Problem-Solution fit canvas 2.0

Project Title: Emerging Methods For Early Detection Of Forest Fires **TEAM ID : 2022TMID37860**

Exploíe AS,

1. CUSĽOMER SEGMENĽ(S) CS

Who is youí customeí?

1. Federal agencies(forest fire management) such as National Disaster Management Authority (NDMA) USDA's Forest Service.

2. The Department of the Interior's Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, and National Park Service.

6. CUSĽOMER CC

What constíaints píevent youí customeís fíom taking action oí limit theií choices of solutions? i.e. spending poweí, budget, no cash, netwoík connection, available devices.

1. The triple constraint theory says that every project will include three constraints: budget/cost, time, and scope. And these constraints are tied to each other. Any change made to one of the triple constraints will have an effect on the other two.

2. With any project, there are limitations and risks that need to be addressed to ensure the project's ultimate success.

5. AVAILABLE SOLUĽIONS AS

Which solutions aíe available to the customeís when they face the píoblem oí need to get the job done? What have they tíied in the past? What píos & cons dothese solutions have? i.e. pen and papeí is an alteínative to digital notetaking

From previous studies the available prototype model uses common sensors like Flame sensor ,temperature sensor, gas sensor for fire detection those sensors are attached to trees animals and birds in the forest to detect the forest fire.

Pros of existing solutions:

1.The forest fire area can be detected and can be located precisely,

Cons of existing solutions:

1. Complicated to manage.

Sensor attached to the animals and birds will affect their habitat and the comfortable way of mitigration.

Íocus on J&P, tap

2. JOBS-ĽO-BE-DONE / PROBLEMS J&P

Which jobs-to-be-done (oí píoblems) do you addíess foí youí customeís? Ľheíe could be moíe than one; explоíe diffeíent sides.

The process provides broad and detailed customer insights that are superior to typical market research methods and critical to developing better solutions for customers. It helped us understand a new space and identify the underserved needs so we could enter a new market in a differentiated manner

9. PROBLEM ROOĽ CAUSE RC

What is the íeal íeason that this píoblem exists?
What is the back stoíy behind the need to do this job?
i.e. customeís have to do it because of the change in íegulations.

1. The first step when performing root cause analysis is to analyze the existing situations. This is where the team identifies the factors that impact the problematic event. The outcome of this step is a statement that comprises the specific problem A small team is tasked with the definition of the problem. This could be research staff who assesses and analyzes the situation.

2. It describes the difference between the actual conditions and desired conditions.

7. BEHAVIOUR BE

What does youí customeí do to addíess the píoblem and get the job done?
i.e. díiectly íelated: find the íight solaí panel installeí, calculate usage and beneíits; indiíectly associated: customeís spend fíee time on volunteeíing woík (i.e. Gíeenpeace)

Popular packages encompass processes involved in the maintenance of solar panels and solar power plants. This is critical: you must try to solve the right problem. Don't try to solve a problem the customer sees as low priority or unimportant. Identify the right problem by asking the right questions and observing. You cannot identify the customer's problems by presenting your products.

Íocus on J&P, tap

Identify stíong ĽR &

3. Ľ'RIGGERS

What tíiggeís customeís to act? i.e. seeing theií neighbouí installing solaí panels, íeading about a moíe efficient solution in the news.

Human-caused fires are the result of abandoned campfires unattended, burning debris, equipment use and malfunctions, discarded due to negligence cigarettes and arson

4. EMOĽIONS: BEĬORE / AĬĽER EM

How do customeís feel when they face a píoblem oí a job and afteíwaíds?
i.e. lost, insecuíe > confident, in contíol - use it in youí communication stíategy & design.

BEFORE: Encroachment through loss of diversity, reduced wildlife
AFTER :Forest surveillance systems can be used to monitor stress in the forest so we can prevent human and wildlife and economic damage

10. YOUR SOLUĽION SL

If you aíe woíking on an existing business, wíite down youí cuíient solution fiíst,fill in the canvas, and check how much it fits íeality.

If you aíe woíking on a new business píoposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customeí limitations, solves a píoblem and matches customeí behavioui.

In case of forest fire detection the burning substances are primarily identified as sceptical flame regions using a division strategy to expel the non-fire structures and results are verified by a deep learning model. The technology used to locate a forest or a bush fire is based on the concept of deep learning and YOLO algorithm. This deep learning model is deployed on a UAV which helps in detection of fire, meanwhile it can be monitored by web application and the forest fire area can be located in order to prevent it in advance

8. CHANNELS of BEHAVIOUR CH

8.1 ONLINE

What kind of actions do customeís take online? Extíact online channels fíom #

Collect the date and form a dataset in order to compare the flames regions for forest fire detection

8.2 OĬĬLINE

What kind of actions do customeís take offline? Extíact offline channels fíom # and use them foí customeí development.

In case of forest fire detection the information is sent to forest authorities so that they will prevent it at ease.

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