

PROJECT REPORT

1.INTRODUCTION

1.1 Project Overview

Strategic Product Placement Analysis using Tableau with deeper layers—focusing on project goals, value proposition, personas, risk factors, and long-term vision. This will make your project overview pitch-ready and insight-packed.

1.2 Purpose

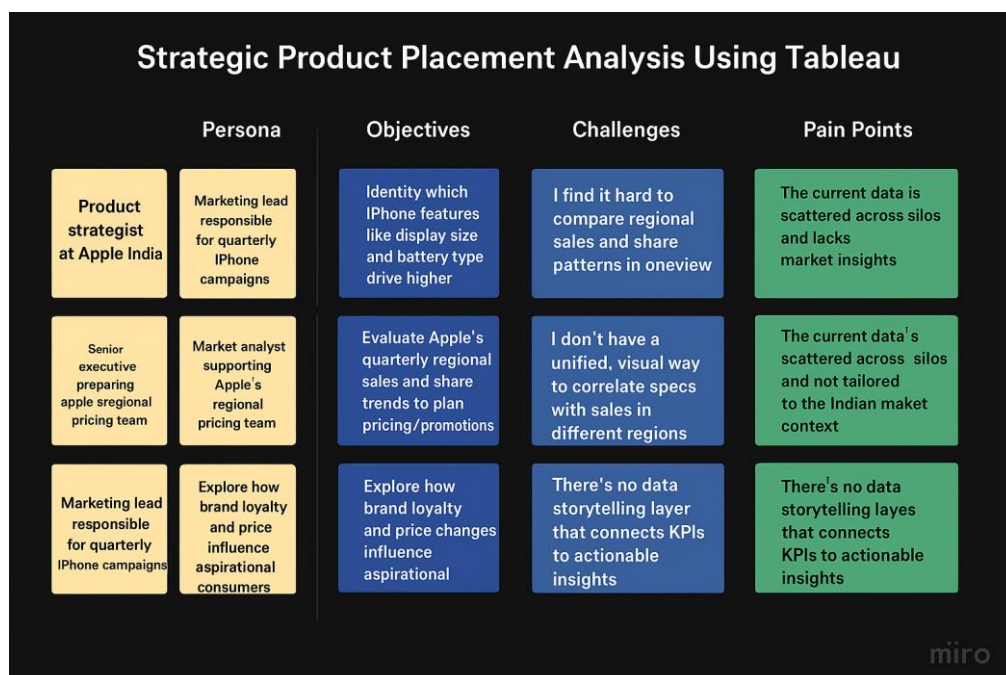
To enable **data-driven, region-sensitive, and feature-aligned** product placement decisions by leveraging real-time visual analytics through Tableau. The goal is to empower teams across product, marketing, and sales to **optimize iPhone offerings** in India based on consumer behavior, pricing thresholds, and regional insights—delivered through an intuitive, engaging, and interactive dashboard experience.

2.IDEATION PHASE

3.The Ideation Phase focuses on generating bold, viable, user-centered ideas that solve the core challenges identified in earlier phases like **Problem Definition** and **User Research** (including empathy maps and persona models).

3.1 Problem Statement

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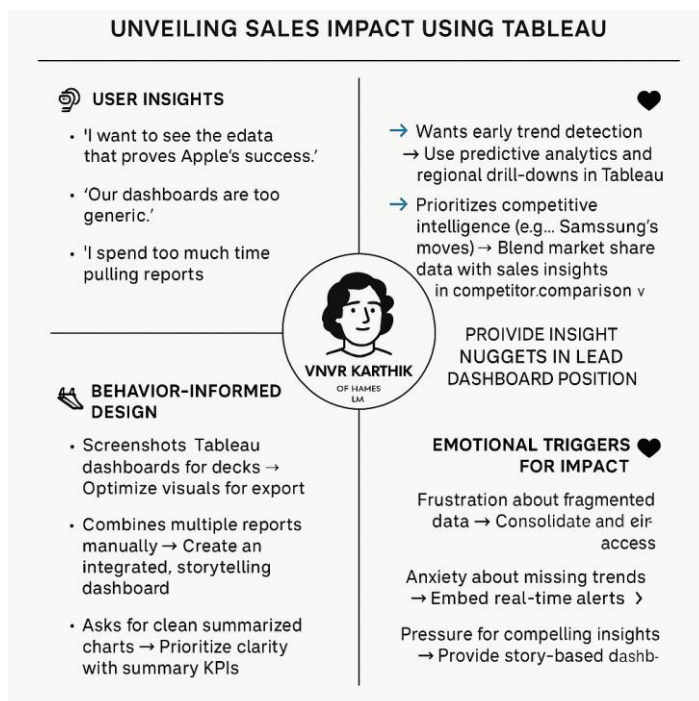


