Business Recommendations Report

Project Title: Customer Churn Prediction System

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Submitted to: Future Interns

1. Objective

The purpose of this project is to analyze customer churn behavior in the telecom sector and build a predictive model that helps businesses identify customers at high risk of leaving. The final deliverables include a predictive model, Power BI dashboard, and actionable business insights that can assist in developing effective customer retention strategies.

2. Key Insights

From the predictive modeling and dashboard visualizations, the following insights were observed:

1. Contract Type:

Customers on month-to-month contracts have the highest churn rate compared to yearly or two-year contracts.

2. Payment Method:

Customers paying via electronic checks show significantly higher churn compared to those using automatic payment methods such as credit card or bank transfer.

3. Tenure:

Customers with shorter tenure (less than 12 months) are more likely to churn compared to long-term customers.

4. Monthly Charges:

Customers with higher monthly charges exhibit a higher probability of leaving.

5. Value-Added Services:

Customers with additional services (such as Tech Support, Online Security, and Streaming TV/Movies) show lower churn rates, indicating that service bundling increases loyalty.

3. Recommendations

Based on the above insights, the following business recommendations are suggested:

1. Encourage Long-Term Contracts

Offer attractive discounts and loyalty rewards for customers who switch from month-to-month to yearly or multi-year contracts.

Example: "Sign up for 12 months and get 1 month free."

2. Promote Secure Payment Methods

Provide incentives for customers to adopt auto-debit, credit card, or bank transfer payments instead of electronic checks.

Example: Cashback or bonus points for first-time card payments.

3. Focus on New Customers (First-Year Retention)

Develop special onboarding and support programs for customers with tenure less than 12 months.

Example: "First 3 months free tech support" or personalized check-ins.

4. Reduce Churn from High Monthly Charges

Introduce flexible pricing, discounts, or bundled service packages to reduce the perceived cost burden.

Example: "Bundle Internet + Streaming TV at ₹200 less per month."

5. Increase Adoption of Value-Added Services

Encourage customers to opt for additional services like Online Security, Tech Support, or Entertainment bundles.

Customers with these services have shown lower churn rates, so this can improve retention.

4. Conclusion

The Customer Churn Prediction System successfully identified at-risk customers with an accuracy of 82% (AUC = 0.86). By applying the insights derived from predictive modeling and visual dashboards, businesses can take proactive actions to reduce customer churn, retain valuable customers, and improve long-term profitability.

This project demonstrates how data-driven decision-making can directly support customer retention strategies and provide a competitive edge in the telecom industry.