

Abstract

In this thesis a number of sampling designs and estimation procedures have been used in order to select an appropriate sample design for estimation of population total and literacy rate.

The sampling variance, relative efficiencies, design effect, net relative precisions and graphical approach, based on population and sample, of these designs have been used for this purpose.

Various sample sizes i-e 5%, 10%, 15% and 20% have been used. Sample based studies have also been carried out to decide about a suitable sampling design.

It has been found with the empirical study that as far as the total population is concerned the performance of probability proportional to size sampling with replacement using ratio method of estimation is better both in population based and sample based studies.

Where as the literacy rate is concerned the performance of Clusters sampling with simple method of estimation behaved better than others.

The summary and conclusion have been given at the end.