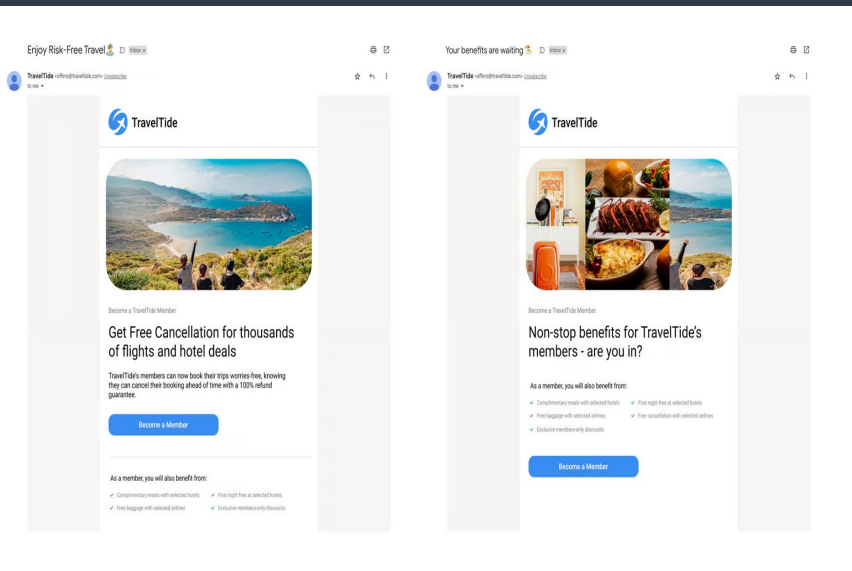# TravelTide Customer Segmentation Analysis
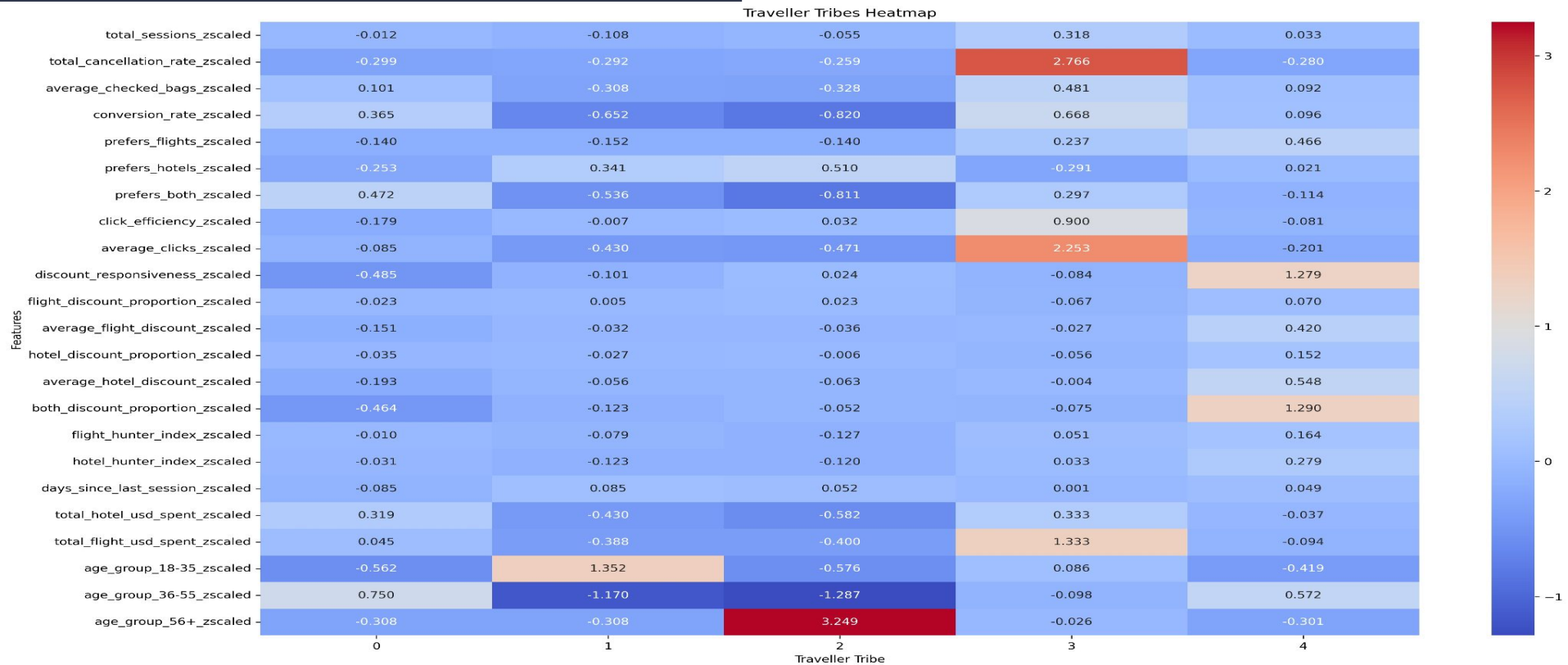
By: Hugo Gomes

# Introduction & Methodology



- Data Overview: 50,570 Sessions, 5,998 Unique Customers.

