

**Review Form 3**

Journal Name:	<a href="#">Asian Journal of Probability and Statistics</a>
Manuscript Number:	Ms_AJPAS_130810
Title of the Manuscript:	Application of Sensitivity & Principal Component Analyses for Modelling of Safety Parameters for Oil & Gas Companies in Niger Delta
Type of the Article	Original Research Article

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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.	The study looks at how sensitivity analysis and principal component regression (PCR) can be used to assess safety practices in oil and gas companies in the Niger Delta. It focuses on safety factors like employee involvement and training and how they affect productivity. This is important because good safety practices can improve productivity and reduce accidents in high-risk industries. The findings can help improve safety and performance in the oil and gas sector.	We appreciate!
Is the title of the article suitable? (If not please suggest an alternative title)	The title is suitable but could be shorter for clarity. A suggestion is: "Using Sensitivity and PCR Analyses to Study Safety in Niger Delta Oil & Gas Companies."	Given that the suggested title contains an abbreviation "PCR" which requires full meaning, we therefore prefer the exiting title and also the first reviewer declares okay on it.
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.	The abstract summarizes the study well but could include more details about the methods (e.g., SPSS and XLSTAT usage) and key results. Avoid phrases like "exceed the maximum limit of 100%," as this needs clarification.	Abstract has been updated with brief explanation on the use of SPSS as well as XLSTAT software. In the body of the manuscript see section 2.4, the goodness of fit $R^2$ is related to $1 - \frac{SS_D}{SS_T}$ – a quotient defined by sum of squares due to deviation or residual & outliers ( $SS_D$ ), over total sum of squares ( $SS_T$ ). If $SS_D = 0$ , then $R^2 = 100\%$ . However, if $SS_D = SS_T$ , then $R^2 = 0$ . Thus the $R^2$ varies from 0 – 1 or 100% which is the maximum limit.
Is the manuscript scientifically, correct? Please write here.	The methodology is strong, but the $R^2$ values exceeding 100% need better explanation. Also, the study lacks discussion on how local factors in the Niger Delta might affect safety and productivity.	See comment above on Abstract or section 2.4 in the revised manuscript for additional explanation on the range of values.
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are recent and relevant, but some could be replaced with more peer-reviewed journal articles to strengthen the study's credibility.	Few references have been added.
Is the language/English quality of the article suitable for scholarly communications?	The language is mostly clear but needs editing to fix grammatical errors and simplify complex sentences. Proofreading is recommended.	The manuscript has further been edited and grammatical corrections effected.
Optional/General comments	The paper is well-structured but could include more practical recommendations for improving safety in oil and gas companies. It has strong methods but needs better explanation of results and improved language. The manuscript requires major revisions to improve its overall quality. Statistical issues, such as the $R^2$ values exceeding 100%, need to be clearly explained or corrected to ensure accuracy and credibility. The results should be presented more clearly, with detailed explanations to make them easier to understand for readers. Additionally, the language needs to be refined to fix grammatical errors and simplify complex sentences for better readability.	The manuscript has been edited for grammatical and typographical errors. The aim of the study has been stated in the Abstract and the body of the manuscript and so is the scope of work. The emphasis in the work is limited to the conventional sensitivity analysis as a means of factor reduction as per independent variables as against the principal component analysis that is also a factor reduction technique. The bench mark for the comparison of both methods is anchored on the goodness of fit for which PCA gives improved values.

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>	