

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

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

- It is useful for
- Children to understand the digits
 - Person who are at industry side for recognizing various handwriting digits.
 - People working in bank, post offices

CS

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.

- Time
- Accuracy
- Ease to access
- Imperfect findings

CC

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

- In past they get trouble in finding handwritten digits
- Using this system, they can resolve this type of problems
- Pros of this system is quick recognition and
- Accurate prediction
- Cons are network connection is mandatory for using this system
- For using this system Knowledge about the system is required

AS

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS

What jobs-to-be-done (or problems) do you address for your customers?
There could be more than one; explore different sides.

There are different types of handwriting are in world. Each and every handwriting has its own characteristics and uniqueness.

Its difficult to understand the different people's handwriting digit.

J&P

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.

- Not everyone can understand everyone's handwriting
- The handwriting is differed from person to person
- So, it is difficult to recognize the digits
- To solve this problem this system has developed

RC

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)

To address the problem, they can take a snap of the handwritten digit and upload it in the software

BE

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS

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

- By word of mouth
- Good user experience

TR

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.

- It is a quite irritating and frustrating while manually convert the handwritten digits
- By using our system, user can save the time and reduce the error occur on recognition

EM

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.

- A novel method for handwritten digit recognition system helps in recognizing the handwritten digits that uses MNIST dataset for training the model.
- The model gets the image of the handwritten digits and recognizes the handwritten digits.
- CNN algorithm is used over the MNIST dataset to recognize the handwritten digits.

SL

8. CHANNELS of BEHAVIOUR

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

ONLINE
In online they can upload the handwritten picture and yield output

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

In offline they can ask their neighbors to scribble the digits to find them

CH

Extract online & offline CH of BE