

**Project Title: Visualizing and Predicting Heart Diseases with an Interactive Dashboard**  
**Project Design Phase-I - Solution Fit** **Team ID: PNT2022TMID28187**

## 1. CUSTOMER SEGMENT(S) CS

Who is your customer?

- smokers
- people who have high blood pressure
- people who have high cholesterol
- people who have high lipoprotein
- Diabete patients
- people who have lack of regular exercise
- Thrombosis patients
- people who shortness of breath
- people who have Chest pain, chest tightness, chest pressure and chest discomfort (angina)
- people who have Pain in the neck, jaw, throat, upper belly area or back
- people who have Pain, numbness, weakness or coldness in the legs or arms if the blood vessels in those body areas are narrowed
- people who have overweight

## 6. CUSTOMER CONSTRAINTS SL

What constraints prevent your customers from taking action or limit their choices of solutions?

- Lack of knowledge about heart disease.
- Negative thoughts of the customer.
- Personal characteristics and physical disability of the customer.
- Complex symptoms of heart failure.
- Psychological problems.
- Lack of support.
- Lack of hope in treatment.
- Economical background is major constraints that prevent the customer from taking action.
- Medical and disease related limitations.

## 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?

There are various solutions available for the people who are affected with heart diseases. They are,

- Quit smoking
- get cholesterol test periodically
- eat plenty of fruits, vegetables and healthy foods with grains, sprouts, nuts etc.
- Exercise regularly
- Maintain a good physique.

If these solutions are properly followed then the people affected with disease can be cured naturally.

- But, along with these they have to go for regular medical checkup and test for any heart disease.
- If disease is found in heart they need to make arrangements under proper medications.

## 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 slides.

- Lives depending on medical support
- Financial insecurity
- shortness of breath
- may feel chest pain, chest tightness, chest pressure

## 9. PROBLEM ROOT CAUSE RC

What is the real reason that this problem exists? What is the backstory behind the need to do this job?

- Buildup of fatty plaques in the arteries is the most common cause of coronary artery disease.
- lack of exercise, obesity and smoking.
- Acute aortic insufficiency (AI).
- To cure the diseased patients especially to visualize the heart problems and give relief to them.
- One backstory is that many children are now affected with hole in the heart and suffer a lot than elders, so this method is initiated.
- Heart is the first formed organ when human is formed in the womb so problem in this affects the whole body.
- Thus, this visualization is made and any such heart diseases is predicted with an interactive dashboard.

## 7. BEHAVIOUR BE

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

- Regular, daily physical activity can lower the risk of heart disease. Physical activity helps control your weight.
- A healthy diet can help protect the heart, improve blood pressure and cholesterol, and reduce the risk of type 2 diabetes.
- One of the best things you can do for your heart is to stop smoking or using smokeless tobacco. Even if you're not a smoker, be sure to avoid secondhand smoke.
- Maintain a healthy weight
- Get good quality sleep
- Manage stress
- **High blood pressure and high cholesterol can damage the heart and blood vessels. But without testing for them, you probably won't know whether you have these conditions. Regular screening can tell you what your numbers are and whether you need to take action.**

	<div><div>3. TRIGGERS</div><div>TR</div><div>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.<ul style="list-style-type: none"><li>• Lifestyle changes</li><li>• Lives depending on medical support</li><li>• need to search for heart specialist with manageable price</li><li>• need to apply for health insurance</li><li>• Financial insecurity</li><li>• Anxiety</li><li>• shortness of breath</li><li>• may feel emotional stress</li><li>• may feel chest pain, chest tightness, chest pressure</li><li>• feel for fatigue</li></ul></div></div>	<div><div>10. YOUR SOLUTION</div><div>SL</div><div>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.<ul style="list-style-type: none"><li>• Heart disease treatment depends on the cause and type of heart damage. Healthy lifestyle habits — such as eating a low-fat, low-salt diet, getting regular exercise and good sleep, and not smoking — are an important part of treatment.</li><li>• If lifestyle changes alone don't work, medications may be needed to control heart disease symptoms and to prevent complications. The type of medication used depends on the type of heart disease.</li><li>• Some people with heart disease may need a procedure or surgery. The type of procedure or surgery will depend on the type of heart disease and the amount of damage to the heart.</li></ul></div></div>	<div><div>8. CHANNELS of BEHAVIOUR</div><div>CH</div><div><div>8.1 ONLINE</div><div>What kind of actions do customers take online? Extract online channels from #7<ul style="list-style-type: none"><li>• Online appointments with doctors..</li><li>• Research about the heart disease they are diagnosed with.</li><li>• Finding possible natural cures.</li></ul></div><div><div>8.2 OFFLINE</div><div>What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.<ul style="list-style-type: none"><li>• Maintaining proper diet and eating healthy food.</li><li>• Having adequate amount of sleep.</li><li>• Maintaining a calm and relaxed mindstate.</li><li>• Following the suggestions made by the doctors.</li><li>• Doing exercise and maintaining fitness.</li><li>• Taking the right doses of pills at the right time mentioned by doctors.</li></ul></div></div></div></div>	
	<div><div>4. EMOTIONS: BEFORE / AFTER</div><div>EM</div><div>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.<ul style="list-style-type: none"><li>• Before a person knows that he/she is affected with any kind of disease, they are happy and do their work normally.</li><li>• They don't need to worry about their own body for any problems and do their work normally and comfortably.</li><li>• But, after a person comes to know about any kind of problems especially a heart disease, he/she becomes<ul style="list-style-type: none"><li>• illness</li><li>• unhealthy</li><li>• stressed/depressed</li><li>• uncomfortable with their daily routines.</li></ul></li><li>• Lifestyle becomes upside down.</li></ul></div></div>			