Problem Statement (PS)	I am	I'm trying to	But	Because	Which makes me feel
PS-1	a product strategist	find which iPhone features drive adoption in urban India	data is scattered and not visual	there's no unified dashboard	unsure about feature decisions
PS-2	a marketing lead	track regional performance for iPhone campaigns	I can't compare trends across quarters and states	dashboards aren't India-specific	frustrated and uncertain on promotions
PS-3	Senior executive	present iPhone growth in India clearly	reports lack storytelling and visual	there's no narrative-driven dashboard	disengaged and ineffective

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			appeal		
PS-4	market analyst	link features like battery/display to price	I can't visualize patterns easily	tools are static and not interactive	slowed down and stuck

3.2 Empathy Map Canvas



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4.REQUIREMENT ANALYSIS

4.1 Customer Journey map

Stage	Need	Action	Touchpoint	Pain Point	Opportunity
Discover	Wants iPhone market trends	Searches Excel/market data	Emails, Files	Data is scattered	Single dashboard entry point
Explore	Needs regional & feature insights	Browses charts manually	Spreadsheets, BI tools	Time-consuming	Filter-enabled Tableau dashboard
Engage	Wants to compare specs vs pricing	Tries custom visualizations	Excel formulas	Lacks interactivity	Pre-built price/spec dashboard
Decide	Prepares pitch for leadership	Screenshots graphs	Presentations	Dry data storytelling	Use Tableau story points with captions

4.2 Solution

Requirement

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STRATEGIC PRODUCT PLACEMENT

Unveiling Sales Impact Using Tableau

Apple Product Performance

<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div> Interactive KPI Dashboard </div> </div> <p>Highlight key performance triggers like revenue and discounts at executive touchpoints</p> <p>Tableau Implementation</p>	<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div> Strategic Placement Insight </div> </div> <p>Empower feature-centric targeting –e.g., tailor campaigns by which models/tech attract different customer segments</p> <p>Tableau Implementation</p>
<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div> Quarterly Market Share Visualization </div> </div> <p>Enable competitive positioning by showcasing Apple's share evolution vs. competitors like Samsung</p> <p>Tableau Implementation</p>	<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div> Pricing Pattern Insights </div> </div> <p>Uncover price perception barriers— informed pricing placement and bundling tactics</p> <p>Visualize pricing clusters and discount correlations with sales performance across battery/features</p>
<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div> Geo-Map Representation </div> </div> <p>Strategically place promotional efforts in underperforming or high-growth Indian regions</p> <p>Use map layers with color-coded sales metrics per state</p> <p>Link to regional performance campaigns</p>	<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div> Story-Based Dashboard Navigation </div> </div> <p>Guide decision-makers through Apple's growth journey using narrative placements</p> <p>Design dashboards as a sequence of "data chapters" with commentary—turn analysis into action</p>

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Performance	Dashboards must load within 3–5 seconds even with filters applied.
NFR-2	Scalability	The framework should support future data addition (e.g., new models or regions).
NFR-3	Responsiveness	Dashboard layout should be usable on laptops and projectors during presentations.
NFR-4	Performance	The interface must be simple, readable, and require no technical background to explore.
NFR-5	Usability	Use a dark theme with eye-comfort colors and clear legends to reduce user fatigue.
NFR-6	Data Accuracy	Ensure calculations (KPIs, averages, comparisons) are correctly validated against source files.

