iRevolution A Data-driven Exploration of Apple's iPhone-

Project Report

1. INTRODUCTION

Project Overview

This project analyzes the pricing, ratings, reviews, and regional penetration of Apple iPhones across India using public data scraped from Flipkart and compiled in Excel. The goal is to understand iPhone buying patterns, model popularity, and pricing sensitivity to aid both consumers and businesses in making informed decisions. Data visualization is done using Tableau.

1.2 Purpose

To build an interactive Tableau dashboard that displays trends in Apple iPhone pricing, user ratings, reviews, and region-wise adoption, with the purpose of empowering customers and marketers with actionable insights.

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2. IDEATION PHASE

2.1 Problem Statement

iPhone data is available online but fragmented. Indian consumers face pricing confusion and lack access to intuitive comparisons across models, features, and ratings. Similarly, businesses lack consolidated insights on customer preferences and regional trends.

2.2 Empathy Map Canvas

Filled to represent Indian iPhone buyers. Focused on what they see, hear, say, do, think, and feel while making a high-end phone purchase.

2.3 Brainstorming

Ideas included:

- Comparative dashboard for iPhone models
- Regional heatmap for iPhone popularity
- Price vs. rating trend line
- Discount trend viewer
- Filtered views by RAM, rating, and price range

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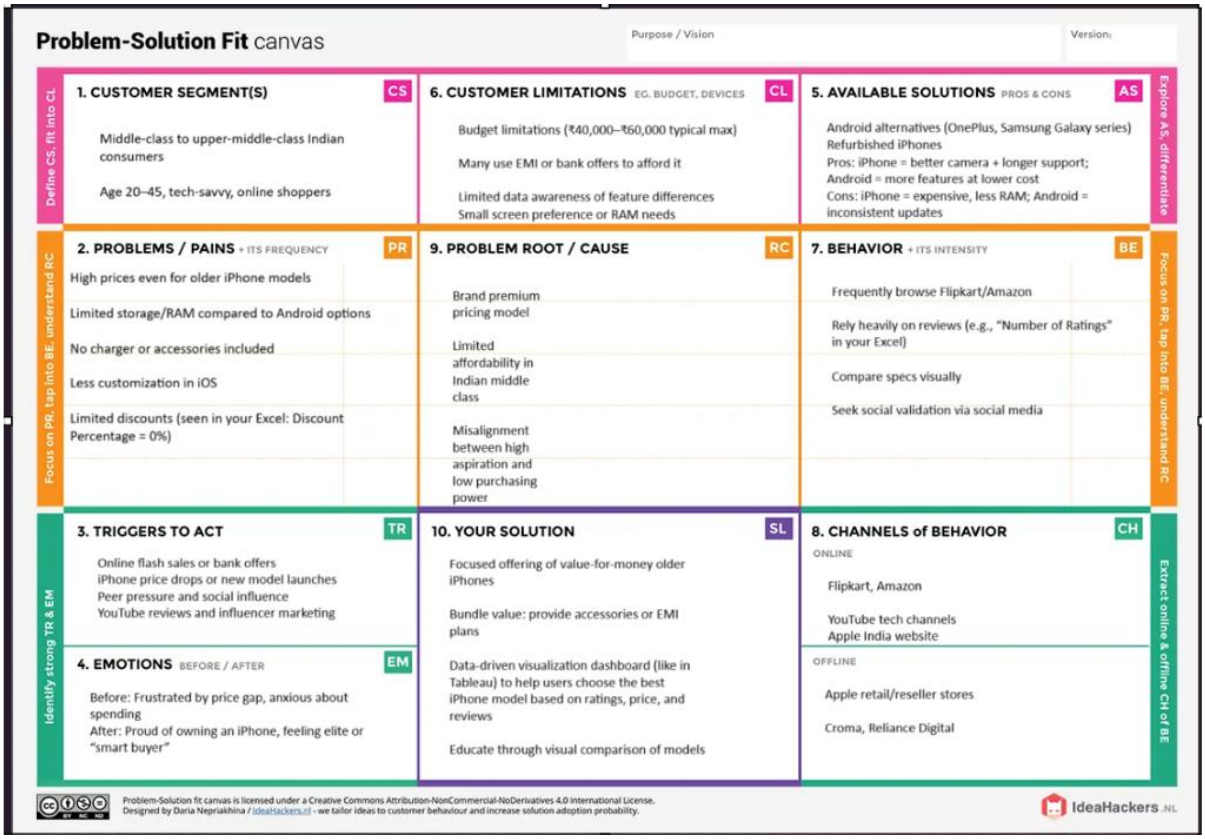
3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Mapped steps from online search → compare → reviews → decision → purchase.

