

عنوان مقاله:

A NEW ACCEPTANCE SAMPLING DESIGN USING BAYESIAN MODELING AND BACKWARD INDUCTION

محل انتشار:

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خلاصه مقاله:

In acceptance sampling plans, the decisions on either accepting or rejecting a specific batch is still a challenging problem. In order to provide a desired level of protection for customers as well as manufacturers, in this paper, a new acceptance sampling design is proposed to accept or reject a batch based on Bayesian modeling to update the distribution function of the percentage of nonconforming items. Moreover, to determine the required sample size the backwards induction methodology of the decision tree approach is utilized. A sensitivity analysis that is carried out on the parameters of the proposed methodology shows the optimal solution is affected by initial values of the parameters. Furthermore, an optimal (n, c) design is determined when there is a limited time and budget available and hence the maximum sample size is specified in advance

کلمات کلیدی:

Acceptance Sampling; Bayesian Inference; Decision Tree; Backwards Induction

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