

# MEASUREMENT OF DMU-EFFICIENCY BY MODIFIED CROSS EFFICIENCY APPROACH

LAVOSLAV ČAKLOVIĆ AND TIHOMIR HUNJAK

ABSTRACT. The fundamental weakness of a Data Envelopment Method (DEA) is its weak discrimination in cases when smaller numbers of Decision Making Units (DMU) have been compared. Therefore in such cases the basic DEA model is used in combination with other methods or additional constraints are added to the model. In this paper, the Cross-efficiency method has been combined with the Potential Method (PM).

## REFERENCES

- [1] Banxia, Frontline
- [2] Cooper, W. W. and Seiford, L. M. and K. Tone, *Data Envelopment Analysis*, Kluwer, 2002
- [3] Čaklović L. *Decision Making by Potential Method*, to appear in Int. J. Pure Appl. Math.
- [4] Čaklović L. *Self-duality in Group Decision*, to appear in Int. J. Pure Appl. Math.
- [5] Despotis, D. K., *Improving the discriminating power of DEA: focus on globally efficient units*, Journal of the Operational Research Society, 2002, **53**,314-323

PMF-MATHEMATICAL DEPARTMENT, BJENIČKA 30, 10 000 ZAGREB, CROATIA

FOI-FACULTY OF ..., ADRESA, 10 000 VARAŽDIN, CROATIA

*E-mail address:* caklovic@math.hr

*E-mail address:* thunjak@foi.hr

---

2000 *Mathematics Subject Classification.* 90B50, 91B06.

*Key words and phrases.* Multi-criteria decision making, interactive criteria, grading, coalition, Potential Method.