Analytics for Hospitals' Health-Care Data

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

PNT2022TMID53212

# Define Who is your customer? i.e. working parents of 0-5 y.o. kids င္ပင္သ Hospitals, Medical professionals and hospital staffs are the customers here. fit into

## 1. CUSTOMER SEGMENT(S)

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### 6. CUSTOMER CONSTRAINTS





Team ID:

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.

Limitations for my customer to buy/use my product or services

- 1. Difficulty in migrating from manual process because they are used to manual process so are unable to speedily cope with the new system
- 2. Fear of security breach
- 3. High cost of software development and deployment
- 4. Lack of IT-friendly medical personnel
- 5. Huge influx of patients visiting hospitals

### 5. AVAILABLE SOLUTIONS

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

The solutions available are

- 1. Pen and paper method in rural small health cares, which needs to be maintained, manual works, slower and time consuming process.
- 2. Hospital management system which contains registration, storing details.

### 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.

The main jobs to be done are

- 1. Resource allocation
- 2. Improved patient care
- 3. Avoid errors and track every single details
- 4. Improve data security and retrieve ability
- 5. Enhanced decision making in clinics
- 6. Easy access to patient data
- 7. Schedule duties to staffs

### 9. PROBLEM ROOT CAUSE



What is the real reason that this problem exists? What is the back story behind the need to do this

i.e. customers have to do it because of the change in regulations

### The main causes are

- 1. Huge influx of patients visiting hospitals
- 2. Time consuming to collect, store patient data
- 3. Lack of security, inconsistency in data entry
- 4. Prone to damage and being misplaced
- 5. Hard to make changes, editing problems
- 6. Limit communication and collaboration
- 7. Long process to analyse and allocate jobs 8. Lots of manual work

### 7. BEHAVIOUR



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)

- 1. The customer should quit the existing manual works and move for advanced techniques
- 2. Use hospital managements systems
- 3. Purchase products or services that stores, maintains and process the data
- 4. Use analytics
- 5. Use advanced technology to analyze and work on patients data

Explore AS, differentiate on J&P, tap into BE,

### 3. TRIGGERS

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What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

### 10. YOUR SOLUTION

and matches customer behaviour.

the canvas, and check how much it fits reality.

If you are working on an existing business, write down your current solution first, fill in

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

The answer is to accurately predict the Length of Stay(LOS) for

each patient on case by case basis so that the Hospitals can use this

information for optimal resource allocation and better functioning.

This parameter helps hospitals to identify patients of high LOS risk

at the time of admission. Once identified, patients with high LOS

risk can optimise their treatment plan to minimize LOS and lower

the chance of staff/visitor infection. Also, prior knowledge of LOS

can aid in logistics such as room and bed allocation planning. An informative, creative dashboard can be created to present the data

and utilize it for prior proper planning and resource allocation.

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Identify strong TR &

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

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

Customers can purchase the service/product and use it to store patients data regularly, maintain their details, create dashboards and work on it online efficiently and effectively

By Using the collected data, customers can interpret, analyze, and

### The triggers for my customers are

- 1. Facing the existing challenges, and difficulties
- 2. Looking at other sectors growing
- 3. Advancements and growth in technology
- 4. Increased productivity from hospital managementsystem
- 5. Increased analytics work

### 4. EMOTIONS: BEFORE / AFTER



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

- 1. Frustrated, confused
- 2. Inefficient time management
- 3. Poor resource allocation, staffing
- 4. Worried about huge stuff of work, workload
- 5. Work pressure

### After

- 1. Secured, find it easy, efficient and reliable
- 2. Efficient time management
- 3. Better resource allocation
- 4. Less manual work 5. Need to develop technical knowledge

### 8. CHANNELS of BEHAVIOUR

### 8.2 OFFLINE

use them for customer development

### 8.1 ONLINE

### 8.2 OFFLINE

utilize the data to allocate resources, schedule jobs to staffs, do planning for proper management of hospital