

Data visualizations

Preprocessing Steps

In this project, multiple datasets such as Apple products data, Flipkart smartphone data, annual revenue, market penetration, country-wise share, quarterly share, and model share were collected and integrated.

The following preprocessing steps were performed:

- Removed duplicate records
- Handled missing and null values
- Converted storage values into GB format
- Converted sales share into percentage format
- Standardized column names for consistency
- Combined multiple sheets into structured data models
- Changed data types (string to number, date formatting, etc.)
- Removed unnecessary columns to improve performance
- Created calculated fields such as Sales Difference and KPI metrics

These steps ensured accurate, clean, and structured data for analysis and visualization in Tableau.

Business Questions with Visualizations

The following business questions were analyzed using different visualizations:

1.What are the key performance indicators (KPIs) such as total revenue and sales difference?

→ KPI Cards (Text Table)

KPI				
Brand	Avg. Discount P..	Mrp	Sale Price	Sales Difference
Apple	10	5,459,600	4,964,581	495,019

2.What is the annual revenue trend of Apple?

→ Line Chart (Year vs Revenue)



3.How is the quarterly market share distributed among brands?

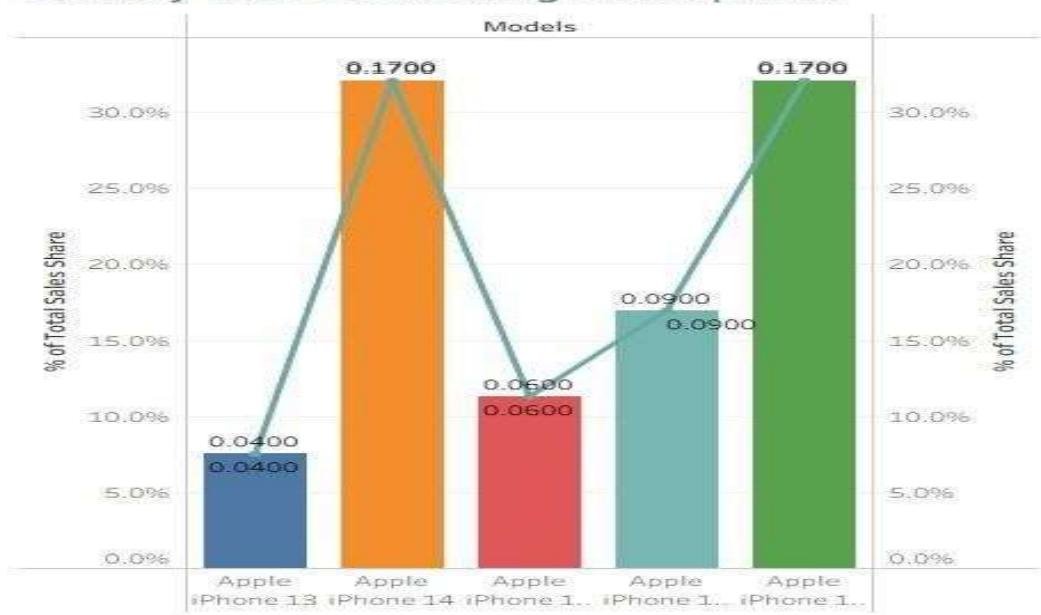
→ Donut Chart



4.Country wise best salling smartphon

→ linebar chart

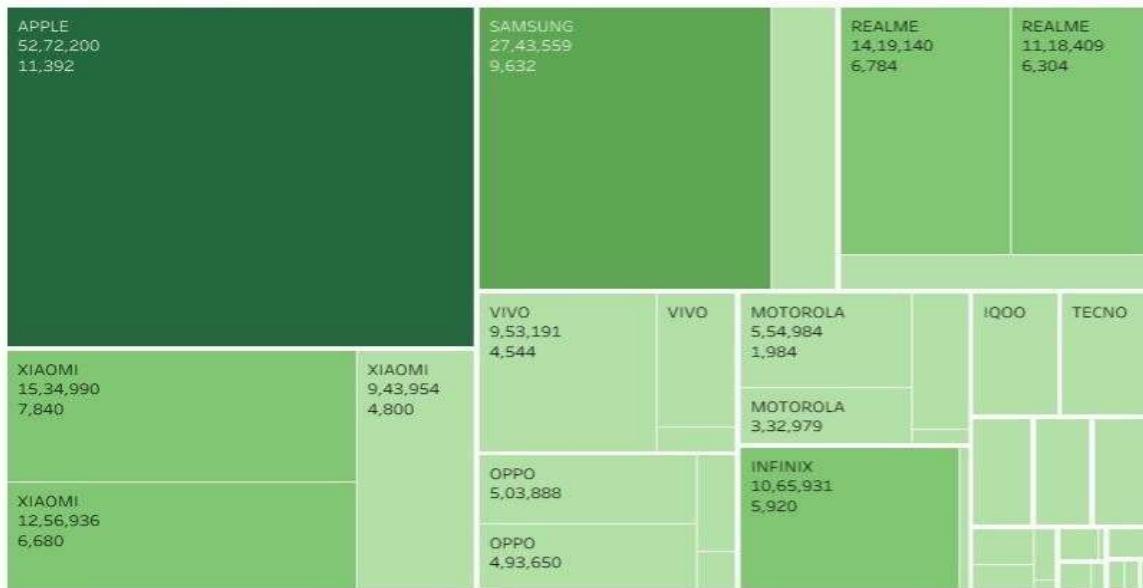
Country wise best salling smart phone



5.What is the brand price comparison across smartphones?

