Strategies for obtaining the target value

C.K. Chauhan -- Indiana Purdue University Fort Wayne, IN
Y.M. Zubovic -- Indiana Purdue University Fort Wayne, IN

Abstract

Traditionally a symmetric quadratic loss function is used in measuring the loss
of quality of a product. In such a case the desired target value of a characteristic of the
product is equal to the optimal value. In the paper the authors consider an asymmetric
loss function in which the loss associated with a deviation from the optimal value
depends on the direction. In such a situation, it is necessary to adjust the target value to
achieve the minimum loss. The authors examine the relationship between the amount of
the adjustment and other factors such as the underlying distribution, the unknown
parameters, and the form of the loss function.