Irevolution: A Data-Drivan Exploration of Apple's Iphone Impact in India

Bachelor of Science in Mathematics

Submitted by

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1. INTRODUCTON

1.1 Overview

The world has changed as a consequence of the increasing use of smartphones, which have improvedcommunication, connected people, and revolutionized many different businesses. With its main product, the iPhone, capturing markets around the world, Apple Inc. hasemerged as a prominent player among the top smartphone makers. India, one of theeconomies with the greatest economic growth, has seen a tremendous increase in smartphone usage, making it an interesting market to study the effects of Apple's iPhone.In order to shed light on important factors like market penetration, customer preferences,economic ramifications, and societal changes, this research report will perform a data-driven investigation of the impact of the iPhone in India. This study will offer invaluableinsights into the transformative impact of the iPhone on India's technological landscapeand the lives of its consumers by using advanced data analytics techniques and analyzinglarge datasets.

Apple has a special chance to increase its market share and develop a significant

presence in India thanks to the country's large population and rising smartphoneadoption. Each new iPhone model unveiling generates excitement and anticipationamong Indian buyers. By utilizing the plethora of information
Already accessible, this research aims to go beyond conjecture and anecdotal evidence in
order to develop a thorough knowledge of the effects of the iPhone.

1.2 Technical Architecture:

The technical architecture involves leveraging the data analytics capabilities of Tableau
for visualizations and analysis. The architecture comprises several components to ensure
efficient data processing and visualization.
At the core of the architecture is the data infrastructure, which includes data sources such as market reports, economic indicators, and surveys conducted among iPhone users inIndia. These data sources are collected and stored in a structured format for furtheranalysis.

Tableau is used as the primary data visualization tool. It connects to the datasources and allows for data extraction, transformation, and loading (ETL) processes.

Tableau's intuitive interface enables users to create interactive and visually appealing

visualizations, charts, and dashboards based on the analyzed data.

