Customer Acquisition and Retention Leakage Report

1. Executive Summary

This report outlines the findings from a comprehensive Exploratory Data Analysis (EDA) aimed at addressing two primary business challenges: significant financial leakage due to client churn and inefficient marketing resource allocation. By analyzing client behavior across various acquisition channels and session milestones, we have identified specific high-value opportunities for growth and retention.

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2. Retention Leakage Analysis

Our analysis reveals critical "drop-off" points where the business is losing the highest volume of clients. Identifying these milestones allows for targeted intervention.

2.1 Critical Churn Milestones

The most significant attrition occurs at three specific stages of the client journey:

- **The First-Time Gap (Session 1 to 2):** 43.8% drop-off. This is the single largest point of leakage, indicating a challenge in converting initial interest into a repeat habit.
- **The Mid-Point Plateau (Sessions 4 to 5):** 36.0% drop-off.
- **The Late-Stage Fatigue (Sessions 6 to 7):** 43.8% drop-off.

2.2 Channel-Specific Retention Performance

Retention varies significantly depending on how the client was acquired:

- **Strongest Performer: Tattoo Artist Referrals** show the most robust retention with the least significant drop-offs across all sessions.
- **Immediate Churn Risks: Google Search, Instagram Ads, and Word of Mouth** see their highest attrition immediately after the first session.
- **Delayed Churn Risk: Facebook Ads** experience a unique lag, with the primary drop-off occurring between Sessions 2 and 3.

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3. Acquisition Efficiency & Lifetime Value (LTV)

To optimize marketing spend, we analyzed the Lifetime Value (LTV) of clients relative to their acquisition source.

3.1 High-Value Channels

The following channels yield clients with the highest average LTV, justifying increased investment:

- Tattoo Artist Referrals
- Google Search
- Instagram Ads

3.2 Lower-Value Channels

While **Word of Mouth** and **Facebook Ads** generate volume, they yield a lower average LTV. These channels may require a different service model or more stringent qualification to improve profitability.

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4. Correlation Analysis: Drivers of LTV

We utilized a correlation matrix to identify which factors most accurately predict a high-value client.

- **Total Sessions (0.77 correlation):** As expected, more sessions lead to higher LTV.
- **Time Between Sessions (0.70 correlation):** Interestingly, a longer average time between sessions (**Days_Since_Prior**) is associated with higher LTV. This suggests that clients committed to the long-term removal process—even with gaps—eventually contribute more total value.
- **Demographics: Client_Age (0.13 correlation)** showed almost no predictive power regarding spending habits or session frequency.

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5. Strategic Recommendations

Based on the data, the following actions are recommended to minimize leakage and maximize ROI:

1. **Early Engagement Program:** Implement an automated "Second Session" incentive for clients coming from Google and Instagram to combat the 43.8% initial drop-off.
2. **Marketing Budget Reallocation:** Shift underperforming Facebook Ad spend toward **Tattoo Artist Referral** programs and **Google Search** optimization.
3. **Mid-Journey Re-engagement:** Launch a "Progress Check-in" campaign specifically for clients reaching Sessions 4 and 6 to mitigate late-stage churn.
4. **Incentivize Long-Term Commitment:** Since session volume is the primary driver of LTV, introduce package deals or subscription models that reward clients for booking multiple sessions in advance.

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6. Conclusion

The Tattoo Removal Parlor has a significant opportunity to increase revenue by focusing on the transition from the first to the second session and doubling down on high-intent referral channels. By addressing the identified leakage points, the parlor can stabilize its client base and ensure marketing dollars are spent on the most profitable segments.