

Review Form 1.6

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_82802
Title of the Manuscript:	MODIFIED CLASSES OF REGRESSION-TYPE ESTIMATORS OF POPULATION MEAN IN THE PRESENCES OF AUXILIARY ATTRIBUTE
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The authors developed regression-based estimators of the finite population mean for situations when the auxiliary variable is an attribute and could potentially be negatively correlated with the study variable. The motivation of author's was to develop estimators that would work well for correlation over its complete range, i.e., -1 to 1, and is independent of the population parameters. The authors derived the expression of bias and mean square errors for their estimators and compared them with existing estimators. Empirically, the suggested estimators were compared with existing estimators using two data sets and simulation study.</p> <ul style="list-style-type: none"> i) The paper could be checked thoroughly for grammatical errors. Equation 2.2 is referred in the text but not labelled. Equations 2.5 and 2.6 have been referred twice for the same purpose. The suggested estimators were named as t_{π} and t_{qi}, but in the derivation of properties the author used t_1 and t_2? Is it a typo? ii) Properties of the proposed estimators have derived simultaneously, and it makes it difficult to follow the derivations. Would be good to consider each suggested estimator separately and derive its properties. iii) The authors suggested to develop estimators independent of the population parameters. However, the suggested estimators are using the population parameters given in Table 1 and 2. The comparison have also been done for these estimators. How are these estimators different than the existing estimators which utilize the population parameters? iv) The suggested estimators are conditionally better than the existing estimators (Section 3.2). How would one check when to use the suggested estimators as the given conditions are function of the population parameters which are generally unknown? v) The efficiency of the suggested estimators is not better than that of Zaman (2020) in the real data sets. How is it better than the existing estimator? vi) The data generation procedure given in Table 5 in not clear. Would be good if further details are added so that the readers can replicate the efficiencies. Lastly, the estimators were compared for extreme point bi-serial correlation (-+ 0.9775). Would be good to consider the intermediate values of the correlation coefficient (0.5 to 0.8) as this will clear the ranges of correlation where the suggested estimators perform better than the competing estimators. 	
Minor REVISION comments		
Optional/General comments		

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

As per the guideline of editorial office we have followed VANCOUVER reference style for our paper.

Kindly see the following link:

<http://sciencedomain.org/archives/20>

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