

Define CS, fit into CC

## 1. CUSTOMER SEGMENT(S)

CS

*One who wants to extract digits from handwritten text images*

## 6. CUSTOMER CONSTRAINTS

CC

**A blurry** image will not give accurate results.

## 5. AVAILABLE SOLUTIONS

Traditional handwriting recognition **systems** have relied on **manual features** and a large amount of prior knowledge.

Explore AS, differentiate

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

## 2. JOBS-TO-BE-DONE / PROBLEMS

J&P

People **may find it difficult** to read **other people's posts**. handwritten digits **don't** always **have** the same size, width, orientation as they **are different in each person's handwriting**, so the general problem **will be when** classifying the digits.

## 9. PROBLEM ROOT CAUSE

RC

*The issue is that there's a wide range of handwriting - good and bad. This makes it tricky for programmers to provide enough examples of how every character might look.*

## 7. BEHAVIOUR

BE

*Customers must try with clear image and neat handwriting to get accuracy in digits*

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

Identify strong TR & EM

## 3. TRIGGERS

TR

*When there is need for recognition of handwritten digits*

## 4. EMOTIONS: BEFORE / AFTER

EM

*frustration, exhausted > curious, satisfied*

## 10. YOUR SOLUTION

*It uses Artificial Neural Network to recognize them. Neural Network is used to train and identify written digits. After training and testing, the accuracy rate reached 99%. This accuracy rate is very high.*

## 8. CHANNELS of BEHAVIOUR

CH

### 8.1 ONLINE

*Extract online channels from behaviour block*

### 8.2 OFFLINE

*Extract offline channels from different handwriting styles*

Extract online & offline CH of BE