**Title:** An Application of Newsvendor's Approach to Single Period Multilocation Retail Scenario

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**Abstract:** In this paper, we apply the classic newsvendor problem to solve a single period multi-location problem. The paper shows how the classic technique can be applied to maximize the expected profits of more than 900 retail stores located in similar demographic conditions facing stochastic demand. The paper presents two models to apply the classic approach to solve the problem faced by the retail stores. In the former, we apply the technique to the cases where the mean demand has the highest probability and in the later we apply it using the principle of indifference. The paper also compares newsvendor approach to traditional inventory model (EOQ) and existing Monte-Carlo simulations. The results show there is a remarkable improvement in the profits applying the newsvendors approach in comparison to the earlier methods being followed.