

Project Design Phase-I

Problem – Solution Fit Template

Date	13 October 2022
Team ID	PNT2022TMID26244
Project Name	Project – Statistical Machine Learning Approaches to Liver Disease 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:

Problem-Solution fit canvas 2.0

Purpose / Vision

<div style="background-color: #f8d7da; padding: 5px; border: 1px solid #f5c6cb; margin-bottom: 5px;"> 1. CUSTOMER SEGMENT(S) CS <p><small>Who is your customer? i.e. working parents of 0-5 y.o. kids</small></p> <p>Patients who are interested in learning whether they have liver disease</p> </div> <div style="background-color: #fff3cd; padding: 5px; border: 1px solid #ffee58; margin-bottom: 5px;"> 2. JOBS-TO-BE-DONE / PROBLEMS J&P <p><small>Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.</small></p> <p>The wait is no longer needed as we come up with the results immediately when the user enters the data.</p> </div> <div style="background-color: #d4edda; padding: 5px; border: 1px solid #c3e6cb; margin-bottom: 5px;"> 3. TRIGGERS TR <p><small>What triggers customers to act? (i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.)</small></p> <p>The patient will become curious to learn whether they have the disease once they have the reports in hand.</p> </div> <div style="background-color: #d4edda; padding: 5px; border: 1px solid #c3e6cb;"> 4. EMOTIONS: BEFORE / AFTER EM <p><small>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. The patient will be anxious to learn if the results are favourable or unfavourable after receiving the findings. If the patient sees unfavourable results after viewing the results, they will feel confused and uncertain. We offer them advice on how to improve their health, as well as a nutrition plan that helps the patient feel more comfortable.</small></p> </div>	<div style="background-color: #f8d7da; padding: 5px; border: 1px solid #f5c6cb; margin-bottom: 5px;"> 6. CUSTOMER CONSTRAINTS CC <p><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></p> <p>Our website is useful when the patient is unable to contact the doctor with the reports</p> </div> <div style="background-color: #fff3cd; padding: 5px; border: 1px solid #ffee58; margin-bottom: 5px;"> 9. PROBLEM ROOT CAUSE RC <p><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></p> <p>The patient can use the internet to determine whether they have the condition at this stage rather than going to the hospital and seeing a doctor.</p> </div> <div style="background-color: #d4edda; padding: 5px; border: 1px solid #c3e6cb;"> 10. YOUR SOLUTION SL <p><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></p> <p>The Project can reduce many of the limitations that occur in healthcare associated with inaccuracy in diagnoses, missing data, cost, and time. Recommending diets.</p> </div>	<div style="background-color: #f8d7da; padding: 5px; border: 1px solid #f5c6cb; margin-bottom: 5px;"> 5. AVAILABLE SOLUTIONS AS <p><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 & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking</small></p> <p>1. R.Kalaisevi, V.Vanith, K.Meena - Liver disease prediction using machine learning algorithm (October 2021) - possible to reduce the time for diagnosing the liver disease</p> <p><small>Pros - to avoid the local storage scarcity experienced in many health care centres, cloud storage is used. Cons - doesn't assist in making effective decisions.</small></p> <p>2. Nazmun Nahar, Ferdous Ara- Liver disease prediction by using different logical tree techniques (march 2018) - calculate the performance of various decision tree techniques and compare their performance.</p> <p><small>Pro- enhancing the early diagnosis rate and reducing end stage complications. Con- lack of interpretability.</small></p> </div> <div style="background-color: #fff3cd; padding: 5px; border: 1px solid #ffee58; margin-bottom: 5px;"> 7. BEHAVIOUR BE <p><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></p> <p>People can gain knowledge of the biological concepts associated to liver illness and take the necessary steps to make their bodies healthy and their lifestyles healthy to avoid contracting any liver-related ailments.</p> </div> <div style="background-color: #d4edda; padding: 5px; border: 1px solid #c3e6cb;"> 8. CHANNELS of BEHAVIOUR CH <p><small>8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7</small></p> <p>After the report is sent to the user, he can enter the data from the report, check his results, and receive some diet recommendations.</p> <p><small>8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</small></p> <p>The nearby laboratory receives blood samples, and the results are provided.</p> </div>
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References:

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>