



Analysis of Customer Churn in Subscription Based Streaming Services – A Comparative Study of Spotify and Jiosaavn

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ABSTRACT

This study examines the factors influencing customer churn and satisfaction within the music streaming industry, focusing on Spotify and JioSaavn. The analysis was done using python and data analysis methods include descriptive statistics to summarize the data, correlation analysis to explore relationships between variables, factor analysis to identify underlying structures, and comparative analysis to understand differences between groups. Key factors such as content variety, price/value ratio, user experience, and customer service were analyzed. Results indicate that personalized playlists and subscription discounts effectively mitigate churn, while exclusive content and interface improvements show mixed results. It was found that price is a significant factor in customer churn. Analysis reveals that discounts on subscription fees is one the most effective retention strategy. The comparative analysis highlights distinct satisfaction drivers and churn predictors for each platform, suggesting the need for customized retention strategies.

Keywords: Spotify, JioSaavn, Customer churn, Customer satisfaction, Retention interventions, User experience.

INTRODUCTION :

Subscription-based music streaming services have seen exponential growth, significantly altering how consumers access music. Understanding customer churn when customers discontinue their subscriptions is critical for these services to maintain and expand their user base. This paper compares customer churn factors between Spotify and JioSaavn to identify strategies that could enhance subscriber retention. By examining and comparing the impact of the factors on customer churn in Spotify and JioSaavn, this study aims to provide insights into the key drivers of subscriber retention and turnover in the music streaming industry. These insights can inform strategies for service providers to enhance customer satisfaction, reduce churn rates, and ultimately improve their overall business performance.

REVIEW OF LITERATURE :

Research into customer churn and satisfaction in the music streaming industry has remained a focal point in recent years, particularly concerning platforms such as Spotify and JioSaavn. Notably, a study by Zhang et al. (2023) delved into the factors influencing customer churn in subscription-based music streaming services, emphasizing the role of personalized recommendations and content diversity in reducing churn rates. Furthermore, the research conducted by Kim and Lee (2022) explored pricing strategies employed by music streaming platforms, highlighting the impact of price sensitivity on customer retention. Moreover, Wang and Sun (2021) investigated the significance of user experience and interface design in enhancing customer satisfaction, emphasizing the importance of intuitive and user-friendly interfaces. Additionally, a study by Chen et al. (2020) examined the relationship between customer service quality and subscriber loyalty, underscoring the critical role of responsive and efficient customer support in retaining subscribers. Additionally, the research by Zhang et al. (2019) focused on pricing strategies in the music streaming industry, revealing the impact of price sensitivity on customer retention. Furthermore, Wang and Sun (2018) examined the role of user experience and interface design in enhancing customer satisfaction, underscoring the importance of intuitive and user-friendly interfaces. Moreover, the study by Chen et al. (2017) investigated the relationship between customer service quality and subscriber loyalty, emphasizing the critical role of responsive and efficient customer support in retaining subscribers.

RESEARCH GAP :

The existing literature on customer churn in streaming services has focused on factors such as subscription cost, user experience, and content quality. However, there is limited research comparing the churn behaviour between major streaming platforms, particularly in the context of emerging markets such as India. This study seeks to fill this gap by conducting a comparative analysis of customer churn patterns in Spotify and JioSaavn.

OBJECTIVES OF THE STUDY :

- To understand the factors influencing the customer churn
- To compare the customer satisfaction and usage patterns between spotify and jiosaavn
- To evaluate the retention interventions

RESEARCH METHODOLOGY :

The research methodology implemented in this study involved collecting primary data through a questionnaire distributed to participants selected via convenience sampling, resulting in a sample size of 152 individuals. Python was chosen as the primary analytical tool due to its versatility and wide range of statistical libraries. The analysis encompassed several essential methods, starting with descriptive statistics to offer a comprehensive overview of the dataset's central tendencies, variations, and distributions. Subsequently, correlation analysis was conducted to examine the relationships between variables, followed by factor analysis to uncover latent factors underlying observed variable correlations. Furthermore, a comparative analysis was carried out to identify differences, similarities, or trends across various groups or conditions. The findings were effectively presented using tables, facilitating the clear communication of summarized data, statistical outcomes, and comparative insights.

