

# **Abstract**

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## **AN OPTIMIZATION METHODOLOGY FOR THE INVESTMENTS ON MAINTENANCE PERSONNEL WITHIN AN INDUSTRIAL ENVIRONMENT**

Nearly every industrial organisation is facing the same challenge of cutting costs. Scientifically the term cutting costs may be expressed as optimising investments since the blind cut of costs may and most probably would back fire on the organisation. The human resources constitute an essential stream of investment within industry. The problem of mal assessing the payment of employees either by spending too much by paying too little has been reported to the author hundreds of times. Both cases are harmful and require rectification. In this paper a decision support tool is developed in order to optimise the payment of maintenance personnel within an industrial environment. The tool is based on the Analytical Hierarchy Process and powered by the "super decision" software. The tool is applied on a case study from a cookers factory in Egypt and the results are presented. Keywords: Maintenance personnel, Workforce payment management, Decision support tool