



Sky Metrics

Insights on Flight Booking Completion

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Project Objective & Dataset

Objective:

To identify key factors that influence flight booking completion and uncover behavioral trends among travelers.

Dataset Summary:

- Source: customer_booking_cleaned.csv
- Total Records: ~49,000+ bookings
- Fields: Booking lead time, customer origin, stay length, optional services (meals, bags, seats), and completion status

Tools Used:

Tableau (visualizations), Excel (feature analysis)



Data Preparation for Analysis

1. Used Excel's 'Remove Duplicates' to ensure unique booking records.

2. Added Columns for Tableau Storytelling

Lead_time_category

- Groups booking lead time into Last-Minute, Early, etc.

Stay_length_category

- Categorizes trip duration: Weekend, Short, Medium, Long

Booking_status

- Translates binary booking_complete (0/1) into Yes/No

Extra Bag, Choose Seat, Wants Meal

- Translates binary 'Wants Extra Baggage', 'Wants In Flight Meals', and 'Wants Preferred Seat' (0/1) into Yes/No

Day_type

- Labels flight_day as Weekday or Weekend

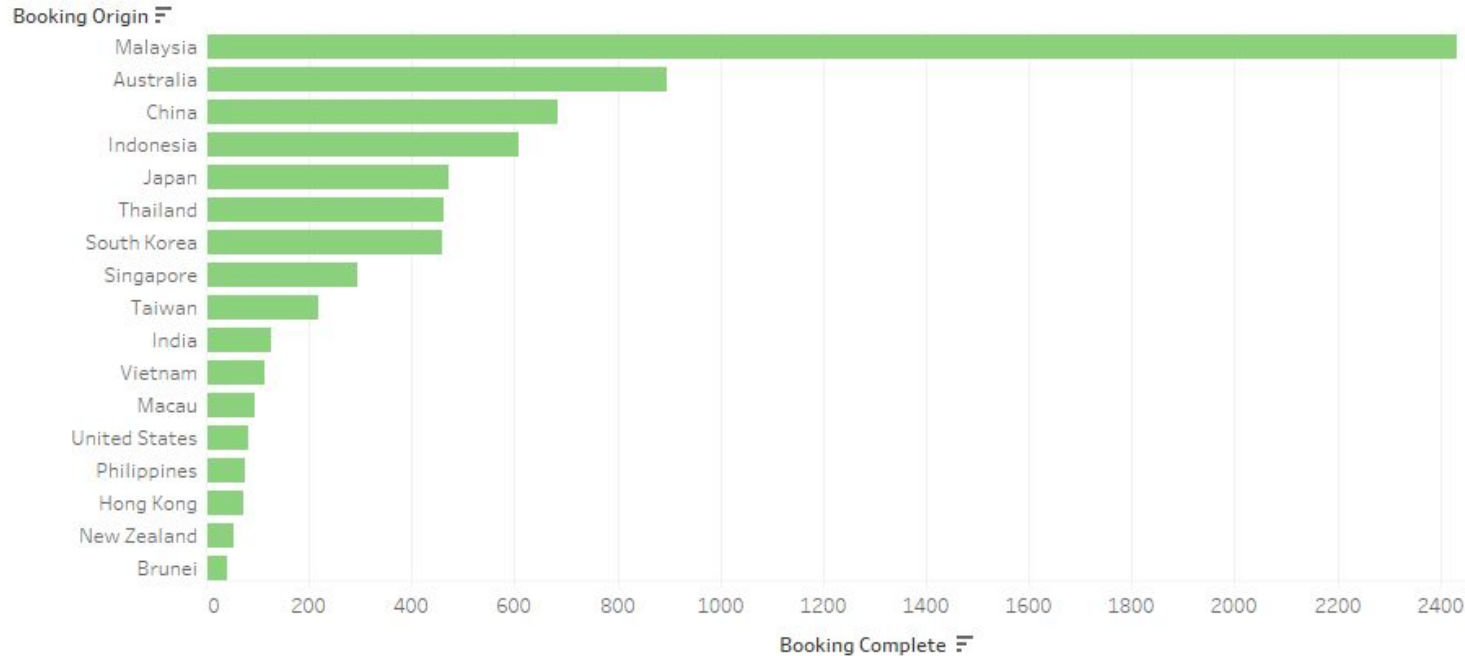
3. Created Calculated Fields

%booked: divides the sum of completed bookings by the count of entries

Amenities chosen: renamed each combination of choices of the 3 amenities for readability

