

Review Form 3

Journal Name:	Asian Journal of Probability and Statistics
Manuscript Number:	Ms_AJPAS_123680
Title of the Manuscript:	Modified Calibration Variance Estimators in the Presence of Non- Response and Measurement Error
Type of the Article	Theoretical development

General guidelines for the Peer Review process:

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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The scientific importance of this study lies in its contribution to the field of survey sampling, where accurate estimation of population parameters, such as variance, is critical for drawing reliable inferences from survey data. Several challenges, including the presence of outliers, non-response, and measurement errors, often complicate the estimation process, leading to biased or inefficient results.</p> <p>While existing approaches like those by Shahzad et al. focus on addressing outliers using L-moment and calibration methods, they overlook other significant issues such as non-response and measurement errors. These issues are common in real-world surveys and can distort the results if not properly accounted for. This study fills this gap by proposing modified variance estimators that address both non-response and measurement errors, which adds considerable value to the field of survey methodology.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>slight revision is required like mentioning the sampling design name where the estimator applicable.</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The results of the proposed estimators, such as their efficiency compared to existing estimators, need to be clearly specified. Additionally, it is important to disclose the specific assumptions and conditions under which the estimators are derived in the abstract. Without this information, the estimators may appear to be generalized, which could lead to misinterpretation regarding their scope and applicability.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>It is ok but notation of equations and sampling design name should defined properly and consistently</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>The theoretical development of these modified estimators, including their biases and Mean Squared Errors (MSEs), derived through the Taylor series approach, provides a robust evaluation of their efficiency. The conditions under which the modified estimators outperform existing ones are clearly established, highlighting their improved performance in specific scenarios.</p> <p>Additionally, the practical significance of the study is reinforced by simulation results, which demonstrate the superior efficiency of the proposed estimators. This makes the research particularly valuable for statisticians and researchers handling imperfect survey data, ultimately leading to more accurate and reliable conclusions across various applied fields such as social sciences, economics, agriculture, and public health.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>It is ok.</p>	

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Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	Equation 2.1 Notations are not defined I don't understand the sampling design somewhere you write two phase and somewhere stage. Is it same? The language and sentences of the paper need to improve.	
Optional/General comments		

PART 2:

	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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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