Customer Churn Case Study of Telecom Industry

By:
Abhay Singh
Vinit Pahwa
Yogesh Ramesh Bhoi

Summary Of Churn Predictive model

Train set:

Accuracy:-   80.57%

Sensitivity:-   83.85%

Specificity:-   77.28%

Test Set:

Accuracy:-   77.40%

Sensitivity:-   78.79%

Specificity:-   77.30%

Overall, the model is performing well in the test set, what it had learnt from the train set.

Recommendations

Top Variables that affects Churn are:-

1. Std_og_t2m_mou_8
2. Og_others_7
3. Total_og_mou_8
4. Loc_ic_t2m_mou_7
5. Loc_ic_t2m_mou_8
6. Total_ic_mou_8
7. Total_rech_num_7
8. Total_rech_num_8
9. Monthly_2g_8
10. Monthly_3g_8
11. Avg_rech_amt_6_7
12. Decrease_rech_num_action
13. decrease_vbc_action

Recommendations

The majority of the top variables, as can be seen, have negative coefficients. This indicates that the factors and the probability of churn have an inverse relationship.

- Target the clients that use fewer minutes for incoming local calls and outgoing ISD calls during the action phase (mostly in August).
- Customers with higher August monthly 3G recharges are more likely to be churned.
- Customers who used fewer STD inbound minutes on fixed T lines from operators T in August are more likely to churn.
- Customers that use less 2G data each month in August are more likely to churn.
- Customers having decreasing incoming minutes of usage for operators T to fixed lines of T for August are more likely to churn.
- Variables in roam_og_mou_8 have positive coefficients (0.7606). Customers who are using more roaming outbound minutes are hence more prone to churn.

Business Implications of EDA Findings
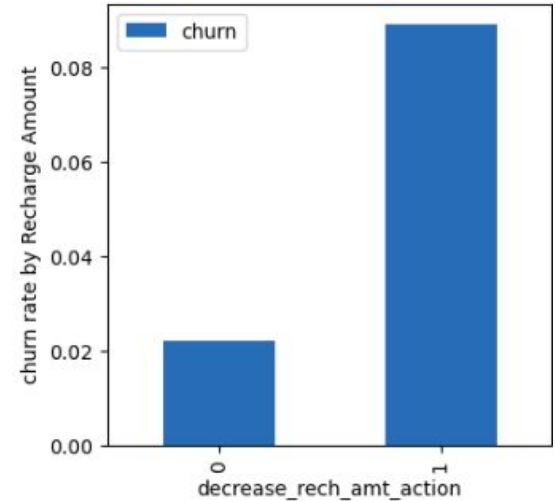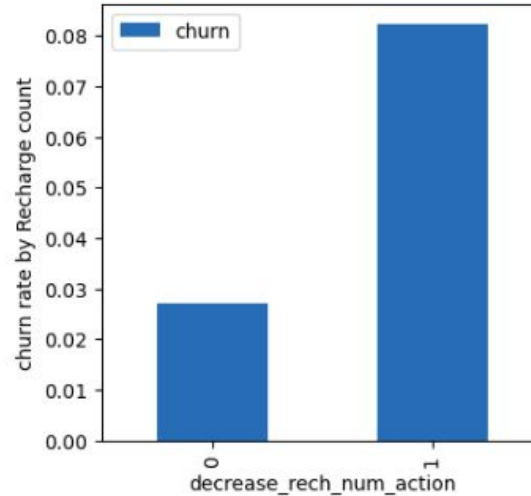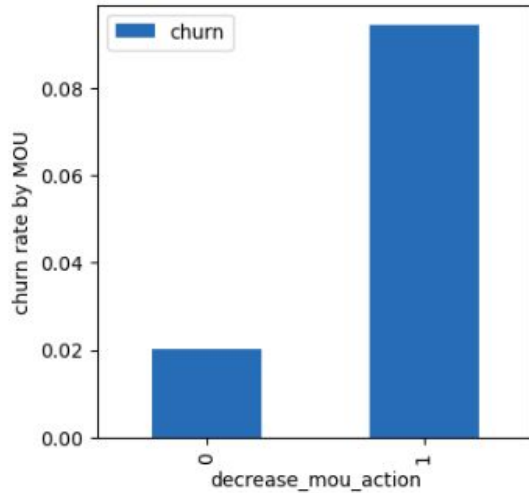
Business Implications of EDA Findings

1) Churn rate is high for customers whose MOU has decreased in Action Phase.

2) Churn rate is high for customers whose number of recharge in the Action Phase is lesser than the number in Good Phase.

3) Churn rate is high for customers whose Amount of recharge in the Action Phase is lesser than the number in Good Phase.

4) In Action Phase customer are going with Volume based recharge then regular monthly recharge