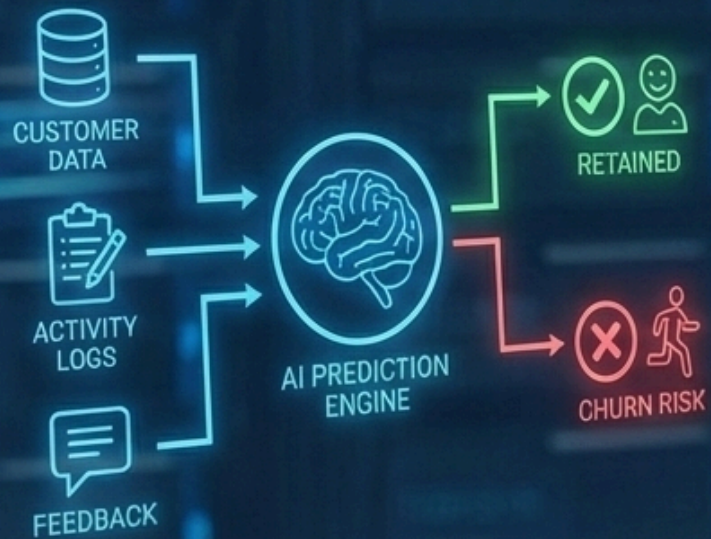


# CUSTOMER CHURN ANALYSIS, SEGMENTATION & COHORT STUDY

## CHURN PREDICTION MODEL



## CUSTOMER SEGMENTATION CLUSTERS



## COHORT RETENTION HEATMAP



EXECUTIVE SUMMARY : How severe is churn and how does it impact the business?

Contract (0/3)



Tenure Cohort (0/5)



cluster (0/3)



7043

Customers

1869

Total Churn

26.54%

Churn Rate

\$21.37M

Total Revenue

\$3.68M

Total Revenue Lost

784

Total Early Churn Customer

52.94%

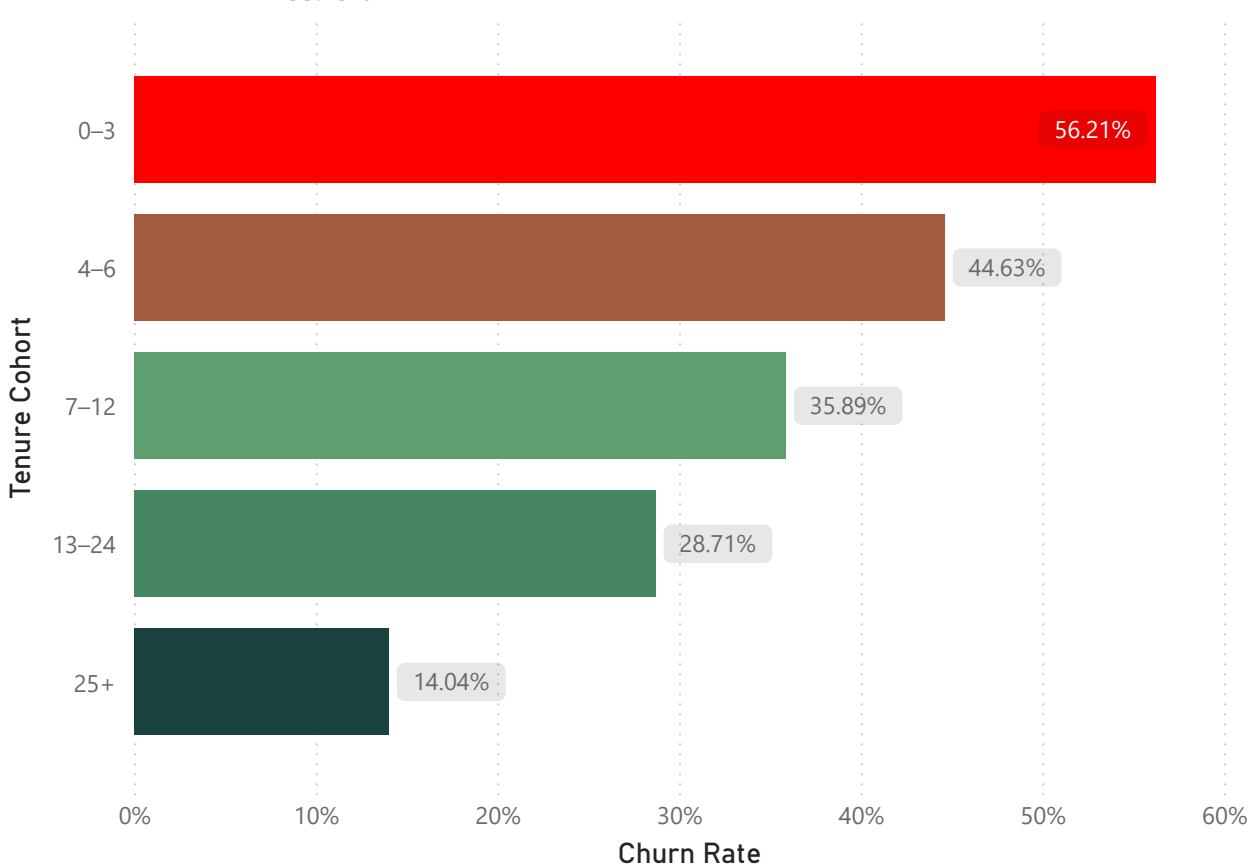
Early Churn Rate (0-6 Bulan)

