**Customer Churn Analysis Report – Aswin V T**

**Introduction**

Customer churn, or customer attrition, refers to losing clients or customers. It is a significant issue for businesses as retaining existing customers is often more cost-effective than acquiring new ones. This analysis aims to understand the factors influencing customer churn and identify patterns that can help reduce churn rates.

**Data Overview**

The dataset contains information on 6,687 customers with the following columns:

The dataset used for the customer churn analysis contains information about 6,687 customers. The dataset includes various features related to customer demographics, service usage, financial information, customer service interactions, and contract details.

**Data Analysis**

**Churn Rate**: Calculate the overall churn rate.

**Demographics**: Analyse churn based on demographics like age, gender, and senior status.

**Service Usage**: Examine the relationship between service usage (local calls, international calls, data usage) and churn.

**Customer Service**: Investigate the impact of customer service calls on churn.

**Financials:** Explore the effect of charges (monthly and total) on churn.

**Contract and Payment:** Assess how contract type and payment method influence churn.

**Key Findings**

**Churn Rate**: The dataset contains 1,769 churned customers, leading to a churn rate of approximately 26.5%.

**Demographics**

1. **Age:** Younger customers (< 30) have a churn rate of 30% compared to 24% for customers aged 30 and above.
2. **Gender:** No significant difference in churn rates between males (26.8%) and females (26.2%).
3. **Senior Status:** Seniors have a churn rate of 25%, which is slightly lower than 27% for non-seniors.

**Service Usage**

1. **Local Calls and Minutes:**
   1. Customers making more than 300 local monthly calls have a churn rate of 18% compared to 35% for those making fewer calls.
   2. Customers using over 400 minutes of local calls per month have a churn rate of 20% compared to 33% for those using fewer minutes.
2. **International Calls and Minutes:**
   1. Customers making international calls have a churn rate of 22% compared to 28% for those who do not.
   2. Customers using over 30 minutes of international calls per month have a churn rate of 15% compared to 27% for those using fewer minutes.
3. **Unlimited Data Plan:**
   1. Customers with unlimited data plans have a churn rate of 21% compared to 31% for those without such plans.

**Customer Service**

**Customer Service Calls:** Customers who made more than 4 calls to customer service have a churn rate of 45% compared to 20% for those making fewer calls.

**Financials**

**Monthly Charges:** Customers with monthly charges above $70 have a churn rate of 35% compared to 22% for those with lower charges.

**Total Charges:** No significant correlation exists between total charges and churn rates.

**Contract and Payment**

**Contract Type:** Month-to-month contracts have the highest churn rate at 40% compared to 12% for one-year contracts and 5% for two-year contracts.

**Payment Method:** Customers paying via paper checks have a churn rate of 33%, which is higher than the 24% churn rate for those using direct debit or other methods.

**Conclusion**

By improving these areas, businesses can keep more customers. They can encourage frequent service use, improve customer support, offer flexible contracts, and provide convenient payment options. This way, customers are happier and less likely to leave.

**Recommendations**

1. **Enhance Customer Service**: Address issues leading to frequent customer service calls to improve satisfaction.
2. **Promote Long-term Contracts**: Encourage customers to switch to longer-term contracts to reduce churn.
3. **Optimize Pricing**: Review pricing strategies, especially for high-usage customers, to ensure competitive rates.
4. **Personalized Offers**: Provide targeted offers and incentives to younger customers and those at higher risk of churn.