

## INTISARI

Menghadapi tahun 2016, PT. ABC (ABC) yang merupakan salah satu operator telekomunikasi selular di Indonesia menjalankan strategi *UAR (Upgrade, Ascend, Refresh)* yang berfokus pada menjaring pelanggan yang berkualitas. Salah satu wujud strategi tersebut adalah mengoptimalkan segmen pelanggan pascabayar dengan meluncurkan produk baru yaitu ABCD.

Walaupun pertumbuhan pelanggan maupun *revenue* dari pelanggan ABCD cukup menjanjikan, ABC dihadapkan pada permasalahan tingginya kenaikan *bad debt* pelanggan pascabayar sejak produk ABCD diluncurkan. Berdasarkan penelusuran lebih lanjut, kurangnya penakar kualitas pelanggan baru menjadi salah satu akar permasalahan.

Untuk memitigasi permasalahan tersebut, penulis menganalisis 2 macam solusi yaitu membangun model *credit scoring* dan membangun basis data ko-operatif. Setelah dianalisis lebih lanjut, basis-data ko-operatif menawarkan hasil konsensus agregat dari penakaran kualitas pelanggan baru. Walaupun demikian, pembangunan model *credit scoring* lebih mungkin diimplementasikan dibandingkan dengan membangun basis data ko-operatif apabila dilihat dari sisi kompleksitas pembangunan, kompleksitas perawatan, dan regulasi.

Model *credit scoring* dalam penelitian ini dibangun menggunakan teknik *data mining* dan menggunakan algoritma-algoritma yang ada dalam daftar *Top 10 Algorithm in Data Mining*. Sedangkan data yang digunakan untuk membangun model adalah data registrasi pelanggan yang berupa data karakteristik pelanggan karena ada keterbatasan dalam memperoleh data penggunaan pelanggan.

Performa model terbaik dihasilkan dengan menggunakan algoritma *AdaBoost* dengan akurasi sebesar 75.03 % dan *specificity* sebesar 51.84%. Atas analisis yang telah dilakukan, performa model *credit scoring* dalam penelitian ini belum cukup untuk memitigasi risiko *bad debt* dari pelanggan baru. Pengayaan model dengan data penggunaan pelanggan kemungkinan besar dapat memberikan *insight* yang lebih baik.

Kata kunci: *bad debt*, *credit scoring*, *data mining*, basis data ko-operatif

## **ABSTRACT**

*In 2016, PT. ABC (ABC) which is one of the largest mobile operator in Indonesia ran UAR (Upgrade, Ascend, Refreash) which emphasized on acquiring high value subscribers. one of the effort carried out was optimizing their postpaid segment by launching new product called ABCD.*

*Although the growth of both postpaid customers and revenue was quite promising, ABC was also facing problem which was the raise of their bad debt beyond their bad debt allowance since the product was launched. Upon investigation, it is revealed that the lack of benchmark or assessment to their new customers was one of the root cause.*

*To mitigate the situation, the author analyzes 2 kinds of solution in the form of credit scoring model and co-operative database. After further analysis, co-operative database offers an aggregate consensus when assessing new customers' quality. However, credit scoring model is more likely to be implemented compared to co-operative database from development, maintenance and regulation point of view.*

*Credit scoring model in this thesis is built using data mining technique and utilizes algorithms defined in Top 10 Algorithm in Data Mining. Whilst the data used to build the model is customers' registration data in a form of customers' characteristics since there is some limitation in obtaining customers' behavior data.*

*Best performance of the model achieved using Adaboost which has accuracy of 75.03% and specificity of 51.84%. After analysis that has been carried out, the performance of the model still insufficient in mitigating the bad debt risk from new customers. Model enrichment by adding customers' behavior data could probably deliver better insight.*

*keywords: bad debt, credit scoring, data mining, co-operative database*