

ECONOMICS

Advanced Edit

For a manufacturing organization to compete effectively in the global marketplace, cutting costs and improving overall efficiency is essential. In this paper, we present a single-stage production system with two independent quality characteristics, ~~and each having a different associated costs associated with each quality characteristic, that~~ This associated cost falls below a lower specification limit (scrap) or above an upper specification limit (rework) ~~is presented in this paper~~. The ~~amount~~ number of reworks and number of scraps are assumed to be dependent ing on ~~the~~ process parameters such as process mean and standard deviation. The process mean and standard deviation are ~~the~~ important parameters of a quality characteristic. ~~Thus,~~ the expected total profit is significantly dependent on the process parameters. ~~In this paper, we develop a Markovian decision-making model for to determining the process means. We perform a Sensitivity analysis is performed to validate the proposed model, and present a numerical example is given as an illustration. The results showed that the optimal process mean has a major effects on the parameters of the quality characteristics.~~

Comment [A1]: I have inserted this phrase for clarity. Please check if it is accurate.

Source: [Absorbing Markov Chain Models to Determine Optimum Process Target Levels in Production Systems with Dual Correlated Quality Characteristics](#) by Mohammad Saber Fallah Nezhad and Hasan Hosseini Nasab used under [CC-BY](#).