

ABSTRAK

Deposito merupakan salah satu pilihan fasilitas penyimpanan yang umum ditawarkan oleh bank. Untuk mengoptimalkan pemasaran langsung produk depositonya, suatu bank perlu memprediksi nasabah-nasabah yang berpotensi membuka deposito. Salah satu algoritma yang dapat diterapkan yaitu algoritma *rough set*. Pada penelitian ini algoritma *rough set* diterapkan untuk mencari aturan klasifikasi nasabah-nasabah yang berpotensi membuka deposito dari *dataset* bagian marketing sebuah bank di Portugal. Data tersebut memiliki 16 atribut dan 1 label. Pada proses data *selection*, peneliti menggunakan metode *information gain* untuk mencari atribut-atribut yang paling berpengaruh terhadap proses klasifikasi data nasabah yang berpotensi membuka simpanan deposito. Dari hasil seleksi data, dipilih atribut-atribut berikut: Age, Job, Balance, Housing, Loan, Contact, Month, Duration, Pdays, Previous, Poutcome dan Y/N.

Berdasarkan hasil perhitungan dapat disimpulkan bahwa *rough set* dapat diterapkan dan dapat menemukan aturan klasifikasi yang menarik dari data set bagian marketing yang berisi 4521 record. Sistem menghasilkan 5241 aturan. Untuk mengevaluasi aturan-aturan tersebut dipergunakan metode *quality measure* yang meliputi *support*, *strength*, *accuracy* dan *coverage*.

Selanjutnya analisis dilakukan terhadap aturan yang memiliki *accuracy* bernilai 100% dan *coverage* serta *strength* tertinggi. Diperoleh 2 aturan klasifikasi data nasabah yang berpotensi membuka simpanan deposito dan 2 aturan klasifikasi data nasabah yang tidak berpotensi membuka simpanan deposito. Sekalipun keempat aturan tersebut memiliki *accuracy* 100% namun nilai *coverage* dan *strength* masih tergolong rendah.

Kata Kunci : Deposito, *Rough Set*, *Quality Measure*

ABSTRACT

Deposits are one of the most common storage facilities offered by banks. To optimize the direct marketing of its deposit products, a bank needs to predict potential deposit-opening customers. One of the algorithms that can be applied is the rough set algorithm. In this research the rough set algorithm is applied to find the classification rules of clients who have the potential to open deposits from the dataset of the marketing department of a bank in Portugal. The data has 16 attributes and 1 class label. In the data selection process, the researcher use the information gain method to find the attributes that have high influences on the customer data classification process. The data selection, resulted on the following attributes: Age, Job, Balance, Housing, Loan, Contact, Month, Duration, Pdays, Previous, Poutcome and Y / N.

Based on the results it can be concluded that the rough set can be applied and can find the classification rules from the marketing data set consists of 4521 records. The implementation of rough set algorithm towards the data set result in 5241 rules. To evaluate the rules, the writer used quality measure that consists of support, strength, accuracy and coverage.

Furthermore, an analysis was performed towards rules with 100% accuracy, highest coverage and highest strength. There are 2 classification rules of customer data that potentially open deposit and 2 classification rules of customer data that does not have the potential to open deposit. Eventhough the four rules have 100% accuracy, highest coverage and highest strength, but the coverage and strength value is still relatively low.

Keyword : Rough Set, Deposit, Quality Measure

