



Leveraging Churn and Lifetime Value to Improve Customer Retention

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INTERACTIVE DATA
(EMAT-62110-001)
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Project Objective

Goals

- Analyzing the data to understand customer churn
 - Looked at lifetime value trends over time
- Focused on patterns by age, contract, and contract type
- Found insights to boost retention and guide growth strategies

Data Overview

Data source ■ **Telco Customer Churn dataset** (from Kaggle)

Rows

- 7043 Rows

Columns

- 50 columns

Addition

- 2 new columns added
- CLV & Average Monthly Spend

Elimination

- Removing 25 irrelevant columns



27 Columns

Making Data Work: Collection, Cleaning, and Visualization Process

Exploratory Work

1

Data preparation

2

Missing Values dealing

3

Creating New columns

4

Visualizations - Bar plots, Histograms, Line graph

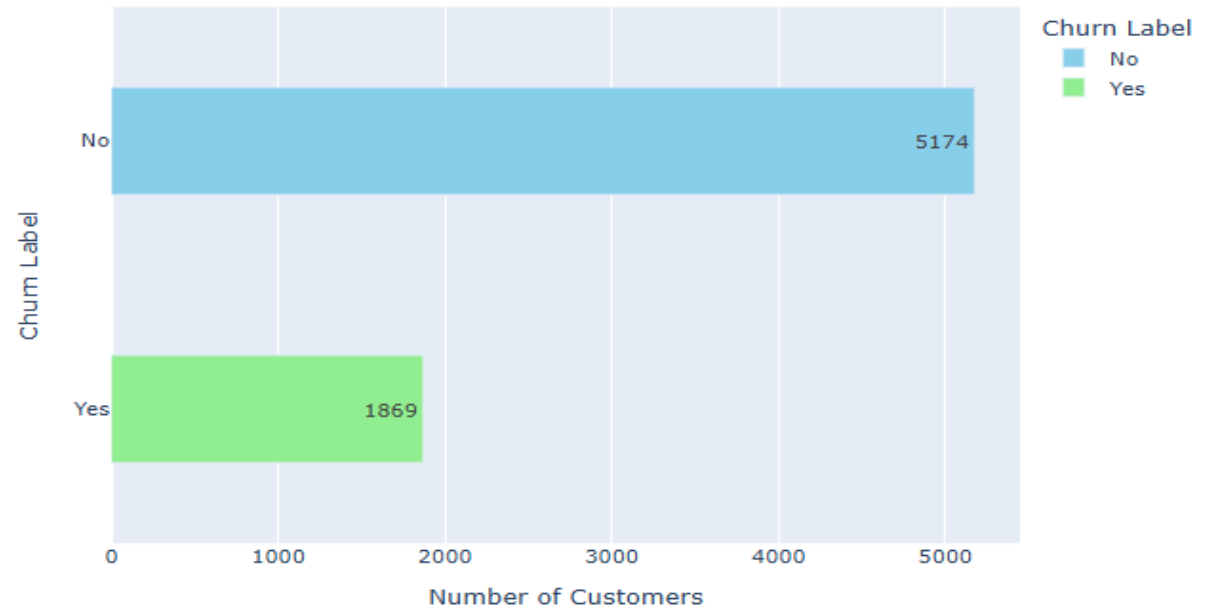
Data Visualization

Graphs

- Barplot - Churned vs Non-Churned Customers
- Histograms - Customer Churn by Reason Category & CLV Distribution by Age Group
- Line plot - Churn Trend Across Contract Types

Bar Plots

- Churned vs Non-Churned Customers
- Findings- **26% churned**



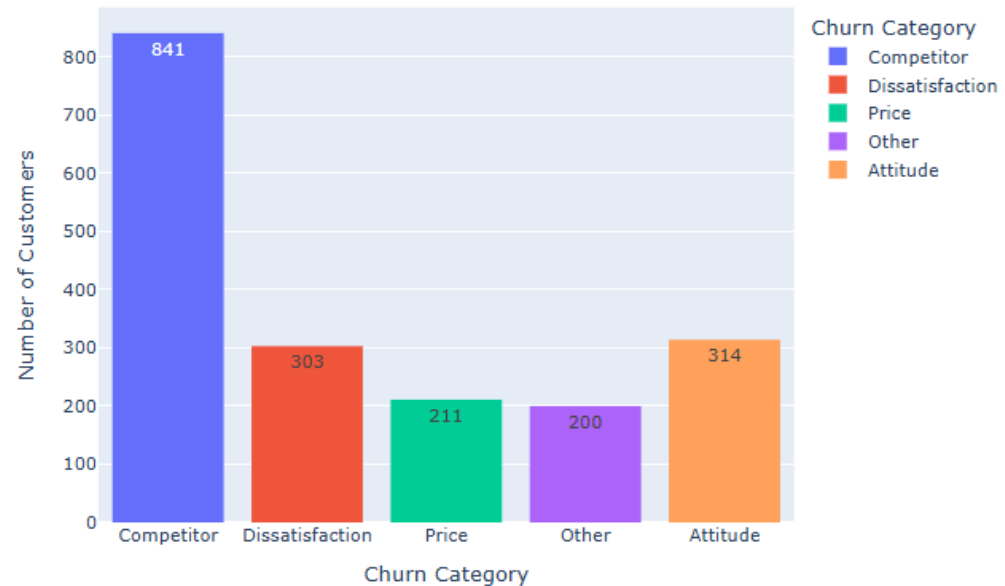
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Histogram

