

ABSTRACT

This thesis aims to develop such estimators which are efficient from other well known estimators and these developed estimators produced the family of estimators. The developed estimators are based on single and two phase sampling using two auxiliary variables. Full information case and partial information case are also studied. Efficiency of the derived estimators is compared with the other estimators through mean square error, where mean square errors are derived up to first order term. In Single Phase sampling the suggested estimator is compared with Singh (1967), Singh and Espejo (2003), Singh et al. (2005), Samiuddin and Hanif (2006) and Hammad (2008) estimators. In Two Phase sampling for partial information case the proposed estimators are compared with Mohanty (1967), Chand (1975), Kiregyera (1980), Chand Sahoo and Sahoo (1992), Sahoo and Sahoo (1993) and Samiuddin and Hanif (2006) estimators and for full information case the proposed estimators are compared with Modification of Mohanty (1967), Khair and Srivastava (1981), Samiuddin and Hanif (2006), Ahmed et al. (2007) Estimator 1, Ahmed et al. (2007) Estimator II and Ahmed and Hanif (2007) estimators. Biases of the suggested estimators up to second order term are also obtained. From numerical and mathematical comparison the developed estimators of this thesis are better than the above compared estimators.