Project Design Phase-I - Solution Fit

Project Title: Gas Leakage monitoring & Alerting system for Industries

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?

Most of Industry workers who are engaged with gas related productions.

6. CUSTOMER — 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.

- ✓ It measures toxic gases in very low concentrations.
- ✓ It has ability to detect wide range of gases.
- ✓ It is difficult to know failure

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 dothese solutions have? i.e. pen and paper is an alternative to digital notetaking

Testbenches, Quick connectors (They enable a fast and tight "Connection" also on non-round and cast surfaces), Leak tester are some of the available solutions.

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.

Flammable gas leakage may lead to secondary accidents such as fire and explosion, while toxic gas dispersion mainly leads to poisoning casualties lead to death.

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 chanes in reenlations.

Behind this gas leakage problem there could be many reasons like atomic reactions between gas molecules, material's quality...etc. Even though customers have to do this job then only we can get our end products or needful chemical solutions.

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)

Have a check of where it has the sense of Harmful gases such as H2S, Methane, and CO.

Will also check for temperature sensor that helps to detect the concentration of the gases present in the atmosphere to avoid hazardous consequences like fire breakouts.

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 installingsolar panels, reading about a more efficient solution in the news.

Constitution should bring gas leakage indicating system as a mandatory precaution in every factory and industries like fire extinguisher.

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.

While facing the problem people may get fatigue, dizziness, severe headache, loss of concentration, loss of consciousness. Afterwards people feel insecurity because of the health issues it's hard for them to lead a normal life.

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 inthe canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

We are planning to fit a sensor nearby the gas plants which will detect if there is any leak of gas. If there is a gas leak then we will send a message to admin department and also alarm will be set on so that the workers can know about the leak and run into a safe place

8. CHANNELS of BEHAVIOUR — CH

ONLINE

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

- ✓ In online, user can monitor the each sensor and its rates, sensor like temperature, gas, humidity, oxygen level.
- ✓ Also have the statistical report.
- ✓ Precautions can be altered and users take care of the

OFFLINE

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

- ✓ The have to manually check the leakage of gases when the statistics changes.
- ✓ Handling the critical situation should be taken care of the safety officers.

Extract online & offline CH of BE