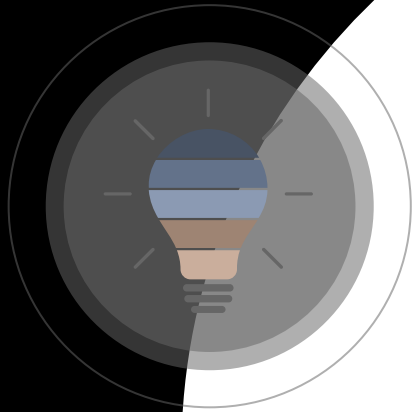
TXU Customer Contact Strategy

SMU Capstone Project



Business Problem

Identify contact strategies for commercial customers whose contract with TXU Energy is expiring in the next 6 months.

Executive Summary

- Performed K-means to segregate customers into **5 clusters**
- Developed logistic model to **optimize contact strategy** for each cluster
- Customers from **Most valuable & Loyal group** require no change in current contact strategy
- Customers from **Potential retention** cluster should be contacted to increase retention
- Making **out-bound calls** improves probability of customer renewal
- Overall, both direct mail and obtm call reduce loss

Methodology

1 Data Scrubbing

- Data cleaning
- EDA
- Data preparation

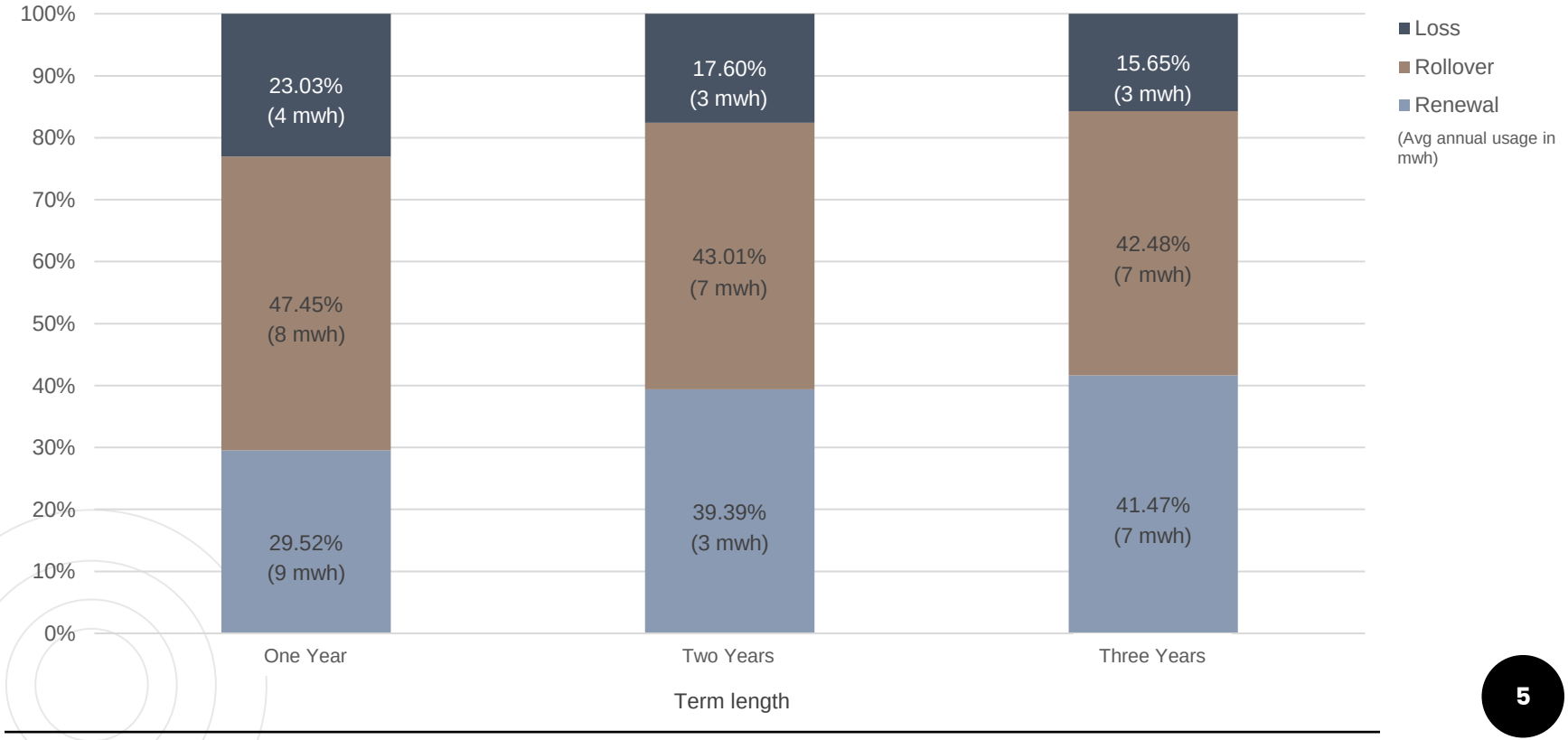
2 Developing Clusters

- Run **K-means** algorithm
- Identify number of cluster
- Interpret clustering results
- Adjust clustering

