



SDI Review Form 1.6

Journal Name:	Asian Journal of Probability and Statistics
Manuscript Number:	Ms_AJPAS_43247
Title of the Manuscript:	The Transmuted Odd Lindley-G Family of Distributions: Theory and Applications
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 '**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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



SDI Review Form 1.6

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	The authors presented the transmuted odd Lindley-G distribution, an extension of the odd Lindley-G family of distributions. Some statistical properties of the distribution were discussed and applications to real data was given. 1: There are several citations from the text that are missing in the list of references leading to references that were not correctly cited in the text. 2: Page 2. The sentences that follows the _rst sentence seem to all start with \In section...."Rewrite these sentences and avoid repetitions. 3: There seem to be something that is not quite correct with the application of the generalized binomial expansion that was used to expand the pdf of the TOL-G distribution. 4: Probability density function and hazard rate function: There is no mention of the behavior of the hazard rate function, no comments on the plots of the probability density function and hazard rate function for possible shapes in Figures 1, 2 and 3. Also remove look alike plots or graphs from these _gures. 5: Statistical and Mathematical comprehension of given formulas. The authors failed to provide details to several established formulas in the paper. There are several series used in the presented properties of the model beginning from section 2 (expansion of density, moments, entropy, order statistics etc) that can indeed be divergent as well as convergent, but representing formal probabilistic notion. I think the readers should be adequately informed or has right to know whether the given series are convergent (at least in some relative sense). In particular the following questions were not answered in the paper. 2 - Equations 17, 18, 21, 22 and 23: For which values of x and other parameters are these equations correct or valid? For which values of x and the parameters are the series in these equations convergent? - Details of the derivations of equation (10) and several other equations in almost all the sections are missing from the paper. 6: MLE computation, section 6: Solving zeros of equations is not really sufficient to guarantee that the solution obtained is indeed the MLE. Its is advisable that authors derive the Hessian matrix of the mapping, and check for maxima. It is well known that complicated likelihood functions, which are often the case and typical in multi-parameter models can possess several local extremums and saddle points. Note that simple numerical vanishing of partial derivatives of log-likelihood function does not guarantee neither the existence, or the maxima. Additional work and clarification or some example(s) must be provided. 7: Likelihood ratio tests for the nested models and adequate comparison(s) with non-nested models are not provided in detail in section 8.	
Minor REVISION comments	There are several grammatical and typographical errors. I list a few of these errors. 1. Section 1, line 10: Remove the full stop between \Hamedani et al. [15]"and \among others". 2. Section 1, line 12: Equations (1) and (2) are written in terms of baseline cdf and pdf $H(x; _)$ and $h(x; _)$, but the proposed model is referred to as transmuted Odd Lindley-G distribution. 3. Remove the full stop at end of equation (2). 4. Page 2, line 10: There should be a colon instead of \:."	



SDI Review Form 1.6

	5. Page 6: Use capital X for random variable. For example $E(xr)$ should be $E(Xr)$. This mistake is repeated through out the paper. 6: Section 8: There are missing full stops at the end of the third and fourth datasets. 7. The quality of the graphs on pages 19 to 21 could be improved. 8. Page 21, after Table 12: The word $\backslash$prove should be replaced with the word $\backslash$show". 3 These serious and important issues (errors and missing details) in this paper should be corrected or addressed by the authors before the paper can even be considered for review let alone publication.	
Optional/General comments		

Reviewer Details:

Name:	Broderick Oluyede
Department, University & Country	Georgia Southern University, Statesboro, USA