

Review Form 1.6

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| Journal Name: | Asian Journal of Probability and Statistics |
| Manuscript Number: | Ms_AJPAS_94193 |
| Title of the Manuscript: | The Proportional Hazard Generalized Power Weibull Distribution: Properties, Applications and Regression Model |
| Type of the Article | Short 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:

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

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) |
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| Compulsory REVISION comments | <p>In this work, authors introduce the proportional hazard generalized power Weibull (PHGPW) model in which hazard rate function can assume increasing, decreasing, unimodal or (upside bathtub) and constant. Some of its mathematical properties are studied including the power series for the quantile function. Monte Carlo simulation was performed to determine the finite sample behaviour of the maximum likelihood estimates of the parameters. The flexibility of the PHGPW distribution compared with some other existing distributions is proved empirically by means of two sets of real data related to remission times of bladder cancer patients and strike duration of manufacturing company. A new regression model was defined based on the PHGPW distribution. The performance of the regression model is proved empirically using real data set.</p> <ol style="list-style-type: none"> 1. I think this work needs more work specially in the application part the authors must used the following two and three parameters' distributions such as Marshall Olkin (MO) Length Biased Exponential distribution, MO-Inverted Kumaraswamy distribution, MO-Power Lomax distribution, MO-Inverted Nadarajah-Haghighi distribution as competitive models. 2. The authors must use one recent data set (corona waves). 3. Thus, a real motivation section must add. 4. The author must provide the software used for regression application. An R-code must be given in the appendix for the readers. 5. The conclusion part to be revised and it must reflect on reality with findings and which one method is best and subsequent ones. | |
| Minor REVISION comments | | |
| 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) |
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| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |

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Reviewer Details:

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