

# **Project: Market Sales Performance Analysis**

## **1. Project Title**

**Market Sales Performance Dashboard**

## **2. Dashboard Sections**

The dashboard will contain the following sections:

### **A. KPI Cards**

- Total Min Price
- Total Max Price
- Total Modal Price
- Total Markets
- Total Commodities
- Average Modal Price
- Latest Modal Price
- Price Difference
- Price Volatility %

### **B. Price Analysis Section**

- Min, Max, Modal Price comparison
- Commodity-wise Avg Modal Price
- Market-wise price comparison
- Grade-wise price patterns

### **C. Commodity Insights**

- Avg Price by Commodity
- Commodity Ranking (using Rank Commodity measure)
- Selected Commodity Price (slicer interactive)

### **D. Regional Performance**

- Sales/Price heatmap by
  - **State**
  - **District**
  - **Market**

### **E. Trend Section**

- Modal Price Trend by Arrival\_Date
- Volatility trend over time

### **F. Filters / Slicers Panel**

- Commodity
- State
- District
- Market
- Arrival Date (Calendar Filter)
- Grade
- Variety

### 3. Data Requirements

The dashboard will use the following columns from the dataset:

Column Name	Description	Used For
State	State where market is located	Filters, Region-wise analysis
District	District name	Region analysis
Market	Market name	KPI (Total Markets), market insights
Commodity	Product/Commodity name	KPI (Total Commodities), ranking, avg price
Variety	Variety within commodity	Filters
Grade	Grading of the product	Price variation
Arrival_Date	Date of price entry	Trends, latest price measure
Min_Price	Minimum price	KPIs, volatility
Max_Price	Maximum price	KPIs, volatility
Modal_Price	Most common market price	Avg price, ranking
Commodity_Code	Commodity ID	Reference

## 4. Filters / Slicers

The dashboard will have the following slicers:

- **State**
- **District**
- **Market**
- **Commodity**
- **Variety**
- **Grade**
- **Arrival Date** (Month/Year filter)

## 5. Visuals / Charts

### KPI Cards

- Total Min Price
- Total Max Price
- Total Modal Price
- Average Modal Price
- Total Markets
- Total Commodities

### Charts

Visual Type	Purpose	Fields
Clustered Bar Chart	Commodity Avg Modal Price	Commodity, Avg Modal Price

<b>Line Chart</b>	Trend of Modal Price	Arrival_Date, Modal Price
<b>Donut Chart</b>	Commodity Contribution	Commodity, Avg Modal Price
<b>Heatmap</b>	State or District price distribution	Region, Modal Price
<b>Table</b>	Detailed view	Market, Commodity, Price values
<b>Stacked Column Chart</b>	Min, Max, Modal comparison	Commodity, Min/Max/Modal

## 6. Interactivity

- **Drill-down** from **State** → **District** → **Market**
- **Cross-filtering** between charts (e.g., selecting a commodity filters all visuals)
- **Date range selection** affects all KPIs and trends
- Commodity slicer updates:
  - Avg Commodity Price
  - Ranking
  - Selected Commodity Price

## 7. Calculations / Measures

These DAX measures will be used:

### Price & KPI Measures

- Total Min Price

- Total Max Price
- Total Modal Price
- Average Modal Price
- Latest Modal Price
- Price Difference
- Price Volatility %

### **Commodity/Market Metrics**

- Avg Price by Commodity
- Rank Commodity
- Selected Commodity Price
- Selected Market Min Price

### **Count Metrics**

- Total Markets
- Total Commodities

All measures are already prepared by the user in Power BI.

## **8. Export / Reporting Needs**

- Export dashboard to **PDF**
- Export charts to **PNG** for reports
- Export cleaned dataset to CSV
- Repository will include:
  - pbix file
  - screenshots

- Analysis Report (PDF)
- README documentation

## 9. Notes / Special Instructions

- Dataset does not contain Sales Amount → KPIs are based on Prices only
- No profit calculation is possible
- Commodity\_Code is optional and not required for measures
- Arrival\_Date must be converted to Date type
- Measures must use correct column names ("Modal\_Price", "Min\_Price", etc.)
- Dashboard theme should match agricultural/market theme (green/orange colors)