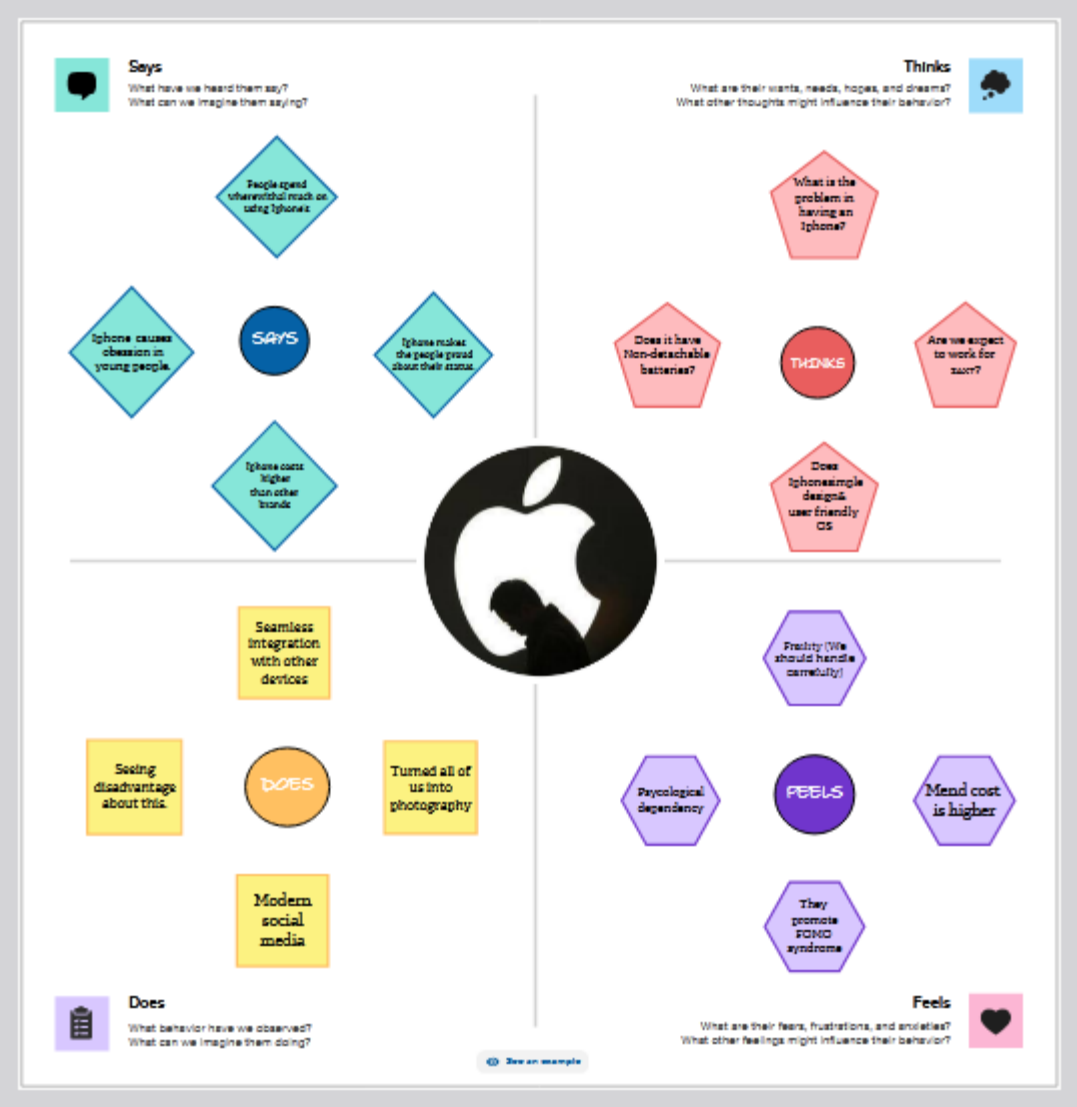
1.3 Purpose

Apple's decision to manufacture iPhones in India is a robust alignment with the Indian government's 'Make in India' initiative. By engaging local suppliers like Foxconn and Wistron, Apple is contributing to the nation's industrial growth, inculcating technological innovation, and creating thousands of jobs

2. PROBLEM DEFINITION & DESIGN THINKING

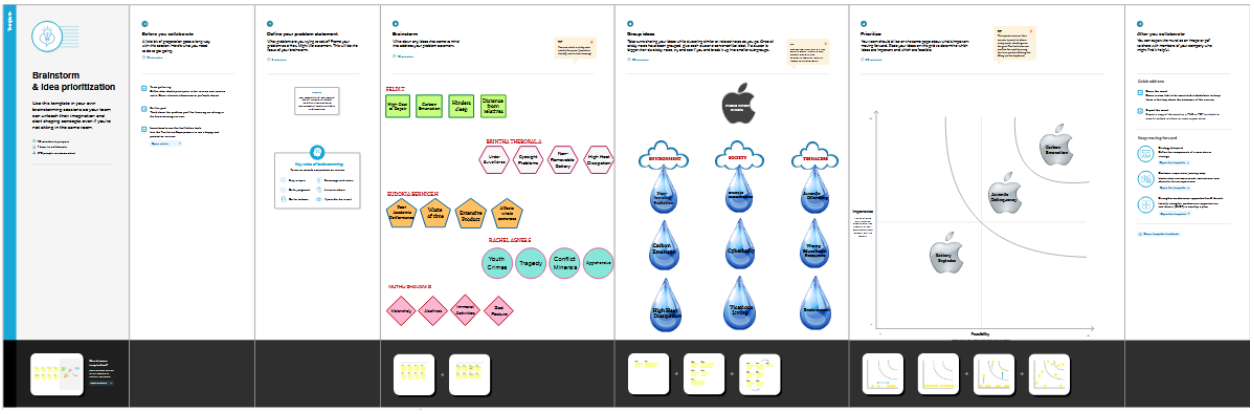
2.1 Empathy Map

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviors and attitudes. It is a useful tool to helps teams better understand their users. Empathy mapping is a simple workshop activity that can be done with stakeholders, marketing and sales, product development, or creative teams to build empathy for end users. For teams involved in the design and engineering of products, services, or experiences, an empathy mapping session is a great exercise for groups to "get inside the heads" of users.



2.2 Ideation & Brainstorming Map

A mind map is a brainstorming technique used to visually organize information into a hierarchy. They feature one main idea as the central point of the diagram, with subtopics branching out and connecting to supporting ideas.

