Flight Cost Analysis and Plotting

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Abstract

This project idea involves creating one or more scatter plots using Excel to visualize airline ticket prices across different days of the week. The dataset is from domestic and international flights to and from India containing flight costs for the days of the week and using that creating a scatter plot feature, with days of the week on the x-axis and ticket costs on the y-axis

Keywords

- All flight prices are in Indian Rupees

Findings

As can be seen in the bar chart below, when we compare the time and the price of the flight, the lower the time period of the flight the more expensive the flight comes, however the plot does not account for different routes and airlines. Which can also deeply affect the price of the flights.

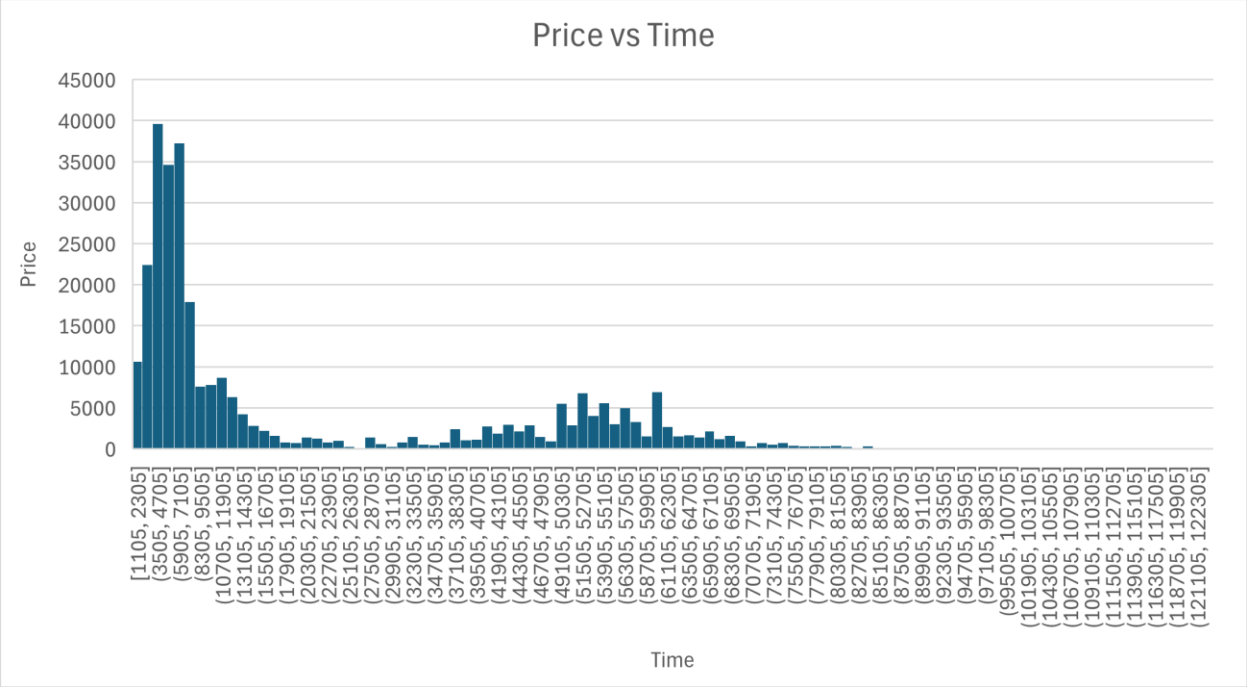

Fig 1.1 Price vs Time

When checking factors that affect flight there are multiple very obvious factors that play a key role in determining the price of a flight, such factors include,

- **Route** – Of course flights that have a very long route require a lot more fuel consumption and therefore get pricier.
- **Number of stops** – Flights that save you time vs flights that may have one or two stop make a significant price difference. Direct flights are a lot more expensive, primarily because they save you time and because it generally involves covering a longer distance at once, so the price is considerably more expensive than flights that require multiple layovers.
- **Airline –** flights between popular destinations often have multiple different airlines flying between them and therefore a lot of choices, these airlines have different prices ranges because of the services they provide and the better services, the more expensive the flight is.

