

ABSTRACT

This research aims to develop some estimators of ratio and product, exponential ratio and product type and regression estimators for estimating population mean in the presence of non-response and these developed estimators produced the family of estimators. The developed estimators are based on single and two phase sampling using single and two auxiliary variables in the presence of non-response. Full information case, partial information case and no 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 upto first order term. These estimators are efficient from other well-known existing estimators. In single phase sampling the suggested estimators are better from Rao (1991 I) and Rao (1991 II) estimators. In Two Phase Sampling for full information case the proposed estimators are better from Cochran (1977), Singh et al. (2008) and Olufadi and Kumar (2014) estimators, for partial information case the proposed estimators are better from Singh and Kumar (2010 I) and Singh and Kumar (2010 III) estimators and for no information case the proposed estimators are better from Ismail et al. (2013), Sunil et al. (2010), Ismail et al. (2011) and Shabbir and Khan (2013) 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.