3.2 Solution Requirements

Functional Requirements:



FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Upload	Upload iPhone data via Excel/CSV
FR-2	Data Visualization	Create dashboards using Tableau
FR-3	Price/Review Analysis	Show trends in prices & star ratings
FR-4	Model Comparison	Compare models based on RAM, price, popularity
FR-5	Export Dashboard	Export graphs in PDF/image formats

Non-Functional Requirements:

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Simple interface with filters
NFR-2	Security	Controlled data access
NFR-3	Reliability	Should handle moderate data loads
NFR-4	Performance	Dashboard loads in < 3 seconds
NFR-5	Availability	Available 24/7 during submission

NFR-6	Scalability	Extendable to Android, tablets, etc.

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4. TECHNOLOGY STACK

Table-1: Components & Technologies

S.No	Component	Description	Technology
1	UI	Dashboard using Tableau	Tableau Desktop / Tableau Public
2	Data Logic Layer	Data cleaning, calculations	Excel, Python (optional)
3	Storage	Raw & cleaned data	Excel, CSV, Google Sheets
4	Cloud Storage	Backup & sharing	Google Drive / Cloud (optional)

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5. PROJECT DESIGN

Problem-Solution Fit

The project aims to solve the gap between consumer confusion and data complexity by building a user-friendly dashboard to visualize Apple product performance across key factors.

Proposed Solution

S.No	Parameter	Description
1	Problem Statement	Indian consumers lack intuitive access to iPhone product data to make informed buying decisions.
2	Idea / Solution Description	Build a Tableau dashboard from Excel data to visualize model prices, ratings, and trends.
3	Novelty / Uniqueness	Uses actual retail data to create region-aware, model-wise insights for iPhones.
4	Social Impact / Customer Benefit	Empowers price-sensitive buyers and supports sellers in understanding demand.

5	Business Model	Freemium dashboard; can be extended with affiliate/retail partnerships.
6	Scalability	Easily adaptable to other products and regions.

Solution Architecture

Includes data source layer (Excel), processing (cleaning/formatting), storage (CSV/Google Drive), visualization (Tableau), and user access (dashboard viewers).

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6. PROJECT PLANNING & SCHEDULING

Sprint	Task Category	Task Description	Story Points	Duration	Dates	Status
Sprint 1	Data Upload	Upload Excel/CSV, clean fields	3	3 Days	15–17 June 2025	Done
Sprint 2	Dashboard Design	Layout design, add price/rating charts	5	5 Days	19–23 June 2025	Done
Sprint 3	Filter Integration	Add filters by RAM, rating, discount	3	3 Days	25–27 June 2025	Done
Sprint 4	Finalization	Export PDFs, write documentation	2	2 Days	29–30June 2025	Done

