

Project Design Phase-I Problem – Solution Fit

Date	October 2022
Team ID	PNT2022TMID22022
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	2 Marks

Problem – Solution Fit:

Problem-Solution fit canvas 2.0
Purpose / Vision

Define CS, fit into CC <small>Focus on J&P, tap into BE, understand RC</small>	1. CUSTOMER SEGMENT(S) CS <i>One who wants to extract digits from handwritten text images</i>	6. CUSTOMER CONSTRAINTS CC <i>Unclear image will not give accurate results.</i>	5. AVAILABLE SOLUTIONS <i>Traditional systems of handwriting recognition have relied on handcrafted feature and a large amount of prior knowledge.</i>	Explore AS, differentiate <small>Focus on J&P, tap into BE, understand RC</small>
	2. JOBS-TO-BE-DONE / PROBLEMS J&P <i>People can struggle to read others' handwriting. The handwritten digits are not always of the same size, width, orientation as they differ from writing of person to person, so the general problem would be while classifying the digits.</i>	9. PROBLEM ROOT CAUSE RC <i>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.</i>	7. BEHAVIOUR BE <i>Customers must try with clear image and neat handwriting to get accuracy in digits</i>	
Identify strong TR & EM <small>Extract online & offline CH of BE</small>	3. TRIGGERS TR <i>When there is need for recognition of handwritten digits</i>	10. YOUR SOLUTION <i>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.</i>	8. CHANNELS of BEHAVIOUR CH 8.1 ONLINE <i>Extract online channels from behaviour block</i>	
	4. EMOTIONS: BEFORE / AFTER EM <i>frustration, exhausted > curious, satisfied</i>		8.2 OFFLINE <i>Extract offline channels from different handwriting styles</i>	