- Objective: Understand Customer Behavior.

- Outcome: Assign Customized Perks to Customers.

- Customer Segmentation into "Traveller Tribes".

- Features Selected for Analysis.

- Optimized Perk System for Each "Tribe".

# Analysis & Findings

- Identified Customers Segments.
- "Tribe" Preferences.
- Impact of Tailored Perks.

Traveller Tribes Heatmap

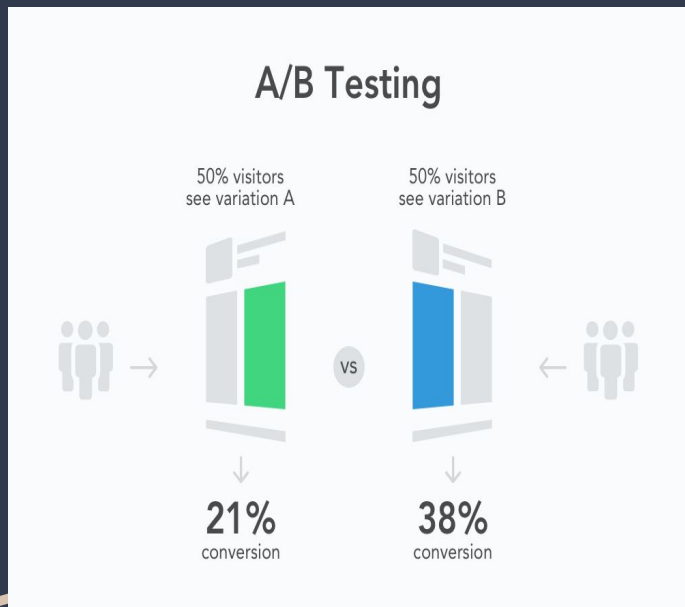| Features | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| total_sessions_zscaled | -0.012 | -0.108 | -0.055 | 0.318 | 0.033 |
| total_cancellation_rate_zscaled | -0.299 | -0.292 | -0.259 | 2.766 | -0.280 |
| average_checked_bags_zscaled | 0.101 | -0.308 | -0.328 | 0.481 | 0.092 |
| conversion_rate_zscaled | 0.365 | -0.652 | -0.820 | 0.668 | 0.096 |
| prefers_flights_zscaled | -0.140 | -0.152 | -0.140 | 0.237 | 0.466 |
| prefers_hotels_zscaled | -0.253 | 0.341 | 0.510 | -0.291 | 0.021 |
| prefers_both_zscaled | 0.472 | -0.536 | -0.811 | 0.297 | -0.114 |
| click_efficiency_zscaled | -0.179 | -0.007 | 0.032 | 0.900 | -0.081 |
| average_clicks_zscaled | -0.085 | -0.430 | -0.471 | 2.253 | -0.201 |
| discount_responsiveness_zscaled | -0.485 | -0.101 | 0.024 | -0.084 | 1.279 |
| flight_discount_proportion_zscaled | -0.023 | 0.005 | 0.023 | -0.067 | 0.070 |
| average_flight_discount_zscaled | -0.151 | -0.032 | -0.036 | -0.027 | 0.420 |
| hotel_discount_proportion_zscaled | -0.035 | -0.027 | -0.006 | -0.056 | 0.152 |
| average_hotel_discount_zscaled | -0.193 | -0.056 | -0.063 | -0.004 | 0.548 |
| both_discount_proportion_zscaled | -0.464 | -0.123 | -0.052 | -0.075 | 1.290 |
| flight_hunter_index_zscaled | -0.010 | -0.079 | -0.127 | 0.051 | 0.164 |
| hotel_hunter_index_zscaled | -0.031 | -0.123 | -0.120 | 0.033 | 0.279 |
| days_since_last_session_zscaled | -0.085 | 0.085 | 0.052 | 0.001 | 0.049 |
| total_hotel_usd_spent_zscaled | 0.319 | -0.430 | -0.582 | 0.333 | -0.037 |
| total_flight_usd_spent_zscaled | 0.045 | -0.388 | -0.400 | 1.333 | -0.094 |
| age_group_18-35_zscaled | -0.562 | 1.352 | -0.576 | 0.086 | -0.419 |
| age_group_36-55_zscaled | 0.750 | -1.170 | -1.287 | -0.098 | 0.572 |
| age_group_56+_zscaled | -0.308 | -0.308 | 3.249 | -0.026 | -0.301 |

Traveller Tribe

# Recommendations



- Pilot Program.

- Further optimization of Perks by "Tribe":

  ➔ Mature & Balanced Travellers.
  ➔ Young Hotel Enthusiasts.
  ➔ Highly Active & Indecisive Travellers.
  ➔ Middle-Aged Discount Hunters.
  ➔ Senior Hotel Lovers.

# Conclusion



A/B Testing

50% visitors see variation A — 50% visitors see variation B

vs

21% conversion — 38% conversion

- Do not launch immediately.

- Perform A/B test.

- Roll-out based on real-life tested data.

- Further monitorization and investigations.