

Customer Churn Analysis – Project Summary

This was my first time working on a customer churn analysis, and it turned out to be a really insightful project. The goal was to figure out why customers leave, based on things like payment methods, contract types, and how long they've been with the company.

Key Findings:

- **Contract Type and Churn:**
Customers with month-to-month contracts tend to leave the most—about **42%** of them churn. In comparison, only **11%** of one-year contract customers and **3%** of two-year contract customers churn. This makes it clear that longer contracts help keep customers around.
- **Payment Methods:**
Customers who pay using **electronic checks** have a **45% churn rate**, which is significantly higher than the **15-18%** churn rate of those using credit cards or bank transfers. It looks like electronic check users might find the payment method inconvenient or unreliable.
- **Tenure & Churn Rate:**
Customers who've been with the company for **less than a year** have the highest churn rate at **50%**. This drops to **35%** for those who've stayed between one to three years, and then goes down to **15%** for customers who've been with the company for over three years. This suggests that the first year is crucial in keeping customers engaged.
- **Internet Service Type:**
Fiber Optic users have a **30% churn rate**, compared to **20%** for DSL users. This might be due to pricing competition or service quality issues.
- **Senior Citizens & Churn:**
Customers aged **65 and above** have a churn rate of **41%**, while non-senior citizens churn at **26%**. It might help to create specialized plans or better support for senior customers.

Visualizations & Insights:

The bar charts and line graphs in my analysis clearly highlight these trends. The payment method visualization, for instance, shows that electronic check users churn almost **three times more** than credit card users. Similarly, the tenure vs. churn rate graph shows a steep drop in churn after the first year.

Recommendations:

- **Encourage Long-Term Contracts:** Offer discounts or benefits to get more customers to commit to yearly or two-year contracts.
- **Improve Payment Experiences:** Help customers transition away from electronic checks to more stable payment methods.
- **Engage Customers Early:** The first year is crucial—better onboarding, promotions, and support could reduce churn.
- **Special Plans for Seniors:** Targeted services or better assistance could lower churn among older customers.

Overall, this project gave me a strong understanding of how different factors influence customer retention. The findings show clear patterns, and the recommendations can help businesses make strategic changes to keep more customers engaged.
