Project Design Phase – I: Solution Fit

Project Title: A Novel Method for Handwritten Digit Recognition

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1. CUSTOMER SEGMENT(S) — CS

Bank Employees who process the cheques

6. CUSTOMER LIMITATIONS — EG. BUDGET, DEVICES — CL

- Poor network connectivity
- Does not fall in budget limit
- Too complex for the less technically gifted

5. AVAILABLE SOLUTIONS — PROS & CONS — AS

- Currently the bank employees
- manually process the cheques
- They may misinterpret the digits
  Experience of the bank employee can detect fraudulent cheques

Define CS, fit into CL • *Explore AS, differentiate*

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2. PROBLEMS / PAINS + ITS FREQUENCY — PR

- Saves time by automating the
- manual process
- Reduces the cost of extra manpower
  The chances of manual errors creeping in is reduced

9. PROBLEM ROOT / CAUSE — RC

Because humans are prone to making errors, and these lead to delays in processing of cheques

7. BEHAVIOR + ITS INTENSITY — BE

Instead of giving lines for the particulars, banks can provide boxes where the particulars can be filled

Focus on PR, tap into BE, understand RC

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3. TRIGGERS TO ACT — TR

Other banks processing their cheques more efficiently sparks competitiveness

4. EMOTIONS — BEFORE / AFTER — EM

Before: Frustrated and annoyed
After: Happy and pleased

10. YOUR SOLUTION — SL

- To solve this problem, we are going to make use of CNN to predict the handwritten digits on the cheque and will take it as an input.
- It also reduces the high dimensionality of the images without losing its information

8. CHANNELS of BEHAVIOR — CH

ONLINE

They will scour the internet for alternative products

OFFLINE

If the product meets their expectations, then they will spread a good word of mouth.

Identify strong TR & EM • *Extract online & offline CH of BE*