Manuscript: **"Predicting Customer Behavior Using Prophet Algorithm In A Real Time Series Dataset"**

Corresponding Author: Indrit Enesi

Peer review:

**Reviewer 1:** Olimpjon Shurdi, Universiteti Politeknik i Tiranës, Department of Electronics and Telecommunications

**Reviewer 2:** Hadi Sutopo, Kalbis Institute, Indonesia

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- ◉ Yes
- ○ No

You approve, your name as a reviewer of this paper, is available in the "review history" of the paper:
*

- ◉ Yes
- ○ No

You approve, this review report is available in the "review history" of the paper:
*

- ◉ Yes
- ○ No

## The TITLE is clear and it is adequate to the content of the article.
*

*(Please insert your comments)*
Yes, the title is clear.

## The ABSTRACT clearly presents objects, methods, and results.
*

(Please insert your comments)
Yes

## There are a few grammatical errors and spelling mistakes in this article.
(Please insert your comments)
No.

## The study METHODS are explained clearly.
*

(Please insert your comments)
Yes

## The body of the paper is clear and does not contain errors.
*

(Please insert your comments)
Yes

## The CONCLUSION or summary is accurate and supported by the content.
*

(Please insert your comments)
Yes

**The list of REFERENCES is comprehensive and appropriate.**
*

Each in-text citation has to be included in the list of references and vice versa.
(Please insert your comments)
The references should be numbered.
Some of the references are more than 5 years. Please update the reference to less than 10 years.

*Please rate the TITLE of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the ABSTRACT of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the LANGUAGE of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the METHODS of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the BODY of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the CONCLUSION of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the REFERENCES of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

**Overall Recommendation!!!**
*

- ○ Accepted, no revision needed
- ◉ Accepted, minor revision needed
- ○ Return for major revision and resubmission
- ○ Reject

**Comments and Suggestions to the Author(s):**
Authors should describe the role of the Fourier order in the model and make clear the values for weekly and bimonthly. The importance of this proposal must be added as a paragraph in the introduction section.

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- ○  Yes
- ◉  No

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**\***

- ◉  Yes
- ○  No

You approve, this review report is available in the "review history" of the paper:
**\***

- ◉  Yes
- ○  No

**The TITLE is clear and it is adequate to the content of the article.**
**\***

*(Please insert your comments)*
Good, it is clear

**The ABSTRACT clearly presents objects, methods, and results.**
**\***
(Please insert your comments)
There is not any findings to be described.
In the conclusion there is a statements that all prediction results were very good in regards to the amount of data in the training and test dataset.
It is better to be added in the abstract.

**There are a few grammatical errors and spelling mistakes in this article.**
(Please insert your comments)
All activities that has been done i.e describing implementation, should use pas tenses form

**The study METHODS are explained clearly.**
**\***
(Please insert your comments)
It is proper.

**The body of the paper is clear and does not contain errors.**

**\***

(Please insert your comments)
here is not any problem in this research. What is the problem that the researcher has to conduct a research.
The author described only the aim of research. The problem is a real problem, not just an assumption

Is there any research that has been conducted by another researchers?
What is the difference between the research and yours. So the readers can see the originality and novelty of your research
What are the advantages of this research?
What if the research is not conducted?

## The CONCLUSION or summary is accurate and supported by the content.
**\***

(Please insert your comments)
Need citations from journal articles for supporting the conclusion.

## The list of REFERENCES is comprehensive and appropriate.
**\***

Each in-text citation has to be included in the list of references and vice versa.
(Please insert your comments)
The references are not written well based on APA style.
Information of books, must include the city where it is published.
Information about journal article must include volume or year, number or issue and pages.
It is better use reference management Mendeley for citation and reference writing.

