

### Review Form 3

Journal Name:	<a href="#">Asian Journal of Probability and Statistics</a>
Manuscript Number:	Ms_AJPAS_129255
Title of the Manuscript:	Comparing ARFIMA and ARIMA Models in Forecasting Under Five Mortality Rate in Tanzania
Type of the Article	

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

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**Review Form 3**

**PART 1: Comments**

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript describes the modelling of the UFMR time series according to the ARIMA and ARFIMA models. Then, the predictions of both models are compared.	Noted
Is the title of the article suitable? (If not please suggest an alternative title)	Yes.	Thanks
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	Yes. I suggest replacing "SMART" with "smart". Eliminate predictions from the ARIMA model since it is understood that it predicts better than the ARFIMA model.	Corrected
Is the manuscript scientifically, correct? Please write here.	The article lacks rigor when comparing predictions. I suggest using the Walk Forward Validation technique to make more robust comparisons. For example, you could use 5 rolling years to compare the predictive power of the models.	Revision amended
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	No. Some mandatory references missing from this document:  1) R Core Team (2022). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <a href="https://www.R-project.org/">https://www.R-project.org/</a> 2) Granger, C. W. J.; Joyeux, Roselyne (1980). "An Introduction to Long-Memory Time Series Models and Fractional Differencing". Journal of Time Series Analysis. 1 (1): 15–29. 3) Box, G, Jenkins, G, Reinsel, G., & Ljung, G. (2015). "Time series analysis: forecasting and control". John Wiley & Sons.  and the citations for the two R packages they used.	Effectuated revision
Is the language/English quality of the article suitable for scholarly communications?	Yes	Thanks
Optional/General comments	The paper is interesting, well-written and easy to read. The structure does not seem adequate to me, it is repetitive. The results of the ARIMA model could be included in an appendix.	ok

**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>	

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