

ABSTRACT

Survey that was done by PT XYZ in 2010 showed that the number of the XYZ newspaper's customers who subscribe (24,1%) were fewer than customers who buy retail (49,4%). In addition, the data from PT XYZ showed that in the same year, there were 26.14% customers of XYZ newspaper ever unsubscribe. Therefore, PT XYZ needs the right customer management program to retain the number of subscriber and attract the customers who buy retail to be subscriber.

PT XYZ can do a lot of ways to manage customers, one of them is by using customer database. This database can result in customer segmentation which provides information such as which customers are entitled to get special program from the company. Giving a special program to manage customer should be done on an ongoing basis, so it takes a process to predict which customers are entitled to get the program.

This study predicts the XYZ newspaper customers use data mining techniques with Neural Network and Decision Tree method. The attributes that are used as predictors in this study are gender, age, education, occupation, hobbies, average expenditure per month, subscription period, and the pattern of reading, with the attribute target is customer segment.

Customer prediction model obtains that Decision Tree method produces the best model because it has higher accuracy is equal to 53,67%. Attributes that are most influential in the model is occupation with value of predictor importance is 49%. Program recommendations that given is customer loyalty program, that divided into two main programs, programs which are given only to customers who subscribe and programs which are given to all customers.

Keywords: Data mining, Decision Tree, Neural Network, customer prediction