

Flipkart Mobile Data Analysis Report

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Data Preparation & Cleaning Steps

1. Data Consolidation

- Appended two datasets to create a unified view of all available mobile listings on Flipkart.
- Ensured consistent formatting across key fields such as brand, price, RAM, and storage.

2. Handling Missing & Invalid Data

- Removed rows with null or blank values in critical fields: Selling Price and Original Price.
- Replaced missing or blank values in:
 - RAM and Storage with their mode (most frequent value).
 - Rating with the average rating across all products.

3. Feature Engineering

- Converted RAM and Storage columns into a standardized unit (GB).
- Transformed values like 1 TB to 1024 GB, and ignored entries <0.2 GB as noise.

4. Price Segmentation

Categorized products into defined **price segments** for better comparative analysis on their selling price:

- **Low Budget:** < 10,000
- **Mid-Range:** 10,000 – 24,999
- **Upper Range:** 25,000 – 39,999
- **Premium:** 40,000 – 59,999
- **Flagship:** 60,000+

Key Insights

Selling Price & Discount

- **Most discounts are concentrated in the mid range and upper-range segments.**
- **Realme offers the highest average discount, followed by Oppo.**
- **Apple has the highest prices consistent with premium positioning.**

Selling Price vs Rating

- **Most models, regardless of price, have ratings clustered around 4★.**
- **Indicates high customer satisfaction across both Mid Range & Low Budget..**

RAM & Storage Availability

- **4 GB and 6 GB RAM are the most common configurations across brands.**
- **128 GB storage leads overall, followed by 64 GB.**
- **Models below 32 GB or 2 GB RAM are rare, showing a market shift toward higher specs.**

Brand Performance

- **Samsung offers the broadest variety of models and covers all price segments.**
- **Realme and Oppo target mid and upper ranges with aggressive pricing and strong specs.**
- **Apple is focused solely on flagship and premium tiers with high end specs and pricing.**