### *Please rate the TITLE of this paper.*
[Poor] **1-5** [Excellent]
**\***

- ○ 1
- ○ 2
- ● 3
- ○ 4
- ○ 5

### *Please rate the ABSTRACT of this paper.*
[Poor] **1-5** [Excellent]
**\***

- ○ 1
- ● 2
- ○ 3
- ○ 4
- ○ 5

### *Please rate the LANGUAGE of this paper.*
[Poor] **1-5** [Excellent]

*
- ○ 1
- ○ 2
- ● 3
- ○ 4
- ○ 5

*Please rate the METHODS of this paper.*
[Poor] **1-5** [Excellent]
*
- ○ 1
- ○ 2
- ○ 3
- ● 4
- ○ 5

**Please rate the BODY of this paper.**
[Poor] **1-5** [Excellent]
*
- ○ 1
- ● 2
- ○ 3
- ○ 4
- ○ 5

*Please rate the CONCLUSION of this paper.*
[Poor] **1-5** [Excellent]
*
- ○ 1
- ○ 2
- ● 3
- ○ 4
- ○ 5

**Please rate the REFERENCES of this paper.**
[Poor] **1-5** [Excellent]
*
- ○ 1
- ● 2
- ○ 3
- ○ 4
- ○ 5

**Overall Recommendation!!!**
*
- ○ Accepted, no revision needed

- ○ Accepted, minor revision needed
- ◉ Return for major revision and resubmission
- ○ Reject

**Comments and Suggestions to the Author(s):**
Abstract
There is not any findings to be described. In the conclusion there is a statements that all prediction results were very good in regards to the amount of data in the training and test dataset. It is better to be added in the abstract.

Introduction
There is not any problem in this research. What is the problem that the researcher has to conduct a research.
The author described only the aim of research. The problem is a real problem, not just an assumption.
Is there any research that has been conducted by another researchers?
What is the difference between the research and yours. So the readers can see the originality of your research
What are the advantages of this research?
What if the research is not conducted?

Conclusion
Need citations from journal articles for supporting the conclusion.

References
The references are not written well based on APA style.
Information of books must include the city where it is published.
Information about journal article must include volume or year, number or issue and pages.
Rewrite using reference management Mendeley for citations and references.

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- ◉ Yes
- ○ No

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**\***

- ◉ Yes
- ○ No

You approve, this review report is available in the "review history" of the paper:
**\***

- ◉ Yes
- ○ No

**The TITLE is clear and it is adequate to the content of the article.**
**\***
*(Please insert your comments)*
The title only gives a partial understanding of the study, the modification of the prophet algorithm has a central role within the paper, but is not mentioned in the title.

**The ABSTRACT clearly presents objects, methods, and results.**
**\***
(Please insert your comments)
Although the objects and methods are presented in the abstract, there is no mention of the results.

**There are a few grammatical errors and spelling mistakes in this article.**
(Please insert your comments)
Proofreading and revision are suggested due to some inconsistencies in the use of some verbs as well as misuse of some words as in the case of "Analyses" being used in the place of "Analysis".

**The study METHODS are explained clearly.**
**\***
(Please insert your comments)
Methods are comprehensive and well explained

**The body of the paper is clear and does not contain errors.**
*

(Please insert your comments)
The number of records in the dataset was not consistent throughout the paper. Being mentioned as 3721 in the introduction, but 3271 in the fourth section.
An improvement of 2% in the modified model was mentioned. However, the performance of the base model was not supported by any figures.
The environment in which the models were developed was not stated.
More information regarding the data transformation and processing in the implementation and analysis section.
Three different time-series datasets with varying numbers of records and date ranges were mentioned in the introduction, but the way in which these datasets were used is not clearly shown in the paper.

**The CONCLUSION or summary is accurate and supported by the content.**
*

(Please insert your comments)
The claims made in the conclusion were not properly supported by the content of the paper.

