

Application of Transportation Linear Programming Algorithms to Cost Reduction in Nigeria Soft Drinks Industry

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Abstract : The transportation models or problems are primarily concerned with the optimal (best possible) way in which a product produced at different factories or plants (called supply origins) can be transported to a number of warehouses or customers (called demand destinations). The objective in a transportation problem is to fully satisfy the destination requirements within the operating production capacity constraints at the minimum possible cost. The objective of this study is to determine ways of minimizing transport cost in order to maximum profit. Data were gathered from the records of the Distribution Department of 7-Up Bottling Company Plc. Ilorin, Kwara State, Nigeria. The data were analyzed using SPSS (Statistical Package for Social Sciences) while applying the three methods of solving a transportation problem. The three methods produced the same results; therefore, any of the method can be adopted by the company in transporting its final products to the wholesale dealers in order to minimize total production cost.

Keywords : cost minimization, resources utilization, distribution system, allocation problem

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