# TELECOM CHURN CASE STUDY - DOMAIN ORIENTED

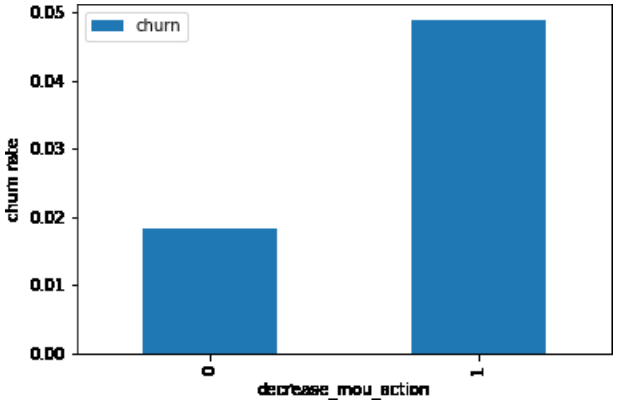
By

Krithika Chandrasekaran

# PROBLEM STATMENT

- In the telecom industry customers are able to choose multiple service providers and actively switch from one operator to another. In this highly competitive market, the tele communications industry experiences an average annual churn rate of 15-25%. Given the fact that it costs 5-10 times more to acquire a new customer than to retain an existing one.
- Customer retention has now become even more important than customer acquisition.
- To reduce customer churn, telecom companies need to predict which customers are at high risk of churn.
- In this study, you will analyse customer-level data of a leading telecom firm, build predictive models to identify customers at high risk of churn and identify the main indicators of churn.

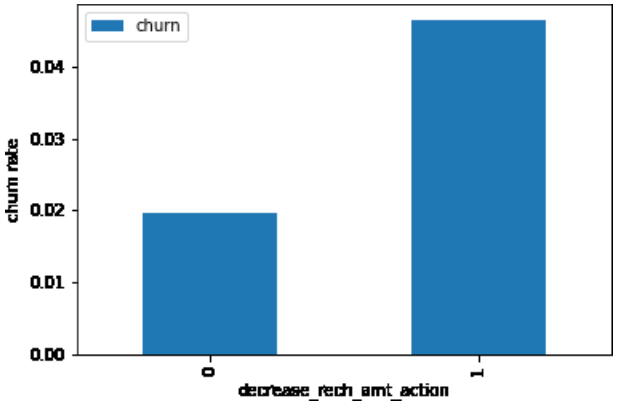
# CHURN BASED ON USAGE




Churn rate was decided based on the custo usage ie. Minutes of usage in the action month.

Customers whose minutes of usage (MoU) decreased in the action phase have a higher churn rate than those whose minutes of usa increased in the good phase.

# CHURN BASED ON COST

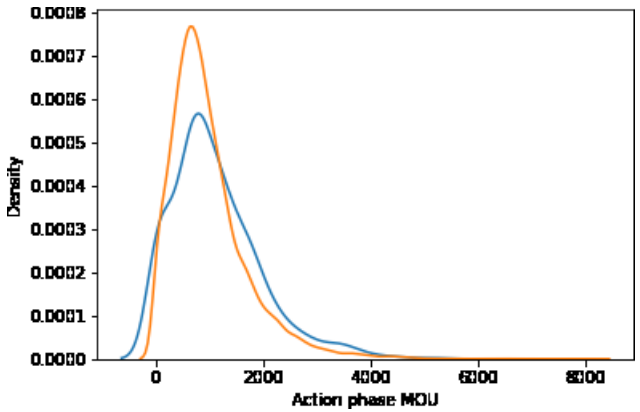



Churn rate on the basis whether the customer decreased her/his volume based cost in action month.

The churn rate is more for the customers, whose amount of recharge in the action phase is lesser than the amount in good phase.

