

## **TravelTide Project**

### **Discovering Customer Trends: Analyzing Segments for Enhancing the Reward Program.**

#### **Introduction:**

To meet the increasing demand for personalized customer experiences, TravelTide's marketing team is considering the creation of a customized rewards program. To support this effort, we carried out a customer segmentation analysis, uncovering key insights into unique customer preferences and behaviors. This data-driven strategy is designed to serve as the basis for a more tailored, customer-focused rewards program, reinforcing TravelTide's dedication to providing outstanding travel experiences.

#### **Objectives:**

Our main goal was to identify and define customer segments by analyzing their booking behaviors and demographic characteristics, focusing on users most likely to value TravelTide's proposed perks. These segments are intended to serve as the foundation for a personalized rewards program, designed to cater to individual preferences.

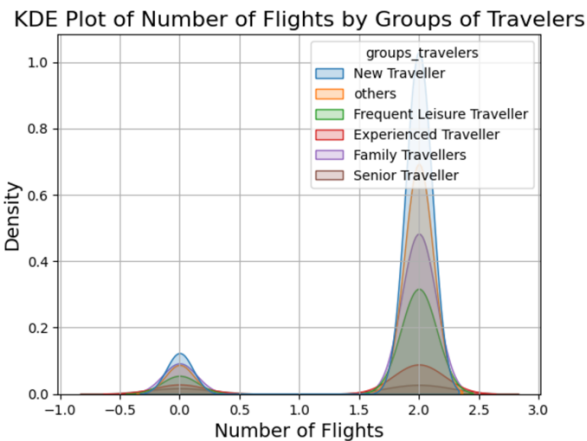
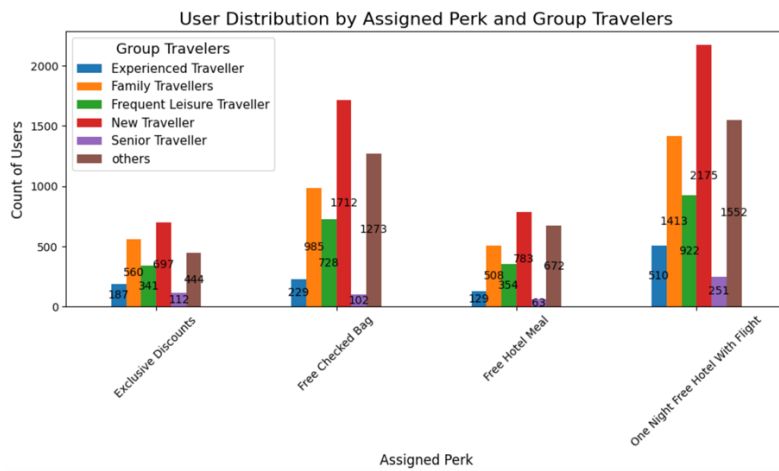
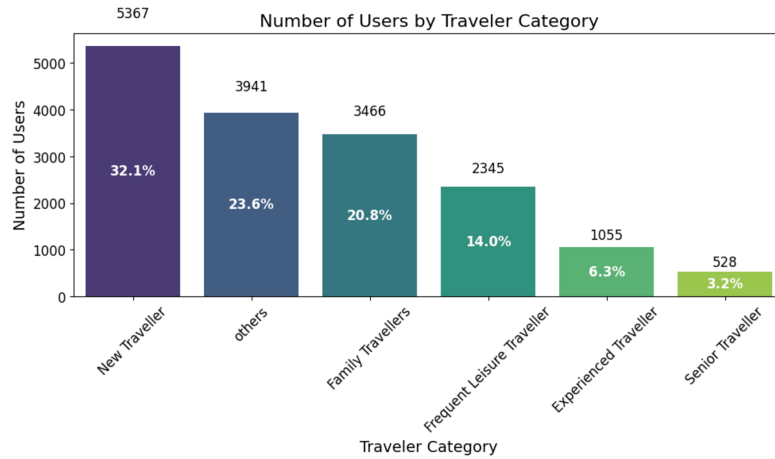
#### **Methodology:**

We began the analysis by extracting raw data from four key tables using SQL and Python simultaneously. Filters recommended by Elena were applied, focusing on users with more than seven sessions and those active since January 4, 2023. The data was then processed and analyzed in Python using the K-Means clustering technique, which identified four distinct customer segments. These segments, determined based on the silhouette score and customer behavior, were each linked to two proposed benefits. Making some graphs in Python and Tableau.

