

# Analysis of Global Travel Patterns, Preferences, and Costs

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## Introduction

This report provides an in-depth analysis of a comprehensive travel dataset it was taken from this source “<https://www.kaggle.com/datasets/rkiattisak/traveler-trip-data/data>”. The dataset includes 137 rows, it contains detailed information on various trips taken by travelers, including destinations, travel dates, trip durations, traveler demographics (name, age, gender, and nationality), and the type and cost of accommodation and transportation. The objective is to gain insights into travel patterns, preferences, and behaviors of different traveler demographics. This information is valuable for travel-related businesses such as travel agencies, which can use these insights to create tailored marketing strategies and travel packages.

## Methodology

### Dataset Description

We work with dataset scraped from the google play store.

| COLUMN NAME          | DESCRIPTION                                |
|----------------------|--|
| DESTINATION          | City and Country of the travel destination |
| START DATE           | Starting date of the trip                  |
| END DATE             | End date of the trip                       |
| DURATION DAYS        | Total duration of the trip in days         |
| TRAVELER NAME        | Name of the traveler                       |
| TRAVELER AGE         | Gender of the traveler                     |
| TRAVELER NATIONALITY | Nationality of the traveler                |
| ACCOMMODATION TYPE   | Type of accommodation used                 |
| ACCOMMODATION COST   | Cost of the Accommodation                  |
| TRANSPORTATION MODE  | Mode of transportation used                |
| TRANSPORTATION COST  | Cost of the transportation                 |

Table1: Traveler Journey Data: Trip and accommodation Details

## Travel Data Analysis: Preparation & Validation

The dataset contains detailed travel information for 140 entries, providing a rich source of data for analysis. Here are the steps taken to prepare the data for analysis:

1. **Data Cleaning:** Ensure all dates are in a consistent format, and there are no missing values in critical fields such as trip duration, accommodation, and transportation costs.
2. **Data Transformation:** Convert costs to a common currency if necessary, and calculate additional metrics such as total trip cost (sum of accommodation and transportation costs).
3. **Data Verification:** Cross-check the entries to ensure accuracy and consistency.

