

Telecom Churn Case Study

Submitted By:

Ankan Chatterjee

Ankita Srivastava

Business Objective

Predict the Churn in the last month using the data from the first three months.

By understanding the typical customer behaviour during the churn.



Analysing Customer Behaviour

Steps how customer switch to another competitor over a period.

Good Phase

Customer is happy with the service.

Action Phase

Customer is unhappy with the service experience.

Churn Phase

Customer is said to have churned.



Data Analysis

A hand is pointing at a bar chart displayed on a tablet screen. The chart consists of seven white-outlined bars of varying heights. The background is a blurred image of a person in a blue shirt.

High Value customers

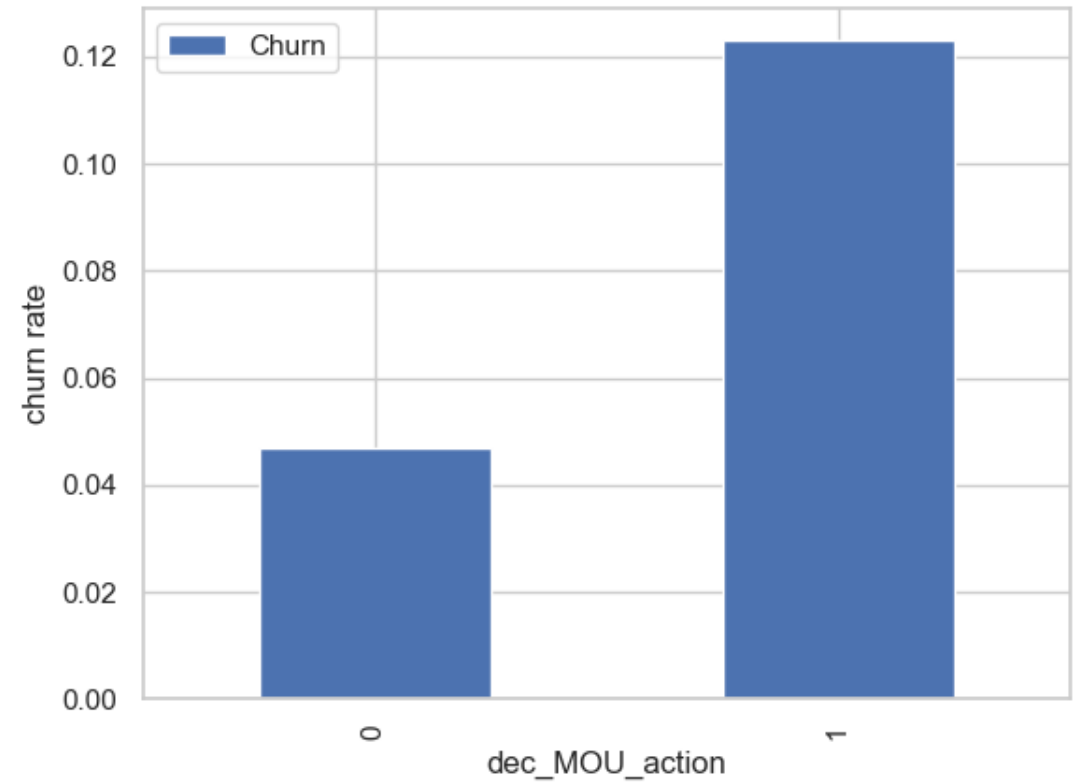
Customer recharged with an amount more than or equal to X , where X is the 70th percentile of the average recharge amount in first two months.

Churners

Customers who have not made any calls and not used mobile internet even once in the fourth month.

