

STOCHASTIC MODEL FOR TIME TO RECRUITMENT UNDER TWO SOURCES OF DEPLETION OF MANPOWER USING UNIVARIATE POLICY OF RECRUITMENT

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Abstract

Random depletion of manpower occurs in any marketing organization due to attrition of personnel when the management takes policy decisions regarding pay, perquisites and work targets. This attrition will adversely affect the smooth functioning of the organization in due course of time when the loss of manpower is not compensated by recruitment. Frequent recruitment is not advisable as it involves more cost. In view of this situation and from the fact that the depletion of manpower and the inter-decision times are probabilistic, the organization requires a suitable recruitment policy to plan for recruitment. In this paper, the problem of time to recruitment is studied for a two grade manpower system by considering two sources for depletion of manpower and using an appropriate recruitment policy based on shock model approach. Analytical results for some performance measures related to time to recruitment are obtained by considering different forms of the threshold for the loss of manpower in the organization. The results are numerically illustrated by assuming specific distributions and relevant findings are presented.

Keywords: Shock model approach, Loss of manpower, Threshold, Inter-policy decision time and Inter-transfer decision time.

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