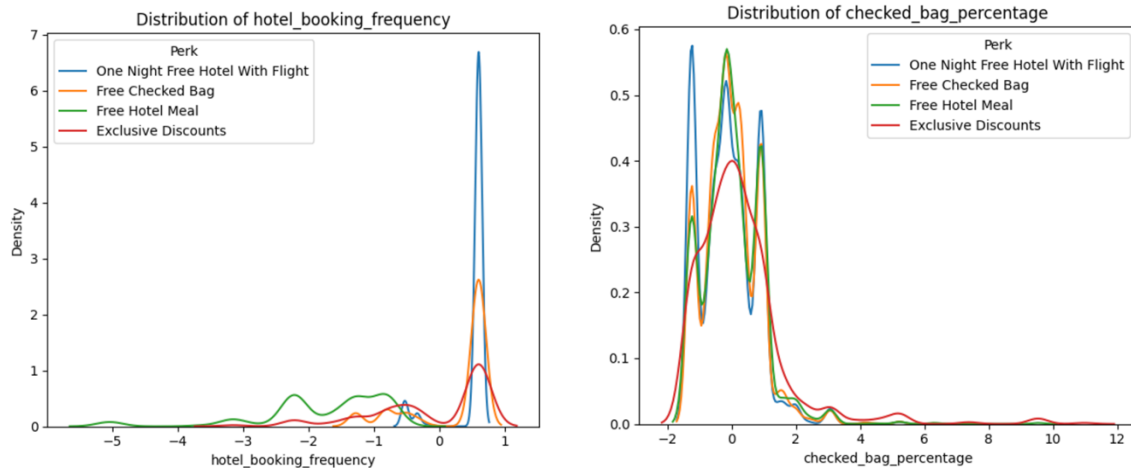
#### **Key Findings and Visually**

Our analysis has uncovered valuable insights that will form the foundation of TravelTide's new rewards program. A significant portion of our user base—slightly over 80%—consists of women, with many being mothers. The largest demographic group is adults aged 40 to 59, who primarily fall into the New Traveler segment, characterized by having taken more than three trips.

The user group assigned to the One Night Free Hotel With Flight perk frequently takes short trips, making this reward particularly appealing to them. The Exclusive Discount group is highly focused on saving money and exhibits a higher-than-average reservation cancellation rate, emphasizing their price-sensitive behavior. The Free Checked Bag group does not demonstrate strong preferences for short trips or cost-saving behaviors but may appreciate practical benefits like complimentary baggage perks. Lastly, the Free Hotel Meal group, while not frequent hotel bookers, occasionally takes short trips, offering an opportunity to increase engagement through this incentive.



The line chart highlights the distribution of average used save and checked bag percentage across each cluster. Among them, the *Exclusive discount* cluster displays the widest range, indicating its popularity. Interestingly, there is significant overlap among the clusters, a pattern observed across different perks. This overlap suggests that while clusters are designed to reflect users' strongest preferences, many individuals show interest in multiple perks. As a result, implementing a tiered rewards program could better accommodate this variety of customer preferences and enhance overall engagement.



## Recommendations:

To improve customer engagement and satisfaction, we should consider introducing a tiered rewards program with different benefits based on varying levels of customer engagement. This strategy reflects the overlapping preferences and behaviors seen across customer segments, which could help drive more booking-related actions. Additionally, we may want to combine benefits that show similar preferences, such as merging the “One night hotel with flight” and “Free Hotel Meal” groups.

To keep up with changing customer preferences, we could periodically update the grouping process by using a larger data set collected over a longer period. A larger data set will provide greater diversity, especially in cancellation data, allowing for more precise segmentation and better targeted strategies.

Introducing a feedback system within the rewards program would be beneficial to collect direct customer feedback. By encouraging feedback on their favorite benefits and ideas for new ones, we can continually refine the program to meet changing needs and remain relevant.

In addition, we should consider creating personalized marketing campaigns based on the insights of each customer segment (whether they have children or not, take long trips or not, travel alone or with family, etc.). Adapting promotions and advertisements to the preferences and behaviors of each group will help increase engagement and conversion rates, which will ultimately translate into greater satisfaction, customer loyalty and, why not, new customers for Travel Tide through word of mouth and other types of strategies.

Offer family-friendly incentives like "Kids Stay Free" promotions or Family Meal Packages at hotels, tailored to women traveling with children. These perks can improve their travel experience and increase engagement. Offer solos travelers incentives like Offer a points-based rewards system where customers earn points for actions like booking, sharing feedback, or referring friends, which can be redeemed for future perks.

Provide flexible check-in and check-out times for families with children to accommodate their schedules and enhance convenience.

Last but not least, we should consider gender distribution within groups and explore strategies to motivate more male customers to actively participate in booking activities, thus ensuring a more balanced and inclusive customer base. We could also consider here the acquisition of points in the multi-level program per referred user, regardless of gender, but extra points for referring a man.

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