## Travel data Analysis: Patterns & Details

### Traveler Demographics

We count the number of travelers of both genders

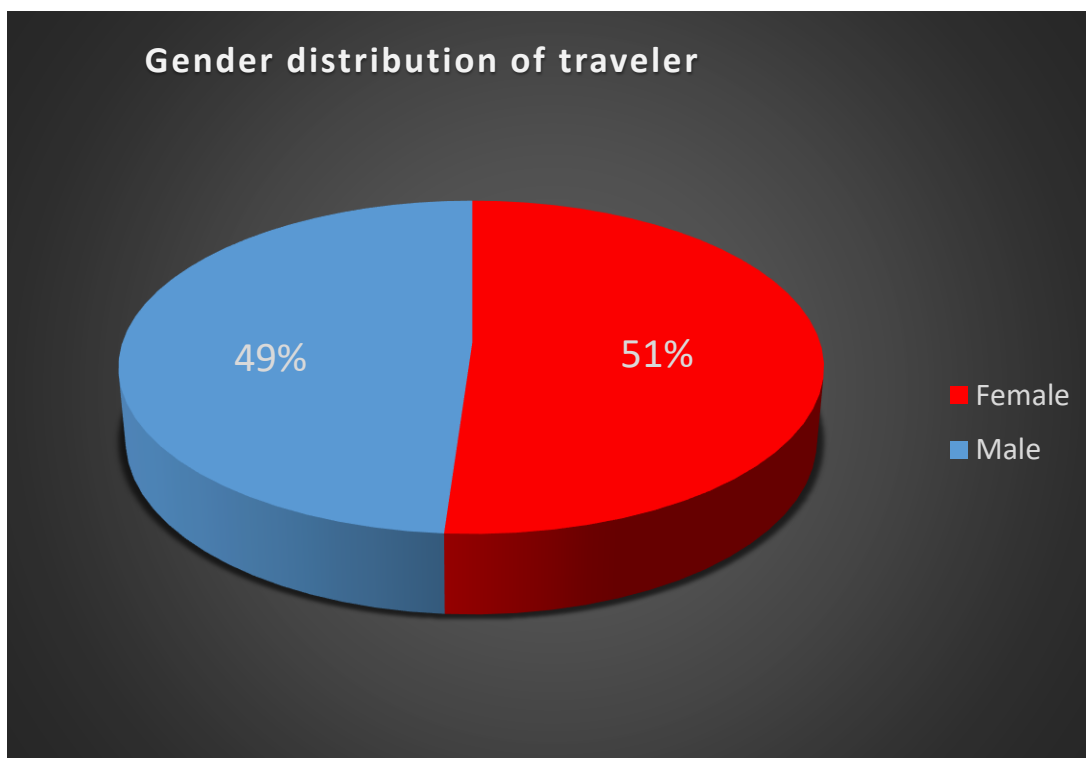


Fig1: Traveler Gender Distribution Trends

**Insight:** female have higher count than male, statistics indicate 70 females and 67 males.

## Distribution of trip duration by Gender

We analyzed the distribution of trip durations to understand common travel lengths.

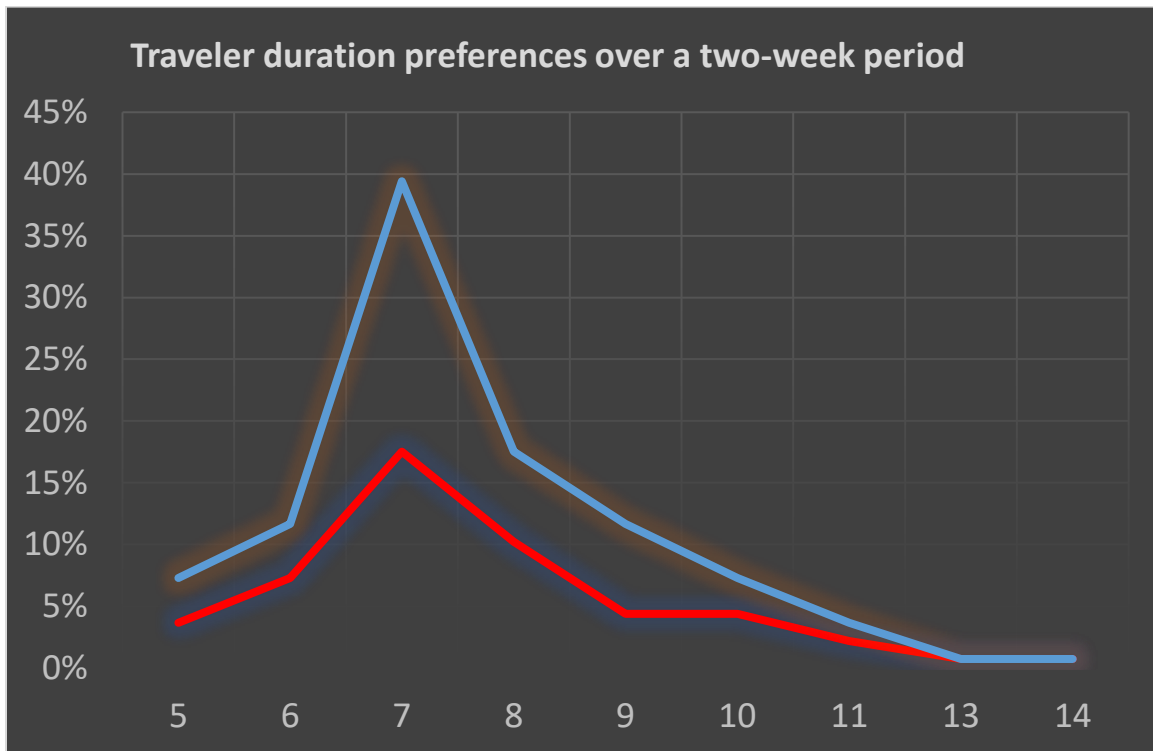


Fig 2: Individual Travel Distribution: An Analytical Study.

**Insight:** trips range between 5 to 15 days, with a peak around 7 days, indicating a preference for week-long trips (positive skewed).

## Accommodation Type Distribution

We explored the types of accommodations chosen by travelers.