→ Treemap

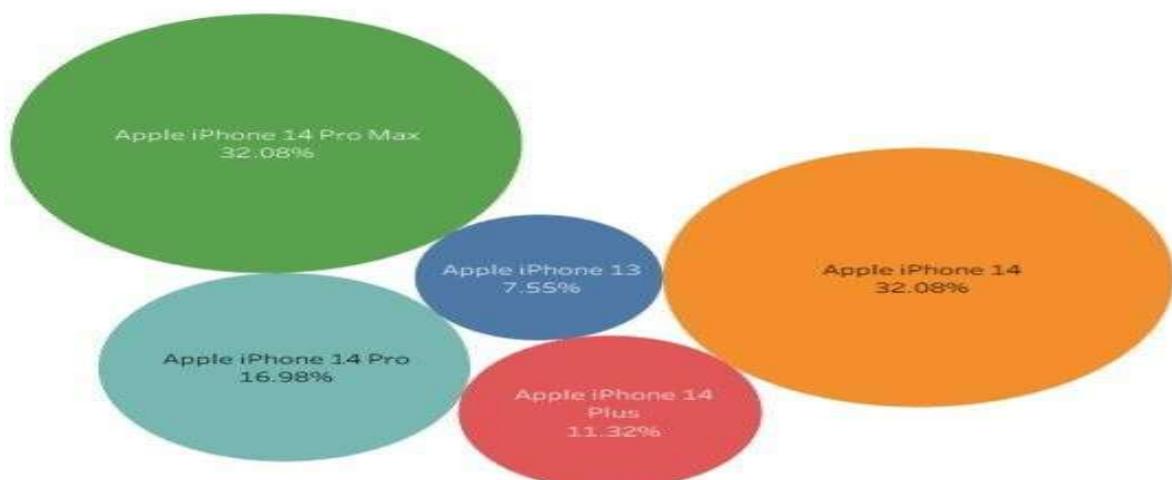
Brand Price Comparison



6.What is the model-wise share of iPhone?

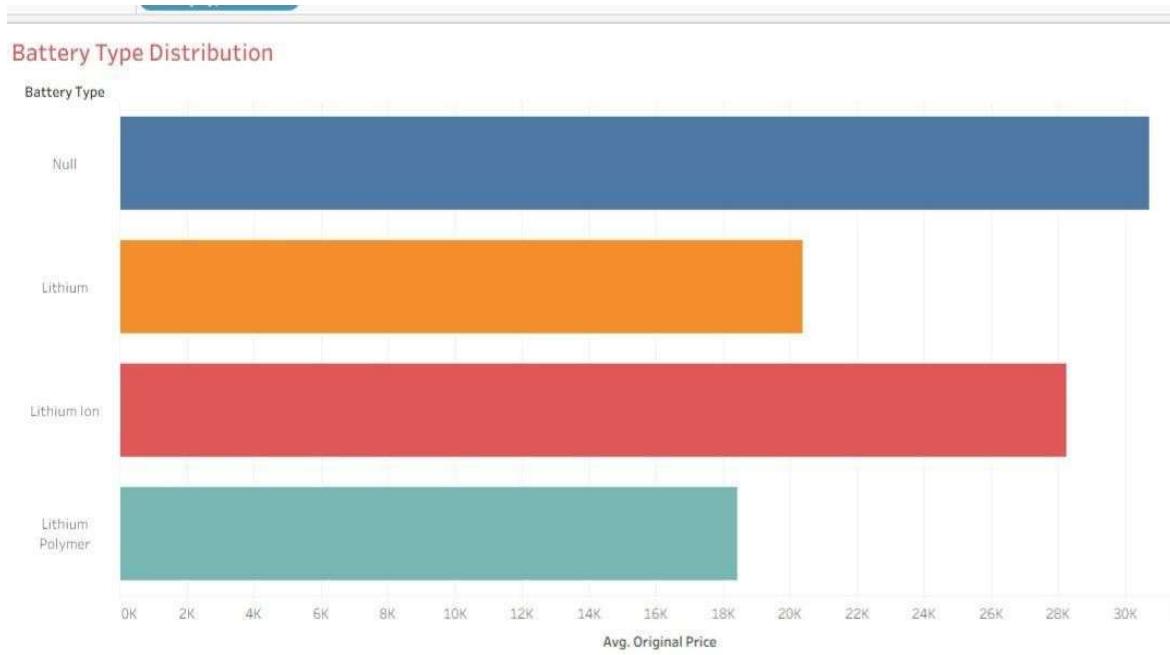
→ Bubble Chart

Bubble Chart showing Model- Wise Share of iPhone



7. How is the battery type distributed across smartphones?

→ bar chart



These visualizations help in understanding Apple's performance, market penetration, and competitive position in India.