

## Project Design Phase-I

### Problem – Solution Fit Template

Date	10 October 2022
Team ID	PNT2022TMID30912
Project Name	Car Resale Value Prediction
Maximum Marks	2 Marks

#### Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

#### Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ **Understand the existing situation in order to improve it for your target group.**

#### Template:

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) <small>Who is your customer? i.e. working parents of 0-5 y.o. kids</small>	6. CUSTOMER CONSTRAINTS <small>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</small>	5. AVAILABLE SOLUTIONS <small>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 &amp; cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking</small>	Explore AS, differentiate
	<ul style="list-style-type: none"> <li>Used car sellers</li> <li>Buyers</li> <li>First time car buyer</li> </ul>	<ul style="list-style-type: none"> <li>Customer were concerned when they still had no clue what they had discovered.</li> <li>They may have heard of internet scammers.</li> </ul>	<ul style="list-style-type: none"> <li>By searching in online websites.</li> <li>By acquiring knowledge from the people and gaining an understanding.</li> </ul>	
Focus on J&P, tap into BE, understand RC	2. JOBS-TO-BE-DONE / PROBLEMS <small>Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one, explore different sides.</small>	9. PROBLEM ROOT CAUSE <small>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</small>	7. BEHAVIOUR <small>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)</small>	Focus on J&P, tap into BE, understand RC
	<p>To build a supervised machine learning model that use regression methods to anticipate the value of a car based on several factors like as</p> <ul style="list-style-type: none"> <li>Condition of Engine</li> <li>Life span of used car</li> <li>Kilometers driven</li> <li>Look of the car</li> <li>Solving customer doubts</li> </ul>	<ul style="list-style-type: none"> <li>The price projected by dealers or brokers for a secondhand car is untrustworthy.</li> <li>Users can predict the proper car valuation remotely, without the need for human interaction, like car dealers do.</li> </ul>	<ul style="list-style-type: none"> <li>To avoid wear and tear fines, leased cars must be returned in excellent condition.</li> <li>Beware of selling frauds.</li> </ul>	
Identify strong TR & EM	3. TRIGGERS <small>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</small>	10. YOUR SOLUTION <small>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.</small>	8. CHANNELS of BEHAVIOUR <small>What kind of actions do customers take online? Extract online channels from #7.</small>	Identify strong TR & EM
	<p>Users may calculate the proper valuation of a car on their own utilizing model, year, owner, and other car resale value prediction websites.</p>		<p><b>8.1 ONLINE</b> What kind of actions do customers take online? Extract online channels from #7.</p> <p><b>8.2 OFFLINE</b> What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</p> <p><b>ONLINE</b></p> <ul style="list-style-type: none"> <li>Customers don't just look for information on vehicle brand websites; they also visit comparison sites to compare pricing and user ratings.</li> </ul> <p><b>OFFLINE</b></p> <ul style="list-style-type: none"> <li>When a buyer wanted to buy a car, they would go from dealership to dealership, meeting with salesmen and determining where they might get the greatest bargain.</li> </ul>	
	4. EMOTIONS: BEFORE / AFTER <small>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.</small>			
	<p><b>Before:</b></p> <ul style="list-style-type: none"> <li>The user will be concerned about the inaccurate figures anticipated by humans based on the state of the vehicle.</li> </ul> <p><b>After:</b></p> <ul style="list-style-type: none"> <li>Without user intervention, the user may decide the reliability of the car on their own.</li> </ul>	<ul style="list-style-type: none"> <li>Machine learning and a regression model were used to create this system. We can estimate the resale value of a car at any moment and from any location by applying this model.</li> <li>The project should use used car parameters as inputs and allow buyers to make their own judgments.</li> </ul>		