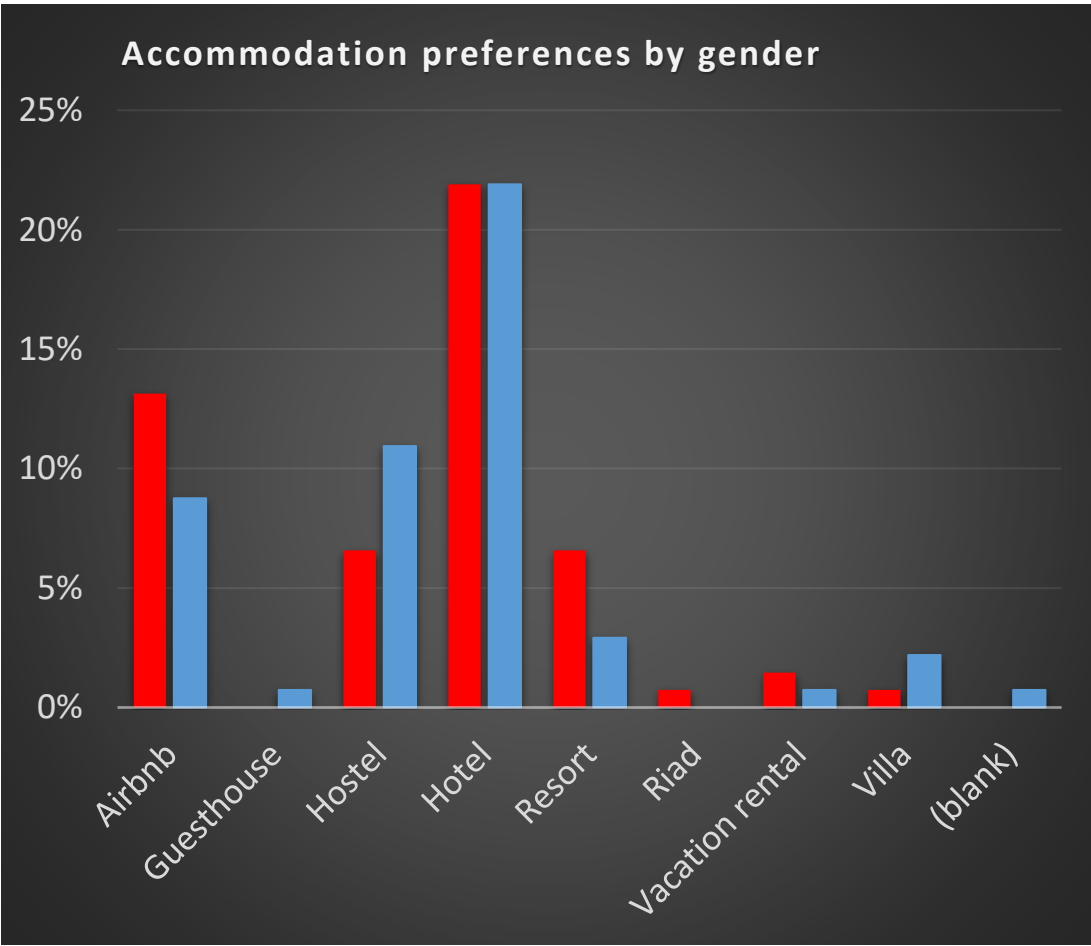


Fig 3: Urban site analysis for Human Attraction.

*Insight:* Hotels are the most popular accommodation type (23%), followed by Airbnb (11%), hostels (9%), and resorts (5%).

