



## EFFECT OF 3-SIGMA AND SIX SIGMA IN BANKING SECTOR : A CASE STUDY

V. S. Athawar

Department of Statistics, G. S. College, Khamgaon - 444 312, India.

E-mail : vsathawar1971@gmail.com

**Abstract :** Six Sigma is a powerful business strategy, which has been used in service sector for quality improvement. This gives a well structured continuous improvement process to rule out or to eliminate error or variation by using the statistical tools and techniques. In this case study to determine the process standard deviation fix (TL) and process Capability (Cp) apply the value of  $6_{\sigma}$  in the control limits to get control limit based on Six Sigma for X-bar and R chart.  $l_{6\sigma}$  Value can be obtained using  $p(z \leq z_{6\sigma}) = 1 - \alpha_1$ ,  $\alpha_1 = 3.4 \times 10^{-6}$  and Z is standard normal variate. For specified TL and Cp the value of  $6_{\sigma}$  is calculated

from  $C_p = \frac{T_L}{6\sigma}$  for values for TL and Cp, which expresses the effect of 3-sigma & Six sigma.

**Key words :** 3-sigma, Six Sigma and Process methods, Six Sigma Control Chart, Statistical quality control