

ABSTRACT

TELEVISION ADVERTISEMENT PERFORMANCE RATING PREDICTION MODEL USING ARTIFICIAL NEURAL NETWORK

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Television is one of the most popular communication media used by Indonesian society. Almost every household has a television. This leads to television media becomes the right choice to run an advertisement. Every company that runs advertisement obviously wanted to achieve profit from their sales in the future. To achieve that, company need to know their advertisements effectiveness. One of the methods that can be used to measure ads effectivity is by analyzing ads rating using data mining technique. On most cases of rating data, the amount of data that has low rating (0–2) is far more than the amount of data with high rating (>5) this bring up imbalanced data issue for the classifier. To face this imbalanced data issue, this research used SMOTE methods and then the data will be implemented to classification model Artificial Neural Network (ANN), backpropagation. The research using ANN to classify ads rating data with SMOTE to handle imbalanced data problem resulting a 72% of averaga accuracy for the model and F1Measure at 76%.

Keywords : data mining, machine learning, advertisement rating, artificial neural network, SMOTE