, July 2007

Suzuki, Osamu and Yaichi Aoshima, “Sony: FeliCa (B); Business Model Development,” IIR Case Study CASE#07-03, July 2007


3. Conference Papers, Presentations


Takeishi, Akira and Yaichi Aoshima, “Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Case of Okochi Memorial Prize Winners,” presented at the Center for Japanese Business Studies Forum, Graduate School of Commerce and Management, Hitotsubashi University, November 1, 2006, Tokyo

Takeishi, Akira, Masaru Karube and Yaichi Aoshima, “Legitimization under Uncertainty in the Cases of Okochi Award Winners,” presented at the Conference of the Academic Association for Organizational Science, Japan, June 10-11, 2006, Tokyo
Hiroyuki Chuma

Education

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

Professional Positions

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
1975 Taisei Corporation (~1978)

Research Achievements

1. Publications

1.1. Articles


(In Japanese)


2. Unpublished Work

2.1. Working Papers


(In Japanese)


3. Conference Papers, Presentations


Jeffrey L. Funk

Education
1984    Ph.D. (Engineering and Public Policy), and M.S. (Mechanical Engineering/Engineering and Public Policy), Carnegie Mellon University
1978    B.S. (Physics), California Polytechnic State University

Professional Positions
2007~  Associate Professor, National University of Singapore
2003    Professor, Institute of Innovation Research, Hitotsubashi University
1996     Associate Professor, Research Institute for Economics and Business Administration, and Graduate School of Business Administration, Kobe University
1995    Visiting Scholar, University of Michigan
1991    Assistant Professor of Business, Pennsylvania State University
1985    Westinghouse
1978    Hughes Aircraft Co.

Research Achievements
1. Publications
1.1. Articles

2. Conference Papers, Presentations
Funk, Jeffrey, “Technological Discontinuities and Vertical Disintegration: Case of IT Industry in North America,” presented at the IIR Decennial International Symposium on Frontiers of Innovation Research: Towards an Internationally Competitive Nation, March 4-5, 2007, Tokyo
Funk, Jeffrey, “Technological Change within Hierarchies: The Cases of the Semiconductor and Computer Sectors,” presented at the Academy of Management Asia, December 19-21, 2006, Tokyo

Funk, Jeffrey, “The Sources and Timing of Technological Discontinuities: The Case of the Semiconductor Industry,” presented at the Strategic Management Society Meeting, October 29-November 1, 2006, Vienna, Austria

Funk, Jeffrey, “Technological Change and Methods of Standard Setting in the Mobile Phone Industry,” presented at the Strategic Management Society Meeting, October 29-November 1, 2006, Vienna, Austria

Funk, Jeffrey, “New Industry Formation, Inverse Demand Curves and the Rewiring of Networks,” presented at the Academy of Management, August 14-16, 2006, Atlanta, GA

Funk, Jeffrey, “The Sources and Timing of Technological Discontinuities and Dominant Designs,” presented at the Academy of Management, August 14-16, 2006, Atlanta, GA

Funk, Jeffrey, “Technological Change within Nested Hierarchies: The Case of the Information Technology Sector,” presented at the Academy of Management, August 14-16, 2006, Atlanta, GA

Tomohiro Ijichi

■ Education

1994    Ph.D. (General Systems Studies - R&D Management), Graduate School of International and Interdisciplinary Studies, The University of Tokyo
1989    M.A. (General Systems Studies - R&D Management), Graduate School of International and Interdisciplinary Studies, The University of Tokyo
1987    B.Sc. (Mathematics), Faculty of Science, The University of Tokyo

■ Professional Positions

2007~    Professor, Faculty of Social Innovation, Seijo University
2004     Associate Professor, Institute of Innovation Research, Hitotsubashi University
2001    Senior Research Fellow, National Institute of Science and Technology Policy, Ministry of Education, Culture, Sports, Science and Technology
1998     Research Fellow, National Institute of Science and Technology Policy, Ministry of Education, Culture, Sports, Science and Technology
1997    Senior Researcher, Institute for Policy Sciences
1994    National Institute Post-doctoral Fellow, National Institute of Science and Technology Policy, Science and Technology Agency