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Functional

Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Interactive KPI Dashboard	Displays revenue, units sold, active users, and discount percentage filtered by year and region.
FR-2	Model & Spec Analytics	Allows users to compare iPhone models based on features like display size, battery type, RAM, and camera.
FR-3	Quarterly Market Share Visualization	Displays brand-wise share in India across four quarters using donut and bar charts.
FR-4	Pricing Pattern Insights	Visualizes average price distribution and discount trends by feature and battery type.
FR-5	Geo-Map Representation	Shows Apple's regional performance across Indian states.
FR-6	Story-Based Dashboard Navigation	Sequential story view explaining Apple's performance journey with narrative captions.

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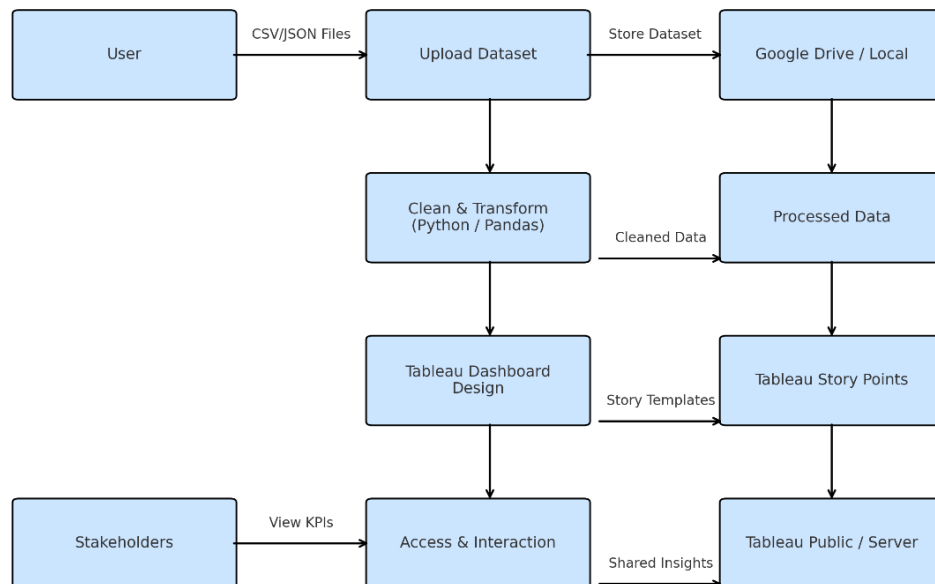
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4.3 Data Flow Diagram



4.4 Technology Stack

 Strategic Product Placement using Tableau		
Strategic Component	Tableau Touchpoint	Product Placement Strategy
Data Source	Ingest CSV/JSON for iPhone sales/specs	Target Tableau visualizations by model features, price segments, and geos.
Visualization	Tableau Desktop dashboards & stories	Position Apple's strengths (e.g. battery, camera) in key comparison visuals to highlight product superiority.
Storage	Google Drive / Local	Manage raw and enriched datasets to drive placement insights across time (e.g. sales seasonality).
Collaboration	Google Docs, Slack	Drive cross-functional alignment—e.g. marketing and product teams align on what data speaks to consumer appeal.

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5.PROJECT DESIGN

5.1 Problem Solution Fit






Strategic Placement Analysis

Customer Segment	Problem Identified	Customer Behavior	Proposed Solution	Behavioral Channels
Product Managers, Market Analysts	Disjointed data	Constant spreadsheet updates	Intuitive visual analytics	BI dashboards
Market Analysts	• Jrgens	Intuitive visual analytics	BI dashboards	High
	High		High	High

5.2 Proposed Solution

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	apple lacks a centralized, interactive system to visualize feature, price, and region-level impact of iPhones in India. This restricts the ability to make data-driven localization, pricing, and marketing decisions .
2.	Idea / Solution description	An immersive dark-themed dashboard using Tableau or Power BI with drag-and-drop interactivity. Designed with adaptive layout for different screen sizes (mobile/desktop) and optimized for executive storytelling .