\$4.40K

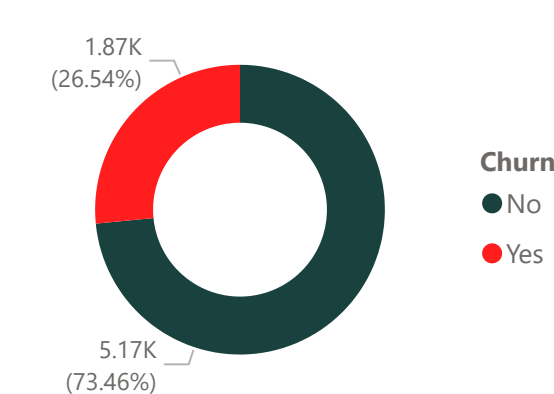
Avg cltv

Churn Rate by Tenure Cohort

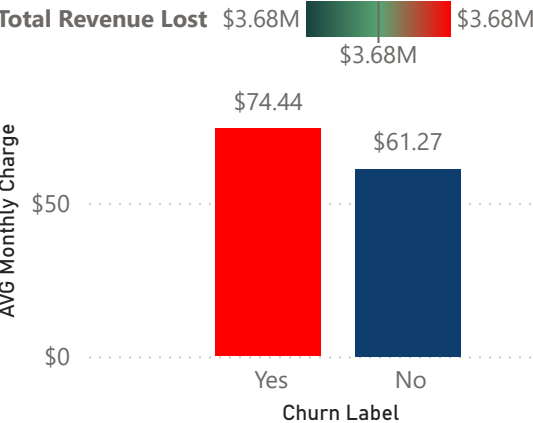
Churn Rate 14.04% 35.13% 56.21%



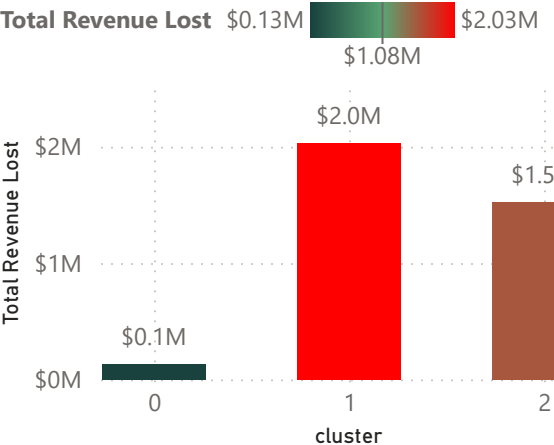
Customers by Churn



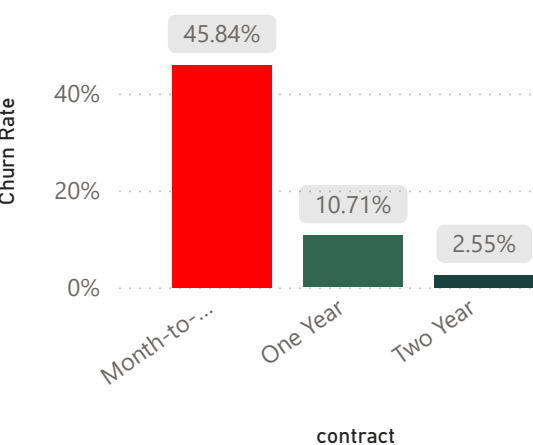
AVG Monthly Charge by Churn Label



Total Revenue Lost by cluster



Churn Rate by contract





## CHURN DRIVER ANALYSIS : Why do customers churn?



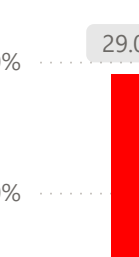
**Churn Rate by Payment Method**

Payment Method	Churn Rate
Electronic check	45.29%
Mailed check	19.11%
Bank transfer (automatic)	16.71%
Credit card (automatic)	15.24%

### Avg Satisfaction by Churn

Churn	Avg Satisfaction
No	3.79
Yes	1.74

### Churn Rate by Service Category



A bar chart titled 'Churn Rate by Service Category'. The y-axis represents the churn rate percentage, ranging from 0% to 30% with major gridlines every 10% and minor gridlines every 2%. The x-axis is labeled 'Service Category' and has two categories: 'Has Service' and 'No Service'. The 'Has Service' bar is red and reaches a value of 29.02%. The 'No Service' bar is dark teal and reaches a value of 21.65%.