This data is only of economy flights therefore the type of class picked by the consumer is not a consideration been taken into account. Another popular factor a lot of people thin makes a enormous difference is how long ago you book the ticket, the rule says the earlier you book the

ticket the cheaper it will be. To test this below is a scatter plot of prices against the number of das before the flight was booked.

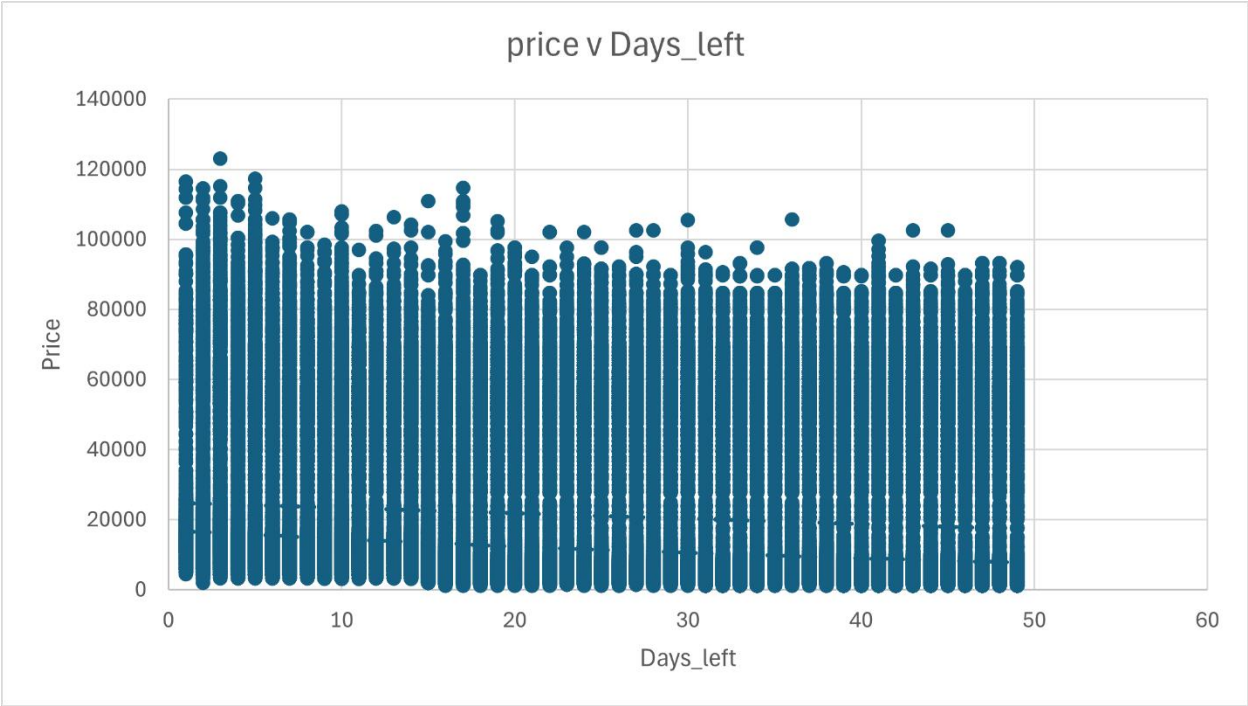

Fig 1.2 Prices V Days left.

As the scatter plot above shows there is a slight increase in prices as days left to when the flight takes off however the price increase is very minute and often fluctuates days by day. So, while the data shows a slight increase the price doesn't drastically increase.

Conclusion

Other than the conventional factors that causes difference in airline prices we can see that the time the flights take does make a major difference in flight prices whereas the number of days left to the flight does not make a very significant difference in price, note the price is Indian rupees.

References

https://www.kaggle.com/datasets/shubhambathwal/flight-price-prediction/data

Tools and Technologies

- Excel – Data cleaning, visualisation & formatting