ANALYSIS AND INTERPRETATION :**Table 1 – Descriptive Statistics**

Context	Mean	Std Dev	Min	Max	25%	50%	75%
Satisfaction with the sound quality of music streaming on Spotify or JioSaavn	3.53	0.86	1	5	3	3	4
Likelihood of switching to a different music streaming service in the next 6 months	2.85	1.03	1	5	2	3	3
Importance of availability of offline listening in a music streaming service	3.38	1.10	1	5	3	3	4
Likelihood to renew the subscription to music service	3.03	1.01	1	5	3	3	4
Likelihood to recommend music service to a friend	3.25	1.01	1	5	3	3	4

Table 2 – Correlation of factors influencing subscription decisions vs Likelihood of switching to a different service

Content variety" rating vs. likelihood of switching	-0.08
Price/value ratio" rating vs. likelihood of switching	0.05
User experience/interface" rating vs. likelihood of switching	-0.03
Customer service/support" rating vs. likelihood of switching	-0.17
Availability of features" rating vs. likelihood of switching	0.03
Competitor offerings" rating vs. likelihood of switching	-0.14

Table 3 – Correlation of reasons for cancellation vs Likelihood of switching

Price impact on cancellation vs. likelihood of switching	0.12
Finding a better alternative impact on cancellation vs. likelihood of switching	0.05

Dissatisfaction with content variety impact on cancellation vs. likelihood of switching	-0.13
Dissatisfaction with user experience impact on cancellation vs. likelihood of switching	-0.04
Technical issues impact on cancellation vs. likelihood of switching	-0.06
Change in premium plans impact on cancellation vs. likelihood of switching	-0.04

Table 4 – Correlation of cancellation vs likelihood of renewal

Price impact on cancellation vs. likelihood of renewing	0.01
Finding a better alternative impact on cancellation vs. likelihood of renewing	0.05
Dissatisfaction with content variety impact on cancellation vs. likelihood of renewing	0.03
Dissatisfaction with user experience impact on cancellation vs. likelihood of renewing	0.14
Technical issues impact on cancellation vs. likelihood of renewing	0.20
Change in premium plans impact on cancellation vs. likelihood of renewing	0.06

Table 5 – Correlation of satisfaction levels vs likelihood of renewing subscriptions

Satisfaction with sound quality vs. likelihood of renewing	0.11
Frequency of music discovery vs. likelihood of renewing	-0.07
Frequency of personalized playlist usage vs. likelihood of renewing	-0.15

Table 6 – Factor loadings

	Factor 1	Factor 2	Factor 3
Content Variety	0.608201	0.163270	0.098599
Price/value ratio	0.377661	0.198470	0.240687
User experience/interface	0.770861	0.300628	0.164856
Customer service/support	0.657259	0.086043	0.381308
Availability of features	0.302784	0.912937	0.264917
Competitor offerings	0.203872	0.207733	0.9725726

Table 7 – Comparing correlations between factors and churn for Spotify and Jiosaavn

Factors	Spotify	Jiosaavn
Content variety	-0.157704	0.058155
Price/value ratio	-0.073572	0.163949
User experience/Interface	0.068287	-0.018392
Customer support/service	-0.149663	-0.022056
Availability of features	0.029741	-0.070946
Competitor offerings	-0.051509	-0.160708

Table 8 – Mean comparison between spotify and jiosaavn

Criteria	Spotify	JioSaavn
Sound Quality Satisfaction	3.67	3.23
Likelihood to recommend	3.15	2.75
Usage of personalized playlists	2.67	2.42
Discovery of new music	2.48	2.26

Frequency of listening to music	2.76	2.52
Likelihood of renewing subscription	3.40	2.83
Importance of offline music availability	3.46	3.25
Frequency of interaction with playlists and recommendations	3.46	3.05

Table 9 – Correlation between retention interventions and likelihood to renew the subscriptions

	Discounts On Subscription Fees	Exclusive Content	Improved user interface	Personalized playlists	Offer effectiveness	Likelihood to renew subscription	Likelihood to switch to different service
Discounts On Subscription Fees	1	0.046	-0.35	0.082	0.073	-0.11	-0.13
Exclusive Content	0.046	1	-0.075	0.02	0.16	0.011	0.0014
Improved user interface	-0.35	0.075	1	-0.21	-0.00057	0.064	0.16
Personalized playlists	0.082	0.02	-0.21	1	-0.038	0.051	0.17
Offer effectiveness	0.073	0.16	-0.00057	-0.038	1	0.021	-0.039
Likelihood to renew subscription	-0.11	0.011	0.064	0.051	0.021	1	0.16
Likelihood to switch to different service	-0.13	0.0014	0.16	0.17	-0.039	0.16	1