Top Countries by Completed Bookings

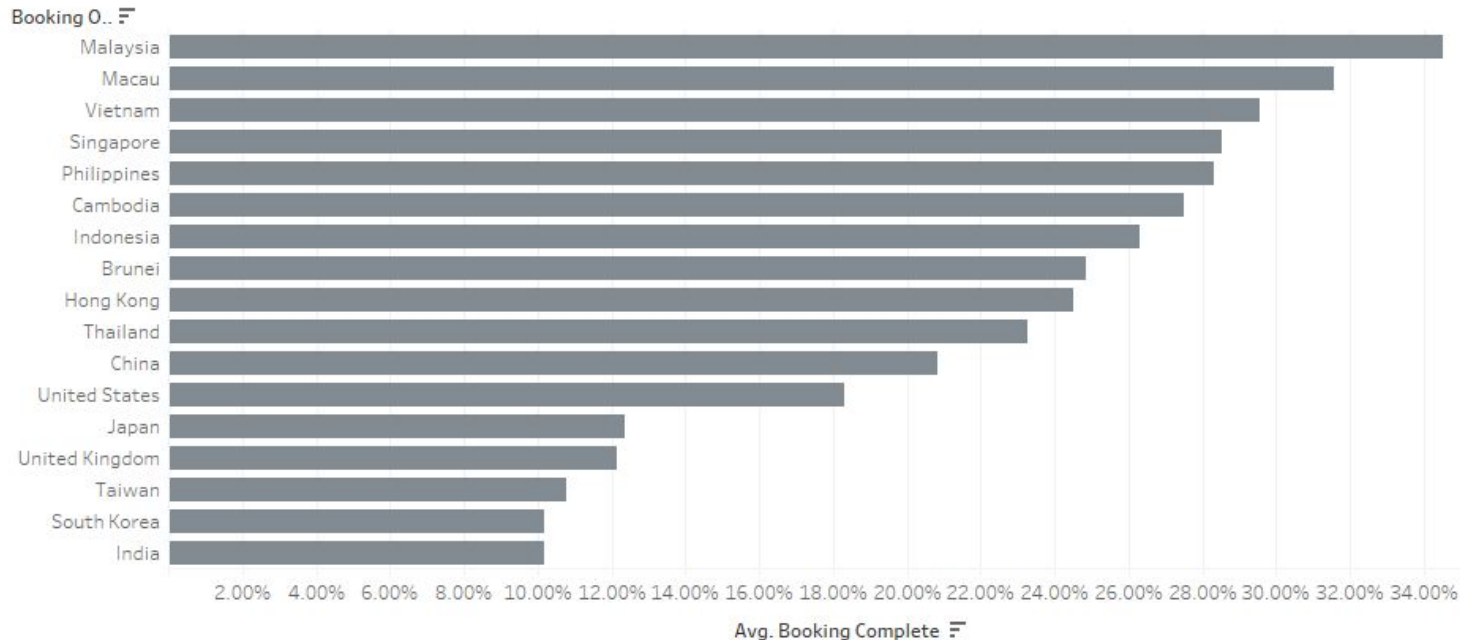
Top Countries by Completed Bookings



These countries represent high-value markets in terms of volume, though not all have high completion rates.

Completion Rate by Country (20+ Bookings Minimum)

Completion Rate by Customer Origin (20+ Bookings)