Service Category	Churn Rate
Has Service	29.02%
No Service	21.65%

A bar chart titled "Churn Rate by Add on Streaming movie". The y-axis represents the churn rate as a percentage, ranging from 0% to 30% with major grid lines every 10% and minor grid lines every 2%. The x-axis is labeled "Add on Streaming movie" and has two categories: "Yes" and "No". The bar for "Yes" is dark blue and reaches a value of 29.94%, which is labeled above the bar in red text. The bar for "No" is dark blue and reaches a value of 24.38%, which is labeled above the bar in green text.

Add on Streaming movie	Churn Rate
Yes	29.94%
No	24.38%

### Churn Rate by Add on Premium Tech Support

A bar chart titled 'Churn Rate by Add on Premium Tech Support'. The y-axis represents the churn rate percentage, ranging from 0% to 30% with major grid lines every 10% and minor grid lines every 2%. The x-axis is labeled 'Add on Premium Tech Support' and has two categories: 'No' and 'Yes'. The 'No' category has a dark blue bar reaching 31.19%, with the value labeled in red above the bar. The 'Yes' category has a dark blue bar reaching 15.17%, with the value labeled in green above the bar.

Add on Premium Tech Support	Churn Rate
No	31.19%
Yes	15.17%

### Churn Rate by Add on Streaming TV

Add on Streaming TV	Churn Rate
Yes	30.07%
No	24.33%

### Churn Rate by Add on Streaming Music

Add on Streaming Music	Churn Rate
Yes	29.26%
No	25.05%

### Churn Rate by Add on Device Protection

A bar chart titled 'Churn Rate by Add on Device Protection'. The y-axis represents the churn rate percentage, ranging from 0% to 30% with major grid lines every 10% and minor grid lines every 2%. The x-axis is labeled 'Add on Device Protection' and has two categories: 'No' and 'Yes'. The bar for 'No' is dark blue and reaches a value of 28.65%, which is labeled above the bar in red text. The bar for 'Yes' is dark blue and reaches a value of 22.50%, which is labeled above the bar in green text.

Add on Device Protection	Churn Rate
No	28.65%
Yes	22.50%

A bar chart titled "Churn Rate by Add on Online Security". The y-axis represents the churn rate percentage, ranging from 0% to 30% with major grid lines every 10% and minor grid lines every 2%. The x-axis is labeled "Add on Online Security" and has two categories: "No" and "Yes". The bar for "No" is dark blue and reaches a value of 31.33%, which is labeled above the bar in a red box. The bar for "Yes" is also dark blue but shorter, reaching a value of 14.61%, which is labeled above the bar in a green box.

Add on Online Security	Churn Rate
No	31.33%
Yes	14.61%

CUTOMER SEGMENTATION & COHORT ANALYSIS : Who should be prioritized?

Contract (0/3)



Tenure Cohort (0/5)



Tenure Cohort (0/5)



Cluster Profiling Table

Cluster	Count of Customer id	AVG of Tenure	AVG of Total Revenue	AVG of CLTV	Churn Rate
0	2005	27.80	\$1,343.83	\$4,435.75	13.67%
1	2150	58.83	\$6,664.78	\$5,111.61	14.56%
2	2888	15.85	\$1,505.36	\$3,846.14	44.39%
Total	7043	32.37	\$3,034.38	\$4,400.30	26.54%

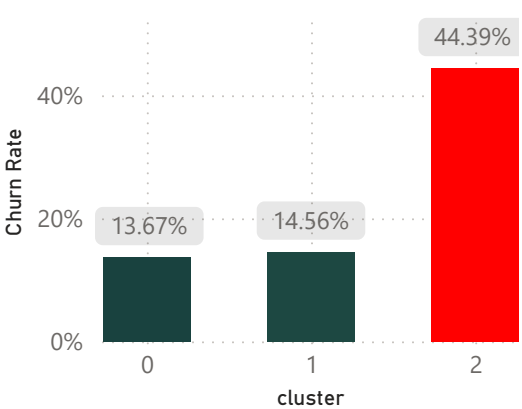
Cohort Churn Heatmap

Cluster	0-3	4-6	7-12	13-24	25+	Total
0	38.08%	20.00%	14.98%	8.54%	3.55%	13.67%
1				50.00%	14.46%	14.56%
2	67.48%	55.10%	45.82%	37.61%	25.69%	44.39%

