

**ABSTRACT** In this study, a proposed estimator is discussing with some existing estimators understudy. Also discuss EWMA control charts and simulation procedure for random number generation. The purpose of this study is to develop a new estimator with the help of some existing estimators as Bhal and Tuteja, Sisodia and Exponential Ratio estimator. After comparing the proposed estimator with all these estimators, it can be said that the proposed estimator is more efficient due to its minimum MSE. In this study, proposed estimator fulfill the property of consistency, efficiency and unbiasedness. EWMA charts are utilized to check average run length (ARL). The repetitive EWMA control chart is proposed based on different ratio estimators under proposed estimators and its efficiency is checked by computing ARL's and representation is also shown. The numerical results through real life crime data shows that proposed estimators and with different sample sizes as  $n=5, 10, 20, 30, 40, 50$  are more efficient by having small MSE's and also consistent , as by increasing sample size MSE will decreases automatically. The ARL's are used for comparison in EWMA control charts and shows that the EWMA chart based on proposed estimator and is more effective compared to others by detecting the shifts earlier than others. The graphical representation of ARL's also showing minimum ARL values based on and .