## Transportation type distribution

*We examine the preferred modes of transportation among travelers.*

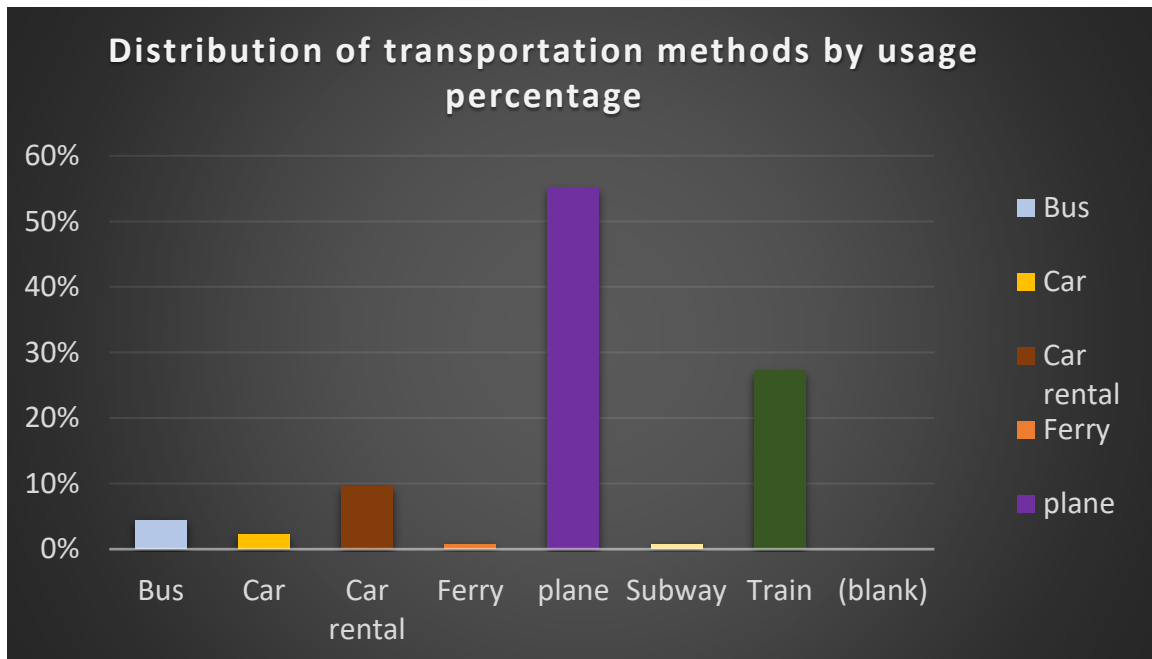


Fig 4: Analysis of Sustainable Transportation Modes.

*Insight:* Majority of travelers prefer the plane in 1st class followed by Train, in contrast to Ferry, Subway and (Blank), they used less transportation.

### Total Cost per Trip

We assessed the relationship between types of transportation and the cost of each one.

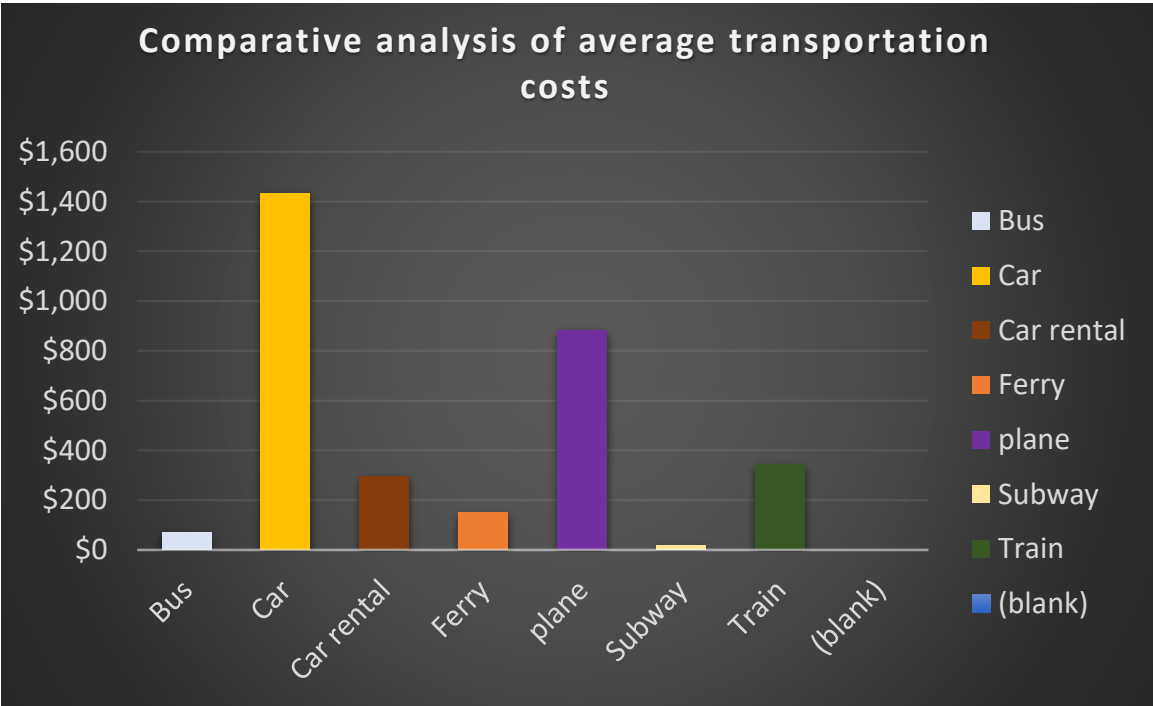


Fig 5: Study of Sustainable Transportation costs

*Insight:* The Airplane carries the highest cost among all types of transportations, unlike the Subway.

Highest savings rate distribution.

We extract the exchange rate by gender for each continent.

