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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 cost~~s 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~~the ~~amount~~number of reworks and the number of scraps ~~are assumed~~ to ~~be~~ depend~~ing~~ on ~~the~~ process parameters such as the process mean and SD. ~~t~~Thus, the expected total profit is significantly dependent on the process parameters. In ~~T~~this paper, we develop~~s~~ a ~~m~~Markovian decision--making model for determining the process means. We perform a ~~S~~sensitivity analysis~~izes is performed~~ to validate the proposed model, and present a numerical example ~~is given as an~~for illustration~~.;~~ ~~The~~ the results show~~ed~~ that the optimal process means has ~~a~~ major effects on the parameters of the quality characteristics.

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]: Is my insertion apt?

Comment [A3]: For improved flow, I have combined these two sentences using a semicolon, as they are closely linked.