

Project Design Phase-I

Problem Solution Fit

Date	19 September 2022
Team ID	PNT2022TMID25913
Project Name	Project-Exploratory Analysis of Rainfall data in India for Agriculture
Maximum Marks	4 Marks

Project Title: Exploratory Analysis of Rainfall data in India for Agriculture

Project Design Phase-I - Solution Fit Template

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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 1. Farmers and farming industries 2. Agencies 3. Government departments	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. 1. Internet connection in rural areas 2. Basic knowledge to handle technology 3. Cost limitation 4. Time limitation	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 Flood forecasting using the Internet of things and artificial neural networks - India is one of the worst flood-affected countries in the world based on annual rainfall. They use a number of IoT and based techniques but the challenge is that no one has attempted the possibility of the occurrence of flood rainfall intensity.	Explore AS, differentiate
	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. 1. To provide an accurate rainfall prediction 2. To prevent the crops from any extreme weather conditions 3. Managing the yield of the agricultural products	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. 1. Extreme climate changes 2. Loss in Biodiversity 3. Global warming	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) Focuses on the nature of decision-making by the farmers and the factors that influence their decision.	
Focus on J&P, tap into BE, understand RC	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. To develop innovation to predict the rainfall to save water and crops	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. 1. In our analysis we are trying to understand the behavior of rainfall in India over the years, by months, and by different subdivisions. 2. The trend analysis of Annual rainfall considering India as a whole, shows that it is important to study subdivisions for better forecasting. 3. Significant need for an appropriate water irrigation system taking consider of the rising water scarcity.	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. 8.1 ONLINE • E-Commerce for agriculture business • Expanded customer base 8.2 OFFLINE • Your local newspapers or area magazines. • By visiting a farmer's market contact	Identify strong TR & EM
	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 : Helpless, Hopeless , Lost After: Hopeful , confident			