Telecom Customer Churn Analysis Report

Overview

The dashboard provides an analytical overview of customer churn behaviour in the telecom sector. The analysis focuses on key metrics such as churn rate, customer service interactions, call patterns, plan subscriptions, and state-wise churn distribution. The objective is to identify potential areas of improvement and derive actionable business insights to reduce customer churn and improve retention.

Key Metrics Summary

- **Total Customers:** 2,666
- **Churned Customers:** 388
- **Churn Percentage:** 14.55%
- **Average Total Minutes of Call:** 581.04 minutes
- **Average Customer Service Calls:** 1.56
- **Estimated Revenue Lost Due to Churn:** ₹25K

These figures indicate that approximately **1 in every 7 customers** has discontinued their services, resulting in notable revenue loss.

Insights Derived

1. Churn by International Plan Subscription

- Customers with an International Plan show a significantly higher churn rate (around 40%) compared to those without it.
- This suggests possible dissatisfaction related to international call pricing, connectivity, or plan value perception.

Business Suggestion:

- Review international plan pricing and benefits.
- Introduce flexible international calling packages or loyalty-based discounts for frequent users.
- Improve customer communication around international plan charges and limits.

2. Churn by Voice Mail Plan Subscription

- Customers without a voice mail plan have a higher churn rate (~55–60%) compared to those who have subscribed.
- This may indicate that voice mail plan users are more engaged or find additional value in their subscription.

Business Suggestion:

- Promote voice mail plan adoption through bundled offers or as part of premium packages.
- Highlight convenience features (missed-call alerts, message storage) to improve perceived usefulness.

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3. Customer Usage Patterns and Churn Behaviour

- The scatter plot shows that churned customers tend to cluster at lower total call minutes with varying customer service call frequencies.
- A few customers with high total minutes also churned, possibly due to unresolved service issues (indicated by more service calls).

Business Suggestion:

- Identify low-engagement users (low total minutes) and offer retention incentives like bonus minutes or trial upgrades.
- Analyze cases with multiple service calls to improve resolution speed and customer satisfaction.

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4. Heavy Users vs. Normal Users

- The “Churn Comparison” visualization indicates heavy users have a higher churn count than normal users.
- This is concerning because heavy users contribute more to total revenue, meaning their churn impacts profits significantly.

Business Suggestion:

- Prioritize heavy users for retention programs such as premium customer support, exclusive discounts, or priority issue resolution.
- Launch targeted satisfaction surveys to understand their pain points.

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5. State-wise Churn Distribution

- Top 6 states with maximum churn:
  - TX (16 customers)
  - MD (14 customers)
  - NJ (14 customers)
  - MI (13 customers)
  - MN (13 customers)
  - NV (13 customers)
- The concentration of churn across these states suggests potential regional service issues or competitive threats.

Business Suggestion:

- Conduct regional audits in high-churn states to identify service or pricing gaps.
- Strengthen local marketing and network support in affected areas.

Financial Impact

- The estimated revenue loss due to churn is ₹25K.
- While this is a snapshot value, if churn continues at a similar rate, the annualized revenue impact could be significant.

Business Suggestion:

- Implement a churn prediction model to proactively identify customers at risk and engage them with personalized offers before they leave.
- Regularly track churn trends to evaluate retention strategies.

Conclusion

This analysis reveals that **churn is strongly influenced by plan type, service experience, and usage behaviour.**
Key areas of focus should include:

- Redesigning the **international plan** for better customer satisfaction.
- Encouraging adoption of **value-added services** like voice mail plans.
- Enhancing **customer service quality** for high-value and heavy users.
- Monitoring **regional churn trends** to address state-specific issues.

By acting on these insights, the business can reduce churn percentage, recover lost revenue, and build stronger long-term customer loyalty.