



Application of Linear Programming Model in A Bag Manufacturing Unit in Patna

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Abstract : A study was conducted to find out the maximum profit level that can be attained by a small scale industry producing different bags with the same raw materials. The raw materials which were taken into account were rexine, lining and the labour hour consumed. Data were collected from two branches of the same industry and solved to get the value of the number of each bag it should produce in order to maximize its profit.

Keywords: Product mix industry, linear Programming, decision variables, constraint, objective function.

Introduction:

A firm is faced with the problem of inventory management of raw materials and finished products. The objective function in inventory management is to minimize inventory cost and the constraints are space and demand for the product. Many business and economic situations are concerned with a problem of planning activity. In each case there are limited resources at our disposal and our problem is to make such a use of resources so as to yield the maximum production or to give the maximum profit etc. This part of profit maximization along with cost minimization to attain the state of optimality in an industry is the part where linear programming model comes to action. Managers can select the best solution with the help of LP by evaluating the cost and profit of various alternatives

A general linear programming problem includes a set of simultaneous linear equations (or inequations) which represent the conditions of the problem and a linear function which expresses the objective function of the problem (Prasad, 2014).

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