## **ABSTRACT**

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## APPLICATION OF THE C.45 ALGOTYRM IN PREDICTING THE PROPOSED REMOVAL OF OFFICE EQUIPMENT AND MACHINERY (CASE STUDY: BADAN KEUANGAN DAN ASET DAERAH KABUPATEN BANYUMAS)

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Badan Keuangan dan Aset Daerah Kabupaten Banyumas (BKAD) of Banyumas Regency is an agency under the auspices of the Banyumas Regency regional central government which consists of several sub-sectors, one of which is the Regional Assets Sub-sector. The Regional Assets Sub-sector of BKAD Banyumas Regency has various types of Kartu Inventaris Barang(KIB) which are still not managed properly, namely the KIB for office equipment and machines and make it difficult to remove office equipment, so a decision support system is needed to predict the proposed removal of office equipment and machinery. This prediction is made with the aim of making it easier for the asset sub-sector in carrying out tasks. This prediction has benefits in the implementation of replacing office equipment and machines that can be managed properly according to employee needs so that employee performance can be maximized.

Methods of collecting data using survey methods, literature, and interviews with members of the asset sub-sector. The data processing method in this report uses a quantitative method with the C.45 algorithm. The removal of office equipment and machinery requires several stages, firstly reviewing the equipment, classifying the condition of the equipment, after which a decision is made to propose or not to propose. Analysis of the prediction of office equipment and machine proposals using the C.45 algorithm with the help of the rapidminer application is able to provide results in the form of a decision tree that can be used by members of the asset sub-sector in making decisions.

Based on the predicted results of the proposal to write off office equipment, all equipment whose year of purchase/procurement was less than or equal to 1999, equipment in damaged condition with a year of purchase/procurement of more than 1999, equipment made of plastic/ebonite and plastic in poor condition with year of purchase/procurement more than 1999.

**Keywords:** Prediction, deletion, office equipment and machinery, C.45