

ABSTRACT

COMPARATIVE ANALYSIS OF PERFORMANCE OF C4.5 AND NAVE BAYES ALGORITHM IN CLASSIFICATION OF ZAM-ZAM TIME PRODUCTS BASED ON CUSTOMER SATISFACTION LEVEL

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Grouping Zam-Zam Time products based on the level of customer satisfaction can be done in many ways, one of which is using a classification algorithm. There are many algorithms that can be used, so that it will give rise to many thoughts for the classification of Zam-Zam Time products classified as Best Selling or Less Selling, analysis is needed in finding the best Algorithm between C4.5 and Naïve Bayes. The purpose of this study is expected to help the classification of Zam-Zam time products classified as in demand or less in demand. The method used in this study was conduct prepared data with the distribution of questionnaires and labelling taken from private or primary data from the Zam-Zam time itself and the results of the questionnaire as many as 400 customer respondents, then the classification analysis process was carried out. The results of the performance of the C4.5 algorithm in the classification of Zam-Zam Time products are in demand or less in demand, namely the accuracy value of 98%training data, computational time 0.003989458084106445 seconds, accuracy value of 96%testing data, commutation time 0.001993417739868164 seconds, with the 8th Max_Depth Average Cross Validation 0.9240, and while Naïve Bayes Accuracy Value Training Data 90% Computing Time 0.0049860477447509766 Seconds, Testing Data 85%, Computing Time 0.00199482513427734 seconds, with an average cross validation 0.9100. Factors that influence decision making are Q5 (cleanliness), Q9 (recommendations), Q2 (suitability of packaging) coupled with Q4 (price). Therefore, it is expected that Zam-Zam Time will pay attention to these factors so that it can increase business turnover.

Keyword: C4.5 Algorithm, Naïve Bayes Algorithm, Classification, Customer Satisfaction, Zam-Zam Time,