DASHBOARD DOCUMENTATION

Indian Airlines: Flight Price and Performance

Prepared by Temidayo Sunday Alade, Data Analyst

Power BI Desktop · DAX

300K
fare listings

1,561
distinct flights

6
airlines, 6 cities

47 days
before departure: cheapest booking point

A practice dashboard built on a training dataset. It is not client data. Figures are quoted as they appear on the report.

WHAT IS INSIDE

1 The story behind the report
2 Words used in this document
3 What this report is
4 The questions the report answers
5 How it was built
6 How the numbers are worked out
7 What it found
8 What I recommended
9 Notes on the figures and limitations
10 Outputs

01 THE STORY BEHIND THE REPORT

> *Imagine you need to fly from Delhi to Mumbai next month. You can book today or wait. If you wait, will the price go up or down? Is a one-stop flight cheaper than a direct flight? Which airline gives most for the money?*
>
> *This dashboard answers those questions from three hundred thousand listed fares.*

To find out how flight prices vary with booking time, number of stops, airline, class and route, and to give practical advice to travellers and to airlines.

02 WORDS USED IN THIS DOCUMENT

Word	What it means
KPI	Key performance indicator: one number that says how the business is doing, such as total sales or churn rate.
Slicer	A filter the reader can click, such as a year, a region or a product.
Days left	How many days before departure the ticket was priced.
Stops	How many times the flight lands before the final city: zero (direct), one, or two or more.
Class	Economy or Business.
Route	A pair of cities, such as Delhi to Mumbai.
Source and destination city	Where the flight leaves from and where it arrives.

03 WHAT THIS REPORT IS

Item	Detail
Author	Temidayo Sunday Alade
Tool	Power BI Desktop
Data	About 300,000 fare listings across six airlines and six cities: Delhi, Mumbai, Bangalore, Kolkata, Hyderabad and Chennai
Pages	Objectives, KPIs, six insight pages, an overview, flight scheduling and price analysis

04 THE QUESTIONS THE REPORT ANSWERS

Question	Where it is answered
How does price change as departure gets closer?	Average price by days left; best and worst time to book
Which airline gives the best value?	Price per unit of flight time, and average price by airline
Do direct flights cost more or less?	Average price by number of stops
Which routes bring in the most money?	Sum of price by route, top and bottom five
Which airlines offer the most seats, by class?	Number of flights by airline and class
How do departures and arrivals spread across the day?	Flight scheduling page

05 HOW IT WAS BUILT



1. Load the fare listings: airline, flight code, source and destination cities, departure and arrival time bands, stops, class, duration, days left and price.
2. Create a route field from the two cities, and bands for departure and arrival time.
3. Write measures for the number of flights, the number of listings, average price, total of listed prices and average duration.
4. Build one page for each question, with a chart, a written insight and a recommendation for travellers and for airlines.
5. Combine the charts into an overview page, a flight-scheduling page and a price-analysis page, all filtered by airline.

06 HOW THE NUMBERS ARE WORKED OUT

THE CALCULATIONS ON THE REPORT

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average price      =  total of listed prices ÷ number of listings
price by stops     =  average price for zero, one, two or more stops
best time to book  =  the days-left value with the lowest average price
```

Card	Working	Result
Listings by class	206.67K economy + 93.49K business	300.16K

Card	Working	Result
Listings by stops	36K direct + 251K one stop + 13K two or more	300K
Total of listed prices	300K × 20.89K average	about 6.3bn

> **An everyday example.** Booking two days ahead averages about 30K, and booking 47 days ahead about 19K. The difference is roughly 11K a ticket, which is more than a third off, simply by buying seven weeks early instead of two days early.

07 WHAT IT FOUND

Book early. The average fare is about 30K two days before departure and falls to about 19K by day 47. The advice written on the report is to book six to eight weeks ahead and to avoid the last few days.

Class is the biggest price driver. Business averages about 53K against about 7K for economy, so the class chosen matters more than the airline.

Vistara and Air India are the premium airlines and IndiGo, GO FIRST, SpiceJet and AirAsia are the budget group. By price per unit of flight time, Vistara is highest (2,281), Air India next (1,516), then IndiGo (919), GO FIRST (646), SpiceJet (491) and AirAsia (458).

Vistara has the most economy listings (67K), IndiGo has 61K, and Air India has the most business listings (33K).

Direct flights average about 9K, one-stop flights about 23K and flights with two or more stops about 14K.

08 WHAT I RECOMMENDED

- Travellers should book six to eight weeks ahead and avoid last-minute booking.
- Budget travellers should look at AirAsia, SpiceJet or GO FIRST; those who want balance should consider IndiGo; those who want a premium experience should compare Vistara and Air India.
- Airlines with high price per unit of flight time should review pricing to remain competitive against the budget carriers.
- Keep fares competitive on the busiest routes and use discounts to build traffic on the quietest ones.

09 NOTES ON THE FIGURES AND LIMITATIONS

Every figure in this document is taken from the report page it describes. These notes say how to read the figures that need care, and what the data cannot show.

- **Listings, not passengers.** Each row is a fare listing, so the 300K card counts listings and the 6bn card is the total of listed prices. Neither is a count of travellers or of money earned.
- **Price per hour of flight.** The value-for-money chart only makes sense per hour: Vistara averages about 30K a ticket, and 30K ÷ 2,281 is about 13 hours, a plausible average duration. I quote it as price per unit of flight time.
- **Range of days.** The days-left axis stops at about 49, so 47 days is the end of the observed range. The data cannot say whether prices fall further if booked earlier.
- **One stop against direct.** The comparison does not hold class fixed. If business fares are more common on one-stop flights, they lift that average, so the next step is to compare within each class.
- **Routes.** The route pages rank by the sum of listed prices, which grows with the number of flights as well as with the price. Ranking by average price would answer which routes are the most expensive.

- **Currency.** Prices are not labelled with a currency; they are most likely rupees, and are compared with each other only.

10 OUTPUTS

A 12-page Power BI report (PDF export).

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