# 1. CUSTOMER SEGMENT(S)

Who is your customer? i.e. working parents of 0-5 y.o.kids



- 1.all age group of patients who need to be hospitalized
- 2. patients' family members
- 3. insurance companies
- 4. vendors

Define

CS, fit into

- 5. Hospitals
- 6.nursing groups

### 6. CUSTOMER CONSTRAINTS



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.

- 1. Fear of data security breach.
- 2. Difficulty in migrating from manual processes, because both staff and patients are used to the manual processes and so are unable to speedily cope with the new system.
- 3. Lack of IT-friendly medical personnel is also presenting several

### 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

Existing models use logistic regression classifier and the random forest ensemble algorithms to predict the Length of Stay.

## 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.

- 1. registration of patients, storing their details into the system.
- 2. predicting patient's length of stay
- 3. analyze the factors that influence length of stay the most

## 9. PROBLEM ROOT CAUSE



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.

- 1. Lack of beds and other resources in the hospital at times of emergency situation.
- 2. Financial instability of patients at time of emergency situations

## 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)

Both patients and hospitals are used to manual processing. They should migrate from old system to new system and adapt to it quickly. tan into BE understand B

### 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.

- 1. The length of stay (LOS) in a hospital serves as a strong indicator of both medical and financial efficiency.
- 2. After the consequences of covid 19,hospitals are keen on allocating beds based on LOS

### 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.

- 1. Before LOS, Hospitalization demonstrably exacerbates patients' emotions and increases feelings of depression and anxiety since hospitals are not aware of the resources needed.
- 2. After LOS, patients and patient's families as they can have an idea of how long they can expect to stay upon being admitted and provides them financial stability

### 10. YOUR SOLUTION



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.

- Length of stay is predicted based on factors such as number of para-clinical tests, surgeries, and consultation as well as type of referral and months of admission length of stay includes number of para-clinical tests, surgeries, and consultation as well as type of referral and months of admission.
- 2. To analyze a dataset of large size, various big data analytic tools within a Python interface such as Spark, Cognos Analytics, are used.

### 8. CHANNELS of BEHAVIOUR



8.1 ONLINE

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

Hospital should perform registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs and helps in generation of dataset for the model

#### 8.2 OFFLINE

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

They should arrange beds and other resources based on the result predicted by the LOS model

