



RECENT ADVANCES on DEVELOPMENT and FINANCIAL ENGINEERING

**Proceedings of the 2nd WSEAS
International Conference on
MANAGEMENT, MARKETING and FINANCES
(MMF'08)**

Cambridge, Massachusetts, USA, March 24-26, 2008

**Mathematics and Computers in Science and Engineering
A Series of Reference Books and Textbooks**

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Preface from the WSEAS

This book contains proceedings of the 2nd WSEAS International Conference MANAGEMENT, MARKETING and FINANCES (MMF'08) which was held in the University of Harvard (Harvard Graduate School of Education), Cambridge, Massachusetts, USA, March 24-26, 2008. The first WSEAS International Conference MANAGEMENT, MARKETING and FINANCES was held in Dallas, Texas, USA, March 22-24, 2007. The Society (WSEAS) has also organized many other separate or joint conferences on Marketing, Business, Financial Science, Sustainable Development, Cultural Heritage and Tourism, Education etc... The relevant titles could be retrieved from the web site: www.worldses.org/history.htm

We thank the University of Harvard (Harvard Graduate School of Education) for giving us the Gutman Conference Center to run the 2nd MMF (i.e. MMF'08). This conference aims to disseminate the latest research and applications in the aforementioned fields. The friendliness and openness of the WSEAS conferences, adds to their ability to grow by constantly attracting young researchers. The WSEAS Conferences attract a large number of well-established and leading researchers in various areas of Science and Engineering as you can see from <http://www.wseas.org/reports>. Your feedback encourages the society to go ahead as you can see in <http://www.worldses.org/feedback.htm>

We thank also our editors: Prof. Leonid Perlovsky (Harvard University and the Air Force Research Lab., USA), Prof. Irwin W. Sandberg (University of Texas at Austin, USA), Prof. Daphne Halkias (Hellenic American University, Greece), our Plenary Speakers and of course the Reviewers that made the enormous and difficult task of the review approving only 30 papers from a total number of 84 submitted papers. For example, several authors sent three times their papers in order to satisfy all the reviewers' comments. The names of the reviewers can be found on <http://www.worldses.org/review/index.html>

The contents of this Book are also published in the CD-ROM Proceedings of the Conference. Both will be sent to the WSEAS collaborating indices after the conference: www.worldses.org/indexes

In addition, papers of this book are permanently available to all the scientific community via the WSEAS E-Library.

Expanded and enhanced versions of papers published in these conference proceedings are also going to be considered for possible publication in one of the WSEAS journals that participate in the major International Scientific Indices (Elsevier, Scopus, EI, ACM, Compendex, INSPEC, CSA see: www.worldses.org/indexes) these papers must be of high-quality (break-through work) and a new round of a very strict review will follow. (No additional fee will be required for the publication of the extended version in a journal). WSEAS has also collaboration with several other international publishers and all these excellent papers of this volume could be further improved, could be extended and could be enhanced for possible additional evaluation in one of the editions of these international publishers.

Finally, we cordially thank all the people of WSEAS for their efforts to maintain the high scientific level of conferences, proceedings and journals.

We are sure that this volume will be source of knowledge and inspiration for other academicians, scholars, advisors and industrial practitioners and will be considered as one more brilliant edition of the WSEAS related with a brilliant conference in the university of Harvard.

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Plenary Lecture I

Measuring Innovation Efficiency of Chinese Low- and Medium-Technology Sectors



Professor Jiancheng Guan

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Abstract: Low- and Medium-Technology (LMT) sectors play a key role in development and prosperity of developing countries. However, the problem of measuring innovation efficiency of LMT sectors has not yet been solved due to the many criteria required to characterize its complexity. The presentation develops tools for reconciling diverse measures characterizing the innovation efficiency of the LMT sectors. This approach inherently recognizes tradeoffs among various measures. Data envelopment analysis (DEA) is used as a method for determining a multi-factor model for measuring the innovative efficiency of Chinese LMT sectors. A two-stage model of DEA to assess the efficiency of the innovative effort for Chinese industries is proposed. The first stage is to measure the technology efficiency and the second is to measure the economy efficiency. The integral stage is the combination of the two stages and to evaluate integral efficiency for the whole innovative process. The findings indicate that there is V-shaped relationship of the average efficiencies across the Low-tech, Medium-tech and High-tech sectors at the stage-1. Most of Chinese industries have a relative high efficiency in the first stage, however, and a low efficiency in the second stage. Mediocre efficiency occurs for most of Chinese industries in the integral stage. Strikingly, the low- technology sectors achieve the highest innovation efficiency, even compared to the high-technology sectors. These reveal that there are some serious inconsistencies between technology capability and economic performance in most Chinese industries and their capability of transforming technology efficiency to economy is relatively poor. Research results further show that there is still much room for Chinese industries to improve their innovation efficiency. The findings also reveal that the heavy investment in R&D alone can neither bring high S&T output, nor competitive advantages.

