DETERMINATION And EVALUATION OF PARAMETERS OF QUALITY IN CONSTRUCTION PROJECTS

ABSTRACT

Author: Olga Garcia Medalla / Tutor: Modest Batlle Girona

The existing statistical data demonstrate the necessity to create some mechanism or system of evaluation of the quality of projects of construction at the moment of their elaboration, thus to avoid later, in addition to the economic losses and temporary problems that these entail.

In order to be able to elaborate a system of these characteristics, the scope of study, the construction projects has been analyzed thorough, thus to know all the elements better than they compose, and this way to determine them the parameters, considered like quality indicators, of the different documents that belong to this type of projects.

The origin of the applied methodology has been based on the Delphi Method, the characteristics of which have been modified to be able to be adapted to the necessities of this work. This method allows that the evaluation system is opened, intelligible, simple, precise, credible and objective.

The process that has been followed for the elaboration of this work has been the following one:

• Determination of a listing of representative parameters in a project of construction with direct incidence in its quality, defined by the tutor and the author, with the collaboration of different technicians.

• Valuation of the importance of the different parameters in projects from construction on the part of a group of professionals related to this scope. The score ranks are: Essential, Very important, Important, Advisable, Complementary and Unnecessary.

• Analysis and treatment of the data for the obtaining of the specific weight of each one of the parameters within the project.

In the process of analysis of the results the necessity has been appraised to give a treatment to the collected data different from the initial exposition. The great existing dispersion in the results has caused the change of system in the definitive determination of the specific weights of each one of the parameters.

The two modifications made with respect to the original idea derive from the observation of the following facts:

• The tendencies of some of the technicians to value all the parameters of very positive or negative form. In the cases in that it has taken place this fact has been made an adjustment of the data.

• The increase of the homogeneity of the classified valuations in the being according to the years of experience, the labor scope and the degree of the professionals. A comparative study of the different obtained results has been made in each one from the categories.

The parameters that presented/displayed a high level of dispersion have been dealt with precise form from the study of the results based on the different categories, deciding that valuations had to be considered like more trustworthy, and therefore, they had to have a greater importance in the final weight.

Everything and not to be predicted at first, the classification of the parameters following the three commented criteria has turned out to be fundamental for the final obtaining of the different specific weights, finally obtaining a result that includes the general necessities in all the labor scopes of each one of the considered parameters indicating of quality of construction projects.

Therefore, the base for a system of evaluation of the quality of the construction projects, and a guide to follow at the time of elaborating them has been defined, where the parameters are defined that are to receive a preferred treatment.