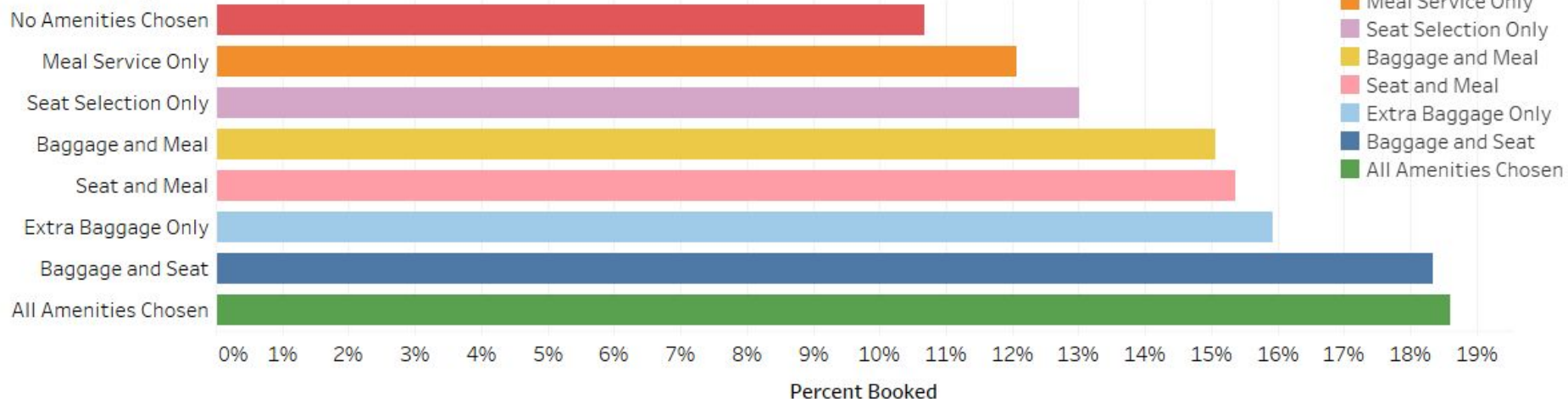


Malaysia is unique in being strong in both volume and completion rate, making it a standout market.

Completion Rates Based on Feature Selection

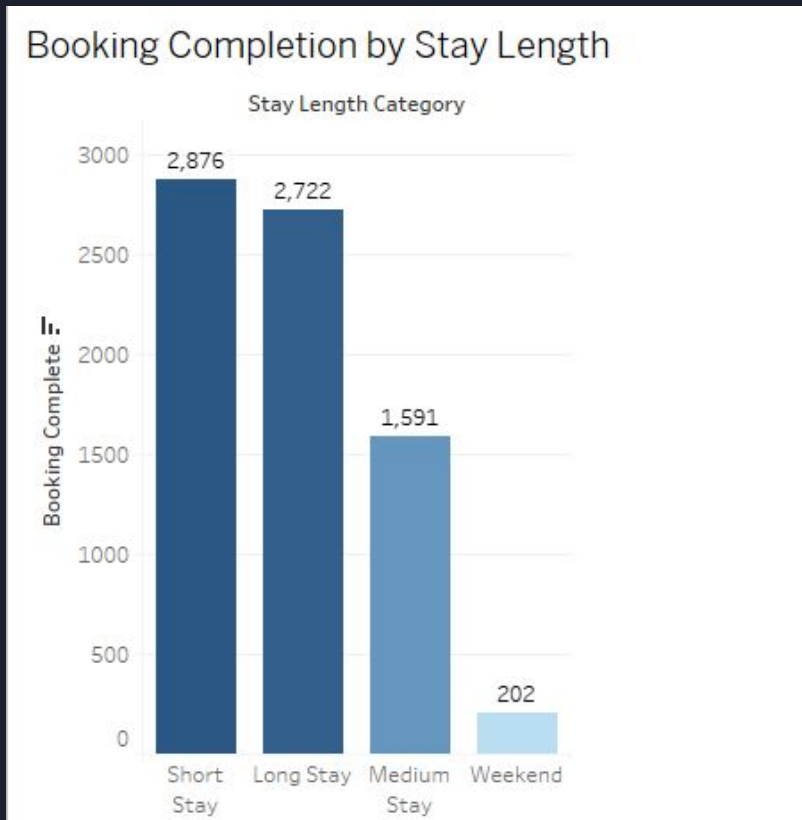
Amenities Influence on Booking Completion

Amenities Package



The more a traveler customizes their experience, the more likely they are to complete their journey.

