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TITLE OF DIPLOMA THESIS:

PREDICTION MODELS IN PROGRAM MANAGEMENT OF CONSTRUCTION PROJECTS

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ABSTRACT

The aim of the current dissertation is to develop models that will lead to a more rational management of a program. The information that was chosen to be used was that of a familiar program of the National Strategic Reference Framework, which is still ongoing. Initially the object, purpose and structure of work are presented. We are then getting familiar with the concept of program management as well as with how different that is defined regarding project management. Then, a brief presentation of Community Programs and Support Frameworks received until today is next, resulting in the implementation of the National Strategic Reference Framework (NSRF). The presentation includes a short overview on the already completed financial aid programs (Integrated Mediterranean Programs, Community Support Framework II & III) and a more detailed report on the NSRF and its structure. A more detailed reference to the Operational Program "Macedonia – Thrace" the Axis "Sustainable Development and Quality of Life in the Region of Central Macedonia" and especially in the Thematic Priority "Infrastructure in education" is presented, as the data of this program is selected to be processed. The general criteria of evaluation and selection of a project are described so as to be funded by the operational program, detailing the information of the projects that have already been included in the Operational Program. The methodology and the aim of the research is next using the software package SPSS[®] Version 18, used for the statistical analysis. An analysis of the data by the method of correlation analysis and pairwise correlations is performed and is commented on, followed by the analysis of simple linear regression, showing the combinations of variables and models attributed and the predictability rates of each model. Finally, after obtaining the results from both the correlation and the regression analysis, we comment on the application on a program management level.

KEYWORDS

Project Management, Program Management, Assessment Criteria of Projects, Selection of Projects Process, Correlation Analysis, Simple Linear Regression, Prediction Models.