

This thesis studies a classic single-period stochastic optimization problem called the newsvendor problem. A news-boy must decide how many items to order under the random demand. The simple model is extended in the following ways: endogenous demand in the additive and multiplicative manner, objective function composed of the expected value and Conditional Value at Risk (CVaR) of profit, multicriteria objective with price-dependent demand, multiproduct extension under dependent and independent demands, distributional robustness. In most cases, the optimal solution is provided. The thesis concludes with the numerical study that compares results of two models after applying the Sample Average Approximation (SAA) method. This study is conducted on the real data.