Subscription Customer Churn Analysis – Case Study Report

Project Objective:

This project aims to analyze customer churn behavior in a subscription based streaming service. Using data-driven insights, we identify key churn indicators and provide strategic recommendations to improve customer retention and reduce churn rate.

Tools Used:

- *Microsoft Excel* - Data cleaning & preprocessing

- *MySQL* - Exploratory analysis & churn segmentation

- *Power BI* - Interactive dashboard & visualization

Dataset Information:

- Total Records: 963

- Churned Customers: 169

- Churn Rate: 17.55%

- Key Columns: Subscription Type, Payment Method, Support Tickets, Viewing Hours, Rating, Paperless Billing, Genre Preference, etc.

SQL Insights & Findings

The following insights were discovered through SQL analysis:

1) Churn Rate by Subscription Type

Subscription Churn %

Subscription	Churn %
Unknown	~22%
Basic	~18%
Premium	~17%
Standard	~16%

➔ <u>Unknown plan holders churn the most likely due to lack of clarity in offerings.</u>

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2) Churn by Payment Method

Payment Method	Churn %
Mailed Check	~24%
Unknown	~19%
Electronic Check	~17%
Credit/Bank Transfer	~15–16%

➔ <u>Customers using mailed checks churn the highest, indicating inconvenience or delayed billing issues.</u>

3) Support Tickets & Churn Correlation

- Higher support tickets = Higher churn

- Customers with 10+ tickets show churn above 25%

➔ Support issues strongly drive churn → dissatisfaction.

4) Viewing Hours per Week

- Low engagement users (0–2 hrs./week) show highest churn

- Highly engaged users churn less

➔ Customer satisfaction influences retention.
Low engagement = high churn risk.

5) User Ratings & Churn

- Customers giving 1–2-star ratings churn more

- Higher ratings align with lower churn

➔ Poor content experience is a churn trigger.

6) Paperless Billing

Paperless Billing	Churn %
Yes	18.85%
No	16.79%

➔ <u>Users opting for paperless billing churn slightly more - may need better communication or digital experience improvement.</u>

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7) Preferred Genre

Genre	Highest Churn
Sci-Fi & Drama	~20–21%
Comedy/Fantasy	~15–16%

➔ Genre-based personalization strategies can target high-risk preferences.

Final SQL Conclusion

Churn is primarily influenced by:

✓ Payment convenience
✓ Customer support experience
✓ Service engagement (hours watched)
✓ Customer satisfaction (ratings)
✓ Subscription clarity
✓ Genre interest patterns

Final Conclusion

Conclusion:

This analysis successfully identified the key factors contributing to customer churn in a subscription-based streaming platform. By leveraging SQL and Power BI, churn patterns across subscription type, payment behavior, support usage, and engagement metrics were discovered.

These insights can help the business implement targeted retention strategies, improve customer experience, and optimize billing methods. With consistent monitoring and data-driven actions, the churn rate can be significantly reduced over time.

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