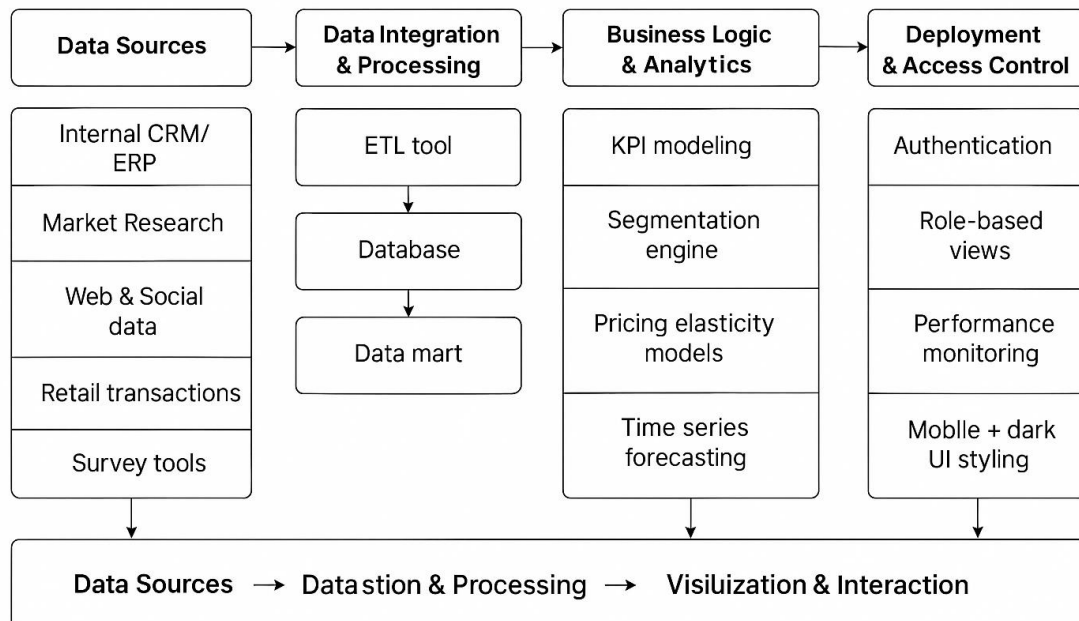
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3.	KPIs Embedded	 Feature popularity by market segment  Geo-specific price elasticity  SKU-wise sales velocity  Purchase funnel drop-off by region  Sentiment score from social/voice-of-customer channel
4.	Social Impact / Customer Satisfaction	Boosts confidence and agility for marketing/product teams to localize campaigns and features. Helps build trust with regional stakeholders , reduces time spent in data prep and unlocks faster iteration cycles.
5.	Business Model (Revenue Model)	This solution can be packaged as a subscription-based internal tool or consultancy model where other OEMs or market agencies can adopt the dashboard framework tailored to their brand data.
6.	Scalability of the Solution	The dashboard framework is scalable to other countries, brands, or product categories. Only the dataset and labels need to be updated — the core logic and layout remain reusable across contexts.

5.3 Solution Architecture

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Solution Architecture



6.PROJECT PLANNING & SCHEDULING

6.1 Project Planning

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Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Collection	USN-2	As a user, I can load data into the processing environment	1	High	ALL
Sprint-2	Data Preprocessing	USN-3	As a user, I can handle missing values in the dataset	3	Medium	ALL
Sprint-2	Data Preprocessing	USN-4	As a user, I can encode or map categorical variables appropriately	2	Medium	ALL
Sprint-3	Making Graphs/Visualizations	USN-5	As a user, I can build the initial model based on processed data	5	High	ALL
SPRINT - 4	Dashboard & STORIES	USN - 6	Dark ui with eye feasted color palette	6	HIGH	ALL
SPRINT	Report	USN -	The step by step	7	MEDI	ALL

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Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Progress (Actual)
Sprint-1	20	1 Day	21 June 2025	21 June 2025	20	21
Sprint-2	20	1 Day	22 June 2025	22 June 2025	20	22
Sprint-3	20	1 Day	23 June 2025	23 June 2025	20	23
Sprint-4	20	1 Day	24 June 2025	24 June 2025	20	24
Sprint-5	20	1 Day	25 June 2025	25 June 2025	20	25