■ Research Achievements

1. Publications

1.1. Articles


2. Unpublished Work

2.1. Working Papers


2.2. Research Reports


3. Conference Papers, Presentations


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

1.2. Articles and Chapters in Books
(In Japanese)


2. Unpublished Work

2.1. Working Papers


(In Japanese)


2.2. Research Reports


3. Conference Papers, Presentations


Takeishi, Akira, Masaru Karube and Yaichi Aoshima, “Legitimization under Uncertainty in the Cases of Okochi Award Winners,” presented at the Conference of the Academic Association for Organizational Science, Japan, June 10-11, 2006, Tokyo
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)

Research Achievements

1. Publications

1.1. Articles and Chapters in Books

         Transfer?: Some Evidence from Licensing Contracts of Japanese Firms,” Journal of
         Technology Transfer, forthcoming 2008

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

“Assessing the R&D Management of Firms in Terms of Speed and Science Linkage:
         Evidence from the US Patents,” Journal of Economics and Management Strategy,
         Vol. 16, No. 1, Spring 2007, pp. 129-156

Nagaoka, Sadao and Hyeog Ug Kwon, “The Incidence of Cross-licensing: A Theory and
         35, No. 9, November 2006, pp. 1347-1361

Nagaoka, Sadao, “R&D and Market Value of Japanese Firms in the 1990s,” Journal of

(In Japanese)

Nagaoka, Sadao and Yoshimasa Komoriya, “Direct Investments by Japanese Firms in
         China and Korea: Motivations, Regulations and Performance,” in Abe, Kazutomo,
         Shujiro Urata and NEDO, eds., China-Japan-Korea FTA, Tokyo: Nihon Keizai
         Hyoron, February 2008, Chap. 3, pp. 51-77

Nagaoka, Sadao, “What Does Economics Say of the Regulation of Monopolization?:
         Focusing on the Profit Sacrifice Doctrine,” The Annual of the Japan Association of
         Economic Law, No. 50, 2007, pp. 92-105


1.2. Others


2. Unpublished Work

2.1. Working Papers


(In Japanese)


2.2. Research Reports


3. Conference Papers, Presentations


Nagaoka, Sadao and Naotoshi Tsukada, “Whether and How International Research Collaboration Enhance Research Productivity?,” presented at the International Workshop on Management of Foreign R&D: Experiences and Lessons from Japanese and German Multinationals, IIR and Mercator School of Management, Duisburg-Essen University (Germany), March 10, 2007, Tokyo


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)

■ Research Achievements

1. Publications

1.1. Books


1.2. Articles


(2) Topology, Vol. 54, No. 2, September 2006, pp. 120-132
(3) Small World, Vol. 54, No. 3, December 2006, pp. 100-111
(4) Social Capital, Vol. 54, No. 4, March 2007, pp. 118-131
(5) Social Network, Vol. 55, No. 1, June 2007, pp. 82-94
2. Unpublished Work

2.1. Research Reports


3. Conference Papers, Presentations


Akira Takeishi

Education
1998 Ph.D. (Management), Sloan School of Management, Massachusetts Institute of Technology
1990 M.S. (Management), Sloan School of Management, Massachusetts Institute of Technology
1982 B.A. (International Relations), The University of Tokyo

Professional Positions
2008– Professor, Graduate School of Economics, Kyoto University
2003 Professor, Institute of Innovation Research, Hitotsubashi University
1998 Associate Professor, Institute of Innovation Research, Hitotsubashi University
1982 Mitsubishi Research Institute, Inc. (~1994)

Research Achievements
1. Publications

1.1. Articles and Chapters in Books
(In Japanese)
2. Unpublished Work

2.1. Working Papers


(In Japanese)

Kosaka, Genjiro and Akira Takeishi, “TDK: Development of Highly Reliable Multilayer Ceramic Capacitors with Ni Electrode,” IIR Case Study CASE#08-01, January 2008


