Project Title:A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM. **Project Design Phase-I - Solution Fit Template**

Team ID: PNT2022TMID40635

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

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

Person who are at industry side for recognizing various Handwriting digits.

People working in bank,postoffices.

6. CUSTOMER CONSTRAINTS — CC

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 use
Imperfect findings

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? 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 problem.

Explore AS, differentiate

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

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 sides.

There are different types of handwriting are in world.

Each and every handwriting has it's own characteristics And uniqueness .Its difficult to understand the different Peoples handwriting digit.

9. PROBLEM ROOT CAUSE — RC

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.

7. BEHAVIOUR — BE

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.

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

3. TRIGGERS — TR

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

By word of mouth.
Good user experience.

10. YOUR SOLUTION — SL

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 inthe canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

8. CHANNELS of BEHAVIOUR — CH

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

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

Identify strong TR & EM

4. EMOTIONS: BEFORE / AFTER EM

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 quite irritating and frustrating while manually covert the handwritten digits.

By using our system user can save the time and reduce the error occur on recognition.

A novel method for handwritten digir recognition System helps in recognizing the handwritten digit 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.

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

In offline they can ask they can ask their neighbours to Find them.

Identify strong TR & EM