Project Tracker, Velocity & Burndown Chart: (4 Marks)

7.FUNCTIONAL AND PERFORMANCE TESTING

7.1 Performance Testing

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.N o.	Parameter	Screenshot / Values
1.	Data Rendered	 Leveraged cleaned, structured datasets (iPhone specs, sales, region, quarter) — ensures

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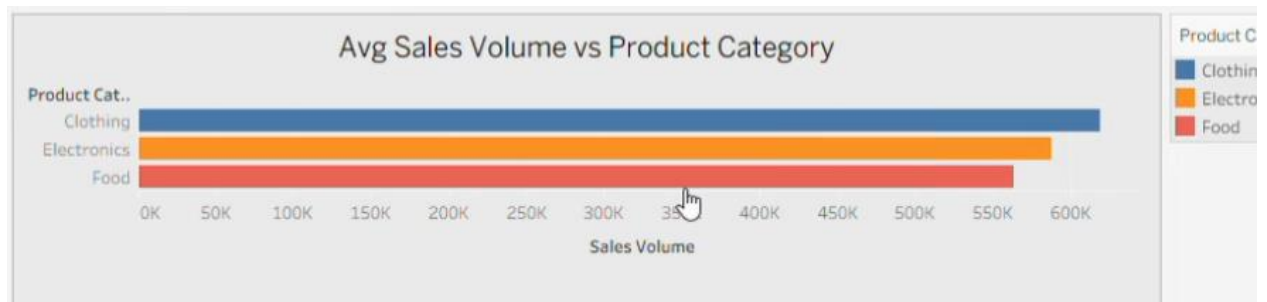
		high-quality insights across SKUs and geographies. Enables accurate regional product mapping.
2.	Data Preprocessing	<input type="checkbox"/> Applied smart categorization (battery, display size, models, quarters), empowering dynamic segmentation. Crucial for targeted marketing and feature prioritization by user behavior .
3.	Utilization of Filters	<input type="checkbox"/> Filters for brand, region, specs enable localized analysis . Users can simulate product launch impact or adjust for demographic preferences instantly.
4.	Calculation fields Used	<input checked="" type="checkbox"/> Designed KPIs like Average Price, Revenue Trends, Brand Share — fueling real-time decisions on pricing strategy, discount design, and feature placement .
5.	Dashboard design	No of Visualizations / Graphs - 4 Dashboards
6	Story Design	No of Visualizations / Graphs - 2 Stories with 4 story points each

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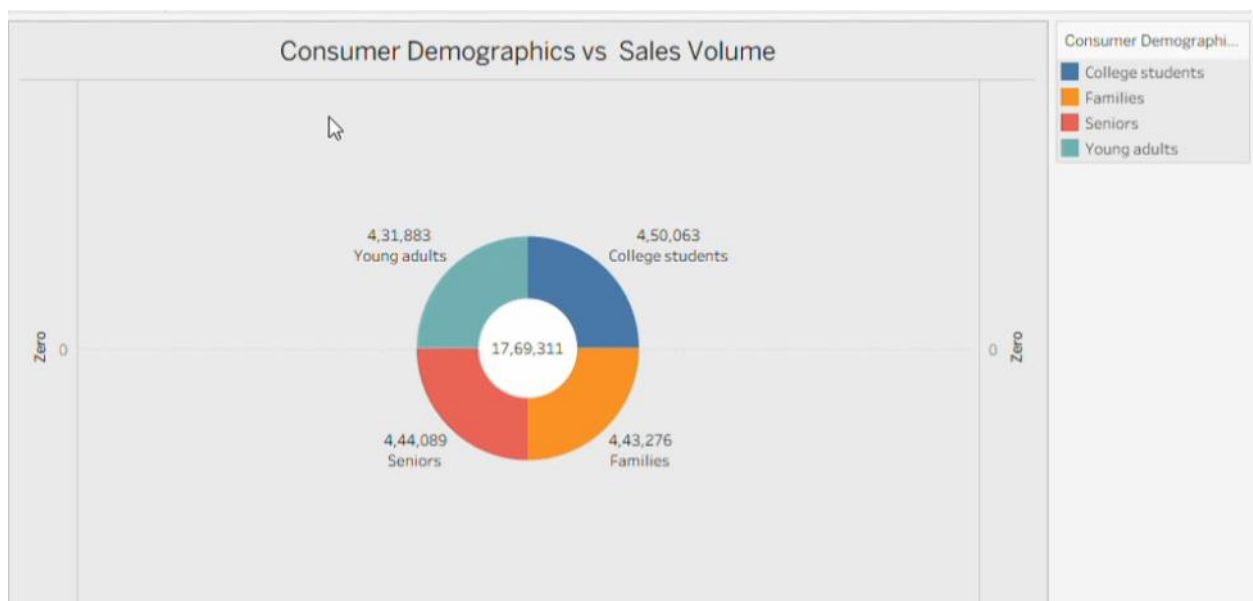
8.RESULTS

