5th International Symposium on Data Envelopment Analysis and Performance Management
PRELIMINARY PROGRAM

Friday, January 5, 2007

09:30am - 09:45am  Welcome
Address by M. R. Rao, Dean, Indian School of Business

09:50am - 10:40am  Session A1: Innovative Management Practices in Banking
Moderator: Andreas Burger

  Process Performance Analysis with DEA – New Opportunities for Efficiency Analysis in Banking
  Andreas Burger (Germany)

  Bank Branch Grouping Strategy: An Unusual DEA Application
  Barak Edelstein, Joseph C. Paradi (Canada)

10:45am - 11:00pm  Tea Break

11:00am - 12:30pm  Panel Discussion: Performance Management in Banks and Financial Institutions
Panelists: Sunil Mehta (AIG), K. Neelakanthan (Morgan Stanley), Raj Raghavan (HSBC)
Moderator: Joseph Paradi (Canada)

12:30pm - 1:45pm  Lunch (Atrium)
1:45pm - 3:15pm  **Performance Management in Technology - Driven Companies**
Panelists: Sateesh Andhra (Metrikus), T. Hari (Satyam), S. Srikanth (Computer Associates)
Moderator: Rajiv Banker (U.S.A)

3:15pm - 3:30pm  **Tea Break**

3:30pm - 4:20pm  **Session A2: Structure and Efficiency in Financial Industries**
Moderator: Paul Klumpes

Investigating the Impact of Restructuring and Country-Specific Factors on Post-crisis Asian Bank Efficiency
Necmi Avkiran, **Nakhun Thoraneenitliyan** (Australia)

Consolidation and Efficiency in the Major European Insurance Markets
**Paul Klumpes** (U.K.)

**Session B2: Innovative Applications of DEA**
Moderator: Finn R Førsund

Extraction of Information Rent in Multi-Attribute Auctions with Correlated Cost
Peter Bogetof, **Kurt Nielsen** (Denmark)

Visualizing the DEA Production Frontier: Farrell Revisited
**Finn R Førsund** (Norway), Vladimir E. Krivonozhko

4:20pm - 4:35pm  **Tea Break**

4:35pm - 5:35pm  **Panel Discussion: Frontiers of DEA Applications in Management and Policy Decisions**
Panelist: Finn R Førsund (Norway), Joseph Paradi (Canada), David Sherman (U.S. A.)
Moderator: Ali Emrouznejad (U.K.)

5:35pm - 6:35pm  **Panel Discussion: Frontiers of DEA Theory and Methods**
Panelists: Rajiv Banker (U.S.A), Subhash Ray (U.S.A.), Emmanuel Thanassoulis (U.K.)
Moderator: Vladimir Krivonozhko (Russia)

7:00pm  **Reception and Dinner at the Mirror Pool**
Saturday, January 6, 2007

9:30am – 11:10am  **Session A3: The Indian Banking Industry**
Moderator: Abhiman Das

Non-Parametric Analysis of Efficiency Gains from Bank Mergers in India
Adrian Gourlay, *Geetha Ravishankar* (U.K.), Tom Weyman-Jones

Total Factor Productivity Change of Indian Commercial Banks in the Liberalised Regime: A Non-Parametric Approach
*Nitish Datta* (India)

Labour Productivity of Indian Commercial Banks: A Data Envelopment Approach
*Ram Pratap Sinha* (India), Biswajit Chatterjee

Profit Efficiency and Return on Equity: Evidence from Indian Banking
Subhash Ray, *Abhiman Das* (India)

**Session B3: Malmquist Analysis**
Moderator: Emmanuel Thanassouls

A Methodological Comparison of Slacks-based Measure, Regression Analysis, Cluster Analysis and Malmquist Index
*Shinn Sun* (Taiwan)

Productivity Change of Korean Manufacturing Industry: An Application of Bootstrapping in a Global Malmquist Productivity Index
*Dong-hyun Oh* (South Korea), Jeong-dong Lee

DEA-Based Tornqvist Productivity Index: An Application in the Oil Industry
*Mohammad Reza Alirezaee* (Iran)

Decomposition of Group-wise Malmquist Productivity Indices
Karagiannis Giannis, *Emmanuel Thanassouls* (U.K.)

