



The Use Of Linear Programming In Audit Task Planning

Süleyman UYAR ^a

Esin YELGEN ^b

^a Assoc.Prof. Dr., Alaaddin Keykubat University, Faculty of Business, suyar@akdeniz.edu.tr

^b Res. Assist., Akdeniz University, Institute of Social Sciences, esinyelgen@akdeniz.edu.tr

Keywords

Auditing, Task Planning,
Linear Programming.

Jel Classification

M42, J29, C61.

Abstract

In audit firms, the auditing activities, operating periods and hourly rates of the auditors differ as regards to their status. Under normal circumstances, task planning in auditing is made by taking the professional judgment of a responsible auditor into account besides the qualitative characteristics of the auditors. However, it can also be made by means of a mathematical model assuming that auditors with the same title have similar characteristics. By this way, labor costs are minimized. In this context, the aim of this study is to make a task planning by assigning auditors to auditing activities through a linear programming model in a way to minimize the costs. Linear programming model is one of the methods used in solving optimization problems. The model which is set with various assumptions has been analysed through WINQSB packaged software called "Linear and Integer Programming". As a result of the modelling study, the number of hours and the kind of auditing activity in which the auditors are supposed to carry out have been specified and thus the most optimum cost has been found out.