



# EWEA 2009

XI European Workshop on Efficiency  
and Productivity Analysis



## CONFERENCE PROGRAM



**Pisa, June 23-26, 2009**

School of Engineering - University of Pisa  
POLO ETRURIA - Via Diotalvi, 2 – Pisa

### Local Organizers

**Andrea Bonaccorsi**, Department of Electrical Systems and Automation, University of Pisa

**Cinzia Daraio**, CIEG Department of Management, University of Bologna

**Federico Perali** and **Angelo Zago**, Department of Economics, University of Verona

**PUBLIC SERVICES & NON PROFIT****ROOM: F3**

CHAIRS: GIOVANNI CESARONI, PAULO MORAIS

**PRODUCTIVITY OF VOLUNTEER LABOUR: DEA-BASED EVIDENCE FROM ITALY**

Sergio Destefanis, Ornella Wanda Maietta

*Presenter:* MAIETTA**A MAXIMIZING PUBLIC VALUES MODEL FOR SUBSIDIZED NON-PROFIT FIRMS: AN APPLICATION TO DUTCH SOCIAL LABOR SERVICES**

Patrick Koot, Jos Blank

*Presenter:* KOOT**EFFICIENCY AND TECHNICAL CHANGE IN ITALIAN PENITENTIARIES**

Giovanni Cesaroni, Aldo Lamberti

*Presenter:* CESARONI**EVALUATION OF PERFORMANCE OF EUROPEAN CITIES WITH THE AIM TO PROMOTE QUALITY OF LIFE IMPROVEMENTS**

Paulo Morais, Ana Camanho

*Presenter:* MORAIS**RETAIL****ROOM: F7**

CHAIRS: ANA CAMANHO, LUIS OREA

**BUSINESS MODELS AND PROFIT: THE CASE OF WAL-MART**

Humberto Brea, Ramon Casadesus-Masanell, Emili Grifell-Tatjé

*Presenter:* BREAA**PERFORMANCE COMPARISON BETWEEN RETAILING STORES USING A MALMQUIST-TYPE INDEX**

Clara Vaz, Ana Camanho

*Presenter:* CAMANHO**PERFORMANCE EFFICIENCY OF WAREHOUSE OPERATIONS: A NETWORK DEA ANALYSIS**

Nasim Sabounchi, Kostas Triantis, Andy Johnson

*Presenter:* JOHNSON**ENTRY EFFICIENCY AND BARRIERS TO ENTRY IN THE SPANISH RETAIL MARKET: A FRONTIER APPROACH**

Luis Orea

*Presenter:* OREA**10:30 - 11:00 Coffee Break****11:00 - 12:30****FDI****ROOM: F7**

CHAIRS: LUCIA PISCITELLO, R. ROBERT RUSSELL

**THE ROLE OF FOREIGN MNES IN INFRASTRUCTURE AND SERVICE SECTORS ON LOCAL FIRM'S PRODUCTIVITY. EVIDENCE FROM ITALY**

Marcella Nicolini, Lucia Piscitello

*Presenter:* NICOLINI**FOREIGN INVESTMENT AND PRODUCTIVITY OF TURKISH COMMERCIAL BANKS: PARAMETRIC VERSUS NONPARAMETRIC ANALYSIS**

Ozlem Olgu Akdeniz

*Presenter:* OLGU**FOREIGN DIRECT INVESTMENT AND CONVERGENCE: A NONPARAMETRIC PRODUCTION FRONTIER APPROACH**

Waner Gu, Robert Russell

*Presenter:* GU

## Performance comparison between retailing stores using a Malmquist-type index

C.B. Vaz<sup>\*</sup> e A.S. Camanho<sup>\*\*</sup>

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This study develops a methodology that combines different management science methods (Data Envelopment Analysis, Malmquist indices and statistical tests) to provide insights concerning the performance of stores. Firstly, the methodology enables to specificate appropriate targets for stores in a retail network, by using Data Envelopment Analysis. This is performed by comparing similar stores which belong to the same group, i.e., supermarkets and hypermarkets. Secondly, the methodology compares globally the performance between those groups by characterizing their productivity levels. For this, the methodology combines the use of a Malmquist-type index with statistical tests. This index is decomposed into sub-indices for comparing the differences between groups in terms of efficiency spread in each group of stores and the productivity differences between the best-practice frontiers spanned by the benchmark stores from each group. The hypothesis tests are used to verify if the differences between groups captured by the sub-indices are statistically significant.