Customer Segmentation Analysis Report
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Introduction

This report provides an overview of the Customer Segmentation Analysis project at TravelTide and its significance within the company's business context. The project aims to segment TravelTide's customer base to enhance the effectiveness of the rewards program initiated by Elena Tarrant, Head of Marketing.

Objectives

The primary goal of this analysis is to identify distinct customer segments based on their travel behavior. These segments will enable TravelTide to tailor its rewards program, thereby improving customer retention and engagement.

Methodology

In this analysis, we began by extracting and exploring the data from Excel to gain an understanding of its structure and contents. We then leveraged Python for data cleaning, calculation, aggregation, and other data preprocessing tasks to prepare it for segmentation.

Segmentation techniques were employed to design criteria for each travel perk, assigning users scores ranging from 0 to 1 based on their behavioral patterns. These scores allowed us to categorize and target users

Key Findings:

Finding 1:
The analysis reveals distinct preferences among different age groups of users. Users in the 36-55 age range are the most prominent segment and favor perks like "Free Checked Bag" and "1 Night Free Hotel with Flight." They exhibit a balanced gender distribution and show a preference for international travel, particularly during the winter and spring seasons. Their average booking lead time is 8 days, and they often depart during the same season they booked.

Finding 2:
The 18-35 age group demonstrates a preference for exclusive discounts, "Free Checked Bag," and "1 Night Free Hotel with Flight." They are predominantly female, unmarried, and often without children. Their travel choices lean toward international destinations, with a higher likelihood of booking in the spring. The average lead time for this group is 15 days, and they tend to depart during the same season as booking.

Finding 3:
Users aged 56 and above show a preference for perks like "Free Checked Bag," "1 Night Hotel with Flight," "Exclusive Discount," and "Early Booking Discount." This segment is primarily composed of females and married individuals, with a significant percentage having children. These travelers often plan international trips.

Finding 4:
The under-18 age group shows a preference for perks such as "Free Checked Bag," "Early Booking Discount," and "Exclusive Discount." They are predominantly female, unmarried, and typically do not have children. These young travelers have a longer average lead time of 41 days and exclusively opt for international trips.

Recommendations:

With our data, we can perform:

A/B Testing for Perk Combinations: Let's experiment with different perk combinations. We can create a few versions of our rewards program, each designed for a specific age group. By doing this, we can see which combinations of perks work best in the real world. It's like trying out different recipes to find the tastiest one. This way, we'll make our program super effective for our users.

Customer Feedback Surveys: Given our segmentation insights, let's leverage this knowledge to design targeted customer feedback surveys. Engaging with customers in each age group, we can directly inquire about their ideal perks and rewards. By seeking their input, we not only validate our data-driven findings but also uncover nuanced preferences that might elude behavioral data alone. This two-way dialogue will enrich our understanding and ensure our program aligns precisely with user expectations.

Iterative Refinement: An agile and iterative approach is key to our success. While we start with a foundation based on data insights and initial testing, we must remain flexible. We must be prepared to adapt and refine the rewards program continuously. Customer preferences can evolve, and our program should evolve with them. Regularly revisit and adjust our perks to stay in sync with changing needs and market dynamics.

Inconclusive Behavior Signals: it might be helpful further data collection or analysis to gain deeper insights. For example, conducting customer surveys or interviews to understand preferences and motivations can provide valuable qualitative data to complement the quantitative analysis.

Tableau Presentation:

Link:https://public.tableau.com/shared/M43PD29Z8?:display_count=n&:origin=viz_share_link