TELECOM CHURN PREDICTION PRESENTATION

TITLE :

PREDICTING CUSTOMER CHURN IN TELECOM

INDUSTRY

SUB-TITLE:

DATA-DRIVEN INSIGHTS FOR CUSTOMER RETENTION

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INTRODUCTION

Objective:

•Identify customers at risk of churning.
•Understand the key factors influencing churn.
•Develop actionable strategies to improve customer retention.

BUSINESS PROBLEM STATEMENT

Challenges in Telecom Industry:

•High competition leading to customer loss.
•Difficulty in predicting which customers will churn.
•Need for proactive customer retention strategies.

Solution Approach:

•Utilize customer usage data to build predictive models.
•Identify important churn indicators.
•Recommend targeted interventions.

DATA AND METHODOLOGY

Dataset Overview:

•Customer data for 4 months (June - September).
•Features include recharge amount, call duration, data usage, etc.

Data Processing Steps:

•Filtered high-value customers (top 30% based on recharge amount).
•Tagged churners based on zero activity in the churn month.
•Removed churn-phase data to ensure realistic predictions.

Modeling Approach:

•Logistic Regression for interpretability.
•Random Forest for accuracy.
•Addressed class imbalance using SMOTE.

KEY FINDINGS

1. **Churn Rate: ~ 5-10% of high-value customers churn.**

2. **Top Churn Indicators:**

   - Declining recharge amount over months.
   - Reduced outgoing & incoming call activity.
   - Lower mobile data usage in earlier months.

3. **Model Performance:**

   Random Forest: Higher accuracy & prediction power.
   Logistic Regression: Provides insights into churn reasons.

BUSINESS RECOMMENDATIONS

✅ **Proactive Customer Retention Strategies:**

•Offer targeted discounts and loyalty rewards to high-risk customers.
•Enhance customer service to address complaints and dissatisfaction.

✅ **Data-Driven Personalized Offers:**

•Monitor declining recharge patterns and provide personalized packages.
•Special data & call plans for customers with decreasing usage.

✅ **Improve Network & Service Quality:**

•Identify regions with poor network coverage affecting usage.
•Increase customer engagement through surveys & feedback.

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BUSINESS IMPLICATIONS

📌 **Reduced Customer Churn:**

Saving revenue by retaining high-value customers.

📌 **Enhanced Customer Loyalty:**

Providing better service and tailored offers.

📌 **Competitive Advantage:**

Proactive churn management gives a market edge.

📌 **Revenue Growth:**

Lower churn leads to more stable revenue streams.

ACTION PLAN & NEXT STEPS

- **Implement real-time churn monitoring** to flag at-risk customers.
- **Deploy personalized customer outreach** (calls, SMS, offers).
- **Refine models with additional data** (customer feedback, complaints, location-based trends).
- **Measure effectiveness of retention strategies** through A/B testing.