BAB V

SIMPULAN DAN SARAN

5.1 Simpulan

Berdasarkan hasil yang telah dipaparkan dapat disimpulkan beberapa poin sebagai berikut:

a. Penerapan model *Machine Learning* dengan algoritma *deep learning* yaitu *Artificial Neural Network* dapat membantu mengklasifikasikan pelanggan.

b. Implementasi model terbaik ke dalam aplikasi *Web* dapat mempermudah dan membantu mengetahui pelanggan mana saja yang berpotensi churn atau tidak.

c. Penerapan kombinasi teknik *Feature Selection* dan teknik balancing data yang berbeda mampu meningkatkan akurasi pada model yang diusulkan dari model para penelitian sebelumnya dan model *Holdout ANN-ROS-XGBoost* adalah model yang mendapatkan akurasi tertinggi mencapai 0.88502 (88.50%) dengan presisi, *recall* dan f-1 score masing-masing mencapai 0.85128 (85.13%), 0.93962 (93.96%) dan 0.89327 (89.33%).

5.2 Saran

Berdasarkan pembahasan yang telah dipaparkan terdapat beberapa saran yang dapat diterapkan untuk penelitian selanjutnya yaitu:

a. Penggunaan kombinasi teknik *Feature Selection* dan teknik balancing data yang berbeda.

b. Penggunaan algoritma dan dataset yang berbeda akan mempengaruhi teknik pengolahan data sehingga dapat dilakukan eksperimen untuk membuat model yang baik.

c. Memperhatikan perilaku pelanggan dari waktu ke waktu agar dapat memastikan keakuratan model sehingga membuat dataset menjadi memiliki *Feature* atau variable yang lebih sedikit atau bahkan lebih kompleks.

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