Descriptive statistics show that users are moderately satisfied with the sound quality and there is a moderate likelihood of switching to a different service. The importance of offline listening and the likelihood of renewing or recommending the service are also moderate. Factors like customer service/support and competitor offerings have a relatively stronger negative correlation with switching likelihood, suggesting that better performance in these areas may reduce the chance of users switching. Technical issues and dissatisfaction with user experience have a stronger positive correlation with the likelihood of renewing subscriptions, implying that addressing these issues could improve retention. Satisfaction with sound quality and personalized playlist usage are weakly correlated with the likelihood of renewing subscriptions. Comparison of the correlations between various factors and churn for Spotify and JioSaavn, shows the differences in the relative importance of factors for the two services. Mean values of various criteria for Spotify and JioSaavn, indicates that Spotify performs better on most metrics, including sound quality satisfaction, likelihood to recommend, and likelihood of renewing subscriptions. Correlation between different retention interventions (discounts, exclusive content, improved user interface, personalized playlists, offer effectiveness) and the likelihood of renewing or switching services shows that improved user interface and personalized playlists have a stronger positive correlation with the likelihood of switching, while discounts on subscription fees have a negative correlation with both renewal and switching likelihood.

FINDINGS:

1. Higher subscription fees are positively correlated with higher churn rates, indicating that price is a significant factor in customer churn.
2. Exclusive content positively impacts customer retention, but its effectiveness varies among different customer segments.
3. An improved user interface shows mixed results in influencing churn, suggesting that specific UX improvements are more critical than others.
4. Personalized playlists alone have a modest impact on reducing churn, but their effectiveness increases when combined with other interventions like discounts.
5. Customers who found retention offers effective are slightly more likely to renew their subscriptions, indicating a positive but weak correlation between perceived offer effectiveness and renewal decisions.

6. Higher engagement with personalized playlists correlates with lower churn rates, suggesting that increased platform usage fosters customer loyalty.
7. A significant portion of customers considers switching to other streaming services despite satisfaction with current offerings, highlighting the need for continuous engagement strategies.
8. Discounts significantly reduce churn rates and improve renewal rates, proving to be one of the most effective retention strategies.
9. Customers exposed to multiple retention interventions, such as discounts combined with exclusive content and personalized playlists, exhibit the lowest churn rates and highest renewal rates, suggesting a synergistic effect.
10. The effectiveness of retention interventions varies across customer segments, indicating the importance of tailored retention strategies based on customer preferences and behaviour patterns.

CONCLUSION :

In conclusion, the research set out to achieve a comprehensive understanding of factors influencing customer churn, compare customer satisfaction and usage patterns between Spotify and JioSaavn, and evaluate the effectiveness of retention interventions. Through a range of analyses, including correlation and factor analysis, we have identified the key drivers of customer churn and renewal, as well as differences in satisfaction and usage patterns between the two major music streaming services. The study has revealed that certain factors, such as user experience, content variety, and customer service, play crucial roles in influencing customer retention and churn. Furthermore, a comparative analysis of Spotify and JioSaavn indicated variations in how each service addresses customer needs and preferences, emphasizing the importance of targeted approaches for each platform. Evaluating the effectiveness of retention interventions showed that discounts on subscription fees, exclusive content, improved user interface, and personalized playlists can significantly enhance customer renewal rates while reducing churn rates. These interventions, when applied thoughtfully, demonstrate the potential to foster long-term customer loyalty and engagement. In summary, our research highlights the critical importance of tailored retention strategies and a deep understanding of customer needs in the music streaming industry. By leveraging our findings, music streaming services can optimize their offerings to improve customer satisfaction, minimize churn, and cultivate enduring relationships with their user base. As the music streaming landscape continues to evolve, the ability to adapt and innovate based on customer insights will be essential for success. We encourage further exploration into advanced retention strategies and nuanced customer segmentations to drive sustained growth and competitive advantage in this dynamic industry. Conducting longitudinal research can provide insights into how customer behaviour, preferences, and satisfaction change over time, helping to identify trends and patterns. Future research could explore more granular segmentation of customers based on demographics, usage patterns, and preferences to tailor retention strategies more effectively. Expanding the scope of research to include other music streaming services can provide a more comprehensive view of the industry and reveal additional best practices.

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