3 Developing Predictive model

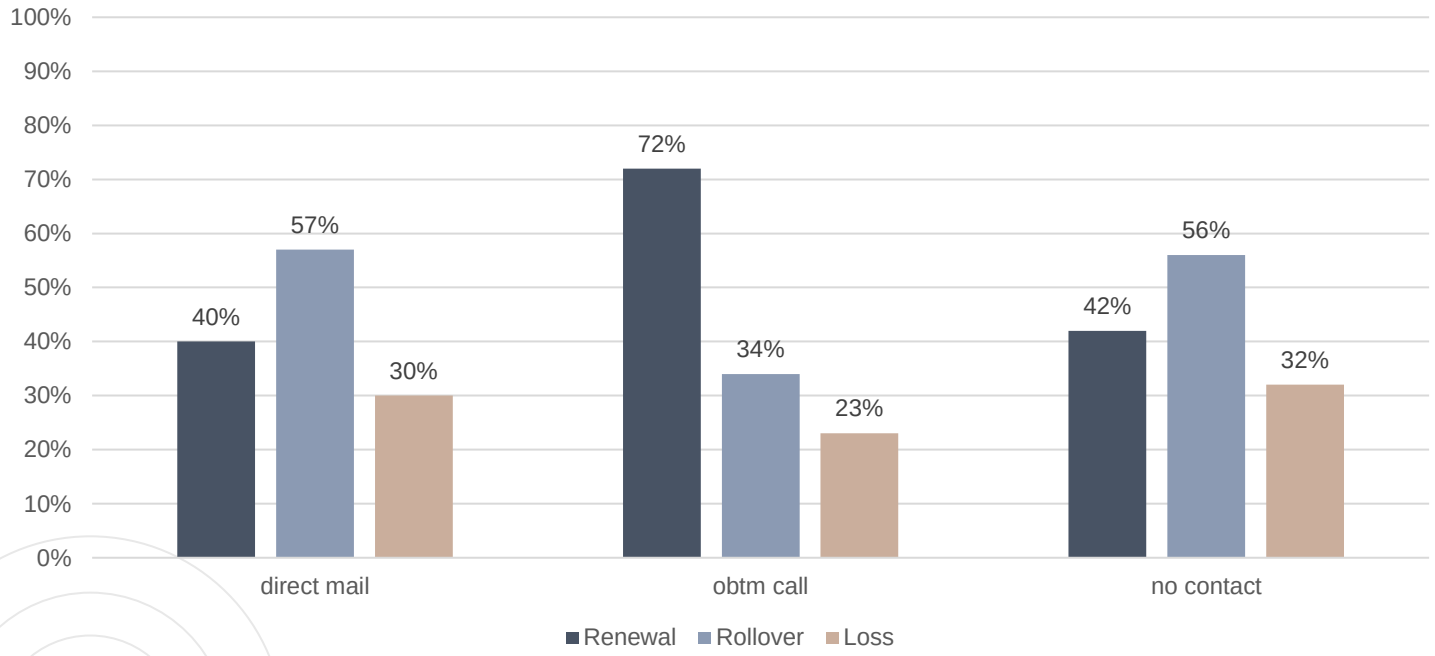
- Run **logistic model**
- Tune the model and Interpret
- Evaluation

Impact of existing customer's term length on swap type



The values have been changed to adhere to the NDA.

Impact of Contact on swap type



The values have been changed to adhere to the NDA.

Customer Groups

Cluster	No of Customers	Avg term length (month)	Avg annual mwh	Avg BP tenure (month)	Product type	T2 swap type			TE Contact		From price bucket		Price delta	
						Loss	Renewal	Rollover	Direct mail	Obtm call	0-5 cents	5-13+ cents	price drop	price up
Low-value	10K	36	30	36	Standard	**11%**	15%	75%	5%	2%	**66%**	34%	1%	99%
Potential retention	7K	**12**	30	24	Standard	35%	15%	50%	4%	4%	39%	**61%**	10%	90%
Most valuable	3K	36	35	50	Quoted	9%	**84%**	7%	4%	11%	24%	**76%**	31%	69%
Loyal group	2K	36	28	**290**	Quoted	**19%**	59%	21%	7%	10%	25%	**75%**	22%	78%
Focus group	5K	34	**90**	**135**	Quoted	24%	39%	37%	2%	14%	38%	62%	12%	**88%**

The values have been changed to adhere to the NDA.

Recommendations

Cluster	Unique metric	T2 swap type			Contact Strategy
		Loss	Renewal	Rollover	
Low-value	66% customers in low price bucket	11%	15%	75%	Direct mail
Potential retention	Lowest term length (14 months)	35%	15%	50%	Direct mail (low price customers) Obtm call (high price customers)
Most valuable	76% customers in high price bucket	9%	84%	7%	No change
Loyal group	Highest BP tenure (295 months)	19%	59%	21%	No change
Focus group	Highest annual usage (91 mwh)	24%	39%	37%	Obtm call

The values have been changed to adhere to the NDA.

Thank you!

Any Questions?