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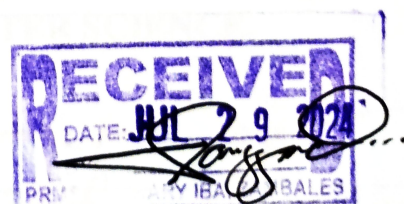
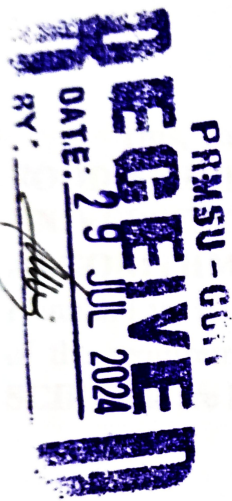
**SENTIMENT ANALYSIS OF STUDENTS TOWARDS FOOD SERVICE
PROVIDER IN PRESIDENT RAMON MAGSAYSAY STATE
UNIVERSITY IBA MAIN CAMPUS THROUGH
DECISION TREE ALGORITHM**

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A Thesis

**in partial Fulfillment of the Requirements
for the degree of Bachelor of Science in Computer Science
College of Communication and Information Technology
President Ramon Magsaysay State University
Iba, Zambales**

MAY 2024





COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Republic of the Philippines
PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY
College of Communication and Information Technology
Iba, Zambales

APPROVAL SHEET

This, study entitled “**SENTIMENT ANALYSIS OF STUDENTS TOWARDS FOOD SERVICE PROVIDER IN PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY IBA MAIN CAMPUS THROUGH DECISION TREE ALGORITHM**” prepared and submitted by Paula May A. Corpus, Joshua A. Magsombol, Hannah Lyn B. Melanio, Angel M. Parcia, Maria Angela M. Villegas in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN COMPUTER SCIENCE** are hereby recommended for oral examination.


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Approved by the Panel of the Oral Examiners on May 28, 2024 with a grade of _____.


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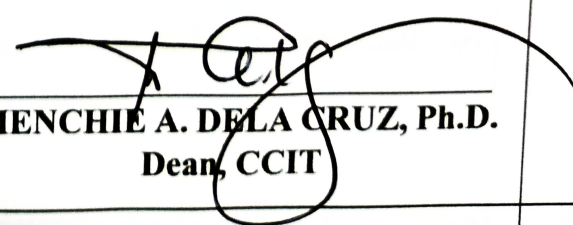

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Accepted and approved in partial fulfillment of the requirements for the degree of
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29 JUL 2024

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EXECUTIVE SUMMARY

The PRMSU Auxiliary Canteen Feedback Analysis model has been used to predict the sentiments of students towards the food service provider through decision tree algorithm.

Ever since the school canteen was built, there is no formal process of gathering feedbacks about the services of the food providers. This model was utilized to ease the manual process of collecting the survey and identifying the concerns, by displaying and arranging the results in graphical way according to the sentiment classification: satisfied, dissatisfied and neutral.

The data was collected using an online survey connected to the model. It has a 4 question that has a selective choice and the last or fifth question is for feedback of students. The response is stored in the database, performed decision tree algorithm methods where it removed empty responses and stop words, splits the survey data into 70% training set and 30% testing set, splitting the sentences into words and vectorize, lastly displaying the result in pie chart and textual result with their final sentiment scores and classification. Once the algorithm is trained, the model is evaluated using the confusion matrix and metrics, and it can be used to classify new text data.

Evaluation of model metric in terms of accuracy resulted to 0.6743 or 67%. Precision score for satisfied is 0.75 or 75%, dissatisfied is 0.69787234 or 70%, and neutral 0.5794702 or 58%. Recall score for satisfied is 0.72467532 or 72%, dissatisfied is 0.65863454, and neutral 0.63636364 or 64%. F1_Score of satisfied is 0.73712021 or 74%, dissatisfied is 0.67768595 or 68%, and neutral 0.60658579 or 61%. The model reached at



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least half of percentage. Therefore, they concluded that the result of applying decision tree algorithm is good in terms of predicting and classifying the sentiment of students towards the food service provider.

As a result, it has solved the manual system of collecting the survey, the admin or head of the food service provider can easily see the results of the answered survey through graphical representations, textual results and to get a summary it can be printed.