TravelTide

Unlocking Customer Insights: Segmentation Analysis for Reward Program Enhancement

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BACKGROUND

In response to the growing demand for personalised customer experiences, TravelTide's marketing team is exploring the development of a tailored rewards program. To inform this initiative, we conducted a customer segmentation analysis, providing valuable insights into distinct customer preferences and behaviours. This data-driven approach aims to lay the foundation for an enhanced and customer-centric rewards program that aligns with TravelTide's commitment to delivering exceptional travel experiences.

OBJECTIVES

Our primary objective was to identify and define customer segments based on their booking behaviors, specifically targeting those likely to appreciate TravelTide's proposed perks. These segments are designed to serve as a foundation for a forthcoming rewards program, tailored to meet individual preferences.
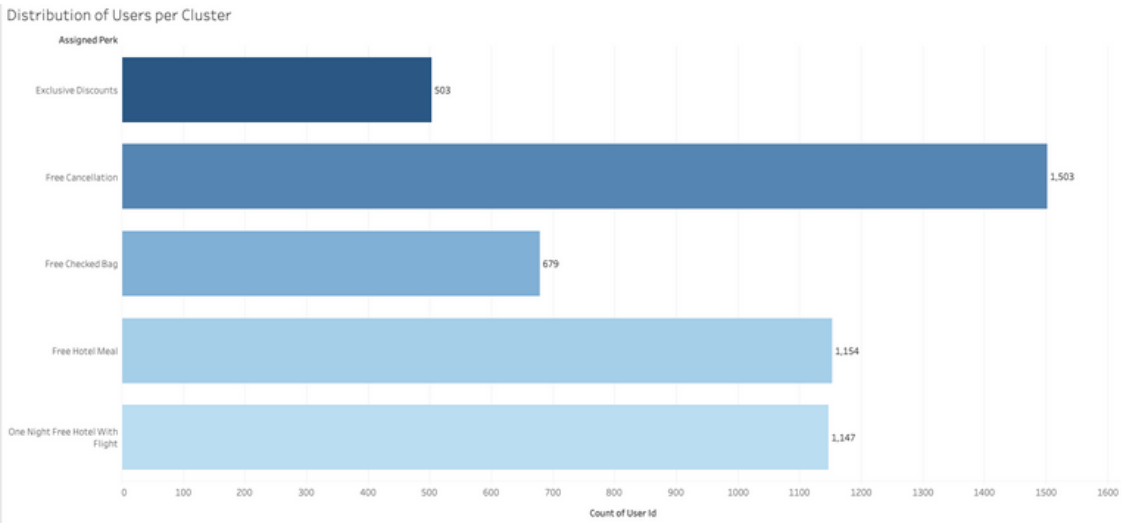
METHODOLOGY

We initiated the analysis by extracting raw data from the four essential tables using SQL. Subsequently, we processed and analysed this data in Python, employing the K-Means clustering technique to establish five distinct customer clusters, based on customer behaviour, each linked to a proposed perk.
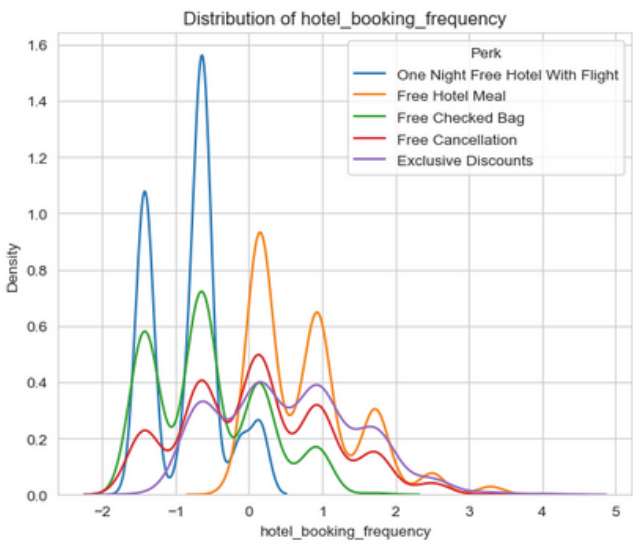
KEY FINDINGS

Our analysis has uncovered valuable insights to form the foundation of TravelTide's upcoming rewards program. Notably, the "Exclusive Discounts" cluster stands out with a strong inclination toward cost-effective bookings, providing a clear focus for tailored perks. Likewise, the "Free Hotel Meal" cluster exhibits distinct characteristics, signalling a keen interest in complimentary dining experiences. While the "Free Checked Bag" cluster, though not entirely distinct, underscores a preference for baggage-related perks. Additionally, our findings emphasise the need to streamline perks for program efficiency.

Furthermore, the limited variability in cancellation and trip percentage data points toward the importance of a refined approach. These discoveries collectively lay a robust foundation for crafting a rewards program that resonates with our diverse customer base, poised to elevate engagement and satisfaction levels.

