# **Problem-Solution Fit:**

- CUSTOMER SEGMENT(S):
- Small-scale farmers
- Fruit/vegetable vendors
- Agricultural cooperatives

## **6. CUSTOMER CONSTRAINTS**

- Low budget or cash flow issues
- Lack of digital literacy or Al knowledge
- Poor internet connectivity in rural areas

## 5. AVAILABLE SOLUTIONS

- Manual inspection by laborers
- Basic sorting machines (color/weight based)
- Chemical sensors (expensive)

# 2. JOBS-TO-BE-DONE / PROBLEMS:

- Reduce manual inspection time and labor costs
- Prevent mixing of fresh and rotten produce

#### 9. PROBLEM ROOT CAUSE:

- Lack of affordable and accessible quality control tools
- High dependency on manual labor with low skill variance
- Supply chain delays lead to spoilage

#### 7. BEHAVIOUR

Manually sort and check each item visually

- Employ additional seasonal labor during harvest
- Dispose bulk quantities when spoilage is noticed late
- Use visual scales to grade fruits

#### 3. TRIGGERS

High product returns due to poor quality Customer complaints or health concerns

#### **4.EMOTIONS:BEFORE/AFTER:**

Stage	Emotion
Before	Stressed, uncertain, tired, overwhelmed, worried about loss

After: Relieved, confident, in control, satisfied, tech-

# 10. YOUR SOLUTION Smart Sorting: Al-Based Detection of Rotten Fruits & Vegetables

- Use transfer learning with MobileNetV2 to detect spoilage early
- Deploy on mobile/web app using camera capture
- Classifies items as "Fresh" or "Rotten" with confidence scores
- Easy-to-use UI for farmers/vendors

# 8. CHANNELS OF BEHAVIOUR 8.1 ONLINE

- Search for agricultural best practices on YouTube
- Watch training or demo videos on smart farming

#### 8.2 OFFLINE

- Attend farmer meetups, Krishi melas (agri fairs)
- Visit cooperative societies or agri-dealers
- Government training centers