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REVIEWER'S REPORT

Manuscript No.: IJAR- 58161

Title: Forecasting Tourist Arrivals in Mati City Using Seasonal Autoregressive Integrated Moving Average (SARIMA).

Recommendation:

Accept after minor revision.

Rating	Excel.	Good	Fair	Poor
Originality	✓			
Techn. Quality	✓			
Clarity	✓			
Significance	✓			

Reviewer Name: Dr. Bishwajit Rout

Reviewer's Comment for Publication.

(*To be published with the manuscript in the journal*)

The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.

1. **Significance**: This study contributes to regional tourism forecasting by applying SARIMA to a developing tourism destination and emphasizing data-informed planning. The work demonstrates how seasonal demand analysis can support operational decisions, resource allocation, and infrastructure planning. It also encourages local tourism authorities to adopt quantitative forecasting approaches for sustainable destination management.

2. **Strength**: The manuscript's primary strength lies in combining tourism planning relevance with structured time-series modelling. The use of seasonal decomposition, diagnostic checking, and stakeholder-oriented recommendations improves practical applicability. The integration of forecasting outputs into managerial planning demonstrates an effort to translate quantitative findings into actionable tourism governance strategies.

3. **Key Insight**: The central insight is that tourism demand in Mati City exhibits stable seasonal recurrence rather than continuous expansion. Forecasting suggests predictable peaks and troughs that can support planning decisions. However, long-term growth should not be inferred solely from historical patterns because external shocks, infrastructure changes, and policy interventions may substantially alter future outcomes.

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Reviewer's Comment / Report

The paper titled *"Forecasting Tourist Arrivals in Mati City Using Seasonal Autoregressive Integrated Moving Average (SARIMA)."* applies the SARIMA (1,1,3)(0,0,2)[12] model, following Box-Jenkins methodology, to forecast monthly tourist arrivals in Mati City, Philippines (2013–2023 data). It identifies strong seasonality with peaks in April, May, and December, and troughs in August–September. The model shows good fit (low AIC/BIC, white-noise residuals) and projects stabilization around 35,000 visitors per month, indicating a maturing tourism sector. Valuable for local planning and sustainable development, though reliant on historical patterns and sensitive to external shocks like pandemics.

Suggestions for Improvement:

1. Explain how tourism lifecycle assumptions inform forecasting interpretation and policy recommendations.
2. Develop clearer research gap beyond local geographic underrepresentation arguments.
3. Resolve inconsistencies between historical observations and forecasted time horizons reported.
4. Describe data cleaning procedures and missing-value treatment explicitly.
5. Explain auto-ARIMA selection process and candidate model comparison outcomes.
6. Include quantitative forecasting performance indicators and validation statistics.
7. Avoid interpreting statistical equilibrium as tourism market saturation directly.
8. Explain uncertainty growth and confidence interval expansion more rigorously.
9. Explain reasons forecast values converge repeatedly across future periods.
10. Include out-of-sample forecast accuracy comparison with baseline models.
11. Explain assumptions underlying managerial recommendations and implementation feasibility.
12. Emphasize that forecasts depend on historical pattern persistence assumptions.
13. Recommend comparative forecasting frameworks for future methodological advancement.
14. Revise technical terminology to improve statistical precision throughout manuscript.

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The thesis addresses an important tourism forecasting application and employs an appropriate seasonal time-series framework. The study demonstrates practical relevance and useful forecasting orientation for regional tourism planning. However, publication readiness requires major revision due to methodological inconsistencies, forecast interpretation issues, reporting gaps, and extensive language refinement. Recommendation: Minor Revision before acceptance, with emphasis on validation, reproducibility, and stronger statistical interpretation. Addressing the identified weaknesses will make it suitable for publication in IJAR.

I recommend this paper for publication after minor revision.