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TITLE OF DIPLOMA THESIS:

Ranking of Constuction Companies 7th Grade in the Period 2011 - 2015 with the PROMETHEE Method

AUTHOR: Polina Sygkouna

ABSTRACT

The construction industry plays an important role in economic development and prosperity of a country. In recent years, global and Greek economic crisis has occurred and the construction industry has really suffered, a fact which resulted in a sharp reduction of construction activity. In this period, it would be very interesting the analysis of a comparative examination of the development of large construction companies in Greece that can be achieved through multicriteria analysis. The multicriteria analysis is used extensively in cases of making decisions. The complexity that the decision-making process presents has led to the creation of many methods which are expressed by mathematical models and many are executed with the help of computer programs. Most methods that are used regard problems with many criteria and problems which look for the ranking of the alternatives from best to worst. The present thesis deals with the ranking of the construction firms holding contracting degree 7th grade during the five years 2011 to 2015 with the help of multicriteria PROMETHEE method. The purpose of the thesis is an analysis of the comparative progress of these companies over a period of many turbulent events for the Greek economy and society. The sampled companies are the INTRAKAT SA, J & P-AVAX SA AEGEK CONSTRUCTION SA, AKTOR, MICHANIKI SA and TERNA SA. The ranking is based on some specific financial ratios of profitability, liquidity, activity and economic structure, in which weight was obtained from questionnaires. For each year five classifications result, one for each class ratios and one which takes into account all categories. Further analyses are made, such as sensitivity analysis and analysis company profile. The tool used to implement all the analyzes is Visual PROMETHEE, which is an auxiliary computer program for performing the method PROMETHEE. The results showed that TERNA mainly has good performance, as well as INTRAKAT, while MICHANIKI and AEGEK showed as weakened. The classification of companies agrees with the activity of companies for each year. Finally, recommendations are given for further research and work.

KEYWORDS

multicriteria analysis, multicriteria method PROMETHEE, financial ratios, ranking, construction companies