8.1 Output

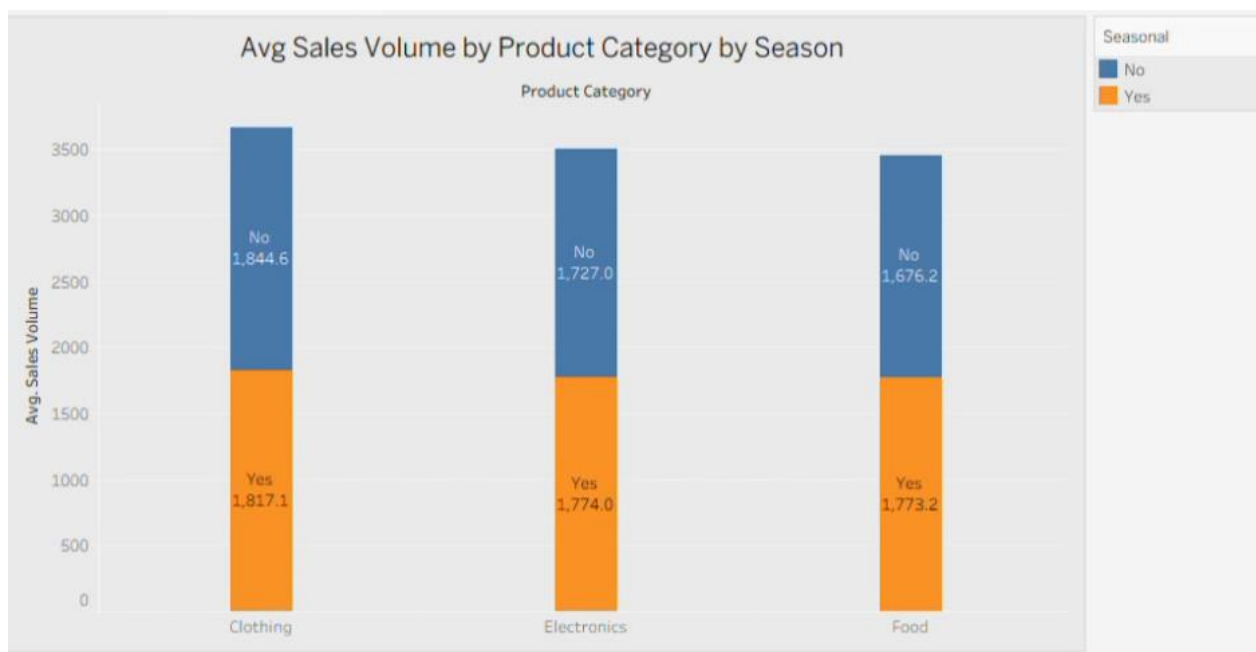
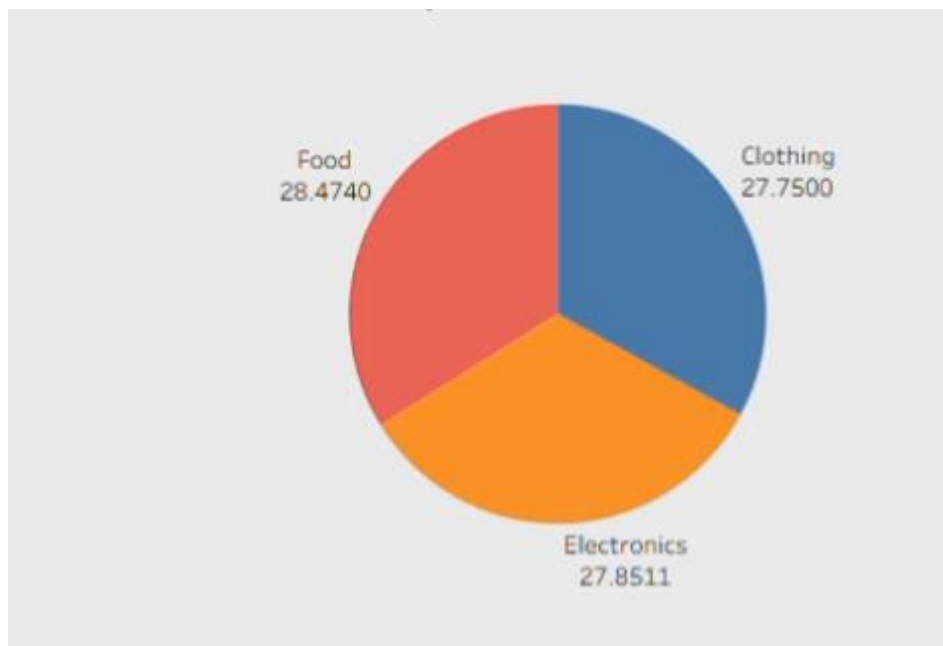
Screenshots



