

User Requirement Document:

Delta Airlines Comparison Analysis

Objective

The objective of this report is to discover and articulate how Delta Airline compares to other airlines in the United States of America

Problem Areas

As the director of Operations at Delta Airline we would like to discover how Delta performs side by side other companies' operations wise.

Problems identified

The main problem during the course of this report was gathering the data of the other airlines performance.

Target Audience

- Primary audience – Chief Operating Officer.
- Secondary audience – Head of Marketing, Board of Directors.

Use Case

1. Identify the best performing airline

User story

As the COO I would like to know what airlines are performing best in terms of efficiency, schedule adherence to evaluate the range of services we provide and to identify areas of improvement or differentiation, to better meet customers' needs.

Acceptance Criteria

The dashboard should

- Have a list of all the airlines in the United States.
- Should display Average Arrival and Departure Delay.
- Be user friendly and easy to sort.
- Most recent data possible.

2. Identify the airline with the most capacity

User story

As the COO it is important to know what airlines are the biggest in terms of aircrafts and capacity to identify potential markets for expansion, also to assess their market share relative to competitors and understand their position within the industry.

Acceptance Criteria

The solution should

- clearly display Delta airline position in the industry.
- Should display key metrics (number of flights, airline name)
- include a summary of the result of the analysis.

Success Criteria

The COO can

- See the number of flights from each competitor highlighting Delta airlines'.
- Easily highlight the performance score of each competitor and Delta airlines.
- Read a summary of the dashboard.
- Can make an informed decision on operation activities based on the dashboard.

Information Needed

The COO needs a comparative analysis of Delta airline competitor in the US

The key metrics should be

- number of flights per airline.
- Overall performance score of each airline.

Data needed

The dataset needed to produce the information should include the following fields

- airline names
- average departure delay
- average arrival delay
- flights

We will focus on the top 10 airlines for simplicity's sake

Data Quality checks

We need to ensure there are measures in place to confirm the dataset contains the data required without any issues. The main data quality checks will be

- Row count checks
- Column count checks
- Data type checks
- Duplicate checks

Additional Requirements

- Document the solution and include the data sources, transformation process and walk through on analysis conclusions
- Make source code and docs available on Github
- Ensure the solution is reproducible and maintainable so that it can support future updates.