



SDI Review Form 1.6

Journal Name:	<u>British Journal of Mathematics & Computer Science</u>
Manuscript Number:	Ms_BJMCS_28870
Title of the Manuscript:	Assessing Infant Mortality in Nigeria using Artificial Neural Network and Logistic Regression Models
Type of the Article	Original Research 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/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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)
<u>Compulsory</u> REVISION comments	The article uses Nigerian infant mortality data to assess the utilisation of logistic regressions and artificial neural networks. The article is well written, but there are some points, which have to be clarified before the article can be accepted for publication. 1. Include the definitions, classifications and groupings for all explanatory variables, and justify their use, if needed. Especially "wealth index" and "size of birth" remains unclear for the readers. The same is the cases for improved source of water and toilet facility. 2. The result that not receiving tetanus toxoid injection increases infant mortality does not reach statistical significance. This observation should be removed at least from the conclusion. 3. Give the results systematically in same order: first logistic regression and then artificial neural network. Now in Abstract and Results, the order changes which may confuse the readers. Ethical issues : The data are based on survey, and apparently anonymous data were used in all analyses. This could be presented. If ethical review committee statement was received, it should be mentioned. If such as statement is not required, the reason should be explained.	Reference regarding coding of the study variables have been added. The main objective of this work is to look at the performance of ANN so for ANN to detect that not receiving tetanus toxoid injection increases infant mortality then I think it should be included.
<u>Minor</u> REVISION comments	1. Use the abbreviations AIC and AUC systematically. 2. Use either training/testing or learning/evaluation systematically.	Done



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	3. Clarify that the data only included live births, i.e. stillbirths are excluded. 4. The variable “no electricity” could be renamed as “electricity”. 5. Open and explain the ROC curve.	
<u>Optional/General</u> comments	1. Consider using two decimals in tables, at least for ORs and Cis. 2. Capitalise the variable names in Figure 1.	Corrected