ProjectTitle: SmartFarmer–IoTEnabled

ProjectDesignPhase-I-SolutionFit

TeamID:PNT2022TMID30465SmartFarming Application

DefineCS,fitintoCC

1.CustomerSegment(S)

C

Whoisyourcustomer?
i.e.workingparentsof0-5y.o.kids

The customer for this product is a farmerwhogrowscrops.Ourgoalistohelpthem,monitor field parameters remotely. Thisproductsavesagriculturefromextinction.

6.CustomerConstrains

C

Whatconstíaintspíeventyouícustomeísfíomtakingactionoílimittheiíchoices ofsolutions?
i.e.spendingpoweí,budget,nocash,netwoíkconnection,availabledevices

Usingmanysensorsisdifficult.Anunlimitedorcontinuousinternetconnectionisrequiredforsuccess.

AVAILABLESOLUTIONS

A

Which solutions aíe available to the customeís when they facethe píoblem. oí need to get the job done? What have they tíiedin the past? What píos & cons do these solutions have?
i.e.penandpapeí

TheirrigationprocessisautomatedusingIoT.Meteorologicaldataandfieldparameters were collected and processed toautomatetheirrigationprocess.Disadvantages are efficiency only over shortdistances,and difficultdatastorage.

ExploreAS,differentiate

FocusonJ&P,tapintoBE,understandRC

2.JOBS-TO-BE-DONE/PROBLEMS

J&

customeís? ĩheíecouldbemoíethan one;exploíediffeíentsides.

The purpose of this product is to use sensorstoacquirevariousfieldparametersandprocessthemusingacentralprocessingsystem.Thecloudisusedtostoreandtransmit data using IoT. The Weather API isusedtohelpfarmersmakedecisions.Farmerscanmakedecisionsthroughmobileapplications.

9.PROBLEMROOTCAUSE

What is the íeal íeason that this píoblem exists? What isthebackstoíybehindtheneedtodothisjob?

Frequentchangesandunpredictableweatherand climate made it difficult for farmers toengage in agriculture. These factors play animportant role in deciding whether to wateryourplants.Fieldsaredifficulttomonitor when the farmer is not at the field, leading tocropdamage.

7.BEHAVIOUR

What doesyouí customeído toaddíess thepíoblem andget thejobdone?
i.e. Diiectly íelated: find the iight solaí panel installeí, calculateusage and benefits; indiíectly associated: customeís spend fieetime onvolunteeiing woík (i.e.Gíeenpeace)

Use a proper drainage system to overcometheeffectsofexcesswaterfromheavyrain.Use of hybrid plants that are resistant topests.

FocusonJ&P,tapintoBE,understandRC

3.TRIGGERS

I'R

Whattiiggeíscustomeís toact?i.e.,seeingtheiíneighboí installingsolaípanels,íeadingaboutamoíe efficientsolutioninthenews.

Farmersstruggletoprovideadequateirrigation.Inadequate water supply reduces yields and affectsfarmers'profitlevels.Farmershaveahardtimepredictingtheweather.

4.EMOTION'S:BEFORE/AFTER

EM

How do customeís feel when they face a píoblem of a job andafteíwaíds?
i.e.lost,insecuíe>confident,incontíol-useitinyouícommunicationstíategy&design.

BEFORE: Lack of knowledge in weatherforecasting →Randomdecisions→lowyield.

AFTER:Datafromreliablesource→correctdecision→highyield.

10.YOURSOLUTION

SL

If you aíe woíking on an existing business, wiite down youí cuíientsolutionfiíst,fillinthecanvas,andcheckhowmuchitfitsíeality.
If you aíe woíking on a new business píoposition, then keep it blank untilyou fill in the canvas and come up with a solution that fits within customeílimitations,solvesapíoblemandmatchescustomeíbehavioí.

Our product collects data from various typesof sensors and sends the values to our mainserver. It also collects weather data from theWeatherAPI.Thefinaldecisiontoirrigatethecrop is made by the farmer using a mobileapplication.

8.CHANNELSOFBEHAVIOUR

CH

8.1 ONLINE
Whatkindofactionsdocustomeístakeonline?Extíactonlinechannelsfíom7

8.2 OFFLINE
What kind of actions do customeís take offline? Extíact offline channels fíom 7 andusethemfoí customeí development.

ONLINE: Providing online assistance to the farmer,inprovidingknowledgeregardingthepHand moisture level of the soil. Online assistance to beprovidedtotheuserinusingtheproduct.

OFFLINE:Awarenesscampstobeorganizedtoteachtheimportanceandadvantagesoftheautomationandlo Tinthedevelopmentofagriculture.