Measuring the technical efficiency of local banks in UAE using rough bi-level linear programming technique

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***Abstract*–The aim of this paper is to use a bi-level linear programming technique with rough parameters in the constraints, for measuring the technical efficiency of local banks in UAE and Egypt, while the proposed linear objective functions will be maximized for different goals. Based on Dauer's & Krueger's goal programming method, the described approach was developed to deal with the bi-level decision-making problem. The concept of tolerance membership function together was used to generate the optimal solution for the problem under investigation. Also an auxiliary problem is discussed to illustrate the functionality of the proposed approach.**

***Index Terms:* Bi –level programming, rough programming, goal programming, banking efficiency, auxiliary problem, tolerance membership, branch and bound**

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