

# Review of: "Qualitative Analysis of a Time-Delay Transmission Model for COVID-19 Based on Susceptible Populations With Basic Medical History"

Abdul-rahman Mumbu<sup>1</sup>

<sup>1</sup> Muslim University of Morogoro

Potential competing interests: No potential competing interests to declare.

My review comments for the manuscript titled "**Qualitative Analysis of a Time-Delay Transmission Model for COVID-19 Based on Susceptible Populations With Basic Medical History**" are as follows:

1. Introduction part; it covers necessary grounds of the intended problem.
2. Model formulation part; it is well constructed with positive and boundedness properties.
3. Equilibria points; well obtained.
4. Stability analysis; both disease free and endemic stability were analyzed accordingly, however, I think theorem 4 & 5 for local and global asymptotic stability with respect to basic reproduction used interchangeably. It may be rechecked if any.
5. Simulation part; more graphical representations can be done so as to put physical interpretations of the study more clear and attractive.
6. Figures 2 & 3, labels should be written in relevant language of the paper for its clear interpretations and justifications.
7. In my view, the paper is sound enough for the publication after necessary changes been done.

Best regards,

Mumbu, A.J.

Reviewer.