- Customer Churn by Reason Category
- Findings-
Competitor



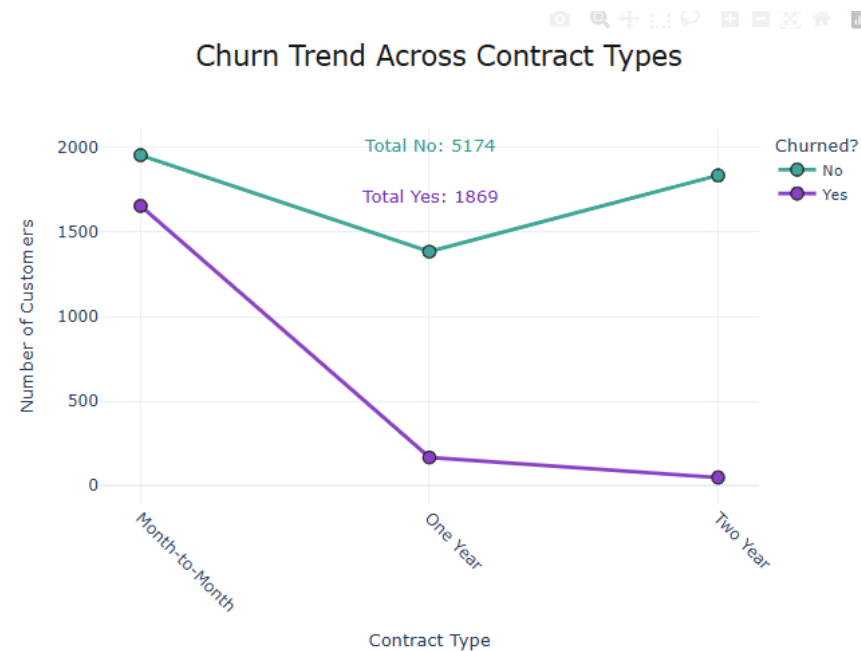
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Line Plot

- Churn Trend Across Contract Types



Data Visualization

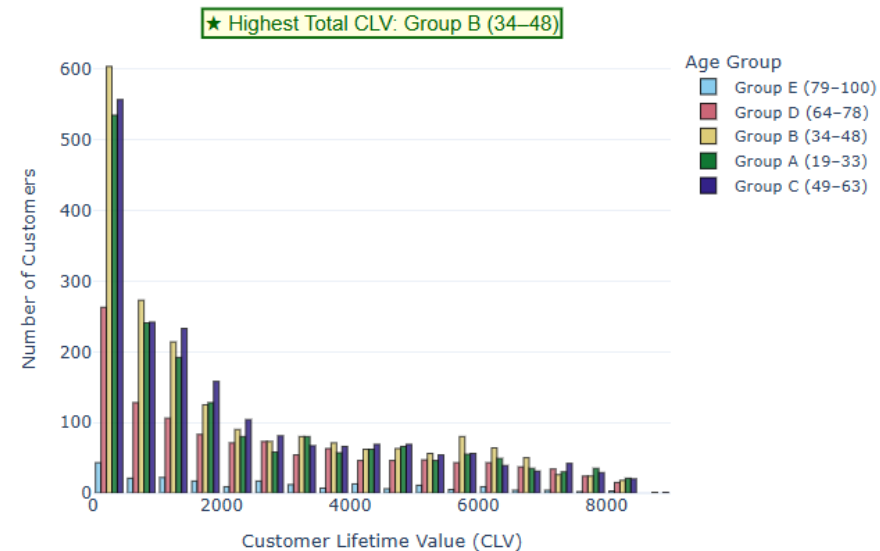
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Histogram

- CLV Distribution by Age Group
- Findings- **High CLV- Group B**

CLV Distribution by Age Group (Grouped Bars)



Recommendations

Action Plan

Prioritize Ages 34–48

Highest CLV group — focus on loyalty-building through rewards and personalized engagement

Promote Long-Term Contracts

Monthly plan users churn more — offer incentives to shift toward yearly or 2-year plans.

Address Churn Drivers

Dissatisfaction and competitor offers are major churn reasons — target these pain points proactively.

Engage Younger Customers

Lower current CLV, but long-term potential — invest in onboarding and creative engagement.

Building Predictive Models

One thing I noticed is that my project focuses on analyzing what's already happened—we're not yet predicting churn or future CLV. Also, some of the data, like churn reasons, might not be super accurate or complete. If I had more time, I'd try building predictive models and had more accurate information. That way, we could go from just understanding the problem to actually getting ahead of it.

Thank
You!