11:10am - 11:25am  **Tea Break**

11:25am - 12:15am  **Session A4: Benchmarking Bank Performance**
Moderator: Debendra Kumar Mahalik

Thai Commercial Banking Performance Measurement and Benchmarking with Data Envelopment Analysis
Wirat Krasachat, *Kobchai Chimkul* (Thailand)
Alternative Ranking of Indian Banks: A Data Envelopment Analysis Approach  
Debendra Kumar Mahalik (India)

Session B4: Global Policy Comparisons  
Moderator: Susan Mudambi

Pollution and Income Tradeoff: An International Comparison Using a Directional Distance Function  
Subhash Ray (U.S.A.), Kankana Mukherjee, Rabindra N. Bhattacharya

Government Inward Investment Policy and Multinational Firms: A DEA Approach  
Ram Mudambi, Susan M. Mudambi (U.S.A.)

12:15pm - 1:30pm  
Lunch (Atrium)  
Address by Dipak Jain, Dean, Kellogg School of Management

1:30pm - 2:45pm  
Session A5: Performance Analysis in Manufacturing Industries  
Moderator: Haritha Saranga

Technical Efficiency in the Indian Textiles Industry: A Nonparametric Analysis of Firm-Level Data  
Anup Kumar Bhandari (India), Subhash Ray

Using DEA in Semiconductor Package and Testing Factory for Operational Efficiency Analysis  
Chiao-Ping Po, Hui-Ling Hsu, Kun-Cheng Lee (Taiwan)

Productivity and Technological Growth in the Indian Pharmaceutical Industry  
Rajiv Banker, Haritha Saranga (India)

Session B5: Performance Analysis in Agriculture and Co-operatives  
Moderator: Arpita Dhar

Indian Urban Co-operative Banks: Consolidation the Need of the Hour  
Geeta Sharma (India)

Evaluating Technological Progress of Paddy Growers in West Bengal  
Navendra Singh Chauhan (India)

Pareto-Koopmans Efficiency and Input Specific Utilization Rates: An Inter-State Analysis of Indian Agriculture  
Arpita Dhar (India), Subhash Ray
2:45pm - 3:00pm  
**Tea Break**

3:00pm - 4:15pm  
**Session A6: Retail and Service Management**  
Moderator: David Sherman

The Integration of Psychometric Data Into the Performance Assessment of a Retail Service Chain  
**Estelle Shale** (U.K.)

The Impact of Supervisory Monitoring on High-End Retail Sales Productivity  
Rajiv Banker, **Seok-Young Lee** (South Korea), Gordon Potter, Dhinu Srinivasan

Seeking the DEA Tipping Point for Service Management: Success, Failure, and Barriers in Applying DEA to Service Businesses  
**David Sherman** (U.S.A.), Joe Zhu

**Session B6: Industrial Performance Evaluation**  
Moderator: Padma Sastry

Evaluating the Efficiency of Indian Cement Industry: An Application of Data Envelopment Analysis  
**Seema Sharma** (India)

Performance Measurement of SET50 Industrial Companies in Thailand  
**Wirat Krasachat** (Thailand), kobchai Chimkul

Measuring Multidimensional Performance: Method and Application to the U.S. Local Telephone Industry  
**Padma Sastry** (U.S.A)

4:15pm – 4:30pm  
**Tea Break**

4:30pm - 5:20pm  
**Session A7: Managing Financial Activities**  
Moderator: Juchang Song

Predicting Probability of Debt Repayment Ability Using DEA: A Case Study of Dairy Farmers in Japan  
**Juchang Song** (South Korea), Katsunobu Kondo, Yasutaka Yamamoto, Katsuhiko Demura

An Application of Data Envelopment Analysis: Performance Evaluation in the Taiwan Open-Ended Fund  
Chiao-Ping Po, **Hui-Ling Hsu** (Taiwan), Kun-Cheng Lee
Session B7: Efficiency of Educational Organizations
Moderator: Adela García-Aracil

Efficiency, Technology and Productivity Change in Spanish Universities
Adela García-Aracil (Spain), Isidora Navarro Milla

Assessing the Efficiency of Turkish Secondary Education: Heterogeneity, Centralization and Scale Diseconomies
Nurhan Davutyan (Turkey)

5:20pm - 5:35pm
Tea Break

5:35pm - 6:50pm
Session A8: New Algorithm and Models
Chair: Gautam Appa

On the Equivalence of the Generalized DEA Model to the BCC Model
V.E. Krivonozhko (Russia), O.B. Utkin, M.M. Safin, A.V. Lychev

Dealing with the Dynamic Effect of Intermediate Outputs: A New DEA Network Model
Chien-Ming Chen (Netherlands)

A Faster Algorithm for Solving DEA Models
Gautam Appa (U.K), Srinivasan Parthasarathy

Session B8: Non-Archimedean and Negative Data Analysis
Moderator: Mona Barat

A DEA Model for Units with Negative Data
Abdel Latif Anouz and Ali Emrouznejdu (U.K)