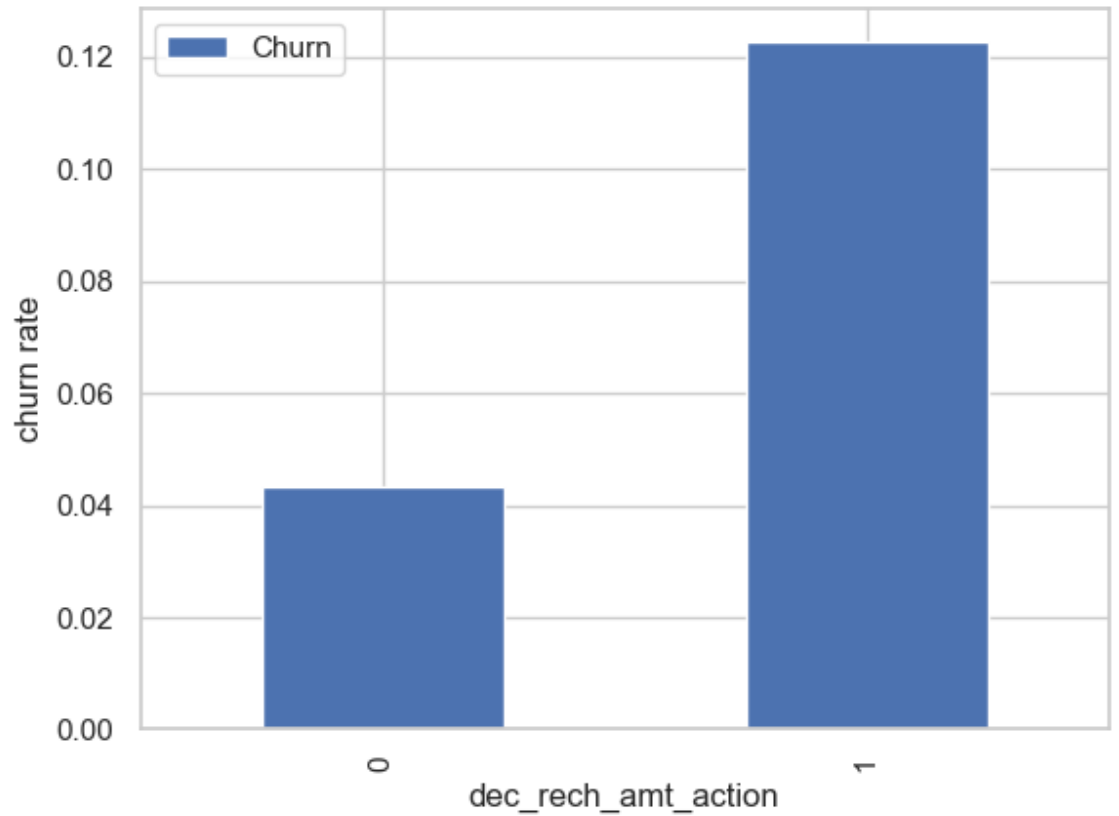
Churn Rate Vs Min Of Usage

- Customers churn rate increases when minutes of usage decreases.



