PROJECT DESIGN PHASE-1

PROBLEM SOLUTION FIT

Team ID	PNT2022TMID23258
Project Name	Car Resale Value Prediction
Maximum Marks	2 Marks

Problem-Solution fit canvas 2.0

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

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

Second handle Car Buyers

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.

Avoidable prediction errors. Low price vehicle rates. Lack of transparency. Difficulty finding a good condition car. Medium maintenance costs. Presence of insurance coverage. The shortage of affordable value prediction.

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

I. Eliminate the short-term practice of data.
II. Learn how to perform analysis, data preprocessing and machine learning algorithms effectively.
III. Car resale value prediction system aims to exploit data mining techniques on vehicle data set to assist in the prediction of the car resale value.

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.

Machine learning has become a tool used in almost every task that requires estimation. Companies likecars24 and car Dekho. Com uses Regression analysis to estimate the used car prices. So, we need to build a model to estimate the price of cars. The model should take car-related parameters and output a selling price. The selling price of a used car depends on certain features as mentioned below

• Fuel Type

• Manufacturing year

• Miles Driven• Number of Historical Owners

• Maintenance Record

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.

Leading risk factors for predicting the values and to trust the anonymous sellers, fear about the car condition, Engine condition, fuel type, mileage of vehicle, and physical damages.

Solutions: Don't trust anonymous sellers, buying for affordable price, check the car condition, predict through the prediction analysis.

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)

I. Develop or improve upon the strategic vision.
II. Segment buyers with vehicle personalization.
III. Difficulty in predicting the values for second handled car value, trusting of anonymous brokers ,

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.

Accuracy of Datasets, Information of year of manufacturing, Type of fuel, Engine condition, Miles driven, Maintenance record

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.

Prediction of values, fear about engine condition, outlook condition, affordable price predicting

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.

This project aims to deliver price prediction models to the public, to help guide the individuals looking to buy or sell cars and to give them a better insight into the automotive sector. Baying a used car from a dealer can be a frustrating and an unsatisfying experience as some dealers are known to deploy deceitful Didactics to close a deal. Therefore, to help consumers avoid falling victims to match tactics, this study hopes to equip consumers with right tools to guide them in their shopping experience.

8. CHANNELS of BEHAVIOUR — CH

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

Second handled car will be a part of virtualization. For example, accessing and seeing all second handled car records in online

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

I. Buying for unaffordable price
II. Without checking the car condition
III. False documents about car

Extract online & offline CH of BE