Project Title: Machine Learning based Vehicle Performance Analyzer   **Project Design Phase-I – Solution Fit Template**   **Team ID:** ~~PNT2022TMIDxxxxxx~~

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

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

- The target users are those who want to ensure that their vehicle is on par with expected mileage and if not looking for alternate vehicles to buy.
- Users who wish to utilise their vehicle in an efficient way by monitoring it's performance.

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.

- Complex to use
- Need for sensors to be bought additionally
- Solution might not be applicable for older vehicles

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? i.e. pen and paper is an alternative to digital notetaking

- Tekscan - Vehicle metrics for R&D Purposes.
- Speed-Wiz - Visualize vehicle metrics from the sensors present.

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.

- Collect data of vehicle to model upon.
- Create a model for the given data.
- Predict expected mileage based on the given model.

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?
i.e. customers have to do it because of the change in regulations.

- Increased fuel consumption.
- Increased cost of vehicle maintenance.
- Concern over the sustainability of current vehicle or whether it is time to replace the vehicle

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)

- Keep track of required metrics.
- Input the metrics to find out expected mileage.
- Plan for alternate if the mileage performance is not as expected.

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

Identify strong TR & EM

3. TRIGGERS — TR

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

- Increased expenditure on fuel.
- Concerns over vehicle's mileage and performance.

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.

Concerned, confused > Understanding, relieved

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 behaviour.

An application that gets data from the user, give an expected mileage, tracks the difference in expected mileage and actual mileage and suggests alternate vehicle to buy in case the difference is huge.

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.

Offline:
- Measure required metrics periodically.
- Visit service center if the mileage is drastically different from the expected values

Online:
- Get the expected mileage from the application.
- Plan for alternate options if the vehicle performance degradation is more than expected.

Identify strong TR & EM