**Project Design Phase-I** - **Solution Fit Template**

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

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**Project Title:** SMARTFARMER – IOT ENABLED SMART **Team ID:**  PNT2022TMID19760

FARMING APPLICATION

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

**AS**

**5. AVAILABLE SOLUTIONS**

Which solutions are available to the customers when they face the problem

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.

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

Who is your customer?

i.e. working parents of 0-5 y.o. kids

**Explore AS, differentiate**

**Define CS, fit into CC**

IoT is used to automate the irrigation operation. To automate the watering operation, meteorological information and field parameters were gathered and processed. Efficiency only over short distances and challenging data storage are drawbacks. And

Consumer Interactions

Using numerous sensors is challenging. For success, you must have limitless or constant internet access.

A farmer who raises crops is the target market for this product. Our intention is to assist them by remotely monitoring field characteristics. This product prevents the demise of agriculture.

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)

**BE**

**7. BEHAVIOUR**

What does your customer do to address the problem and get the job done?

**RC**

**9. PROBLEM ROOT CAUSE**

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.

**J&P**

**2. JOBS-TO-BE-DONE / PROBLEMS**

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

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To counteract the consequences of extra water from heavy rain, use a suitable drainage system. The use of pest-resistant hybrid plants.

Farmers found it challenging to pursue agriculture because of the frequently changing and unpredictable weather and climate. Considering these elements is crucial when determining whether to water your plants.

This product's function is to employ sensors to collect different field parameters and then process them through a centralized processing system. IoT uses the cloud to send and store data. Farmers utilize the Weather API to aid in decision-making. Mobile applications can help farmers make decisions.

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|  | **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.  It is difficult for farmers to supply enough irrigation. Reduced yields and lower profits are consequences of inadequate water supplies for farmers. Weather forecasting is difficult for farmers. | **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.  Data is gathered by our device from numerous sensor kinds and sent to our primary server. Additionally, it gathers weather data from the Weather API. Using a smartphone application, the farmer choose whether or not to water the crop in the end. | 1. **CHANNELS of BEHAVIOUR CH**     1. **ONLINE**   What kind of actions do customers take online? Extract online channels from #7   * 1. **OFFLINE**   What kind of actions do customers take ofﬂine? Extract ofﬂine channels from #7 and use them for customer development.  **ONLINE:** Providing online assistance to the farmer, in providing knowledge regarding the pH and moisture level of the soil. Online assistance to be provided to the user in using the product.   * Remote control   **OFFLINE:** To educate people about the value and benefits of automation and IoT in the advancement of agriculture, awareness camps will be held. | |  | | --- | | **IDENTIFY STRONG TR&EM** | |
| **4. EMOTIONS: BEFORE / AFTER EM**  **Identify strong TR & 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:**   * Poor weather predicting skills; Random choices; * little return.   **AFTER:**   * Data from reliable source. * correct decision. * high yield. |