Booking Completion by Stay Length

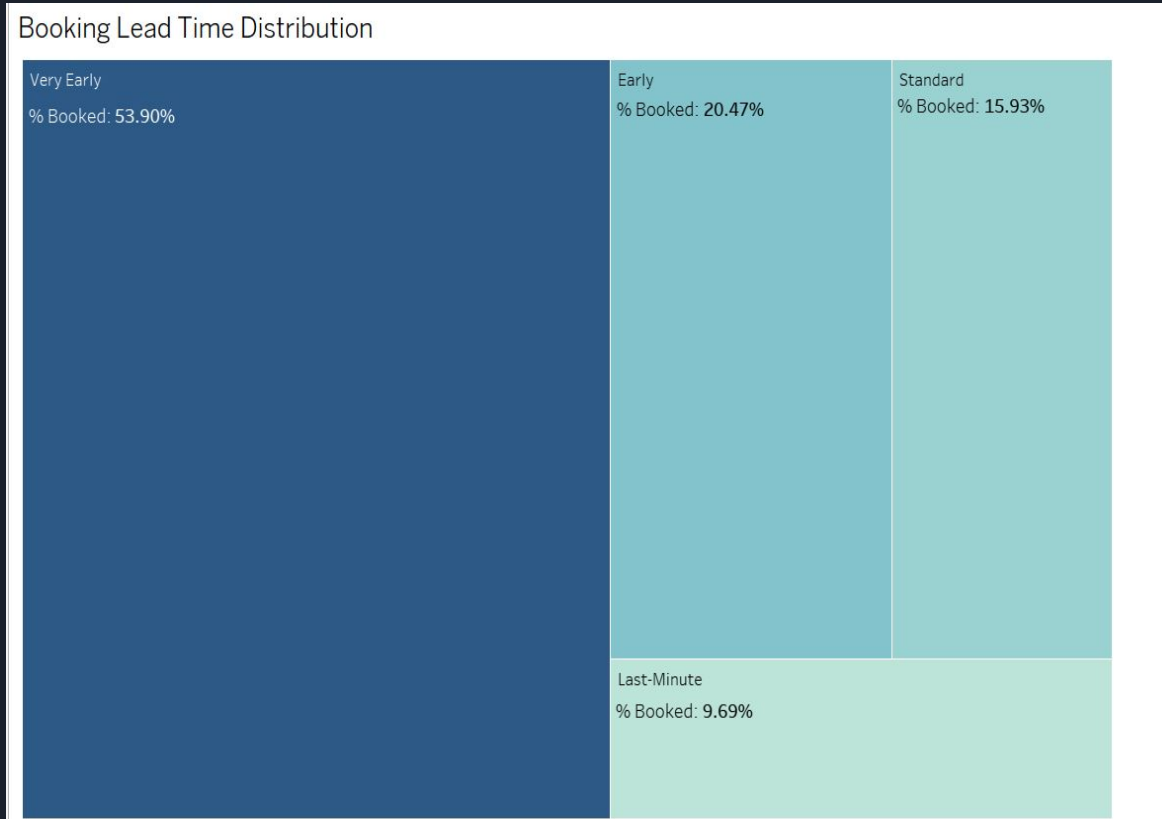


This pattern suggests travelers are more committed to either **quick trips** or **well-planned extended stays**.

Quick getaways and long vacations may represent more decisive booking behavior. Medium trips and weekend plans could be more **price sensitive**, leading to higher cancellation or drop-off.

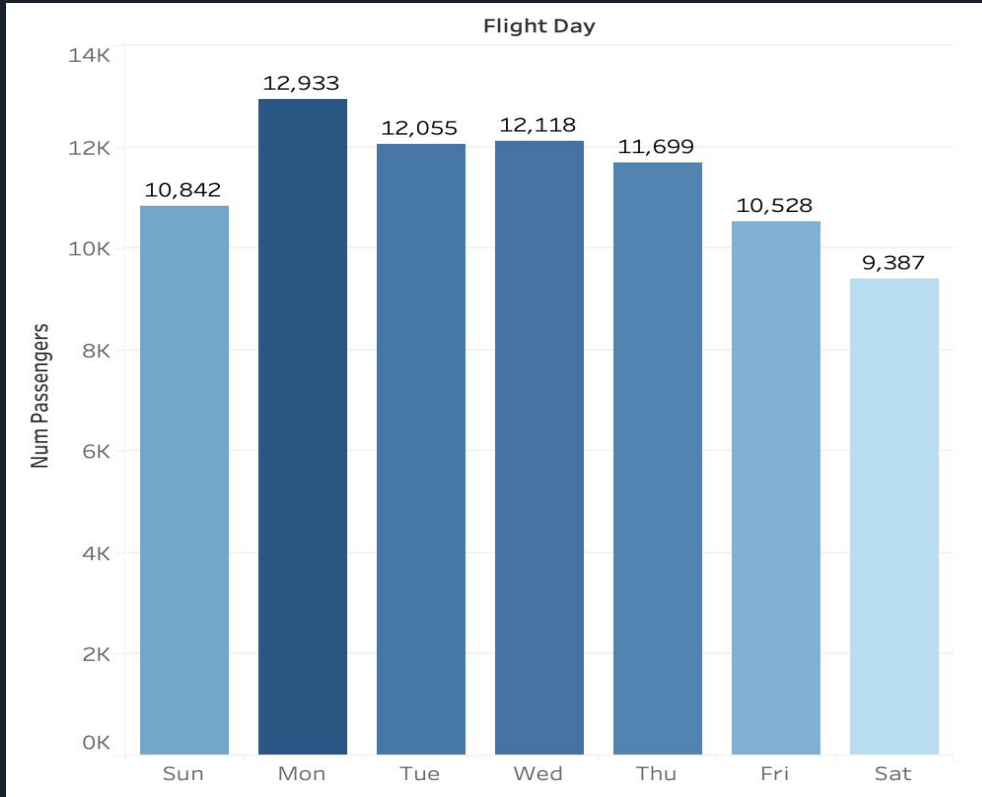
Booking Lead Time Distribution

Last-Minute:
0–7 days
Standard:
8–21 days
Early:
22–45 days
Very Early:
46+ days



We see that individuals like to book their flights earlier rather than later. However, some people like to wait for certain days to get the best deals or are unsure if they can travel due to many restrictions, which could lead to an early or standard booking time instead of very early.

