

## Review Form 1.6

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| Journal Name:            | <a href="#">Asian Journal of Probability and Statistics</a>                             |
| Manuscript Number:       | Ms_AJPAS_91098  |
| Title of the Manuscript: | Improved Estimators of Population Coefficient of Variation under Simple Random Sampling |
| Type of the Article      | Original Research Article   |

### **General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lac k of N o velt y**', 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:

(<https://www.journalajpas.com/index.php/AJPAS/editorial-policy> )

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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) |
|-------------------------------------|---|---|
| <b>Compulsory</b> REVISION comments | <p><b>Major Comments:</b></p> <ol style="list-style-type: none"> <li>1. In the simulation study, you have selected <math>n=20</math>. Why not other sample sizes? Is there any reason or reference for that?</li> <li>2. Section 6: Delete all bullets. Write as complete paragraph.</li> </ol> <p><b>Minor Comments/suggestions:</b></p> <ol style="list-style-type: none"> <li>1. Page 1, line -11, at the end of second paragraph (Introduction): Add the following sentence "More on the estimation of the population coefficient of variation for , we refer to Abu-Shaweish et a. (2019), Banik and Kibria (2011), Ahmed et al. (2014) and Gulhar et al. (2012) among others."</li> <li>2. Page 1: Change "To estimate any parameter under study we need more and more efficient estimation. In search of more and more efficient estimator" to "To estimate any parameter under study we want to have efficient estimatot. In search of efficient estimator"</li> <li>3. Page 2, line -6: Change "Where to where" (use W lower case, because it is continuation of the equation)</li> <li>4. Page 3, line -8: Change "Singh R et al. (2018)" to "Singh et al. (2018)"</li> <li>5. Page 3, line -1: Change "Where to where"</li> <li>6. Page 4: Three different places, change "Where to where"</li> <li>7. Page 5: Three different places, change "Where to where"</li> <li>8. Page 6: Three different places, change "Where to where"</li> <li>9. Page 8, after equation 3.12: Delete "we have,"</li> <li>10. Page 9, after equation (3.20): Change "Where" to "where"</li> <li>11. Page 10, line 3: Need a full stop (you also need some other places in the paper)</li> <li>12. Page 10: Need full stop for all MSE equations.</li> <li>13. Page 11, after Table 1: Change "Results obtained revealed that" to "Results in Tables 1 revealed that"</li> <li>14. Page 11: Re-write "We perform some simulation experiments to check the</li> </ol> |   |

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|  | <p>proposed estimator's relative efficiency (RE) with the other existing estimators." as "We perform some simulation experiments to find the relative efficiency (RE) of the proposed estimator compared with existing estimators".</p> <p>15. Page 12: Change "Table 2: MSE of competing and suggested" to "Table 2: MSE values of competing and suggested"</p> <p>16. Page 12: Change "Table 2 also shows that our proposed" to "Table 2 shows that our proposed"</p> <p><b>References:</b></p> <ol style="list-style-type: none"><li>1. Abu-Shaweish, M O A, Akyz, H. E. and Kibria, B. M. G. (2019). Performance of Some Confidence Intervals for Estimating the Population Coefficient of Variation Under both Symmetric and Skewed Distributions. <i>Statistics, Optimization and Information Computing</i>, 7, 277-290.</li><li>2. Banik, S. and Kibria, B. M. G. (2011). Estimating the Population Coefficient of Variation by Confidence Intervals. <i>Communications in Statistics- Computation and Simulation</i>, 40: 1236–1261.</li><li>3. Ahmed N. Albatinehy, Meredith L. Wilcoxy, Bashar Zogheibyy, B. M. Golam Kibria, (2014). Confidence interval estimation for the population coefficient of variation using ranked set sampling: a simulation study. <i>Journal of Applied Statistics</i>. 41(4), 733-751.</li><li>4. Gulhar, M., Kibria, B. M. G., Albatineh, A. N. and Ahmed, N. U. (2012). A comparison of some confidence intervals for estimating the population coefficient of variation: A simulation study. <i>Statistics and Operations Research Transactions (SORT)</i>. 36 (1), 45-68.</li></ol> |  |
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| <p><b>Minor REVISION comments</b><br/><b>Optional/General</b> comments</p> | <p><b>General Comments:</b> This paper reviewed and proposed some estimators for population Coefficient of Variation (CV) of the study variable using the known information on an auxiliary variable like population mean and population variance. Up to the first order of approximation, formulas for the bias and Mean squared Errors (MSE) of the proposed estimators are obtained. The efficiencies of proposed and competing estimators are evaluated by comparing their MSEs. A real and two simulated data sets are used to verify the efficiency conditions. This paper concluded that the proposed estimators were more efficient than the other existing estimators considered in the study. This paper is nicely written and well presented and it has some merits for publication in the <i>Asian Journal of Probability and Statistics</i>. However, the following comments/suggestions need to be addressed before accepting the paper.<br/>There might have many more typos. Need through revision. Authors should revise the paper based on the above comments and corrections and the revised paper will be accepted for publication in Asian Journal of Probability and Statistics.</p> |  |
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**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) |
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| <p><b>Are there ethical issues in this manuscript?</b></p> | <p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p> |   |

**Reviewer Details:**

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|---|---|
| <p>Name:</p>                                | <p><b>B M Golam Kibria</b></p>                      |
| <p>Department, University &amp; Country</p> | <p><b>Florida International University, USA</b></p> |