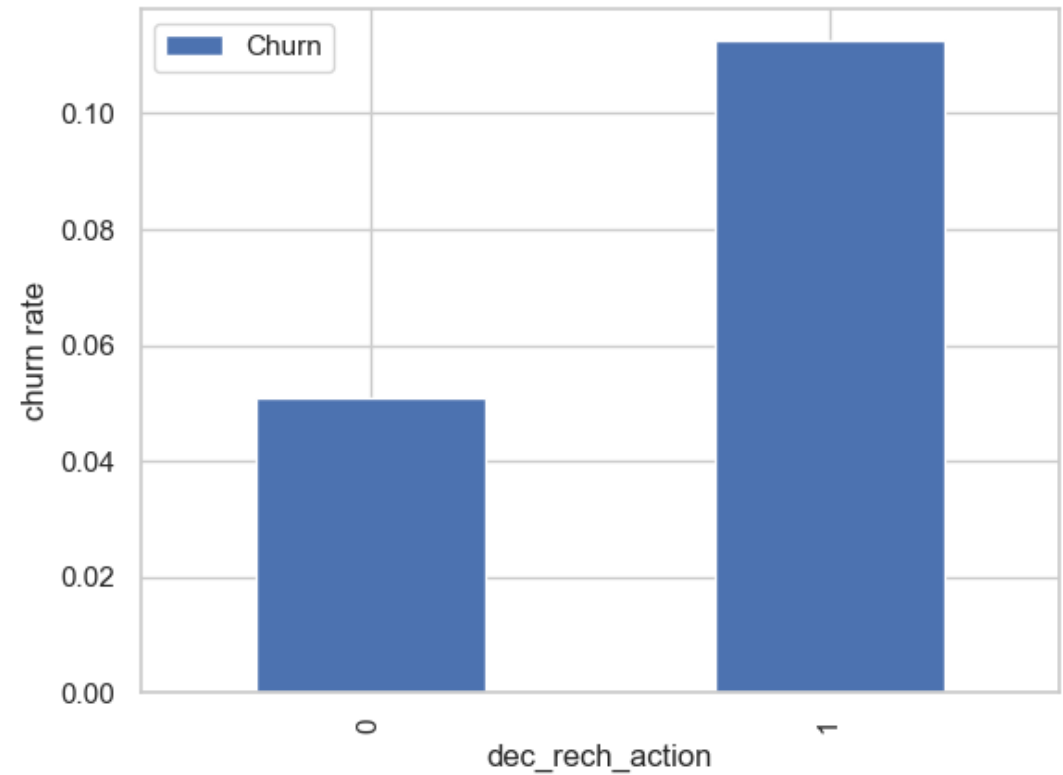
Churn Rate Vs Recharge Amt

- Customer churn rate increases when recharge amount decreases.



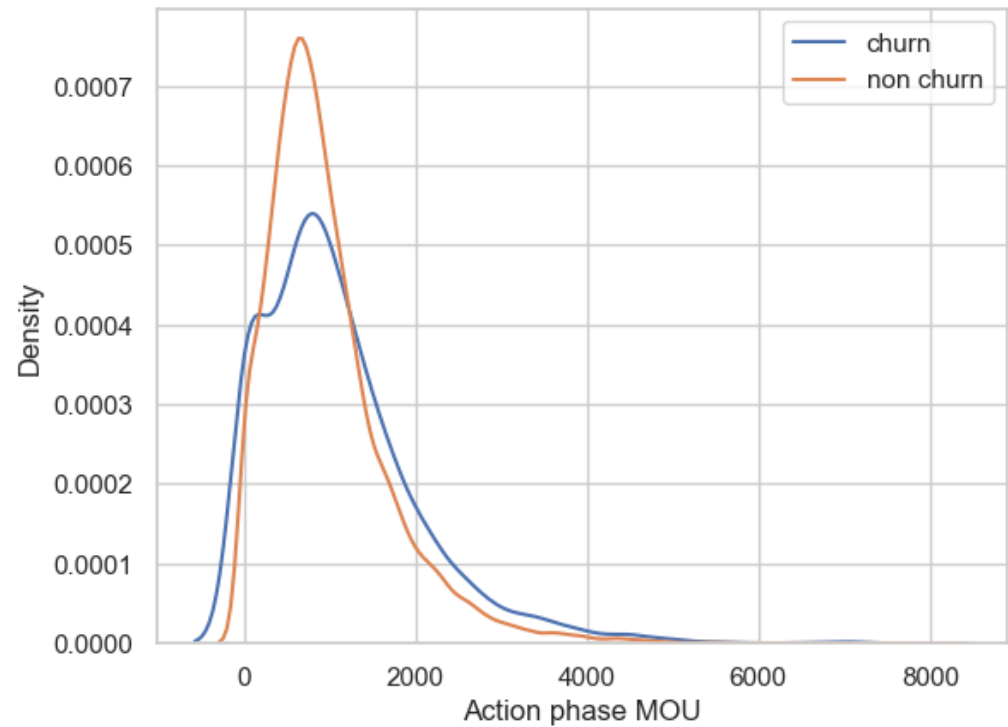
Churn Rate Vs Recharge rate (in action month)

- Customers churn rate is high in action phase when recharge rate decreased.



