MICROSOFT EXCEL SOLVER TOOL FOR DECISION MAKING

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Abstract

The purpose of this paper is to illustrate how the Solver package in Microsoft Excel can be used easily to solve optimization problems for decision-making. Although not as powerful or flexible as stand-alone packages such as Linear Integrated General Optimizer (LINGO), Solvers presence within a universally available spreadsheet package makes it an extraordinarily powerful solving tool. Instead of parameters being entered into the optimization problem as constants, they can be expressed as functions of other spreadsheet cells. This interactive structure allows the decision maker to create complex environment where it can be illustrated how minor changes in one aspect of the environment can flow through and have a profound impact on optimal solutions. The use of MS Excel –Solver tool is illustrated by solving a linear programming (LP) problem.

Keywords: complex environment, linear programming, spreadsheets, Microsoft excel solver.

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