Workshop 2015 -Advances in DEA Theory and Applications with Extensions to Forecasting Models

Date December 1st-2nd, 2015
Venue: Conference Room 4A, National Graduate Institute for Policy Studies (GRIPS)
Workshop Organizer: **Prof. Kaoru Tone,** GRIPS

December 1st, 13:25-17:00

13:25-13:30   Opening Remarks: Prof. Kaoru Tone (GRIPS, Japan)

13:30-15:00   Session 1.   Chair: Prof. Joseph Paradi (Univ. of Toronto, Canada)
  1. "Resampling in Data Envelopment Analysis illustrated by a hospital example"
  Author: Kaoru Tone (GRIPS, Japan)
  2. "Combining Support Vector Machine and Data Envelopment Analysis to Predict Corporate Failure for Nonmanufacturing Firms".
  Corresponding author: Xiaopeng Yang (Univ. of Toronto, Canada)
  Co-author: Stanko Dimitrov (Univ. of Waterloo, Canada)
  3. "Data Envelopment Analysis of Corporate Failure for Non-Manufacturing Firms Using a Slacks-Based Measure"
  Corresponding author: Joseph Paradi (Univ. of Toronto, Canada)
  Co-author: D'Andre Wilson, Xiaopeng Yang (Univ. of Toronto,Canada)

15:00-15:30   Coffee Break

15:30-17:00   Session 2.   Chair: Prof. Hirofumi Fukuyama (Fukuoka Univ., Japan)
  4. "Dynamic-Network DEA and An application to Japanese Hospitals"
  Corresponding author: Hiroyuki Kawaguchi (Seijo Univ., Japan),
  Co-authors: Kaoru Tone (GRIPS, Japan), Miki Tsutsui (CRIEPI, Japan)
  5. "DEA and social policy: A performance evaluation of Japanese local welfare offices".
  Author: Masayoshi Hayashi (Univ. of Tokyo, Japan)
  6. "A dynamic-network slacks-based measure with an application to Japanese Prefectures"
  Corresponding author: Hirofumi Fukuyama (Fukuoka Univ., Japan)
  Co-authors: Hashimoto (Fukuoka Girls' Commercial High School), Kaoru Tone (GRIPS, Japan), William Weber (Southeast Missouri State University, USA)

December 2nd, 10:00-16:00

10:00-11:30   Session 3.   Chair: Prof. Jamal Ouenniche (Univ. of Edinburgh, UK)

7. DEA Models Involving Future Performance"
    Corresponding author: Tsung-Sheng Chang (National Chiao Tung Univ., Taiwan)
    Co-authors: Kaoru Tone (GRIPS, Japan), Chen-Hui Wu (National Chung Cheng University, Taiwan)

8. "Performance evaluation of prediction models under multiple criteria"
    Corresponding author: Bing Xu (Heriot-Watt Univ., UK)
    Co-authors: Jamal Ouenniche (Univ. of Edinburgh, UK), Kaoru Tone (GRIPS, Japan)

9. "An Out-of-Sample Evaluation Framework for DEA with Application in Bankruptcy Prediction"
    Corresponding Author: Jamal Ouenniche (Univ. of Edinburgh, UK)
    Co-author: Kaoru Tone (GRIPS, Japan)

11:30-13:00   Lunch

13:00-14:00   Session 4.   Chair: Prof. Andrew Johnson (Texas A&M Univ., USA)

10. "A quantitative analysis of market opportunity utilization in electric power companies"
    Corresponding author: Miki Tsutsui (CRIEPI, Japan)
    Co-author: Kaoru Tone (GRIPS, Japan)

11. "Predictive Efficiency Analysis: A study of U.S. Hospitals"
    Corresponding author: Andrew Johnson (Texas A&M Univ., USA)
    Co-author: Chia-Yen Lee (National Cheng Kung University, Taiwan)

14:00-14:30   Coffee Break

14:30-15:30   Session 5. Chair: Prof. Ming-Miin Yu (National Taiwan Ocean Univ., Taiwan)

12. "Efficiency Predictions by Fuzzy Piecewise Auto-regression in Dynamic Network System"
    Corresponding author: Bo Hsiao (Chang Jung Christian Univ., Taiwan)
    Co-author: Ming-Miin Yu (National Taiwan Ocean Univ., Taiwan), Li-Hsueh Chen (National Taiwan Ocean Univ., Taiwan)

13. "Prediction and performance evaluation of BDI forecasting models: Cross efficiency, the directional distance function and the AVS utility function"
    Corresponding author: Ming-Miin Yu (National Taiwan Ocean Univ., Taiwan)
    Co-author: Emrah Bulut (Yıldız Technical University, Turkey)

15:30-   Closing Remarks: Prof. Hirofumi Fukuyama (Fukuoka Univ., Japan)

Contents

Preface

DEA Workshop 2015 is held at National Graduate Institute for Policy Sciences (GRIPS) in Tokyo as the successor of DEA Workshop 2013 at GRIPS. We have thirteen papers for this workshop, coming from five countries: Canada, UK, USA, Taiwan and Japan. I thank my friends for their contributions. The workshop is supported by JSPS (Japan Society for the Promotion of Science), Grant-in-Aid for Scientific Research (B), #25282090, titled "Studies in Theory and Applications of DEA for Forecasting Purpose". It is arranged by GRIPS officials. I gratefully acknowledge their supports. I hope DEA is utilized not only for the efficiency evaluation of past and present achievements but also future prospects. The outcome of this workshop will be published from John Wiley under the title "Advances in DEA Theory and Applications with Extensions to Forecasting Models".

Workshop Organizer
Kaoru Tone
GRIPS