# TELECOM\_CHURN Case Study

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### **Business Problem Overview**

In the telecom industry, customers are able to choose from multiple service providers and actively switch from one operator to another. In this highly competitive market, the telecommunications industry experiences an average of 15-25% annual churn rate. 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 more important than customer acquisition.

## **Top Predictors**

#### **Top predictors**

Below are few top variables selected in the logistic regression model.

We can see most of the top variables have negative coefficients. That means, the variables are inversely correlated with the churn probability.

#### E.g.:-

If the local incoming minutes of usage (loc\_ic\_mou\_8) is lesser in the month of August than any other month, then there is a higher chance that the customer is likely to churn.

Variables	Coefficients
loc_ic_mou_8	-3.3287
og_others_7	-2.4711
ic_others_8	-1.5131
isd_og_mou_8	-1.3811
decrease_vbc_action	-1.3293
monthly_3g_8	-1.0943
std_ic_t2f_mou_8	-0.9503
monthly_2g_8	-0.9279
loc_ic_t2f_mou_8	-0.7102
roam_og_mou_8	0.7135

#### Recommendations

- 1.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).
- 2. Target the customers, whose outgoing others charge in July and incoming others on August are less.
- 3.Also, 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.
- 4. Customers, whose monthly 3G recharge in August is more, are likely to be churned.
- 5.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.
- 6.Customers decreasing monthly 2g usage for August are most probable to churn.
- 7.Customers having decreasing incoming minutes of usage for operators T to fixed lines of T for August are more likely to churn.
- 8.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