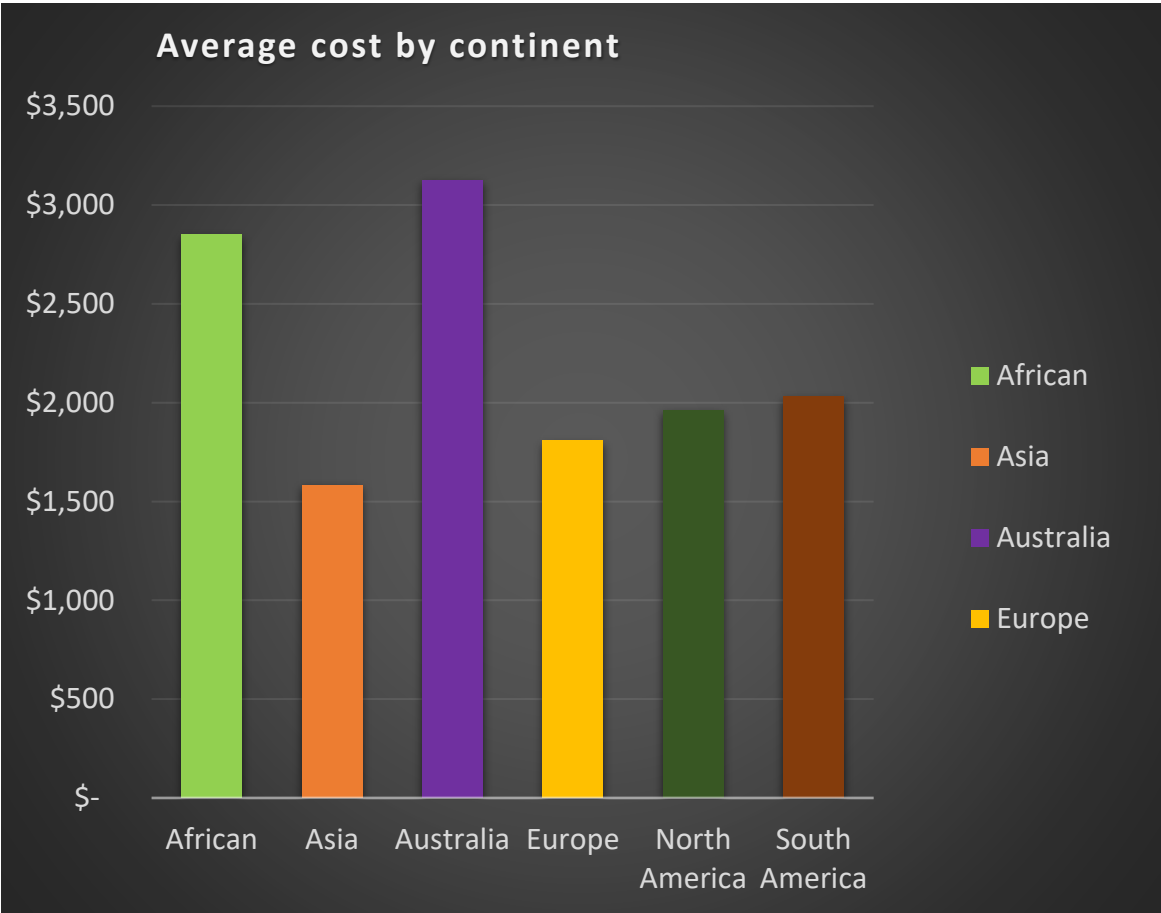


Fig 6: Comparative Analysis of Average Costs by continent

*Insight:* Australia has the costliest on average among the 6 continents, as their exchange rate ranges between (\$2800-\$3400).

## Conclusion

The analysis of the travel dataset reveals key insights into the travel behaviors and preferences of different traveler demographics. Key findings include:

- **A preference for week-long trips.**
- **Hotels and planes are the most popular choices for accommodation and transportation, respectively.**
- **Hotels and Airplane travel are the most expensive options on average.**
- **Australia has the highest rate of spending according to means of transportation and places of residence.**
- **Total trip costs generally increase with trip duration, but short luxury trips can also be expensive.**

These insights can help travel agencies and related businesses to better understand their customers and tailor their offerings to meet the diverse needs and preferences of travelers. By focusing on popular trip lengths, preferred accommodation types, and transportation modes, businesses can create targeted marketing strategies and customized travel packages that appeal to their target audience.

## Recommendations

1. The optimal duration for a vacation is 7 days.
2. Hotels must maintain high standards of cleanliness and efficiency, as they are the primary accommodations utilized during travel.
3. Aircraft should be designed to ensure suitability and comfort for passengers.