Distribution of Users per Cluster

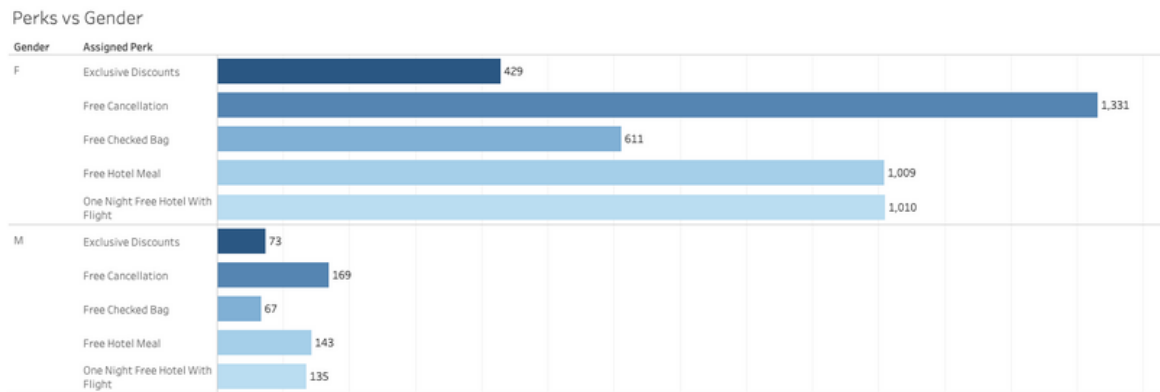| Assigned Perk	Count of User Id
Exclusive Discounts	503
Free Cancellation	1,503
Free Checked Bag	679
Free Hotel Meal	1,154
One Night Free Hotel With Flight	1,147

Cluster sizes align with the corresponding perks. The "Exclusive Discounts" cluster, representing bargain hunters, is naturally the smallest. Conversely, the "Free Cancellations" cluster, catering to cost-conscious users with no prior cancellations, is the largest. With minimal cancellations in the dataset, this cluster offers added booking security without extra expenses, justifying its size.

Distribution of hotel_booking_frequency

Perk
- One Night Free Hotel With Flight
- Free Hotel Meal
- Free Checked Bag
- Free Cancellation
- Exclusive Discounts

The line chart illustrates the distribution of each cluster concerning hotel booking frequency. Notably, the "Free Hotel Meal" cluster exhibits a broader distribution, signifying its popularity. However, it's intriguing to observe a substantial overlap among clusters, and this was found to be the case across various perks. This overlap reveals that while clusters are uniquely assigned based on the users highest preferences, many users express interest in multiple perks. Consequently, adopting a multi-level rewards program could cater to this diverse range of customer preferences more effectively.

KEY FINDINGS

Perks vs Gender

Gender	Assigned Perk	
F	Exclusive Discounts	429
	Free Cancellation	1,331
	Free Checked Bag	611
	Free Hotel Meal	1,009
	One Night Free Hotel With Flight	1,010
M	Exclusive Discounts	73
	Free Cancellation	169
	Free Checked Bag	67
	Free Hotel Meal	143
	One Night Free Hotel With Flight	135

It's worth noting that a majority of users in the dataset were female, and as a result, women also constitute the majority within each cluster. Given this demographic trend, it may be beneficial to develop a targeted marketing strategy aimed at encouraging men to participate more actively in booking-related activities. By addressing this gender imbalance, TravelTide can expand its customer base and foster greater diversity within its rewards program, ultimately enhancing its appeal to a broader audience.

RECOMMENDATIONS

To enhance customer engagement and satisfaction, we should consider implementing a multi-level rewards program that offers varying perks based on different stages of customer engagement. This approach aligns with the observed overlap in customer preferences and behaviors, potentially encouraging increased booking-related activities. Additionally, explore the possibility of consolidating overlapping perks within the rewards program, such as combining the "Exclusive Discounts" and "Free Hotel Meal" clusters, which exhibit shared preferences.

To adapt to evolving customer preferences, we could periodically reiterate the clustering process using a larger dataset gathered over an extended timeframe. A broader dataset can introduce greater variability, especially in cancellation-related data, enabling more nuanced customer preference segmentation and refined targeting strategies.

Implement a feedback mechanism within the rewards program to collect direct insights from customers. Encourage participants to provide feedback on their preferred perks and suggest new offerings. Real-time input from customers will help fine-tune the program to remain relevant and appealing to evolving preferences.

Furthermore, consider developing targeted marketing campaigns based on cluster insights, tailoring promotions and advertisements to the preferences and behaviors of each cluster. By aligning marketing messages and perks with the identified clusters, TravelTide can significantly boost engagement and conversion rates, leading to improved customer satisfaction and loyalty.

Finally, pay attention to the gender balance within clusters, and consider strategies to encourage men to participate more actively in booking-related activities, ensuring a more diverse and inclusive customer base.

APPENDIX

- Access the project's Jupyter Notebook HERE for a detailed analysis.

- Explore the SQL query used in the project HERE to understand data extraction and manipulation.

- View the interactive Tableau Dashboard HERE to visualize key insights.

- Refer to the presentation slides HERE for a concise overview of the project's findings.

- Watch the project presentation HERE to dive deeper into the analysis and recommendations.