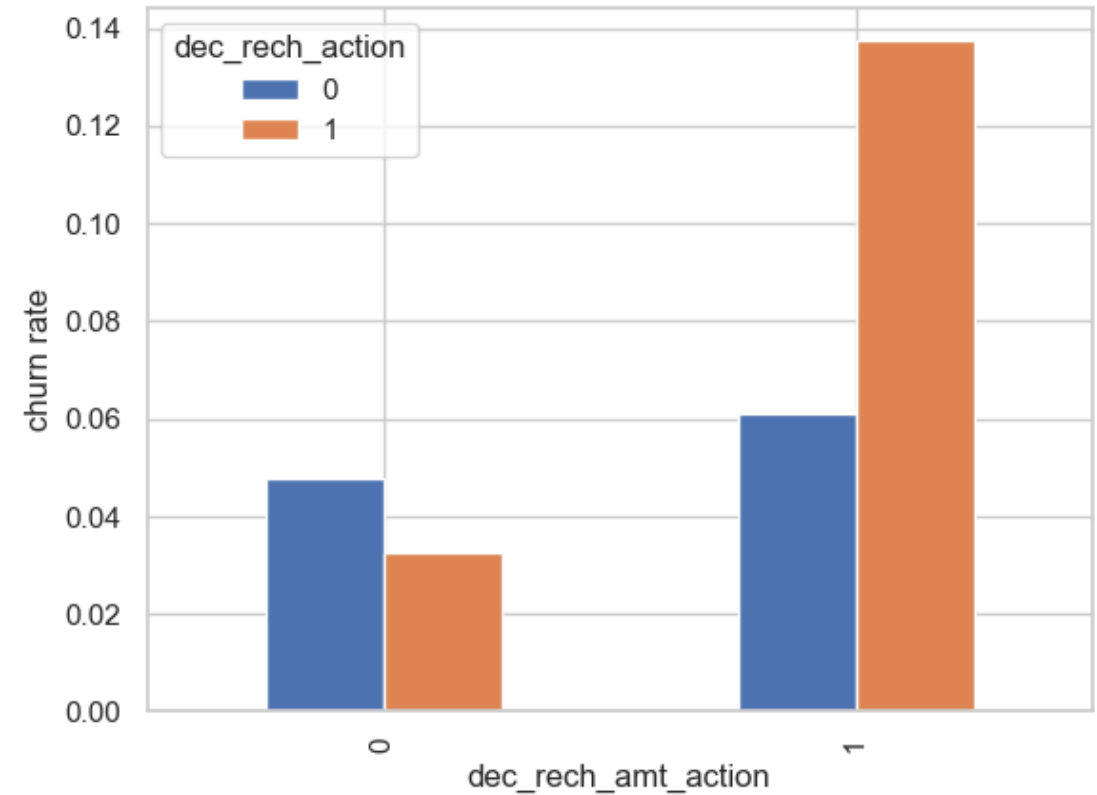
MOU Vs Churn Probability

- Higher the minutes of usage by Customer lower is the Churn probability.



Churn Rate Vs Decreasing Recharge Amount Vs decrease recharge action

- Churn rate is higher for the customers, whose recharge amount as well as number of recharge have decreased in the action phase when compared to the good phase.



Model Stats - Training Data



ACCURACY
0.92



SENSITIVITY
0.05



SPECIFICITY 1.0



RECALL 0.05

Model Stats - Test Data



ACCURACY
0.92



SENSITIVITY
0.05



SPECIFICITY
1.0



RECALL 0.05



Conclusion

- Local Minutes of usage (outgoing) are the most affecting features on the customer churn.
- Total Outgoing calls in 8th month is a very important feature to decide the Customer Churn rate.
- Average revenue per user in the 6th month. A sudden drop in it in preceding months indicate that the customer might be thinking about churning and appropriate actions should be taken.
- Outgoing calls are also affecting features on the Customer Churn.
- Special incoming calls also affect the customer churn rate.

Action to be taken



Better network and
focus on customer
satisfaction



Usage / last recharge/
on net usage, routine
feedback.



Attractive offers



Special call plans



Offers and
promotional calls



Thank You ..