

Project Design Phase-I

Problem – Solution Fit

Date	10 October 2022
Team ID	PNT2022TMID37801
Project Name	Project - Natural Disaster Intensity Analysis and Classification Using Artificial Intelligence
Maximum Marks	2 Marks

Problem – Solution Fit:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ Understand the existing situation in order to improve it for your target group.

Define CS, fit into CC		Explore AS, differentiate		Focus on J&P, tap into BE, understand RC		Identify strong TR & EM		
1. CUSTOMER	CS	The global GIS in disaster management market size stood at \$2.3 billion in 2019, and it is expected to reach \$9.4 billion by 2030, exhibiting a CAGR of 13.7% during the forecast period (2020–2030). The major factors supporting the growth of the industry include the surging number of natural disasters, strong focus of government and emergency management organizations on adopting advanced GIS solutions, high need for analyzing geospatial data, and increasing public awareness about reducing the socioeconomic impact of natural disasters.	J&P	2. JOBS-TO-BE-DONE / PROBLEMS	Natural disasters can cause great damage on the environment, property, wildlife and human health. These events may include earthquakes, floods, hurricanes, tornadoes, tsunamis, landslides, wildfires, volcanic eruptions, extreme temperatures. Property damage. Structural damage to buildings. Loss of utilities like electricity and water.	AS	5. AVAILABLE	Planning to warn the people which will minimize the effects of disasters. Recovery and reconstruction.
3. TRIGGERS	TR	Large economic losses, reduced accumulation of capital and infrastructure, long recovery period after disasters	J&P	9. PROBLEM ROOT CAUSE	The lack of resources and capacities (e.g., financial, human and technical) and a low level of knowledge and education emerged in all case studies as major root causes for several drivers of disaster risk	SL	10. YOUR SOLUTION	Natural disasters cannot be prevented but they can be detected. We can measure disaster risk by analysing trends of, for instance, previous disaster losses. These trends can help us to gauge whether disaster risk reduction is being effective. We can also estimate future losses by conducting a risk assessment.
4. EMOTIONS: BEFORE / AFTER	EM	Before the disaster, a positive association was found between place-identity and wellbeing, indicating that the stronger emotions participants evolved to the place, as well as remembered more and thought about the place, the stronger wellbeing they experienced at the site. After the disaster, the strength of this relationship decreased more than twice, accounted for by the weakening of the emotion-wellbeing link	J&P	7.	Analysis of public behavior plays an important role in crisis management, disaster response, and evacuation planning. Unfortunately, collecting relevant data can be costly and finding meaningful information for analysis is challenging. A growing number of Location-based Social Network services provides time-stamped, geo-located data that opens new opportunities and solutions to a wide range of challenges.	CH	8. CHANNELS of BEHAVIOUR	8.1 ONLINE We demonstrate how to improve investigation by analyzing the extracted public behavior responses from social media before, during and after natural disasters, such as hurricanes and tornadoes. 8.2 OFFLINE Dissemination of information from nearby Government agencies and NGOs..
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