

Project Design Phase-I

Problem Solution Fit

Date	17 OCTOBER 2022
Team ID	PNT2022TMID30897
Project Name	Gas Leakage Monitoring and Alerting System for Industries

Define CS, fit into CL	<div>1. CUSTOMER SEGMENT(S)<div>CS</div></div> <div>Who is your customer? The industrialists who use gases for their manufacturing. The detection of leakage prevents the loss of lives.</div>	<div>6. CUSTOMER LIMITATIONS<div>EG. BUDGET, DEVICES</div><div>CL</div></div> <div>What limits your customers to act when problem occurs? Spenditure on each of these is high. No network connection? Availability of IOT devices.</div> <div>High budget in installing other products make them to move far from modern technologies.</div>	<div>5. AVAILABLE SOLUTIONS<div>PLUSSES & MINUSES</div><div>AS</div></div> <div>Which solutions are available to the customer when he/she is facing the problem? What are the pros and cons? Buzzer to indicate the leakage. GSM module helps us to get notification when there is a gas leakage. Usage of sensors to sense gas Leakage.</div>	Explore AS, differentiate
	<div>2. PROBLEMS / PAINS + ITS FREQUENCY<div>PR</div></div> <div>Which problem do you solve for your customer? Suffering from many losses due to gas leakage. How often does problem occur? There could be no proper system for private houses are not considered a good investment.</div> <div><ul style="list-style-type: none">Having no proper system for controlling or monitoring the leakage.Facing heavy budget problems in buying and installing a system for monitoring and controlling.</div>	<div>9. PROBLEM ROOT / CAUSE<div>RC</div></div> <div>What is the root of every problem? Describe it. eg. People think that solar panels are bad investment right now, because they are too expensive (1.1), and possible changes in the future could influence the future investment significantly and diminish the returns (1.2).</div> <div>Sometimes sensor doesn't work properly which can cause the major problem.</div> <div><ul style="list-style-type: none">Man power could reduce electricity cost and monitor properly, it may cause high risk for their life. There is also a cause of some errors due to manpower.</div>	<div>7. BEHAVIOR + ITS INTENSITY<div>BE</div></div> <div>What does your customer do when he/she is directly or indirectly related to the problem? eg. directly related takes different "green energy" calculators given providers (1.2). Indirectly related takes different "green energy" calculators given providers (1.2). Indirectly related takes different "green energy" calculators given providers (1.2).</div> <div>If the gas leaked is heavily toxic, there is a chance of causing hereditary health issues too.</div> <div><ul style="list-style-type: none">To determine the gas characteristics and solve the issue, they will locate the leak and identify the warning.</div>	Focus on PR, tap into BE, understand RC
Focus on PR, tap into BE, understand RC	<div>3. TRIGGERS TO ACT<div>TR</div></div> <div>What triggers customer to act? The heavy damages or higher health issues due to the toxic gases urges them to find out a solution as soon as they could possible.</div>	<div>10. YOUR SOLUTION<div>SL</div></div> <div>If you are working on an existing business - write down existing solution first, fill in the gaps and check how much does it fit reality. If you are providing a new business proposition then use it blank and fill in the gaps and check how much does it fit reality. If you are providing a new business proposition then use it blank and fill in the gaps and check how much does it fit reality.</div> <div>Develop an efficient system & an application that can monitor and alert the workers. Low cost IOT based device that can be easily accessed and fixed by people. Network strength must be boosted in the device. Device can be manufactured in multiple standards based on the environment.</div>	<div>8. CHANNELS of BEHAVIOR<div>CH</div></div> <div>ONLINE Extract channels from Behavior block Promoting through social media..Monitor the status of the sensors .Notification incase of any gas leakage.</div> <div>OFFLINE Extract channels from Behavior block and use for customer development Prevent physical damage to sensor. Through newspaper advertisements and complaint letters.</div>	Extract online & offline CH of BE
	<div>4. EMOTIONS<div>BEFORE / AFTER</div><div>EM</div></div> <div>Which emotions do people feel before/after this problem is solved? Before: The heavy losses due to the leakages made them feel of guilt due to reduced reputation of their products. After: Increased the level of confidence and feel secured</div>			
Identify strong TR & EM				