

Review Form 1.6

Journal Name:	Asian Journal of Probability and Statistics
Manuscript Number:	Ms_AJPAS_92834
Title of the Manuscript:	A SIMULATION STUDY USING A MIXED MODEL FRAMEWORK TO ANALYZE THE IMPACT OF SAMPLE SIZE AND VARIABILITY ON TYPE I ERROR
Type of the Article	Original Research

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)
Compulsory REVISION comments	NA	
Minor REVISION comments	<p>Abstract section: One of the Keywords is "Inequality of Variances" this criterion is not used in the manuscript, so, it should be deleted or calculated.</p> <p>Introduction sections: Paragraph 4: you write "There are two components in equation 1.1: fixed effects $X\beta$ and random effects $Zu+e$. $X\beta$ is the mean of Y"</p> <p>Comment: $Zu+e$. $X\beta$ should be $Zw+e$. $X\beta$</p> <p>Table 5: "Type I error Rates of different sets of sample sizes under ZU MVN & e exp scenario; unequal" The Distribution Scenarios zu do you mean "ZW". Please check it. This change should be inside the table: Distribution Scenario: ZU should be Distribution Scenario: ZW.</p> <p>No dissection section: In this manuscript, there is no discussion section, Comment: you should write a discussion section and puts your findings in context and discussed it in relation with related research. Also make a comparison between your results and your initial hypothesis</p> <p>Reference section: Comment: Why your references are old, 20 years ago, only two of them are recent. it is better to be sure that you cover the most current research in your field which makes a lot of sense that your work is up-to-date. otherwise <u>justify why you use an old reference.</u></p>	
Optional/General comments	<p>This study estimates the Type I error rates to check the validity of a MIXED model's statistical inference when violating the normality assumption. SAS program was used to perform simulations and analyses. Each simulation was examined using 5000 samples with a 0.05 significance level of α. The main results in this study show us that the MIXED model is reasonably robust to modest violations of the normal distribution.</p> <p>My comment is:</p> <ol style="list-style-type: none"> 1. The Title is informative and concise. The data are well presented and accurately situated in the tables. 2. Manuscript was written in a clear and specific English 3. The authors need to make minor changes mentioned in this report. <p>I recommend for publication of this manuscript in Asian Journal of Probability and Statistics</p>	

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)
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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