Study and Optimization of inventory of an Automobile showroom

Mayuri Patel
Industrial engineering department
Pandit Deendayal Petroleum University
Mayuri.pie12@sot.pdpu.ac.in

Shailee Kamal Dalal
Industrial engineering department
Pandit Deendayal Petroleum University
shailee.die12@sot.pdpu.ac.in
dalal.shailee.kamal@gmail.com

Abstract

This work is directed towards studying of inventory performance of an automobile showroom and to optimize the inventory in order to control the costs associated with it. We have developed a mathematical model where in the objective function is to minimize the costs associated with inventory related factors. Various constraints such as demand, space, budget and operating costs are taken into consideration. Efficient management of inventory is crucial to helping a company achieve its business and financial goals and if not managed correctly can result in both, additional expenses and lost productivity. The mathematical model is worked upon using different optimization techniques and the optimized results are obtained and implemented in order to control the investment in inventory.

Keywords
Inventory performance, Cost optimization, efficient inventory management, operating constraints.