Project Design Phase-1

Problem-Solution Fit

Date	30th september 2022
Team ID:	PNT2022TMID25103
Project Title	Airlines data analytics for aviation industry

Project Title: Airlines data analytics for aviation industry   **Project Design Phase-I - Solution Fit Template**   **Team ID:** PNT2022TMID25103

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) `CS`

. Customer segmentation is the process by which customer is divided based on common characteristic or behavior

. customers are airport, tourist/travel agencies and other stakeholder to provide the data

.one of the possible aspects for passenger route forecasting model can be the customer segmentation

6. CUSTOMER CONSTRAINTS `CC`

What constraints prevent your customers from taking action or limit them choices of solutions?

. customer constraints could be physical movements, time, flight operation, military operations, easing the noise, weather, reduced flows, length, size of aircraft and so on

. customer experience in the airline industry is often defined as what the customer perceives and experience while travelling through the different departure stages and arrival in an airport

5. AVAILABLE SOLUTIONS `AS`

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have?

. Understanding traveler demand for specific city pairs and pricing flights can be done using data analytic

. Airlines use this AI system which is built in machine learning algorithm to collect and analyze flight data with regard to each route distance and altitude, aircraft type and weight, wealth etc. These can be handled with the aforementioned project

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS `J&P`

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

. Average aircraft delay is regularly referred to as an indication of airport capacity. Flight delay is a prevailing problem in this world.

. It hurts airports, airlines, and affects a company's marketing strategies as companies rely on customer loyalty to support their frequent flying program

9. PROBLEM ROOT CAUSE `RC`

What is the real reason that this problem exists? What is the back story behind the need to do this job?

. A few factors responsible for the flight delays like runway construction to excessive traffic are rare, but bad weather seems to be a common cause.

. Some flights are delayed because of the reactionary delays, due to the late arrival of the previous flight.

7. BEHAVIOUR `BE`

What does your customer do to address the problem and get the job done?

. Have done a sentiment analysis and opinion mining that analyzes people's opinions, sentiments, and studies their behavior.

. The output of the research is a feature-based opinion summary which is also known as sentiment classification

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS **TR**

What triggers customers to act?

- Establish different levels of trigger

From customer points are facility/airport

Airport incident, security and weather
/ Natural disaster

4. EMOTIONS: BEFORE / AFTER **EM**

How do customers feel when they face a problem or a job and afterwards?

- The customers emotions can be frustrated if the delay in flight and result in loss of customer trust and loyalty

10. YOUR SOLUTION **SL**

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.

If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behavior.

- The solution is to predict the reasons for flight delay and for that we have put in efforts for collecting data about the flight and weather

- we have created mining model which enables the Flight delay by observing the weather conditions

- The motive is to propose an approach that improve the operational performance

8. CHANNELS of BEHAVIOUR **CH**

8.1 ONLINE

What kind of actions do customers take online? Extract online channels from #7

- In airline analytics aviation in online should be more secured and authenticated that other third party or any other couldn't able to access the data of customers

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

- offline is better as you will get better service from travel agents especially when issues like cancellations, refunds arise