



SDI Review Form 1.6

Journal Name:	<a href="#">Journal of Scientific Research and Reports</a>
Manuscript Number:	Ms_JSRR_57954
Title of the Manuscript:	TRANSMISSION DYNAMICS OF CORONAVIRUS PANDEMIC: MODELING AND STABILITY 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/journal/10/editorial-policy> )



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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)
<b>Compulsory</b> REVISION comments	<p>The author had better add schematic graph of the stability analysis. And it is suggested that the author had better give an example: under a given set of parameters (such as table 2) the stable, unstable, meta-stable areas needs to be pointed out. This would give the readers an idea of why the author give stability analysis. Though the stability analysis is important in the modelling: it would qualitatively confine the trajectories' area—this results in the policies of the country (in this paper Nigeria).</p> <p>Stable: being convergent to an area (author should point out in the graph, which I advised above) what kind of policy is suggested?</p> <p>Unstable: how to drive the system to stable area? What kind of policy is suggested? What kind of behaviour would drive a system from stable to unstable? This time, how the policies should be?</p>	
<b>Minor</b> REVISION comments	<p>1.If the paper is like the format that mathematicians often write, I suggest the author give proof under each lemma. For instance: Lemma 1 blabla.. Proof: blabla.. end of the proof, or use a symbol such as □ to indicate the end of the proof.</p> <p>2. in page 3 formula 2, <math>\Omega := \left\{ (S, E, I, R) \in \mathbb{R}_+^4; S, E, I, R, V; N_h \leq \frac{\Lambda}{\mu}; N_v \leq \frac{\omega\Lambda}{\mu(\alpha - \varphi)} \right\}</math></p> <p>please make the interval clear, I can only see a rectangular. I suppose the author might want to indicate R, positive real number. The space is 4 dimensional.</p> <p>3. the introduction seems to be too long.</p>	
<b>Optional/General</b> comments	<p>This study had proposed a new mathematical model to describe the covid-19 spreading in Nigeria. The authors mainly give the stability analysis of the mathematical model, which would be helpful for the government to give effective policies. The method used in this study is effective for the area of public health, and it could rapidly predict the epidemiological situation by mathematical modelling. However if the author could not describe the way of studying effectively to the experts in public health, the study results might not be accepted by those experts.</p> <p>Detailed stability analysis needs corresponding description of public health, or it is the communication with mathematicians rather than the experts in public health. To show the why the policies should be the author suggested "it may be better to adhere to government policy to curtail the spread through person-to-person transmission and make effort to improve personal hygiene as well as early detection and reporting", I suggest the author give some pictures of the stability analysis, which I have mentioned in the table "Compulsory REVISION comments".</p>	



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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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