

Review Form 1.7

Journal Name:	Asian Journal of Probability and Statistics
Manuscript Number:	Ms_AJPAS_108191
Title of the Manuscript:	A NEW LIFE-TIME MODEL WITH BATHTUB AND INVERTED BATHTUB FAILURE RATE FUNCTION.
Type of the Article	Original Research Article

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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>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>I would like to make some comments for possible improvements of the paper.</p> <p>1. Theorem 3.1, author try to prove T2 after integration is1. Hence Z-Kum Is a probability density function. I think the proof could be condense to two or three lines. No need to give all detail. Since we are application article not theoretical paper. Author can even use one sentence such as "to show $T_2=1$ one can review author previous paper".</p> <p>2. Equation (30), author define r-th central moment of origin and use infinite sums to compute Beta Integral Function from [0,1]. Even though this is mathematically correct however to my experience this turn out to be extremely difficult to get correct values. The infinite upper bound has no way to determine. To use the fundamental property of pdf of beta distribution and integration equal 1 then we may change this integral into three gamma functions. I know there are a lot of well code Fortran programs to compute this function.</p>	<p>Reduced from Eight equations to Four equations</p> <p>The expression for the moment we presented is the correct way to be presented, however, we made some modifications.</p> <p>Ok, Noted</p>

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	<p>Same can apply to equation (31), (34),(35), and (38) for the moment generating functions.</p> <p>3. Figure one show that for selected parametric values the plotted results Very similar normal or lognormal distributions. If I pull the two parameters away, say given parameter b a much bigger values then a is it possible cause the distribution becomes bimodal or Inverse Gaussian Distribution: sum of two normal distributions. Of course, this Is only my own conjecture and need author further study.</p> <p>4. As I expected, to solve equations (52), (54), and (56) simultaneously are always a nightmare for researcher in this area study. I am so glad the author has successfully cover this difficult. Finally, I think this is a very nice paper. I suggest to publish the paper in the Journal.</p>	Ok. (Made some modifications)
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>		

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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>	