

## Review Form 1.7

Journal Name:	<b>Asian Research Journal of Mathematics</b>
Manuscript Number:	<b>Ms_ARJOM_102547</b>
Title of the Manuscript:	<b>Simulation Study of the Bayesian and Non-Bayesian Estimation of a new Lifetime Distribution Parameters with Increasing Hazard Rate</b>
Type of the Article	<b>Original Research Article</b>

### **General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalarjom.com/index.php/ARJOM/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)
<p><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</b></p>	<p>yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>no</p>	
<p><b>Minor</b> REVISION comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p>yes</p>	
<p><b>Optional/General</b> comments</p>	<p>Review Report: "Simulation Study of the Bayesian and Non-Bayesian Estimation of a New Lifetime Distribution Parameters with Increasing Hazard Rate"</p> <p>The article titled "Simulation Study of the Bayesian and Non-Bayesian Estimation of a New Lifetime Distribution Parameters with Increasing Hazard Rate" introduces the Shifted Chris-Jerry (SHCJ) distribution and investigates the effectiveness of classical and Bayesian estimation methods for this distribution. The authors compare the performance of various classical estimation techniques and Bayesian estimation using different loss functions, such as linear-exponential, squared error, and generalized entropy. Additionally, they derive mathematical properties of the SHCJ distribution and develop single acceptance sampling plans for truncated life tests.</p> <p>The paper is well-organized, presenting information in a clear and logical manner. However, there are a few areas that could benefit from improvement.</p> <ol style="list-style-type: none"> <li>Section 1: The section appears to be too short and lacks essential information. It would be helpful to provide a more thorough explanation of the motivation behind the development of the new distribution. Clarifying its significance and potential applications would enhance the justification for conducting this study. It is also worth considering the inclusion of a discussion on the limitations of existing discrete distributions, which could further emphasize the need for the SHCJ distribution.</li> <li>References: The reference section appears to be incomplete and outdated, containing only a few papers. It is crucial to include relevant and important references to strengthen the paper's credibility. For example, consider adding references such as:</li> </ol>	

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	<ul style="list-style-type: none"> <li>• Christophe Chesneau, Lishamol Tomy &amp; Jiju Gillariose (2021) "A new modified Lindley distribution with properties and applications," Journal of Statistics and Management Systems, 24:7, 1383-1403, DOI: 10.1080/09720510.2020.1824727</li> </ul> <p>3. Section 4: In the discussion of Single Acceptance Sampling Plans, it would be beneficial to include comparisons with similar studies. For example, consider referencing the following studies:</p> <p>Gillariose, J., &amp; Tomy, L. (2021). "Reliability Test Plan for an Extended Birnbaum-Saunders Distribution." Journal of Reliability and Statistical Studies, 14(01), 353–372. DOI: 10.13052/jrss0974-8024.14117</p> <p>4. Section 2: It would be helpful to provide additional comments on the figures presented in this section. Explaining why these figures are interesting or useful could enhance the readers' understanding and engagement with the content.</p> <p>5. Section 7 (Simulation): This section requires revision and clarification. Providing more detailed explanations of the simulation process and the specific parameters used would improve the reproducibility of the study. Additionally, consider elaborating on the results obtained from the simulations and their implications.</p> <p>6. Real-life applications: To enhance the practical relevance of the study, consider including examples or discussions on real-life applications of the SHCJ distribution. This could help readers understand the potential usefulness of the proposed distribution in various fields.</p>	
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**PART 2:**

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

**Reviewer Details:**

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