**The list of REFERENCES is comprehensive and appropriate.**
*

Each in-text citation has to be included in the list of references and vice versa.
(Please insert your comments)
The reference list is appropriate

*Please rate the TITLE of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ◉ 2
- ○ 3
- ○ 4
- ○ 5

*Please rate the ABSTRACT of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ◉ 3
- ○ 4
- ○ 5

*Please rate the LANGUAGE of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ● 2
- ○ 3
- ○ 4
- ○ 5

*Please rate the METHODS of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ● 4
- ○ 5

*Please rate the BODY of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ● 2
- ○ 3
- ○ 4
- ○ 5

*Please rate the CONCLUSION of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ● 2
- ○ 3
- ○ 4
- ○ 5

**Please rate the REFERENCES of this paper.**
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ● 4
- ○ 5

**Overall Recommendation!!!**
*

- ○ Accepted, no revision needed
- ○ Accepted, minor revision needed

- ⦿ Return for major revision and resubmission
- ○ Reject

**Comments and Suggestions to the Author(s):**

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- ⦿ Yes
- ○ No

You approve, your name as a reviewer of this paper, is available in the "review history" of the paper:
*

- ⦿ Yes
- ○ No

You approve, this review report is available in the "review history" of the paper:
*

- ⦿ Yes
- ○ No

**The TITLE is clear and it is adequate to the content of the article.**
*

*(Please insert your comments)*
The title is clear and adequate to the content of the article.

**The ABSTRACT clearly presents objects, methods, and results.**
*

(Please insert your comments)
There are no results of the research described in the abstract.
The key word CRM has to be written in the full form.

**There are a few grammatical errors and spelling mistakes in this article.**
(Please insert your comments)
There is a typo in the key words: Analyses. The same mistake is on the page 2 of the article (2 cases per page).
Typo on the page 2: Time series my be … .

**The study METHODS are explained clearly.**
*

(Please insert your comments)
Yes, the study methods (time series analysis and prophet algorithm) are explained clearly.

**The body of the paper is clear and does not contain errors.**
\*

(Please insert your comments)
Space between lines is both 1 and 1.5 (different in different places of the text).
There is no Table 3, which is declared on the page 6.
Numbers of figures in the article start with 8 (page 6).
Poor theoretical, methodological and conceptual background of the predicting customer behavior as such.
Poor analysis of previous research findings. Such analysis is insufficient for this: Existing clustering algorithms are evaluated in real world datasets with known patterns (Introduction, page 1). What are "known patterns"? For whom they are known?

**The CONCLUSION or summary is accurate and supported by the content.**
\*

(Please insert your comments)
Such kind of conclusions is not relevant for the scientific article:
The results obtained by the Time Series Analyses were very good and similar to the actual data.
Finally, all prediction results were very good in regards to the amount of data in the training and test dataset.
What does it mean "very good"?

**The list of REFERENCES is comprehensive and appropriate.**
\*

Each in-text citation has to be included in the list of references and vice versa.
(Please insert your comments)
The list of references is comprehensive and appropriate. If you cite 2 references in one place within the text, it has to be (name, year; name, year), but not (name, year) (name, year) as you have, for example, in the Introduction (page 1).

*Please rate the TITLE of this paper.*
[Poor] **1-5** [Excellent]
\*

- ○ 1
- ○ 2
- ○ 3
- ● 4
- ○ 5

*Please rate the ABSTRACT of this paper.*
[Poor] **1-5** [Excellent]
\*

- ○ 1
- ○ 2
- ● 3
- ○ 4

- ○ 5

*Please rate the LANGUAGE of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ◉ 4
- ○ 5

*Please rate the METHODS of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ◉ 5

*Please rate the BODY of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1
- ◉ 2
- ○ 3
- ○ 4
- ○ 5

*Please rate the CONCLUSION of this paper.*
[Poor] **1-5** [Excellent]
*

- ◉ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5

*Please rate the REFERENCES of this paper.*
[Poor] **1-5** [Excellent]
*

- ○ 1

- ○ 2
- ○ 3
- ○ 4
- ● 5

**Overall Recommendation!!!**
**\***

- ○ Accepted, no revision needed
- ○ Accepted, minor revision needed
- ● Return for major revision and resubmission
- ○ Reject

**Comments and Suggestions to the Author(s):**
See above