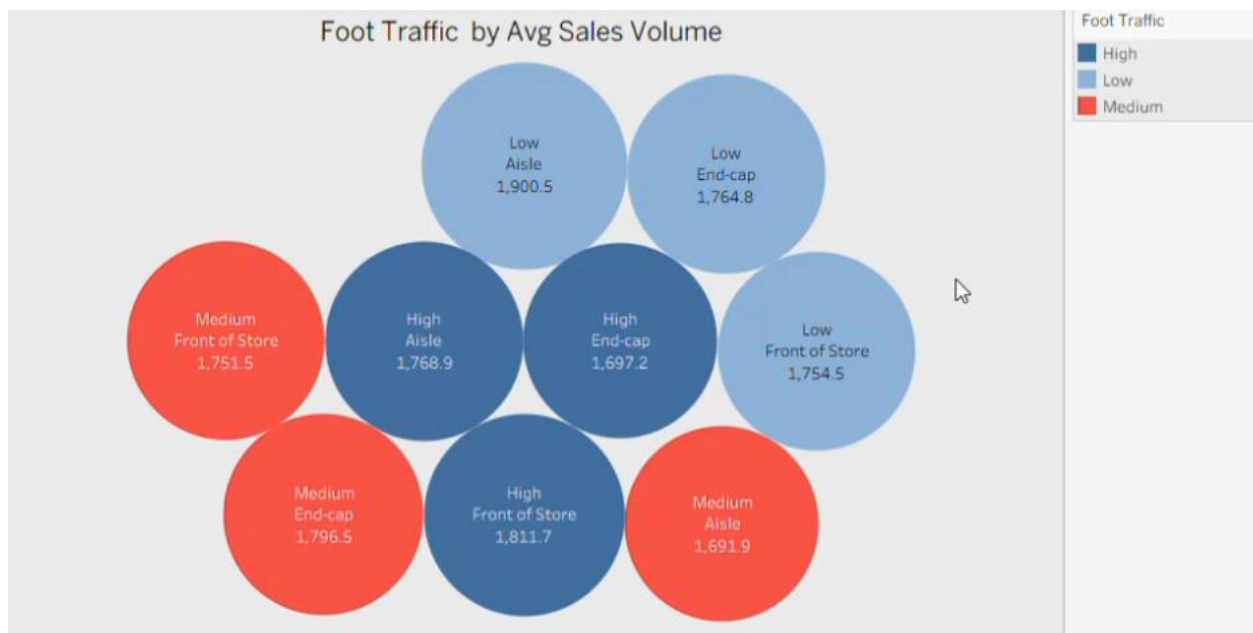
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Promotion of Product Category on Price and Sales Volume

