Chapter 2
An Evaluation of Turkey’s NUTS Level 1 Regions According to Banking Sector With MULTIMOORA Method

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ABSTRACT

In the study, The Nomenclature of Territorial Units for Statistics (NUTS) Level 1 regions of Turkey are evaluated with MULTIMOORA Method according to banking sector using hypothetical data which are adapted from real world data. There are 12 regions as alternatives which are assessed with 6 objectives. Calculations are made by using MS Excel which is powerful spreadsheet software. This application is an example how multi criteria decision making methods can use when a manager making decision. Results are given as lists of regions ranking and commented. By this way, it is shown that how the multi criteria decision making methods can help to decision makers.

INTRODUCTION

MULTIMOORA which is one of the multi criteria decision making methods. The method consists of MOORA method plus Full Multiplicative Form of Multiple Objectives. Historical development of MULTIMOORA method (Baležentis & Baležentis, 2014): Multi-objective optimization by ratio analysis (MOORA) method is offered on the “The MOORA method and its application to privatization in a transition economy” by Brauers and Zavadskas (2006). MOORA method is developed with adding full multiplicative form and it became MULTIMOORA on the study “Project management by MULTIMOORA as an instrument for transition economies” by Brauers and Zavadskas (2010). Computation steps (Baležentis & Baležentis, 2014; Brauers & Zavadskas, 2011) of the MULTIMOORA method are given at the Figure 1.

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The aim of the study is to introduce the MULTIMOORA method and apply it in the service sector. Application of the method is given in the banking sector. There are 12 regions as alternatives and 6 objectives. They are assessed by the method. Results of the application are given and commented.

In the study, general information about the method is given at the first section. Background is given after the introduction. MULTIMOORA method is given at the third section. Results are given in the solutions and recommendations section, and they are discussed at the conclusion.

**BACKGROUND**

There are several application areas of MULTIMOORA method such as: economics, financial, banking sectors, and so on. Only MOORA method is used in some applications. Some of them add the full multiplicative form to MOORA, therefore MULTIMOORA method is implemented. Performance of Lithuanian commercial banks is evaluated with using MULTIMOORA method by Brauers, Ginevicius, and Podviezko (2012). MULTIMOORA method is used by Brauers and Zavadskas (2011) to decide upon a bank loan to buy property. The well-being in the European Union Member States is assessed.