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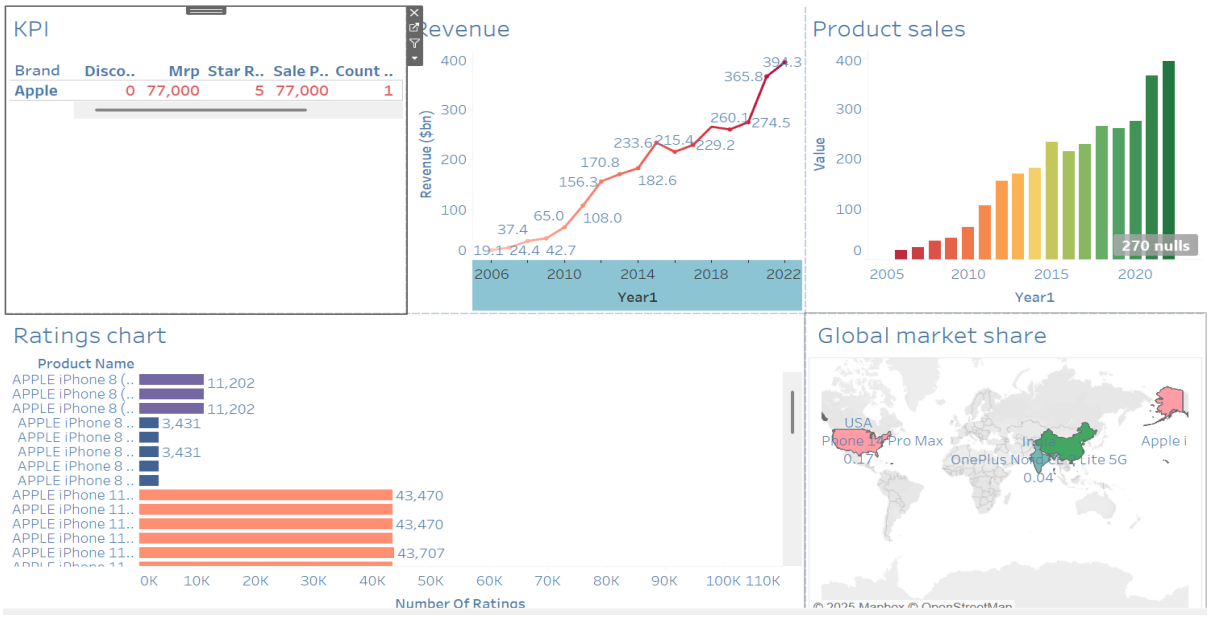
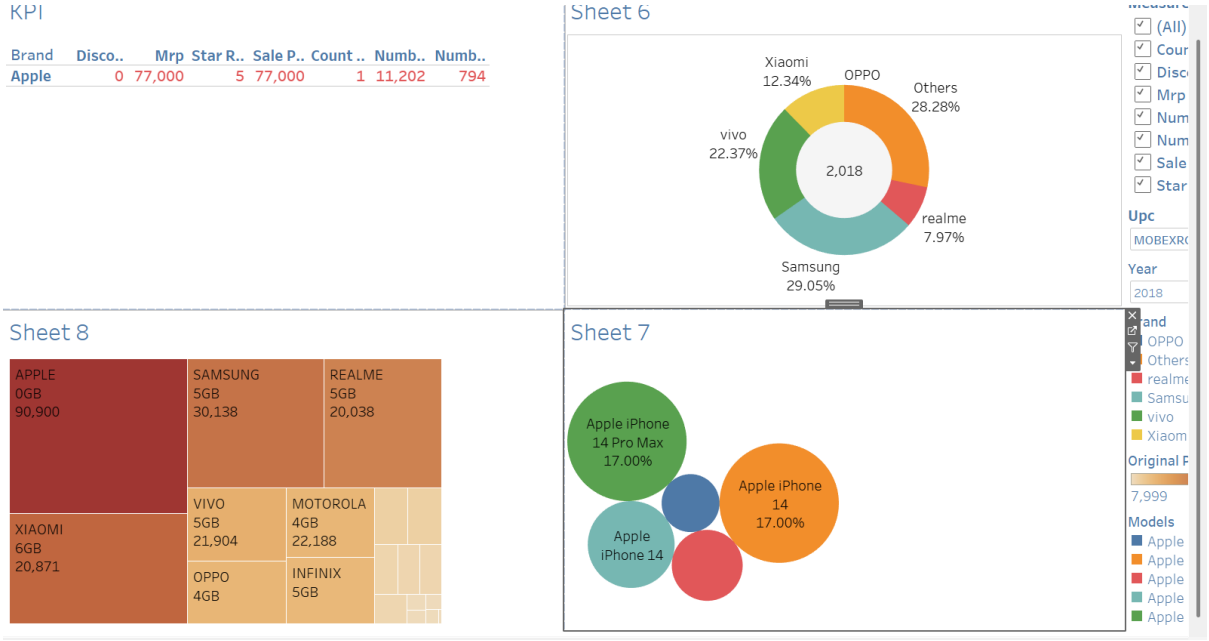
7. FUNCTIONAL & PERFORMANCE TESTING

- Dashboards were tested for fast loading, filter accuracy, and responsiveness across devices.



- Outputs match uploaded Excel source data.



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8. RESULTS

Output includes:

- Price vs Rating graph
- Region-wise model popularity
- Discount trend visual
- Exported report in PDF format

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9. ADVANTAGES & DISADVANTAGES

Advantages:

- Highly visual, user-friendly insights for buyers
- Can support retailers in tracking trends
- Scalable and customizable dashboard

Disadvantages:

- Tableau Public limits data storage
- Real-time data integration not supported

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10. CONCLUSION

The project successfully bridges the data gap between iPhone product listings and customer understanding in India. Through Tableau visualization, both end users and sellers gain deep insights into model performance and trends.

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11. FUTURE SCOPE

- Integrate real-time web scraping APIs
- Include Android devices for cross-comparison
- Add ML-based product recommendation system
- Mobile-friendly dashboard version

Submitted by:
Name: TOTTEMPUDI SATYADEEP, TANNERU SIDDARADHA
Team ID: LTVIP2025TMID50169