Executive Summary : Customer Segmentation and Perk Optimization in TravelTide

TravelTide, a fast-growing e-booking platform launched in 2021, excels in travel search and data aggregation but faces challenges in customer retention. A data-driven rewards strategy that personalizes incentives based on customer behavior was developed to strengthen loyalty and engagement.

Introduction

A data pipeline was developed to process travel session and booking data, incorporating customer segmentation and behavioral modeling to assign personalized perks for retention. This approach validated customer affinity for specific rewards and enabled targeted marketing, driving repeat bookings and long-term loyalty.

Key Takeaways

Personalization = Higher Engagement – Travelers respond better to targeted perks than to generic discounts.

High-Value Customers Need a Personal Touch – Clustering alone wasn't enough to identify VIPs, requiring manual refinement.

This refined segmentation enables personalized perk allocation, optimizing engagement and retention.

Strategic Recommendations

Personalized Perk-Based Email Campaigns
A/B Testing for Personalized vs Generic Offers
Continuous Optimization and Refinement

Methodology

KMeans clustering initially identified six traveler segments, later consolidated into four primary groups for targeted marketing:

1. **General Travelers** – Flexible, international travelers.
2. **Domestic & Casual Travelers** – Spontaneous, short-trip bookers.
3. **Bargain and Price-Sensitive Travelers** – Cost-conscious deal seekers.
4. **Business Travelers** – High-value professionals booking premium travel.
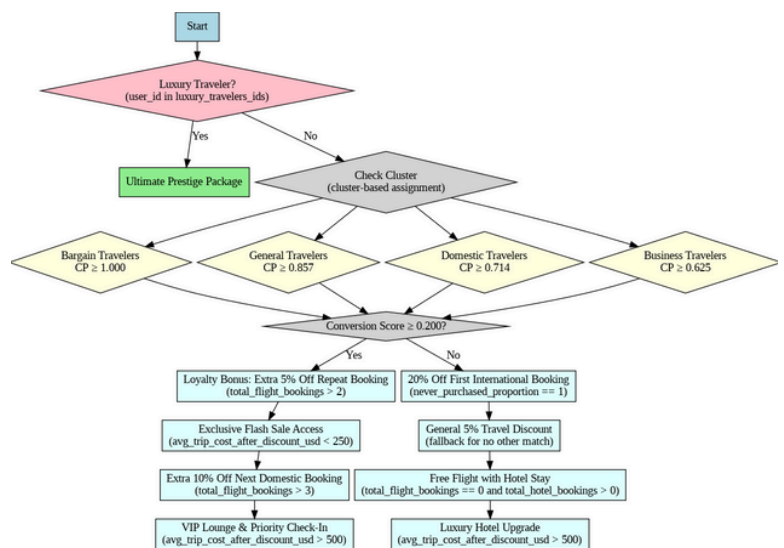
Key Findings

Perk Name	Users Assigned	% of Total (5998 Users)	Primary Target Group
General 5% Travel Discount	2918	48.7%	Fallback for uncertain users across all groups
Exclusive Flash Sale Access	1038	17.3%	General Travelers & Bargain Travelers
Free Flight with Hotel Stay	472	7.9%	Hotel Customers with No Flight Bookings
Luxury Hotel Upgrade	376	6.3%	High-Spending Business Travelers
VIP Lounge & Priority Check-In	355	5.9%	Premium Business Travelers
Extra 10% Off Next Domestic Booking	451	7.5%	Domestic & Casual Travelers
20% Off First International Booking	346	5.8%	Bargain & New International Travelers
Extra 9% Off Next Booking	34	0.6%	Bargain and Price-Sensitive Travelers
Ultimate Prestige Package	8	0.1%	Elite Luxury Travelers

Conclusion

By adopting a data-driven, customer-first approach, TravelTide can drive sustainable growth through personalized loyalty strategies. This initiative will enhance retention, engagement, and market differentiation, ensuring long-term success. Next Steps: Implement, Measure, Optimize.