

Review Form 3

Journal Name:	Asian Journal of Probability and Statistics
Manuscript Number:	Ms_AJPAS_127333
Title of the Manuscript:	Comparative Analysis of stochastic process in forecasting key macroeconomic variables in Nigeria
Type of the 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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PART 1: Review Comments

Compulsory REVISION 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>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This article is of significant importance for policymakers, economists, investors, and other stakeholders concerned with the Nigerian economy. It highlights the major economic challenges faced by the country, particularly the volatility of key macroeconomic variables such as inflation, exchange rates, GDP growth, interest rates, and unemployment. This instability not only undermines overall economic stability but also poses a significant barrier to investment and sustainable growth in the country.</p> <p>The study stands out for its comparative analysis of three statistical models: ARIMA, GARCH, and VAR for forecasting these essential variables. By demonstrating that the VAR model outperforms the others in terms of forecast accuracy and low error rates, the article provides crucial insights for improving economic forecasting strategies in Nigeria. Indeed, this increased accuracy is essential for formulating economic policies and making informed decisions that address national challenges and better control macroeconomic instability.</p> <p>The findings indicate that while ARIMA and GARCH models are effective in capturing certain forms of volatility, the VAR model is the only one capable of providing accurate forecasts for all studied variables, making it the tool of choice for policymakers seeking reliable forecasts. Consequently, the article offers pathways to improve macroeconomic risk management and support sustainable development in Nigeria by providing a more effective and coherent forecasting framework for the national economy.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Comparative Analysis of Stochastic Approaches in Forecasting Nigeria's Main Macroeconomic Indicators</p>	
<p>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.</p>	<p>It is necessary to change (V AR) in the text to (VAR). It is a typographical error.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>I suggest that the authors organize the different parts by numbering them as follows:</p> <ol style="list-style-type: none"> 1. Introduction 2. Literature review 3. Methodology <ol style="list-style-type: none"> 3.1. Model specification 	

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	<p>The authors should add a few sentences here to explain the objectives of the section before directly introducing the existing models in the literature.</p> <p>3.1.1. ARIMA MODEL 3.1.2. GARCH (Generalized Autoregressive conditional Heteroskedasticity Model) 3.1.3. Vector Autoregressive (VAR) Model 3.1.4. Specification 3.1.5. Endogenous Variables 3.1.6. Model Evaluation criteria 3.1.7. Thiel's Inequality Coefficient</p> <p>4. Main results and discussions 5. Conclusion</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>While the paper undoubtedly presents intriguing discoveries, there remain certain queries and comments that necessitate further elucidation and clarification. Addressing these specific points is imperative to bolster the overall comprehension and robustness of the research findings.</p> <ol style="list-style-type: none"> 1. I suggest that the authors create descriptive analysis charts to present the data trends before introducing the models. 2. Authors are asked to compare observed and predicted values on a figure. 3. Authors might consider calculating the residuals and plotting them, as this will give their model greater importance in terms of efficiency. 	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>I greatly appreciate the authors' effort in working with recent articles; however, there are just a few typographical errors, such as the year in references 4 and 37, which should be placed in parentheses to standardize the references.</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The authors should make an effort to add periods or semicolons at the end of certain sentences and equations where necessary. I encourage them to carefully proofread the document to address this issue, as I have noticed it in several parts of the document.</p> <p>Regarding the language, it is well-written, so I do not have many comments.</p>	
<p><u>Optional/General</u> comments</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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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