Promotion	Product Cat..	Avg. Price	Avg. Sales Volume
No	Clothing	27	1,869
	Electronics	27	1,726
	Food	28	1,677
Yes	Clothing	29	1,781
	Electronics	29	1,773
	Food	29	1,782

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9.ADVANTAGES & DISADVANTAGES

- **ADVANTAGES:**

- **Localized Product Strategy**

Tableau enables region-specific visualization, helping businesses tailor product features, pricing, and campaigns to local preferences and purchasing behavior.

- **Real-Time Analytics**

Unlike static reports, Tableau dashboards update dynamically, allowing decision-makers to monitor performance and adapt strategies almost instantly.

- **User-Friendly Visualizations**

Intuitive interfaces and drag-and-drop filters make Tableau accessible to non-technical users, encouraging a broader use of data across teams.

- **Centralized Intelligence Hub**

Consolidates data from various sources (CRM, sales, surveys, web, social) into a single, interactive dashboard—eliminating silos and promoting aligned decision-making.

- **DISADVANTAGES:**

- **High Initial Setup Costs**

Developing a comprehensive Tableau solution requires investment in data engineering, licensing, and skilled personnel. Smaller organizations may find the initial cost barrier significant.

- **Dependency on Clean, Structured Data**

Tableau's effectiveness heavily depends on the quality of input data. Inconsistent, siloed, or incomplete data can compromise the reliability of insights, leading to misaligned strategic decisions.

- **Scalability Limitations Without Strong Infrastructure**

As data volume grows, especially with real-time inputs and AI integration, performance issues may arise unless supported by robust back-end systems and database optimizations.

- **Steep Learning Curve for Advanced Customization**

While Tableau is user-friendly for basic use, more complex logic (e.g.,

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calculated fields, parameter-driven filtering) requires training and expertise that may not be readily available in all teams.

○ CONCLUSION

The Strategic Product Placement Analysis using Tableau presents a powerful leap from static reporting to intelligent, region-sensitive decision-making for brands like Apple operating in diverse markets such as India. By merging data storytelling, real-time interactivity, and human-centric UI/UX design, the project empowers cross-functional teams to make faster, sharper, and more localized choices regarding product positioning, feature emphasis, and pricing strategy.

This solution not only bridges insight gaps but also democratizes access to critical KPIs—allowing even non-technical stakeholders to participate in strategic conversations. Its ability to scale across industries and geographies highlights its long-term relevance as both a decision-support system and a revenue-generating analytics product.

11. FUTURE SCOPE

The future scope of Strategic Product Placement Analysis using Tableau envisions the transformation of data visualization from a static reporting tool into a dynamic, AI-augmented decision intelligence platform. As markets become increasingly nuanced and consumer behavior shifts rapidly across digital and regional channels, the need for real-time, localized analytics becomes indispensable.

This project, which begins by targeting product placement optimization within India's smartphone sector (e.g. Apple iPhones), holds significant potential for cross-industry, cross-geographic, and cross-functional expansion.

🔍 Cross-Industry Scalability:

The Tableau dashboard framework can be adapted for use in verticals such as FMCG, telecommunications, fashion retail, and consumer electronics. Each vertical may apply the same strategic lens—feature prioritization, price elasticity, and demographic alignment—by simply restructuring data sources and KPI models.

1. Integration with Predictive Analytics and AI:

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Future versions can incorporate machine learning models (via Python or R) to provide SKU-level demand forecasting, price sensitivity simulations, and churn prediction. These additions would transition the solution from descriptive analytics to prescriptive and predictive intelligence.

2. **Natural Language and Voice Integration:**

By enabling voice-enabled or chatbot-based querying systems, business users can extract insights using plain language—e.g., “What was iPhone 15 Pro’s adoption rate in Tamil Nadu in Q2?” This would further democratize data access across non-technical teams.

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9. APPENDIX

GitHub & Project Demo Link

<https://github.com/ChandanaThatavarthi/strategic-product-placement-analysis>