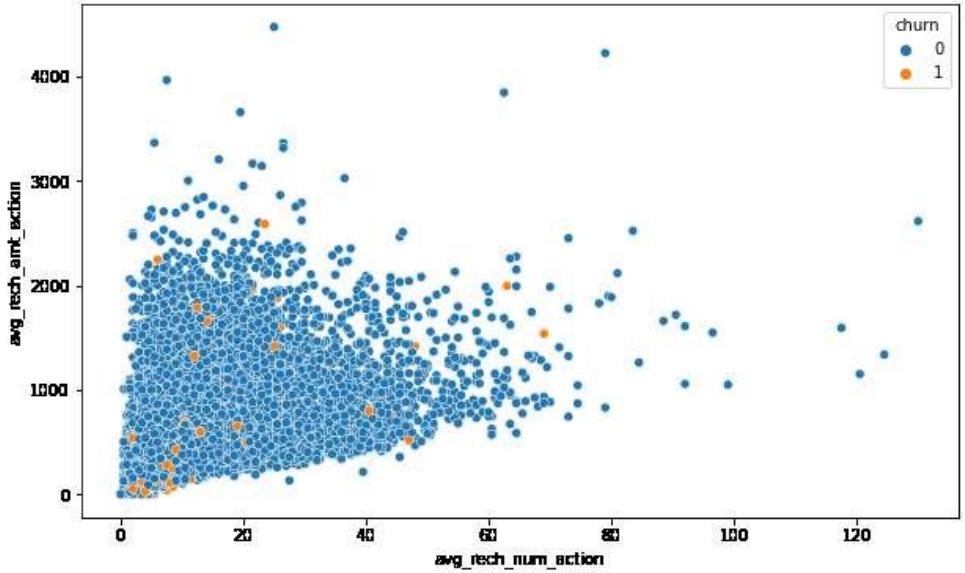
# ANALYSIS ON MoU

## Analysis of the minutes of usage MoU (churn and not churn) in the action phase




Minutes of usage(MOU) of the churn customers is mostly populated on the 0 to 2500 range. Higher the MOU, lesser the churn probability.

# ANALYSIS BASED ON RECHARGE

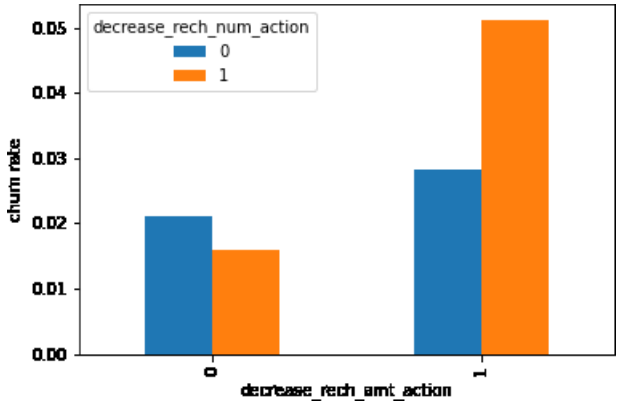



## Analysis of recharge amount and number of recharge in action month

We can see from the above pattern that the recharge number and the recharge amount are mostly propotional. More the number of recharge, more the amount of the recharge.

# ANALYSIS BASED ON RECHARGE

## Analysis of churn rate by the decreasing recharge amount and number of recharge in the action phase




We can see from the above plot, that the churn rate is more for the customers, whose recharge amount as well as number of recharge have decreased in the action phase than the good phase.

# CONCLUSION AND SUGGESTION

- Target the customers, whose minutes of usage of the incoming local calls and outgoing ISD calls are less in the action phase (mostly in the month of August).
- Target the customers, whose outgoing others charge in July and incoming others on August are less.
- Furthermore, the customers having value based cost in the action phase increased are more likely to churn than the other customers. Hence, these customers may be a good target to provide offer.
- Cutomers, whose monthly 3G recharge in August is more, are likely to be churned.
- Customers having decreasing STD incoming minutes of usage for operators T to fixed lines of T for the month of August are more likely to churn.
- Cutomers decreasing monthly 2g usage for August are most probable to churn.
- Customers having decreasing incoming minutes of usage for operators T to fixed lines of T for August are more likely to churn.
- roam_og_mou_8 variables have positive coefficients (0.7135). That means for the customers, whose roaming outgoing minutes of usage is increasing are more likely to churn.

# Following strategies can be implemented

- Promotional offers can also be very helpful.
- A drop in Local Minutes of usage might be because of unsatisfactory network, focus on customer satisfaction service because of poor network or unsuitable customer schemes/plans. Efforts shall be made to provide a better network and focus on customer satisfaction.
- Based on the usage / last recharge/ net usage, routine feedback calls should be made for customer satisfaction and services that can understand their grievances & expectations. Proper steps should be taken to avoid them from churning.
- Various attractive offers can be introduced to customers showing a sudden drop in the total amount spent on calls & data recharge in the action phase to lure them.
- Customized plans should be provided to such customers to stop them from churning.