

### Review Form 3

Journal Name:	<a href="#">Asian Journal of Probability and Statistics</a>
Manuscript Number:	Ms_AJPAS_124149
Title of the Manuscript:	Detection of the Presence of Seasonal Effect for some Selected Trending Curves and Choice of Model in Time Series Data
Type of the Article	

#### General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

<https://r1.reviewerhub.org/general-editorial-policy/>

#### Important Policies Regarding Peer Review

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#### PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>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.</b>	<p>This manuscript is significant for the scientific community as it provides a comprehensive approach to detecting seasonal effects within time series data, which is crucial for accurate data analysis and forecasting.</p> <p>By emphasizing model selection—whether additive, multiplicative, or mixed—the study addresses a common challenge faced by researchers when analyzing time series data across various fields. The application of methods like the Buys-Ballot table and the proposed tests for model appropriateness enhance the reliability of seasonal decomposition, ultimately contributing to more precise predictions and insights in empirical research.</p> <p>I like the manuscript effectively combines theoretical insights with practical application, contributing significantly to the field of time series analysis.</p>	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title of the article, "Analyzing Seasonal Effects in Time Series Data: Model Selection and Trending Curve Evaluation," is suitable as it effectively captures the main themes of the document.	
<b>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.</b>	<p>Yes, the abstract of the article is comprehensive. It clearly outlines the main focus of the study, which is the detection of seasonal effects in time series data and the selection of appropriate models for analysis.</p> <p>Based on the document's content, here are some suggestions for potential additions</p> <ul style="list-style-type: none"> <li>• Including specific real-world examples or case studies where the appropriate model selection significantly impacted forecast accuracy could enhance the practical relevance of the research.</li> <li>• A brief discussion of potential future research directions or emerging methodologies in time series analysis would position the paper within the ongoing academic dialogue.</li> </ul>	
<b>Are subsections and structure of the manuscript appropriate?</b>	Yes, the subsections and structure of the manuscript appear to be appropriate.	
<b>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.</b>	<ul style="list-style-type: none"> <li>• The manuscript demonstrates scientific robustness through its comprehensive approach to analyzing seasonal effects in time series data.</li> <li>• It employs established statistical methods, such as the Buys-Ballot table and chi-square tests, to diagnose and select appropriate models for data decomposition, thereby ensuring a structured and methodical analysis.</li> <li>• Additionally, the focus on empirical examples enhances the practical relevance of the theoretical insights, supporting the validity of its conclusions.</li> </ul>	

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	<ul style="list-style-type: none"><li>By addressing the potential pitfalls of incorrect model selection and providing clear tests for model appropriateness, the manuscript presents a thorough examination of seasonal time series analysis, reflecting a strong technical foundation in its methodology.</li></ul>	
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>	<b>Yes the references sufficient and recent</b>	
<u>Minor</u> REVISION comments <b>Is the language/English quality of the article suitable for scholarly communications?</b>	The document maintains a formal tone appropriate for scholarly communication. The text contains several grammatical errors, incomplete sentences, and formatting issues that can disrupt readability and clarity, such as misplaced symbols and inconsistent table formatting.	
<u>Optional/General</u> comments		

### **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>	

### Reviewer Details:

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