Brief Biography of the Speaker: Jiancheng Guan is a Professor at School of Management, Fudan University since September, 2007. He had been a Professor since 1994 at School of Management, Beijing University of Aeronautics & Astronautics. His teaching and research areas include Technological Innovation Management and Scientometrics. Jiancheng Guan was a visiting scientist for one year at the department of economy, University of Karlsruhe (TH) between 1988 and 1989 and Visiting Professor at Institute of Research in Innovation Management, University of Kiel, Germany during 1993-1994 for six months and 1997 for three months, financially supported by DFG and DAAD, respectively. He was also a Visiting Professor at German Aerospace Center for one month during 2000, financially supported by DLR. In 2002, 2004, 2005 and 2006, he did cooperation research as a research fellow at City University of Hong Kong for 10 months in total. He has been a guest research professor at Research Center for Technological Innovation, Tsinghua University. As projects' Principal Investigator, Guan has undertaken 9 research projects (Competitive Earmarked Research Grants) from National Natural Science Foundation of China, 3 research projects (Competitive Earmarked Research Grants) from Chinese Aeronautical Foundation and 3 research projects from Beijing S&T Committee in the areas of technology innovation management, R&D management and information management, respectively. He has published about 30 articles in Western journals and more than 100 refereed papers in Chinese academic journals, Proceedings of International Conferences. He got three research prizes as Principal Investigator of research projects from the Ministry of Education of China, the Ministry of Aeronautical Industry of China and Beijing Municipality.

Plenary Lecture II

The Global Impact of Female Immigrant Entrepreneurship:

Studying a Growing Economic Force in Small and Medium sized Business Enterprises



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Abstract: While the extant literature reviews issues of female entrepreneurship, the minority group of female immigrant entrepreneurs has not been adequately investigated. As the female immigrant entrepreneurship population is growing across continents, it is important to identify key social and business demographics contributing to the life cycle issues of these small businesses started by female immigrants – and their economic impact on host societies. The scope of female immigrant entrepreneurial activity may be understood by looking at industry sector, use of technology, firm employment growth potential, and work-family balance issues. The implications for economic, social, and immigration policy from such a study are varied. The conclusions from previous studies have pointed to significant evidence for two important conclusions: 1) Women entrepreneurs can be found in every country and under all circumstances. Whether involved in early stage activity or in established businesses, female immigrant entrepreneurship is an increasingly important part of the economic profile of any country. This group also includes female immigrant entrepreneurs. 2) A significant and systematic gap still exists in the entrepreneurial involvement and business ownership of men compared to women. This gap is more pronounced in high-income countries and in more technology-intense sectors. While it is beyond the scope of this report to be prescriptive about policy recommendations to enhance women's entrepreneurship, it is clear that understanding the differences that exist is an important first step to formulating sound strategies and initiatives.

Such as their host country counterparts, female immigrant entrepreneurs are becoming an increasingly important component of the world economy, its productivity growth, and its struggle against poverty. The need to conduct comparative research on the entrepreneurial activities of this group cross nationally is greater than ever before. Comparative research on the incorporation of immigrant groups in the global marketplace is an essential next step, especially for international research protocols since many of the immigrant entrepreneurship studies remain focused almost exclusively on incorporation in the American context.

Such a narrow focus no longer benefits social science or international business research in a globalized world, where movement across national borders has become commonplace. The United States is no longer the primary receiving country. Many other countries now share the increasingly common challenges posed by immigrant integration in their national and regional economies. Moreover, only through international comparisons can the impact of immigrant entrepreneurship on the incorporation process be revealed. The growth and sustainability

of immigrant entrepreneurship is a key economic and social factor for the long-term prospects of successful incorporation worldwide and calls for immediate scholarly study and analysis.

Brief Biography of the speaker: Dr Daphne Halkias had received her Ph.D.(Psychology) in 1982, MA (Counseling Psychology) in 1977 and her BA (Psychology) from Alliant International University, San Diego, CA. From 2006 to present she is working as visitin Professor,Senior Research Fellow and a Consultant for Special Projects to the Executive Vice President at Hellenic American University – Athens Campus, Athens, Greece. Shehas been an academic member of Athens Institute for Education and Research, Athens, Greece since 2006. She was a Visiting Graduate Professor at American College of Greece, Athens, Greece from 2004-2006. Also She was Research and Teaching Associate at Department of Management, College of Management, Long Island University, NY and National Center for the Study of Corporal Punishment Temple University, Philadelphia, PA from 2003 – 2005 and 2000 – 2005 respectively. She administrated **Dept. of Psychology and Education** , University of LaVerne **as Chairperson from** 1988 – 2004 , Athens Greece and She was also a **School Psychologist from** 1990 – 1999, TASIS Hellenic International School, Athens, Greece. She served as **Consulting Psychologist from** 1988 – 1991 in the Pinewood School, Thessaloniki, Greece, U.S. Air Force Hospital, Athens, Greece and U.S. Embassy, Athens Greece .