

Review Form 3

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_123246
Title of the Manuscript:	SENTIMENT ANALYSIS OF NIGERIAN OPINIONS USING LOGISTIC REGRESSION AND RANDOM FOREST ALGORITHMS
Type of the Article	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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PART 1: Review Comments

<p>Compulsory REVISION comments</p>	<p>The paper you've provided has several strengths, but also some weaknesses that could be addressed to improve the overall quality and impact of the research. Here are some potential areas of concern:</p> <ol style="list-style-type: none">1. Imbalanced Datasets The paper acknowledges the challenge of imbalanced datasets, particularly in the "PeterObi Politics" dataset. However, it does not sufficiently address the methods used to mitigate the impact of this imbalance, which can significantly affect model performance, especially in terms of recall for minority classes. Techniques like resampling, using different evaluation metrics, or implementing specialized algorithms could have been explored.2. Limited Dataset Diversity The study uses only two datasets, both from Nigerian contexts (movie reviews and political sentiment). This limits the generalizability of the findings. Expanding the dataset to include more diverse sources, or at least discussing the limitations of using such narrowly focused datasets, would strengthen the paper.3. Overemphasis on Model Performance Metrics While the paper provides a thorough analysis of performance metrics such as precision, recall, and F1-score, it could benefit from a deeper discussion on why certain models performed better or worse. The analysis could be expanded to include a more detailed examination of feature importance, model interpretability, and the impact of specific features on model performance.4. Lack of Comparative Analysis with Other Algorithms The paper focuses only on Logistic Regression and Random Forest. While these are popular algorithms, a comparison with other machine learning models like Support Vector Machines, Naive Bayes, or deep learning methods would provide a more comprehensive evaluation of the best approach for sentiment analysis in the given context.5. Insufficient Discussion on Cultural and Linguistic Nuances The paper mentions the importance of tailoring sentiment analysis methodologies to Nigerian linguistic and cultural contexts but does not delve deeply into how these factors influence sentiment classification. A more detailed discussion on how cultural nuances and local language variations were handled or could be handled in future work would add depth to the research.6. Methodological Clarity The methodology section is somewhat concise, particularly in describing the preprocessing steps and the reasons behind choosing specific methods (e.g., why certain features were selected or excluded). Providing more clarity on these choices would make the research more reproducible and understandable.7. Visual Representation and Analysis While the paper includes several visualizations (ROC curves, precision-recall curves), there is room for improvement in the interpretation of these visuals. For instance, discussing how these curves relate to the specific challenges of the datasets or the overall sentiment analysis task would provide better context.8. Conclusion and Future Work The conclusion mentions the potential utility of Logistic Regression and Random Forest but could be more robust by offering specific recommendations for future research. This could include exploring advanced techniques to handle data imbalance, incorporating more sophisticated feature engineering methods, or applying the models to a broader range of datasets. By addressing these weaknesses, the paper could provide a more comprehensive, impactful, and scientifically rigorous contribution to the field of sentiment analysis.	<p>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>
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<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>The paper is important to the scientific community because it:</p> <ol style="list-style-type: none"> 1. Expands sentiment analysis research to Nigerian socio-political and cultural contexts, addressing underrepresented regions. 2. Provides insights into the performance of Logistic Regression and Random Forest models, guiding algorithm selection for similar tasks. 3. Demonstrates the application of machine learning in analyzing public sentiment, relevant for political science and media studies. 4. Offers practical methodologies using accessible tools like Google Colab, helping researchers in resource-limited settings. 5. Lays a foundation for future research in handling imbalanced datasets and developing culturally aware sentiment models. 	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>yes</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>no</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>yes</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>As mentioned above</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>yes</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The paper needs a comprehensive English editing and proofreading.</p>	
<p><u>Optional/General</u> comments</p>	<p>The paper can be accepted for publication in this journal after satisfying the above comments.</p>	

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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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