Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	**Ms_JAMCS_61529**
Title of the Manuscript:	**Modelling and Prediction of Outpatients Department on Hospital attendance at the Cape Coast Teaching Hospital using the Box-Jerkins ARIMA model**
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:

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SDI Review Form 1.6

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)*
Compulsory REVISION comments	**INTRODUCTION** 1) The first and second paragraph not connected. Only the first paragraph explains OPD, but don't have connection with second paragraph. Please provide extra info of OPD such as the following: i) Mention this study would like to predict OPD. ii) Why it's important to do prediction in OPD? iii) Before moving to explanation on time series and ARIMA, why do you need time series for modelling and prediction OPD. There are multiple choices of modelling method out there, but why time series? Need to explain this and further. 2) Literature should start with review general time series before move to specific ARIMA. Then only proceed with the word "ARIMA modelling techniques have been applied in many fields of research". i) The statement "ARIMA modelling techniques have been applied in many fields of research" will also need to improvise. ARIMA have been the commonly used in time series research only, hence this statement is not suitable. 3) Provide also the contribution of the study at the end of introduction. **METHODOLOGY** 1) It is not suitable to mention "The Cape Coast Teaching Hospital was selected as a representative case study for the needed inference to be drawn about the population". Population of what? Is it Ghana? If Ghana is not correct statement. In order to be the sample to represent the population, cannot consider only one hospital. **RESULT** 1) How do you confirm the data exhibit volatility from 2016 to 2018? It is usually hard to see the volatitity if have sharp increase only. What you can do to confirm this: i) Perform differencing in 2016 to 2018 and the the fluctuality can be confirm. AND ii) Check the kurtosis value to this time duration and check the kurtosis value for volatile data. Then only can justify the volatility. I am really concern this because volatile data is not really suitable to use ARIMA, you need to have other suitable model if the volatile is high (check the kurtosis) such as family of ARCH model. 2) KPSS is what? 3) Is not "level level stationary"? Check this statement. 4) After differencing how many times? (in the table) 5) From figure 7, it should be strong at p=1,4 and 5, not 2 as you mention this. Totally not correct. Hence, you also require to revise TABLE 3 to Table 5. What you can do: i) Perform combination of PACF of 1, 4 and 5 and ACF of 1 and then give output of all the results. ii) Then only can report the best model after consider several combinations. iii) Other results also need to be revise for abstract. This very serious improvise. **CONCLUSION** 1) Provide statement on how many % increase based on the prediction data.	According to the reviewer comments the manuscript has been thoroughly modified and corrected
Minor REVISION comments	1) Please state in abstract hospital attendance of what? It is for patient? Or doctors? 2) In abstract, what is AR and MA? 3) Keyword Ljung-box is seeming not suitable to be part of the keyword, it just part of the analysis.	

Optional/General comments		

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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	