

TravelTide Project Summary

Objective

The TravelTide Segmentation Project focuses on analyzing user behavior to develop a targeted rewards program. With 1.6 million registered users and over 5 million sessions, the primary goal is to segment active users and provide personalized perks, boosting engagement and customer loyalty.

Dataset Overview

Analyzed Users: 5,998 active users with at least seven sessions since January 4, 2023.

Older trips were excluded for relevance.

Key Demographics:

- **Gender:** 88.39% female, 11.61% male.
 - **Family Status:** Largest group – single users without children (2,482 users).
 - **Age:** Predominantly aged 30–50, with the largest concentration in their 40s.
 - **Spending:** Most spend between \$1,000 and \$3,000, with a smaller high-value group spending above \$10,000.
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Features for Clustering

To segment users effectively, several metrics were analyzed:

1. **Engagement Metrics:** Total clicks, session duration, and conversion rates were used to measure user activity and interest levels on the platform.
2. **Booking Behavior:** Metrics such as total flights and hotels booked, miles flown, and money spent highlighted user commitment, preferences, and spending habits.
3. **Discount Usage:** This captured price sensitivity and deal-seeking tendencies, identifying users who heavily rely on promotions and discounts.

Clustering Method:

The K-Means Clustering algorithm in Tableau grouped users into five distinct segments based on these metrics. This approach provided actionable insights into user behavior, helping tailor perks and marketing strategies to meet their unique needs.

User Segments

Segment	%	Behavior	Suggested Perks
Budget Optimizers	28.89%	Discount-reliant, minimal browsing time	Highlight discounts prominently, flexible booking
Value Hunters	25.56%	Balanced spending and convenience	Package deals, reminders for incomplete bookings
Premium Maximizers	22.24%	High spenders, prioritize premium options	VIP rewards: lounge access, priority boarding
Strategic Savers	6.42%	High spending, discount-focused planners	Early booking benefits, curated bundles
Browsing Hesitants	16.89%	Active engagement but no bookings	First-time discounts, trust-building guarantees

Dashboard Insights

The interactive Tableau dashboard provides a comprehensive view of the entire dataset, covering 5,998 active users before segmentation.

Key Metrics Visualized:

- Total bookings and money spent.
- Conversion rates, session duration, and discount usage.
- Demographic breakdowns (age, gender, and family status).

Filtering Options:

- User segment (e.g., Budget Optimizers, Premium Maximizers).
- Demographics and engagement metrics.

This dashboard is a dynamic tool for decision-makers, offering a clear view of user trends and enabling targeted strategies.

Access the interactive Tableau dashboard:

- [Overview of Eligible Users](#)
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Recommendations

Based on segmentation insights, the following strategies are proposed:

1. **Personalized Perks:** Tailor rewards to user segment preferences.
 2. **Targeted Marketing:** Use segmentation for campaigns targeting specific behaviors.
 3. **Trust Building:** Reduce hesitation among Browsing Hesitants with guarantees and first-time perks.
 4. **Focus on High-Value Users:** Retain Premium Maximizers with exclusive benefits.
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Conclusion

The TravelTide project demonstrates the value of data-driven decision-making for enhancing customer engagement. By identifying and addressing the unique needs of each user segment, the proposed rewards program can drive customer satisfaction, boost retention, and unlock new revenue opportunities.

For additional details, access the complete repository and Tableau dashboard:

- [GitHub Repository](#)
 - [Dashboard Link](#)
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