LITERATURE SURVEY

1.1 EXISTING PROBLEM

1.AIRLINE MEMBER CUSTOMER VALUE ANALYSIS:

In recent years, the vigorous development of the transportation industry has attracted a large number of customers, especially those in the aviation industry. However, for airlines, the pressure of competition has increased year by year; on the other hand, there are also competing relationships among different airlines. Therefore, for airlines, how to retain customers has become the key to the problem. In fact, using the various customer factors provided by the existing churn customer information data set can use the data visualization means of data analysis to analyse the behaviour of churn customers. In addition, relevant marketing strategies can be proposed to improve the business level as much as possible.

2.PREDICTIVE ANALYTICS PLATFORM FOR AIRLINE INDUSTRY:

The research is to develop accurate demand forecasting model to control the availability in Airline industry. The primary outcome of the model is that the airline organization can maximize the revenue by controlling the availability. The product in airline industry is the seat, which is an expensive, unstock able product. The demand for the seats is almost uncertain, the capacity is constraint and difficult to increase and the variable costs are very high. Hence the priority of the expected demand forecast is very high for airline industry. An accurate mechanism is to predict the revenue for future months of ODs is done using fare and passenger data. The revenue is derived by the number of passengers and fares they pay which vary for each flight. Hence most of the information is available, however changing market conditions is an unknown variable which can have a significant impact on passenger travel patterns. Through this research they are going to design and develop the best fit model to forecast flight OD level passenger demand based on the historical data.

3. EXPLORATORY DATA ANALYSIS ON AVIATION DATASET

The usage of big data analytics is booming today, with its ability to be used to draw useful
insights from past data research. Its uses in the aviation industry have a wide array of applic
ations ranging from predicting flight delays to detecting faults in airplane parts. In this paper,
we conducted exploratory data analysis on flight dataset to draw inferences on arrival and
departure delays and to identify relationships between flight timings and delays. Using the
flight delay data, we identified which flight is mostly prone to delays.
The arrived upon conclusions are useful for selecting flights in the future.

4. DATA SCIENCE AND ANALYTICS IN AVIATION

Data science and analytics are attracting more and more attention from researchers and practitioners in recent years. Due to the rapid development of advanced technologies nowadays, a massive amount of real time data regarding flight information, flight performance, airport conditions, air traffic conditions, weather, ticket prices, passenger’s comments, crew comments, etc., are all

available in different flight performance monitoring systems, operational systems of airlines and airports, and social media platforms. Development of data analytics in aviation and related applications are also growing rapidly. This paper concisely examines data science and analytics in aviation studies in several critical areas, namely big data analysis, air transport network management, forecasting, and machine learning. The papers featured in this special issue are also introduced and reviewed, and future directions for data science and analytics in aviation are discussed.

2.2 REFERENCES.

https://ieeexplore.ieee.org/document/9410686
https://ieeexplore.ieee.org/document/9357244
https://ieeexplore.ieee.org/document/9738868

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