COMPARATIVE STUDY OF SEVERAL METHODS TO OBTAIN AN INITIAL BASIC FEASIBLE SOLUTION OF TRANSPORTATION PROBLEM

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ABSTRACT:

Transportation problem is one of the most important areas of operation research and it is useful for decision making of transportation of goods. Transportation problem is concerned with determining an optimal strategy for transporting goods from a number of origins or sources to various destination in a such way that the total transportation cost is minimized. That is to determine how to transport goods in optimal way. In this paper we compare several methods for determine the initial basic feasible solution (IBFS) of transportation problem .

KEYWORD: Transportation Problem, IBFS, Supply, Demand, Goods

INTRODUCTION:

Transportation problem is a type of linear programming problem, which is associated with day-to-day activities in daily life and deals with logistics. Transportation problems deal with the transportation of a single product manufactured at different factories plants (supply origins) to a number of different warehouses (demand destinations). The objective is to satisfy supply and demand condition and minimum transportation cost possible.To achieve this objective, we must know the quantity of available supplies and the quantities demanded. The main role of this transportation table is to minimize total transportation cost of transporting goods from origins to supply. Following are some well known techniques which are used for obtaining minimum transportation cost .

a) North –West Corner Method
b) Least Cost Method
c) Row Minima Method
d) Column Minima Method
e) Vogel's Approximation Method