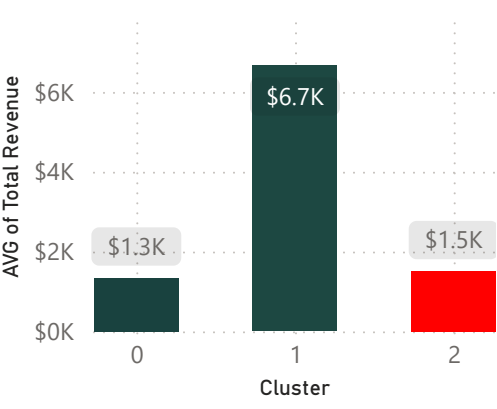
Total Revenue Lost by Cluster

Cluster	Total Revenue Lost	Total Churn
0	\$129,344.87	274
1	\$2,030,858.08	313
2	\$1,524,256.87	1282
Total	\$3,684,459.82	1869

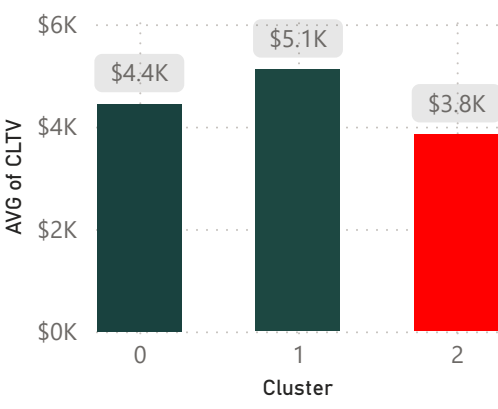
Churn Rate by cluster



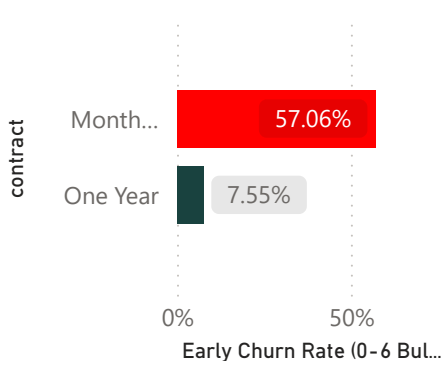
AVG of Total Revenue by Cluster



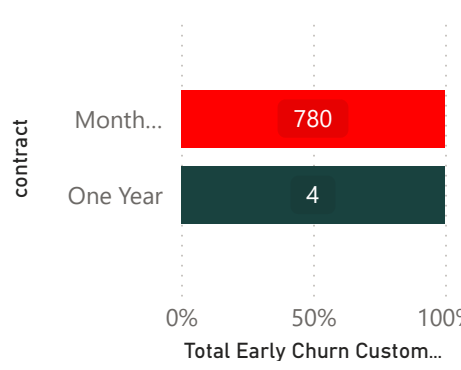
AVG of CLTV by Cluster



Early Churn Rate (0-6 Bulan) by contract



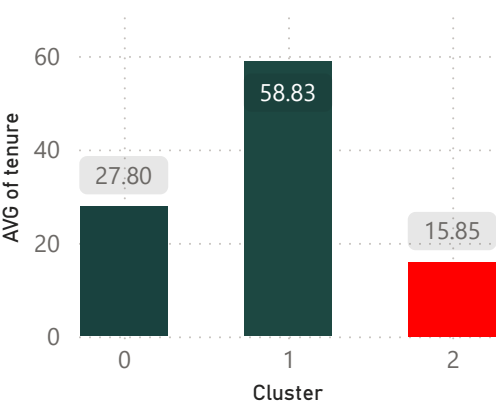
Total Early Churn Customer (0 - 6 Bulan) by contract



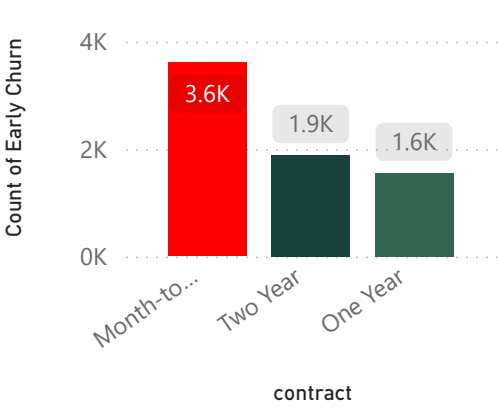
Count of Customer id by cluster



AVG of tenure by Cluster



Count of Early Churn by contract



Churn Rate by Tenure