Non-Archimedean Constant in DEA Models: Redundant or Not?
Gregory C. O'Brien, Lifen Wu (Australia)

An Assurance Interval for the Non-Archimedean Epsilon in DEA Models with Rank Order Data
Mehdi Toloo, Mona Barat (Iran)

7:15pm
Reception and Dinner at the Mirror Pool

Sunday, January 7, 2007

9:30am - 10:15am
Tutorial on Economic Principles of Data Envelopment Analysis
Subhash Ray (U.S.A)
10:15am - 11:00am  Tutorial on Statistical Principles of Data Envelopment Analysis
Rajiv Banker (U.S.A)

11:00am - 11:15am  Tea Break

11:15am - 12:30pm  Session A9: Structure of Efficiency and Performance Analysis
Moderator: Thijs ten Raa

Analyzing the Structure of Inefficiency
Mette Asmild, Peter Bogetoft, Jens Leth Hougaard (Denmark)

Decentralization and Efficiency: An Analysis of the Effects of Breaking Up a State Transport Corporation in India
Subhash Ray, Anand Venkatesh (India)

The Theory of Benchmarking and the Measurement of Industrial Organization
Thijs ten Raa (Netherlands)

Session B9: Alternative Efficiency Measures
Moderator: Borko D. Stosic

Ranking in DEA: Modified Cross Efficient Matrix Method
Rasidah Mahdi (Malaysia), Roziah Mohd Janor

The Relevance of DEA Benchmarking Information and Least-Distance Measure
Chulwoo Baek (South Korea), Jeong-dong Lee

Multiple Data Envelopment Analysis: The Blessing of Dimensionality
Borko D. Stosic (Brazil), Ivon P. Fittipaldi

12:30pm - 1:45pm  Lunch (Atrium)

1:45pm - 2:35pm  Session A10: Fuzzy DEA
Moderator: Zahra Javaheri

Performance Assessment of Electric Power Generation Using an Adaptive Neural Network Algorithm and Fuzzy DEA
Ali Azadeh, Zahra Javaheri (Iran), Seyed Farid Ghaderi and Mona Anvari

Linguistic Analysis of Efficiency: Fuzzy Rules Representation of the DEA-Based Efficiency Regions
Ozren Despic (U. K.), Joseph Paradi

Session B10: DEA Applications
Moderator: Mehdi Toloo

On the Evaluation of Information Technology Investment
Mehdi Toloo (Iran)

DEA Application in Efficiency Management in Industry: The Case of Ukraine
Anatoliy Goncharuk (Ukraine)

Full Ranking of DMU's with a Multi-Objective DEA Model
Mohammad Reza Alirezaee, Masoud Khalili (Iran), Mohsen Afsharian

2:35pm - 3:35pm

Session A11: Bank Efficiency and Input Productivity
Moderator: Biresh Sahoo

Profits and Productivity of U.S. Banks
Gabriel Asaftei (U.S.A)

Decomposing Capacity Utilization in Data Envelopment Analysis:
An Application to Banks in India
Biresh Sahoo (India), Kaoru Tone

Session B11: Globalization and Corporate Governance
Moderator: Hsihui Chang

Using DEA to Achieve a Fair Globalization
Ruzanna Tarverdyan (Switzerland)

Sarbanes-Oxley and the Production Efficiency of Public Accounting Firms:
An Application of Data Envelopment Analysis
Hsihui Chang (U.S.A)

3:35pm - 3:50pm

Tea Break

3:50pm - 5:05

Session A12: Evaluating the Performance of Governmental Organizations
Moderator: Giannis Karagiannis

Marcos Felipe Mendes Lopes (Brazil), Paulo Roberto Arvate
Performance Evaluation of Indian State Electricity Boards Using DEA
Tripta Thakur (India)

Analyzing Technical and Scale Inefficiencies of Greek Municipalities
Souzana M. Paleologou, Giannis Karagiannis (Greece)

Session B12: Optimizing Efficiency Models
Moderator: Rui Cunha Marques

Using Yardstick Competition in Water Services Regulation and Governance
Rui Cunha Marques (Portugal)

Determining the Efficiency Intervals When Data Are Imprecise: A Bi-Level Convex Model Formulation and a Genetic Algorithm Approach for Solving
Said Gattoufi (Oman)

Validity Examination of EFQM’s Results by DEA Models
M. Zarafat Angiz (Iran), S. Saati, A. Memarianl

On Data Envelopment Analysis of Integer Valued Data
Reza Kazemi Matin (Iran)

5:05pm - 6:00pm Conclusion and High Tea