

Smartphone Market & Value-for-Money Analysis

Analyzing the Nigerian low-budget smartphone market to understand pricing, brand performance, and value.



Project Overview

Market Analysis

Understand pricing strategies and brand performance in the Nigerian low-budget smartphone market.

Value Identification

Help consumers find best-value smartphones and assist businesses with competitive positioning.

Key Metrics

Focus on hardware, discounts, and value-for-money across brands like Itel, Samsung, Poco, and Xiaomi.

Dataset & Preparation

Dataset Summary

- Rows: 11
- Columns: 7
- Source: E-Commerce Store (web scraped)

Data Points

- Phone brands, models, prices
- Discounts, RAM, ROM
- Derived pricing segments



Web Scraping with Python

Data collected from Jumia using BeautifulSoup, Pandas, and Time libraries for parsing and manipulation.

Cleaned and structured for analysis, with columns renamed to snake case.

Feature Engineering

Created RAM and ROM features to evaluate cost efficiency based on phone specifications.



RAM Extraction

Extracted RAM (e.g., "4GB RAM")
from phone names.



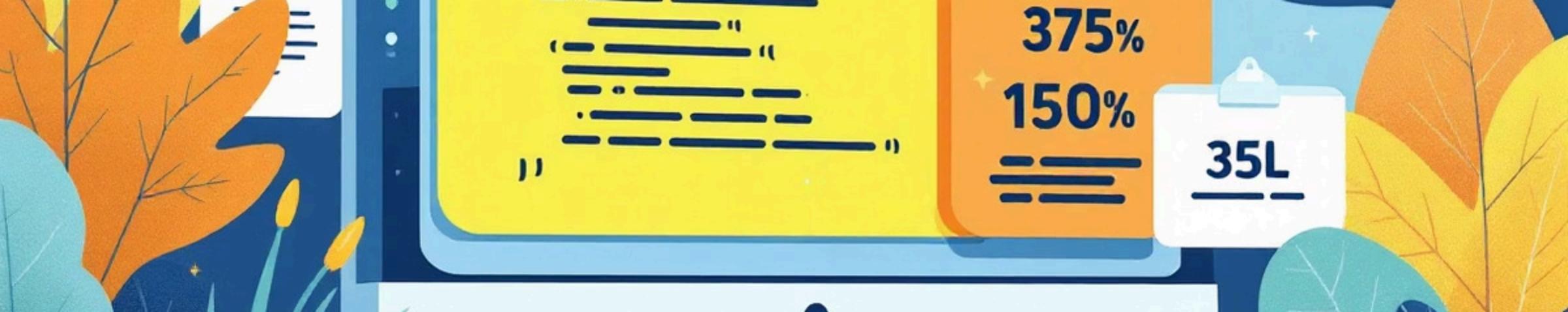
ROM Extraction

Extracted ROM (e.g., "128GB ROM")
from phone names.



Name Cleaning

Standardized phone names by
removing screen size, RAM/ROM, and
Android text.



MySQL Data Analysis: Key Findings

Average Prices

Xiaomi Redmi A5: ₦102,000

Samsung Galaxy A07: ₦135,000

Tecno Spark 40: ₦144,210

Most Expensive

- XIAOMI REDMI 15: ₦206,513
- TECNO SPARK 40: ₦144,210

Cheapest

- POCO C71: ₦81,316
- POCO C61: ₦81,476

Value & Discount Insights

Best Value Brands

- XIAOMI (0.0006 avg_value_score)
- itel (0.0006 avg_value_score)

Price Drop Leaders

- Samsung: ₦17,891
- Itel: ₦12,710

Discount vs. Affordability

High discounts don't always mean cheaper phones; often, more expensive phones have deeper discounts.

RAM's Price Impact

Price increases significantly with RAM size:

- 3GB RAM: ₦81,396
- 8GB RAM: ₦ 164,900

Market Dominance & Segmentation



RAM-ROM Dominance

4GB-64GB and 6GB-128GB configurations dominate the market, indicating demand for balanced specs.



Samsung's Position

Samsung is a mid-range brand, catering to a broad segment without being extreme high-end or low-end.



Significant Price Gap

The market is highly segmented, with a wide price range catering to both low-end and premium customers.

Key Insights from Analysis

1 Xiaomi: Premium Leader

Highest average price and ROM size, targeting high-income individuals with premium quality.

2 Poco & Itel: Best Value

Offer cheaper phones with competitive RAM/ROM, ideal for budget-conscious and first-time buyers.

3 Mid-Range Value

Mid-range devices provide better hardware for price efficiency than expensive devices.

4 Discounts as Marketing

Deepest discounts are on more expensive phones; they are marketing tools, not affordability guarantees.

5 RAM Drives Price

RAM size is a significant factor in determining phone price.

Strategic Business Recommendations

1

Focus on Mid-Range High-Value Models

Prioritize Poco and Itel mid-range models for higher conversion potential.

2

Improve Pricing Alignment

Premium brands must ensure prices reflect hardware superiority to avoid customer dissatisfaction.

3

Smart Discounting

Apply discounts strategically to overpriced or slow-moving products, not all products.

4

Bundle Instead of Price Cutting

Offer free accessories, warranty extensions, or data bundles to increase perceived value.

5

Inventory Optimization

Stock more 4GB-64GB and 6GB-128GB configurations due to high demand.



Conclusion & Tools Used

Xiaomi leads in premium pricing, but Poco and Itel offer better value. Mid-range smartphones provide superior hardware efficiency.

Discounts are marketing tools, and RAM significantly impacts pricing. The Nigerian market is segmented, with high demand for balanced mid-range phones.

Business strategies should focus on value-based pricing and smart discounting for mid-range, high-spec smartphones.

POWER BI

PYTHON

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