



SDI Review Form 1.6

Journal Name:	Asian Journal of Probability and Statistics
Manuscript Number:	Ms_AJPAS_46007
Title of the Manuscript:	Assessment of Under five Child Mortality in Tanzania mainland based on Principal Component Analysis
Type of the 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>)



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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)
Compulsory REVISION comments	The topic of the paper is of great concern and the empirical analysis presented through the paper is well justified. The most notable contribution of the paper consists in applying a Principal Component Analysis (PCA) upon a large set of disease variables over 25 regions in Tanzania in order to reduce the dimensionality of the initial data sample to a reduced set of Principal Components (PC) that are not correlated to each other and keep a maximum of the initial information in order to explain the variability in child mortality. In terms of paper structure, the sections are well defined and of appropriate length, with the exception of the Concluding section which is rather brief. However, both the introduction, the methodology and the Discussion sections need improvement. While this paper is interesting and useful, this manuscript itself requires a major revision. 1. The introduction section should be extended with a short discussion on the more recent Development Goals of the Agenda 2030 regarding Under 5 child mortality. This is a more updated document than the Millennium Development Goals mentioned by the authors in this section. Moreover, the revised introduction section should better state the contribution of the paper in this specific field. 2. A short <i>Literature review</i> section should also be included in order for the authors to better state the contribution of their paper in the context of the international literature. 3. The current section 2 entitled <i>Methods</i> should be renamed to Methods and data, since the information provided in this section covers both aspects. Moreover, the brief information provided in subsection 2.1 <i>Data source and software used</i> regarding the dataset used, can be better viewed in a table, where a basic data description (at least mean values of the variables) should also be added. Subsection 2.2 needs, however, a total recheck for English spelling errors and comprehensiveness. Additionally, the statement that justifies the selection of the first main 7 PCs is not rigorous enough, since the main hypothesis formulated by the authors themselves (in subsection 2.2) is based on the Kaiser's criteria where the first 12 PCs are compulsory. 4. Section 3 entitled <i>Results and Discussions</i> needs to be revised, as it mostly brings only information about the results of the PCA, but no consistent discussions of the paper's findings. Although biplot results are presented, the authors do not elaborate on the main findings and the significance of each of the selected PCs at a sufficiently detailed level. 5. The concluding section has potential to bring added value to the paper. However, it is rather brief and lacks a clear statement of the general findings of the study. 6. The English language is poor and must be rechecked in order to improve the quality of the paper.	1. The discussion on the Development Goals of the Agenda 2030 have been added in the introduction and the contribution of the paper is also stated. 2. The literature review subsection have been added (1.2) as recommended. 3. Section 2 is reviewed and renamed as suggested. Subsection for Descriptive Analysis (2.1) added. Subsection 2.2 rechecked. Based on Kaiser's criteria first 12 PCs are compulsory but the study used the scree plot to select the final number of PCs to be retained (refer subsection 2.2 and 3.3), therefore the 7 PCs were retained based on the scree plot (Figure 2). 4. The biplot results have indicated how diseases are associated with each other. 5. The general findings of study has been indicated in the conclusion section. Significant diseases are indicated and the recommendation is provided. 6. English is rechecked and improved.



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Minor REVISION comments		
Optional/General comments		

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>	