World Academy of Science, Engineering and Technology International Journal of Industrial and Manufacturing Engineering Vol:12, No:03, 2018

Use of Linear Programming for Optimal Production in a Production Line in Saudi Food Co.

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Abstract : Few Saudi Arabia production companies face financial profit issues until this moment. This work presents a linear integer programming model that solves a production problem of a Saudi Food Company in Saudi Arabia. An optimal solution to the above-mentioned problem is a Linear Programming solution. In this regard, the main purpose of this project is to maximize profit. Linear Programming Technique has been used to derive the maximum profit from production of natural juice at Saudi Food Co. The operations of production of the company were formulated and optimal results are found out by using Lindo Software that employed Sensitivity Analysis and Parametric linear programming in order develop Linear Programming. In addition, the parameter values are increased, then the values of the objective function will be increased.

Keywords: parameter linear programming, objective function, sensitivity analysis, optimize profit

 $\textbf{Conference Title:} \ \textbf{ICIE 2018:} \ \textbf{International Conference on Industrial Engineering}$

Conference Location : Miami, United States **Conference Dates :** March 12-13, 2018