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### **Book of Abstracts**

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observations. The variety of PLS methods depends on the number of blocks of variables and the relationships among blocks. The common denominator of all PLS methods is the fact that they are based on an iterative algorithm in which the parameters are calculated by a series of least squares regressions. Due to the introduction of PLS, one of the main Structural Equation Modeling (SEM) techniques, by Wold in 1966, it has been received with considerable interesting among researchers. In most cases, the PLS approach to SEM is usually named as PLS Path (PLS-PM). PLS-PM is a multivariate data analysis Modelina methodology, which provides a framework for analyzing multiple relationships between a set of blocks of variables. It is supposed that the relationships among the blocks are established taking into account previous knowledge (theory) of the phenomenon under analysis. In the context of PLS-PM, latent variables (LVs) are unobserved variables or variables that cannot be measured directly, for instance, beliefs, intention and motivation. Hence, they are measured indirectly via manifest variables (MVs) (indicators, items) which could be perfectly observedmeasured. Every PLS-PM is formed by two sub models: the structural (inner) model and the measurement (outer) model. The structural model is the part of the model that has to do with the relationships between the LVs. In turn, the measurement model is the part of the model that has to do with the relationships of a LV with its block of MVs. The purpose of this study to examine the success of 18 Turkish national football teams in 2011-2012 Super League Season by using PLS-PM. For this purpose, following the study of Sanchez (2013), a model is proposed in which the overall success of the football teams depends on the quality of the attack as well as on the quality of the defense made by them. There are three LVs which are defined as attack, defense and success. The number of won matches at home and the number of won matches away variables are taken as indicators of success, the number of goals scores at home and the number of goals scores away variables are taken as indicators of attack and the number of goals conceded at home and the number of goals conceded away are taken as indicators of defense.

Keywords: Football Teams, Attack, Defense, Success, PLS, PLS-PM.

#### What do student satisfaction questionnaires measure? Fabiola Portillo<sup>1</sup> and Cecilio Mar Molinero<sup>2</sup>

University students are asked to complete satisfaction questionnaires in which express their opinion on many aspects of their studies. It is hard to think what purpose such questionnaires may serve: it is very difficult to dismiss university teacher on the basis of students' perception of their performance; and staff are promoted on the basis of the success of their

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research rather than on the quality of their teaching. From a quality enhancement point of view, one is led to conclude that student satisfaction surveys, by using valuable time staff time, produce more harm than good. And yet, there are many important questions that could be answered with the help of student questionnaires. One obvious example is whether teaching should be done by research active staff or by staff who do no research and specialise in teaching methods. Another aspect that is the impact on students' perception of "sexing up" a subject. This would militate against intellectually challenging subjects, such as those that contain advanced quantitative analysis. Finally, one can ponder on the question of class size. Up to what point is the student's perception of the teaching quality influenced by personal contact?

In this study we collected summary information on questionnaire results for all the undergraduate modules for which such information was available in a management school in a major UK university for the academic year 2008/2009. We also collected information on average marks achieved in the same modules, as well as a set of contextual variables. The management school offered 56 undergraduate modules but, following a computer crash, information on student questionnaires was lost for some of the modules, and full data is only available for 45 modules. 37 lecturers were involved in the teaching. An estimate of research activity was also available for each lecturer, having been developed as a by-product of the 2008 research assessment exercise of British universities.

The data was analysed using various multivariate statistical tools, including multiple regression and principal components analysis. It was found that students' perception of teaching quality was not related to the research rating of the lecturer, and that the only factors that influenced it were class size and mathematical content. It was also found that an index of teaching quality developed from the questionnaires was not related to results achieved.

## Modelling financial data using distributions tailored on given moments of the empirical distribution

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Risk measures, including Conditional Value-at-Risk (Expected Shortfall), turn out to be quite sensitive to the degree to which distributions are thick tailed and asymmetric. Lack of encoding information about asymmetry, leptokurtosis and non-linear dependence is a well-known drawback of the Gaussian law. This, on the one hand, has led to a search for