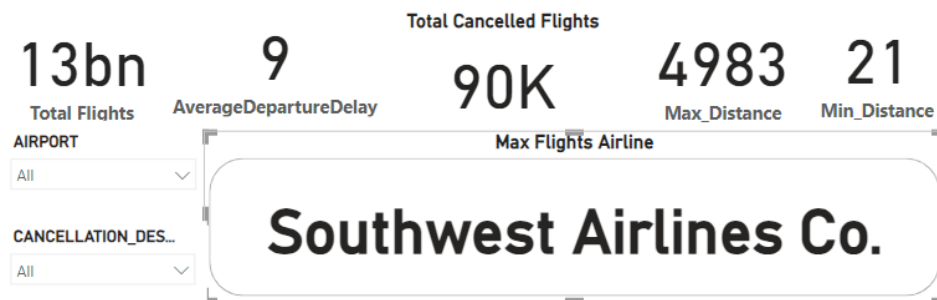


Objective: 2015 US Airline Performance Analysis.

Indented user: Customers

Used Slicer: Airport Names, Cancellation Description, Quarterly Analysis.



Card Visualization:

- Total Flights
- Average Departure Delay
- Total Cancelled Flights
- Maximum Distance
- Minimum Distance
- Maximum Number of Flights

Observations:

1. The airline with the maximum number of flights: Southwest Airlines Co
2. The card visualization also shows the maximum distance, minimum distance, and total number of canceled flights.
3. The maximum distance is covered by Delta Airlines with a value of 4983 Km followed by United Airlines Inc with a value of 4962 Km.
4. The minimum distance value for Virgin America is highest with a value of 189 Km followed by Spirit Airlines with a value of 177 Km.
5. The card which visualizes the number of canceled flights can be used to understand the specific number of canceled flights at each airport.

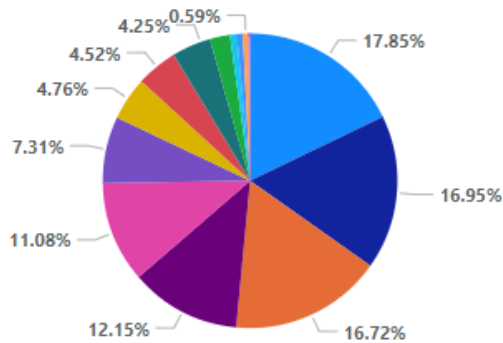
Insights:

The card visualization is used for the highest number of flights by airlines. By using the airport slicer, it is easier to understand the major airlines operating in each airport which can be used by the users while choosing their flight service.

From maximum and minimum distance, the airlines with maximum distance may denote that it has long-distance flights, and when the maximum distance covered is low it may mean that the airlines operate more domestic flights.

Pie Chart for canceled flights for different airlines

Cancelled Flight Count by AIRLINE



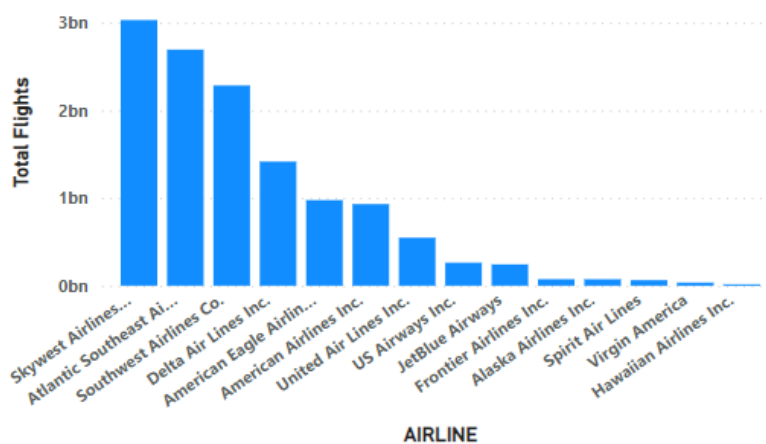
Observations:

1. The pie chart for canceled flights gives an idea about the percentage of canceled flights of different airlines.
2. Southwest Airlines Company has the highest percentage of canceled flights followed by Atlantic Southeast Airlines, American eagle airlines & SkyWest Airlines.
3. Virgin America has the least number of canceled flights, but this could be due to the fact that the total number of flights belonging to the particular airline is so low.

Insight:

The number of canceled flights alone cannot be used as a performance measure because if an airline has less total number of flights chances are high that it has fewer canceled flights.

Bar Chart for Total Flights



Observations:

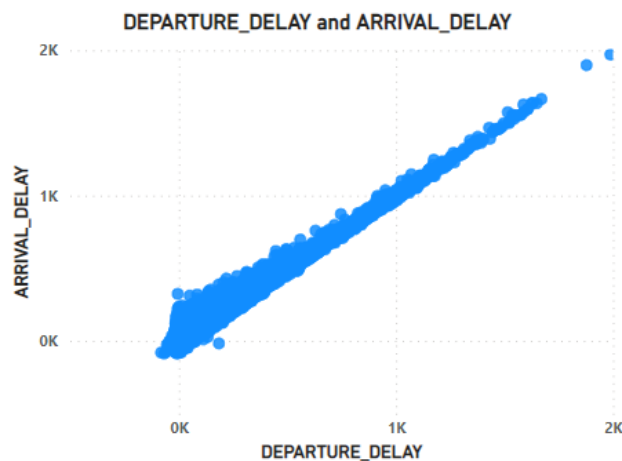
1. The bar chart represents the total number of flights operated by each airline. The highest number of flights is handled by SkyWest Airlines followed by Atlantic Southwest Airlines.
2. On interpreting the bar chart along with the card visualization for Average departure delay shows the delay in minutes even though Spirit Airlines has the least number of flights operating they have the highest departure delay with a value of 16 mins, followed by United Airlines Inc. Skywest Airlines even though they have the highest number of flights their average departure delay is comparatively low.

3. Even though Delta Airlines Inc is an airline with a high number of total flights, the canceled flight percentage of 4.2, and the average departure delay of 7 mins.
4. By applying the Airport slicer, we can further analyze which airlines are operating in a better manner considering the canceled flight, departure delays, etc.

Insight:

The bar chart along with other charts is very useful for understanding the performance of airlines, by using it along with departure delay cards and canceled flight card visualization it gives a clear idea of better-performing airlines in terms of the service they provide to the customers.

Scatterplot for Arrival and departure delay



Observation:

1. From the scatterplot, departure delays and arrival delays are directly proportional i.e., If there is a departure delay there will be an arrival delay.

Insight:

This can be used by the customer in understanding the arrival delay times based on the departure delay.

Treemap for total flights in weekdays



Observations:

1. The treemap visualization shows the days when there are more flights.
2. In the dashboard Monday and Friday have more flights compared to Tuesday, Wednesday, and Saturday.

Insight:

The reason could be that Monday is the start of the working day hence more people use flight services. Friday is the weekend so people going back home or on vacation use the services. Can be used by the customers to see the peak days.