

Project Design Phase

Problem – Solution Fit Template

Date	15 February 2025
Team ID	LTVIP2025TMID47712
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem–Solution Fit for this project is clearly established by identifying the fragmented and non-visual nature of electric vehicle (EV) data faced by consumers, analysts, and policymakers. Today’s EV market presents complex challenges—customers often struggle to compare key parameters like range, price, powertrain, and charging station availability due to scattered or outdated data sources. Our solution, an interactive Tableau-based visualization tool, bridges this gap by centralizing and visualizing EV data from both Indian and global datasets.

Template:

1. CUSTOMER SEGMENTS (S) CS <ul style="list-style-type: none"> EV buyers (india and globally) Government Manufacturers Analysts, journalists 	2. CUSTOMER LIMITATIONS CS <ul style="list-style-type: none"> Difficulty in comparing EVs by range, price, powertrain Lack of a central source for Indian and global EV data Limited charging station knowledge Manual and slow data comparison 	5 AVAILABLE SOLUTIONS AS <ul style="list-style-type: none"> Lack of technical knowledge Fear of buying the wrong EV Budget constraints Range anxiety Time constraints
2. CUSTOMER LIMITATIONS CL <ul style="list-style-type: none"> Difficulties in comparing EVs by range, price and power train Lack of a central source for Indian and global EV data Limited charging station knowledge Information overload 	7. PROBLEM ROOT / CAUSE RC <ul style="list-style-type: none"> Lack of a unified, interactive platform for EV comparison Lack of visual tools combining Indian and global EV data Fragmented datasets with no standard structure 	7. BEHAVIOR BE <ul style="list-style-type: none"> Ay unned intractive platform for EV comparison Lack of visual tools combining Indian and global EV data Fragmented datasets
3. TRIGGERSTO ACT TR <ul style="list-style-type: none"> Government EV subsidies, or tax rebates High fuel prices Fear recommendations 	9. PROBLEM ROOT / CAUSE <ul style="list-style-type: none"> Lack of a unified, interactive platform for EV comparison Lack of visual tools combining Indian and global EV data Fragmented datasets with no standard structure 	7. BEHAVIOR BE <ul style="list-style-type: none"> Searching online on "best EV (best) models" Watching comparison videos, check EV infleage, range, price, top speed Visiting 2-4 brand websites before deciding Looking for charger availability near byern
4. EMOTIONS EM <ul style="list-style-type: none"> Confusion Unware Overwhelmed 	10. YOUR SOLUTION SL <ul style="list-style-type: none"> A tableau dashboard and story interface combining Indian and global data. Updating range, price, powertrain efficiency, top speed, and model core, showing interactive in dealership or government language Helps buyers analysts, and policy makers make informed decisions 	8. CHANNELS of BEI / AVIOR CH <ul style="list-style-type: none"> Online Dealership visits

It aligns with users' existing behaviors such as online research, brand comparison, and price filtering, making the tool intuitive and easy to adopt. By offering interactive dashboards, summary cards, and story-based insights, the solution simplifies decision-making and enhances user confidence. This fit is reinforced by the emotional shift it delivers—from confusion to clarity—and its ability to be deployed across multiple touchpoints like Tableau Public, websites, or dealership portals. The tool is designed with empathy for user limitations and directly addresses urgent and frequent pain points, ensuring strong adoption and value delivery.