Telecom Churn Case Study

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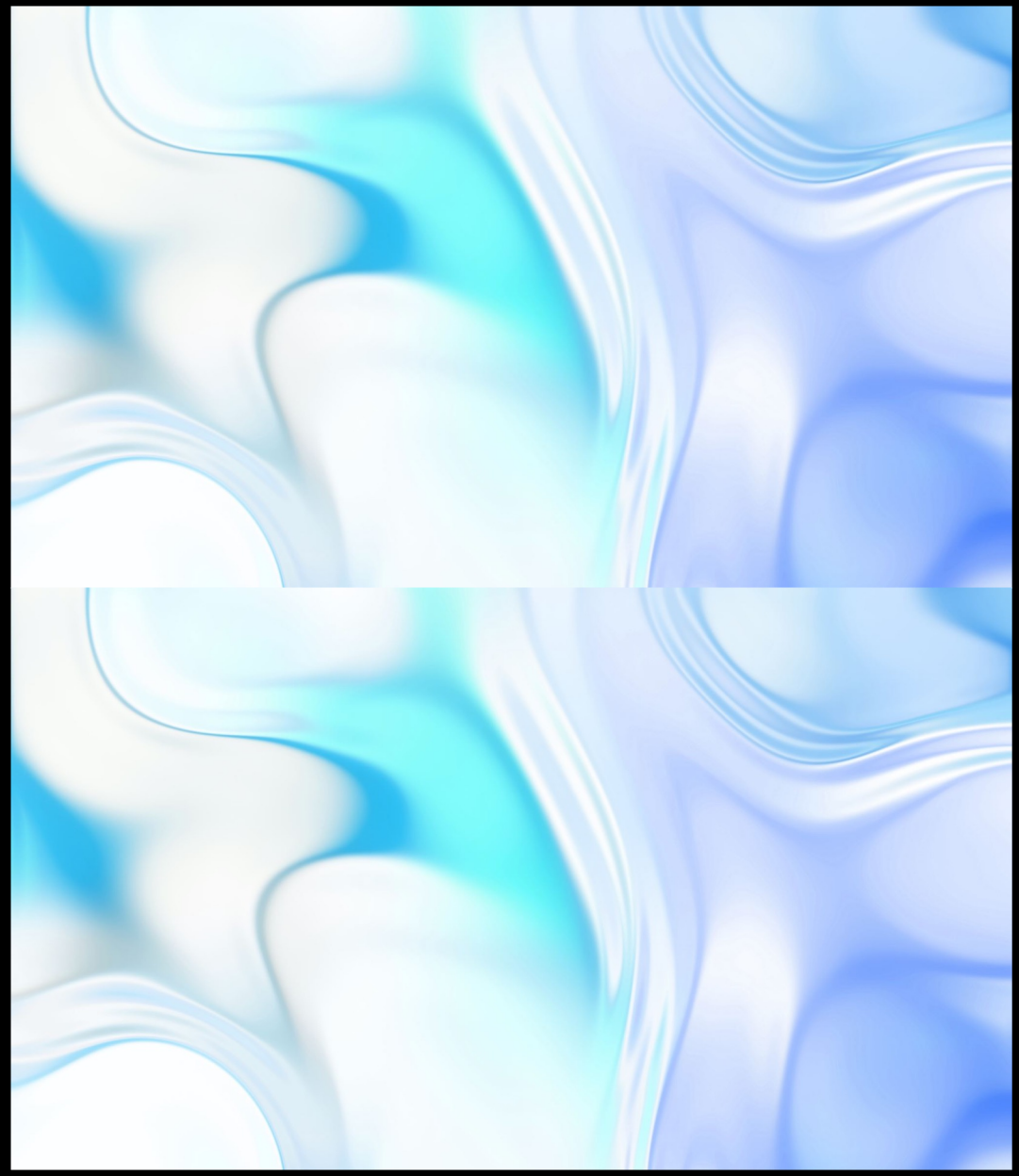
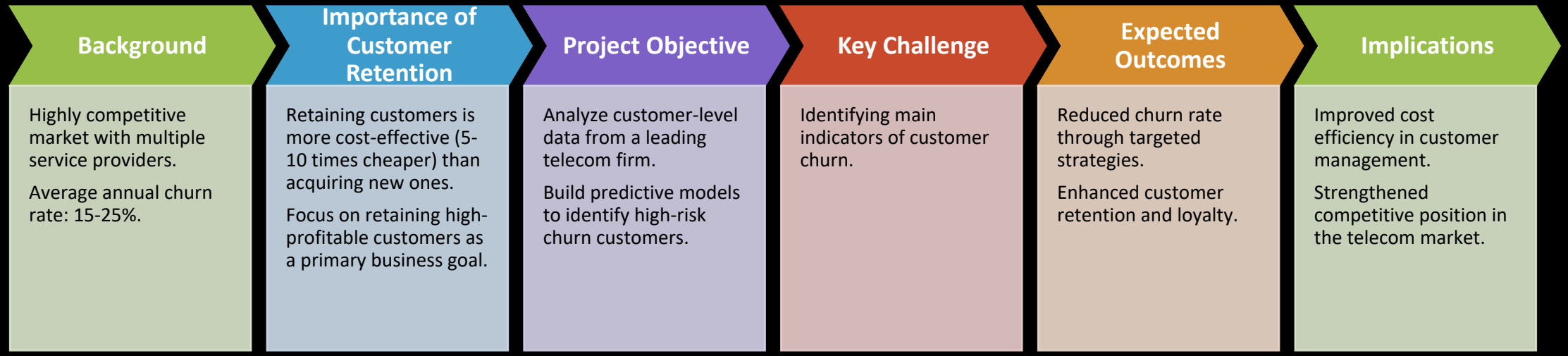
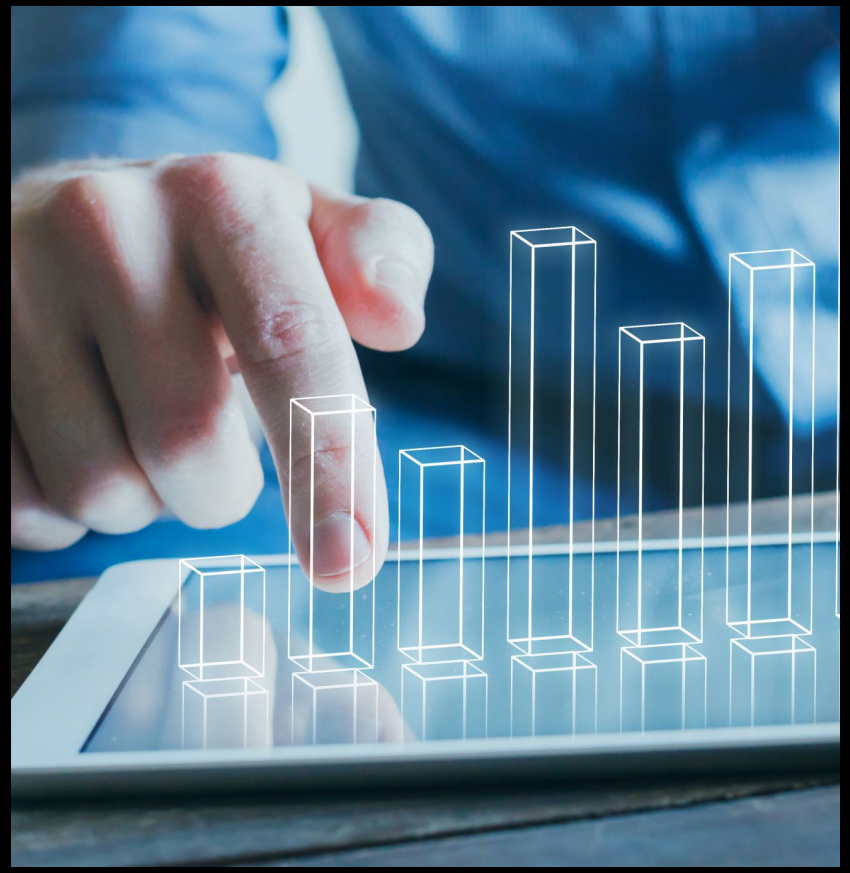


Reducing Customer Churn in Telecom Industry



Step by Step Approach

1. Loading, Reading, and Understanding the Data
2. Data Cleaning
3. Handling Outliers
4. Data Analysis
5. Data Preparation
6. Data Modelling
7. Model Evaluation
8. Final Observations and Summary



Business Recommendations

Top Predictors

In the table on the right are a few top variables selected in the Logistic regression model.

Things to Note :

- **Negative Correlation with Churn**: Key variables negatively correlate with churn probability, indicating an increased churn risk as these variables decrease.
- **Example - Local Incoming Minutes (loc_ic_mou_8)**: A decrease in local incoming minutes in August signals a higher churn likelihood, highlighting the importance of monitoring usage patterns for retention strategies.

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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

Recomendations

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. Cutomers, 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. Cutomers 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.