

Robust Efficiency Frontiers and Heterogeneity Factors: Applications in MicroFinance

Monday Avril 29, 2024 TBS (Toulouse Business School)

#### Organization

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#### Presentation

As part of the FERFH-MF project (Robust Efficiency Frontiers and Heterogeneity Factors in MicroFinance) supported by the Maison des Sciences de l'Homme et de la Société de Toulouse, a workshop is organized on April 29, 2024 in Toulouse Business School (TBS). The purpose of this day is to discuss recent tools for estimating efficiency which allow heterogeneity to be taken into account and to discuss their relevance and their application in the particular field of microfinance. Evaluating the effectiveness of MF is a matter of major interest for public authorities, donors, development partners and regulators. In recent years, an abundant academic literature has emerged on the estimation of the effectiveness of MF, to promote the production of evidences on intimating the efficiency of MF to encourage the production of evidence-based data on MF's factors of effectiveness for the implementation of effective policies to promote the sector. However, this work faces a major technical challenge of taking into account heterogeneity factors (or environmental factors), which escape the control of managers and which influence the effectiveness of microfinance institutions (MFIs). The methods generally used do not make it possible to estimate robust boundaries that take into account both internal and external factors of MFIs. Robust approaches have been developed in operational research (OR), but these tools are very little known in MF and in economics more generally, due to their complexity and especially the absence of a framework for discussions between economists and OR researchers. Combining the reflections of researchers in economics, operational, mathematical and statistical research, this workshop seeks to outline avenues to explore for future research on the estimation of efficiency in microfinance.



# Program:

### 09:00 Welcome

09:30 Welcome remarks and presentation of microfinance by François Seck Fall (LEREPS, UT2J, France)

10 :OO Léopold SIMAR (ISBA, Louvain-la-Neuve, Belgium) Recent Advances and Perspectives in Nonparametric Frontier and Efficiency Estimation

## 11 :00 Break

11:20 Cinzia DARAIO (DIAG, Sapienza University of Rome, Italy)

Smoothed approximations of nonparametric envelopment estimators and assessment of the impact of external factors: methodology and applications in education and waste management

#### 12:20 Lunch

14:00 Camilla MASTRAMARCO (University of Calabria, Italy)

A Novel Nonparametric Panel Data Spatial Frontier Model: Unveiling Productivity and Efficiency in EU Regions

15 : Anne VANHEMS (TBS, Toulouse, France) *A panel analysis of microfinance institutions efficiency measures: evidence of managers unobserved ability impact* 

#### 16: Break

16:20 Open discussions on the possibilities of co-authoring papers.

16:45 End of the day