3. Conference Papers, Presentations


Takeishi, Akira and Yoshihisa Noro, “Firm Boundaries: Their Changes and Determinants in the Japanese Auto Industry,” presented at the Conference of the Academic Association for Organizational Science, Japan, June 3, 2007, Kyoto, Japan


Takeishi, Akira and Yaichi Aoshima, “Reasons for Innovation: Legitimizing Resource Mobilization for Innovation in the Case of Okochi Memorial Prize Winners,” presented at the Center for Japanese Business Studies Forum, Graduate School of Commerce and Management, Hitotsubashi University, November 1, 2006, Tokyo


Takeishi, Akira, Masaru Karube and Yaichi Aoshima, “Legitimization under Uncertainty in the Cases of Okochi Award Winners,” presented at the Conference of the Academic Association for Organizational Science, Japan, June 10-11, 2006, Tokyo

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 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. Books

1.2. Articles

1.3. Others


2. Unpublished Work

2.1. Working Papers


3. Conference Papers, Presentations


Shuozo Fujimura

■ Education

1993  Ph.D., Chiba University
1978  B.Sc., Chiba University

■ Current and Previous Positions

2005~  Professor, Graduate School of Innovation Management, Tokyo Institute of Technology
2002  Visiting Professor of the Hiroshi Fujiwara Endowed Chair in Venture Finance, Institute of Innovation Research, Hitotsubashi University (~2008)
1998~  ANNEAL Corporation
1978  Fujitsu, Ltd.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Institution</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronwyn Hall</td>
<td>Professor, University of California, Berkeley</td>
<td>4 January 2008 - 31 March 2008</td>
</tr>
<tr>
<td>Suphawan Srisuphaolarn</td>
<td>Associate Professor, Kasetsart University (Thailand)</td>
<td>1 October 2007 - 28 December 2007</td>
</tr>
<tr>
<td>Kiho Yoon</td>
<td>Associate Professor, Korea University</td>
<td>2 July 2007 - 28 September 2007</td>
</tr>
<tr>
<td>Annie Garanto</td>
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**Note**: * indicates a joint lecture with other faculty member(s) than those in the IIR.
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 93,481 books (Japanese, 74,241; Foreign, 19,240) and 857 magazines (Japanese, 608; Foreign, 249) as of April 2008.

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 8,561 books (Japanese, 7,058; Foreign, 1,503), and biographies and profiles of top executives, 6,835 books (Japanese, 6,184; Foreign, 651) as of April 2008. 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
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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IIR has been developing visual materials for education in management of technology and innovation. IIR Video Library has been opened to lend out these materials. The Library currently consists of two series: (1) MOTV “The Century of Innovation” and (2) MOT Video Case.

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   (4) “Transistorized!” Sciencentral/KTCA, 1999 (57 minutes)
   (5) “Silicon Valley: 2001.” Santa Clara Valley Historical Association/OPB, Oregon, 2000 (55 minutes)
   (6) “Triumph of the Nerds.” RM Associates/Channel 4 & OPB, Oregon, 1996 (51 minutes /51 minutes /51 minutes)
   (7) “Nerds 2.0.1.: A Brief History of the Internet.” OPB, Oregon, 1998 (61 minutes /61 minutes /61 minutes /63 minutes)
   (8) “Electric Money.” RM Associates/OPB, Oregon, 2001 (57 minutes /58 minutes)
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   (10) “Edison’s Miracle of Light,” PBS/WGBH, 1995 (57 minutes)
   (12) “The Rise and Fall of GM,” Channel Four Television Corporation, 2000 (79 minutes)
   (13) “The Murdochs: Building an Empire,” Australia ABC, 2002 (57 minutes)

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   (1) “Fuji Electric Retail Systems” (53 minutes)
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   (6) “IRI-Ubiteq: Value Creation through Technology Recombination” (32 minutes)
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‘The new combinations appear discontinuously, then the phenomenon characterising development emerges.’

Joseph A. Schumpeter

*The Theory of Economic Development*
ANNUAL REPORT
2004–2005