Project Title: Machine learning based vehicle performance analyzer **Project Design Phase-I - Solution Fit** **Team ID:** PNT2022TMID10674

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Anyone who is eligible to drive and owns a vehicle are part of the customer segment. On majority of countries anyone who is older than 16 years comes under the customer segment.

6. CUSTOMER CONSTRAINTS CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Knowledge about working of such vehicles.

Time constraints, as it can take a day or 2.

Labour cost, lack of people to do it.

5. AVAILABLE SOLUTIONS AS

Customer can approach a local service centre and hire someone to analyse. Otherwise, can do it himself with by carrying higher risk of inaccuracy and failure.

Pros: people interaction, lots of experts.
Cons: Trustability, different experts prioritize different attributes.

Explore AS, differentiate

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

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

Identify a machine learning algorithm that best suits the application.

Use that Algorithm to predict vehicle condition and performance using the available data.

To make customers get familiar with the idea and to advertise accordingly helping them to reduce time in analyzing vehicle and increase sale value.

9. PROBLEM ROOT CAUSE RC

The performance predicted by some user is based on their prioritization of the attributes.
So the performance predicted can differ based on the expert handling it and prioritization.
To solve this and to give exact weight for each property we need to develop a machine learning model that takes data attributes of the vehicle and predicts performance accurately.

7. BEHAVIOUR BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

Customer spends lot of time to find the right expert.
Often the task of performance analysis is done multiple times using different experts as second opinion increasing time consumed.

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

Identify strong TR & EM

3. TRIGGERS TR

User need to buy or sell vehicles
When used in the local service centres and shops.

4. EMOTIONS: BEFORE / AFTER EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Before: Confused, stressed and annoyed.
After. Relaxed, feels easy to follow, satisfied and understanding, quicker.

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.

To use a suitable machine learning algorithm that has high accuracy in terms of this application and create a model that predicts the performance of the vehicle accurately in no time.

The model takes in attributes recorded using different sensors of the vehicle and makes prediction on those data giving instant and accurate results.

8. CHANNELS of BEHAVIOUR CH

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

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

Online:
Customers get the data, provide them as input to the application powered by machine learning model to predict performance of their vehicle.

Offline:
Customers try to gather data just by noting down the information provided by sensors.

Identify strong TR & EM