Flight Booking : Popular Days



We see that Mondays are the most popular days for customers to book flights. This could add potential to the advertising team to provide discounts on certain days and increase overall sales.



Research

What Is the Best Day To Book Flights?

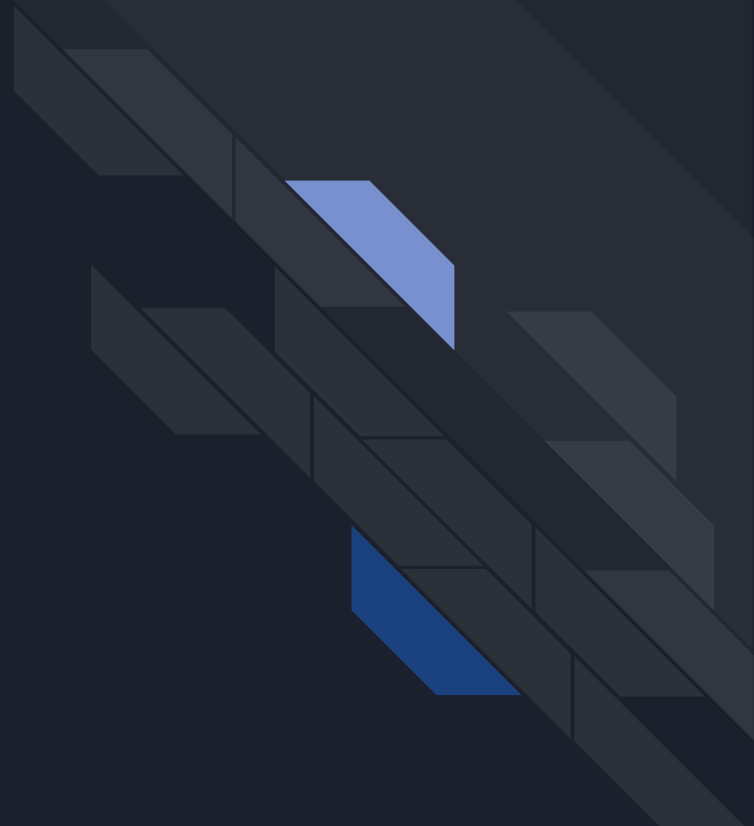
At one point in time, airlines were known to discount fares on Tuesdays, with competitors quickly matching their prices. Today, though, this advice is outdated: Airlines can (and do) update prices dynamically, with the best fares popping up sporadically rather than predictably.

Though sales come and go, a study by Expedia in 2025 found the cheapest day to book flights is Sunday. However, the savings aren't as significant as one might hope: Booking Sunday rather than Monday or Friday (the most expensive days) only saves travelers an average of 6% on domestic flights. On a \$300 ticket, that's \$18. International tickets saw greater savings of up to 17%.

Before you get excited about booking on Sundays, you'll want to take a look at some more data. A 2024 data study by Upgraded Points found that the best day to purchase airline tickets is Monday or Tuesday, with Friday and Saturday being the most expensive. And a Google study found that purchasing tickets on Tuesdays, Wednesdays and Thursdays was cheaper than buying flights on the weekends. Even Google concluded what you might be noticing: "There isn't much value in purchasing your tickets on a certain day of the week."

What We Learned From The Data

1. **High-volume \neq high-conversion**
2. **Optional feature selection signals strong intent**
3. **Trip length affects reliability**
4. **Early planning = higher completion**
5. **Booking time can be related to discounted rates.**



What To Do with These Insights

Strategic Suggestions:

- Encourage early bookings
- Target feature-selecting customers
- Focus on reliable regions
- Support weekend/medium trip segments



Limitations of the Analysis

Key Constraints:

1. **No Revenue Data**
2. **No Customer Demographics**
3. **Binary Completion Status**
4. **Assumes All Features Are Equal in Cost/Weight**
5. **Booking Context Unknown**



