Problem-Solution Fit

PNT2022TMID53383

Define CS, fit into CL

1. CUSTOMER SEGMENT(S) — CS

Banking sector

Post Office
Library/Archives
Traffic Controllers
Old age people

6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES — CL

6.1 Smartphones or computers with camera facility is mandatory.
6.2 Continuous network is required.
6.3 Cloud or servers are required to be installed for database management.

5. AVAILABLE SOLUTIONS PLUSES & MINUSES — AS

5.1 Google handwriting recognition app

Pros:
Wide range of languages.
Digitization with immediate translation.

Cons:
Not user friendly.

5.2 Transkribus

Pros:
Digitization of large data quickly.

Cons:
Available only for German.

Explore AS, differentiate

Focus on PR, tap into BE, understand RC

2. PROBLEMS / PAINS +ITS FREQUENCY — PR

Scanning of documents is not sufficient for digitizing as it can be illegible at times.	*Very often*
Due to various handwriting styles there can be lot of confusion while giving scanned input.	*Occasionally*
Since there are lot of scripting styles, experts in the specific language scripts are required. This need can be eliminated.	*Frequently*
Most of the existing solutions don't have a provision real time input.	*Very often*

9. PROBLEM ROOT / CAUSE — RC

9.1 Additional human effort is required for digitization.

9.2 Hardcopy can be damaged over time so softcopy will be required.

9.3 Manual process can be time consuming so a AI model will be a advantage.

9.4 Precision and Accuracy can be less in manual process.

7. BEHAVIOR +ITS INTENSITY — BE

It can be used in both real time and offline.

The processing speed depends upon the no. of samples trained and capacity of the system.

It reduces the dimensionality of a image without any loss of information.

It operates with less computational power.

Focus on PR, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TO ACT — TR

1.1 As it reduces time consumption and human effort, it can be widely used in sectors with huge public participation.
1.2 People in literature or documentation fields can be highly benefited.

4. EMOTIONS — EM

Relief from distress
Independent
Efficient
An example for others

10. YOUR SOLUTION — SL

A AI trained model for image processing which converts image to digit is proposed.
We use CNN model on MNIST dataset consisting of 70,000 images of handwritten digits.
CNN can extract informative features from images and eliminates the need of traditional manual image processing methods.
Deep learning and adding CNN layers helps in improving the accuracy of prediction.

8. CHANNELS of BEHAVIOR — CH

ONLINE

8.1 Real time analysis of input.
8.2 Faster processing of digits.
8.3 Storage is not necessary.

OFFLINE

8.4 Input is acquired from image repository.
8.5 Processing is slower when offline.
8.6 Database servers are mandatory.

Extract online & offline CH of BE