

## ECONOMICS

### Premium edit

For a manufacturing organization, ~~to compete effectively in the global marketplace,~~ cutting costs and improving overall efficiency is essential ~~for competing in the globalized marketplace.~~ 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.~~ We assume ~~t~~he amount ~~number~~ of reworks and ~~number of~~ scraps ~~are assumed to be~~ depending on ~~the~~ process parameters such as ~~the~~ process mean and standard deviation. ~~The process mean and standard deviation are the important parameters of a quality characteristic;~~ ~~t~~hus, the expected total profit is significantly dependent on the process parameters. ~~In~~ ~~t~~his paper, ~~we~~ develop a ~~Markovian~~ decision-making model ~~for to~~ determining the process means. ~~We perform a~~ ~~S~~sensitivity analysis ~~is performed~~ to validate ~~the proposed model,~~ and ~~present~~ a numerical example ~~is given~~ as an illustration. The results showed ~~ed~~ that the optimal process mean has ~~a~~ major effects on the parameters of the quality characteristics.

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](#).

**Comment [A1]:** From what I understand, you first develop a model for the determination of process mean, and then use the derived process mean in the production system. Consider the following revision for a more logical flow:

"In this paper, we develop a Markovian decision-making model for determining the process mean, and then propose a single-stage production system with two independent quality characteristics...."

If you accept this change, you will need to delete the sentence "In this paper, we develop a Markovian decision-making model for determining the process means," which appears later.

**Comment [A2]:** This sentence adds no value to the paragraph and hence I have deleted it.

**Comment [A3]:** I have inserted this phrase for clarity. Please check if it is accurate.