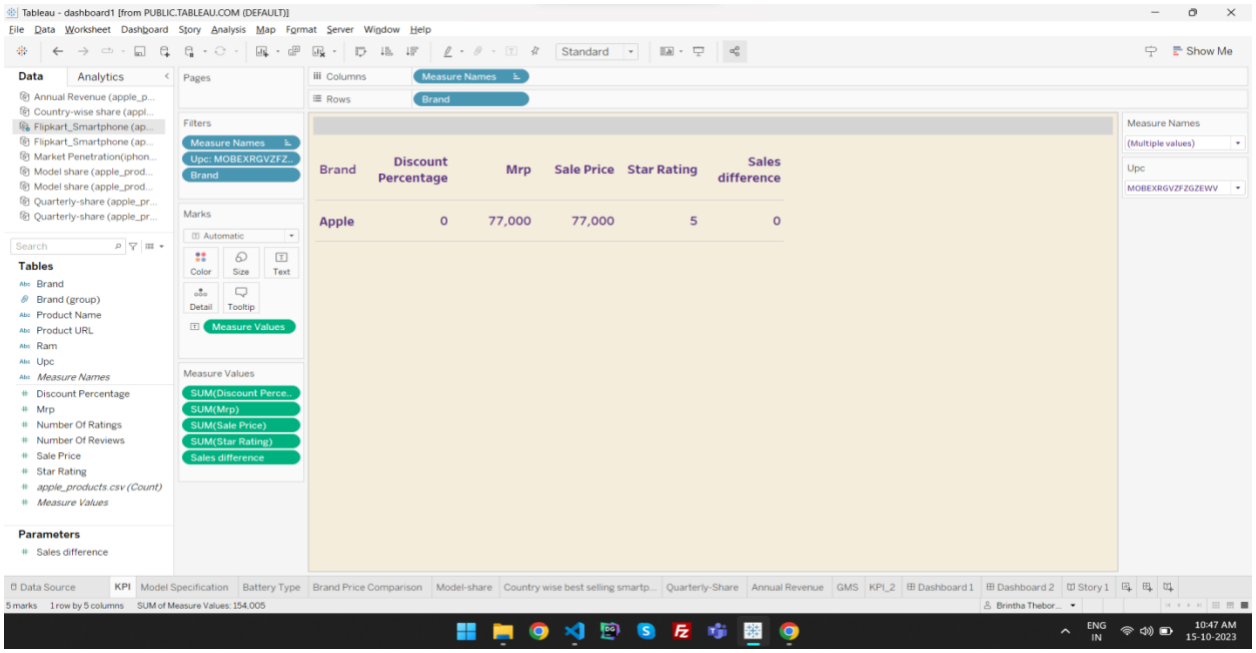


3. RESULT

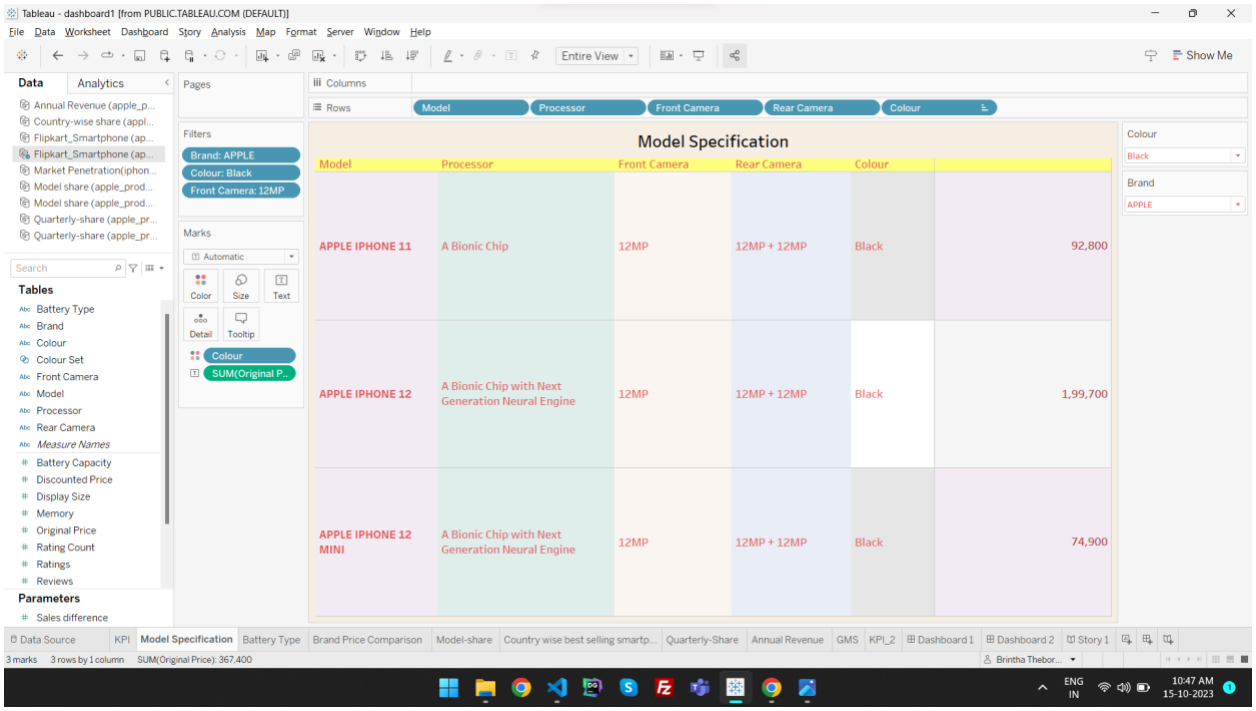
3.1 Data visualization

Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

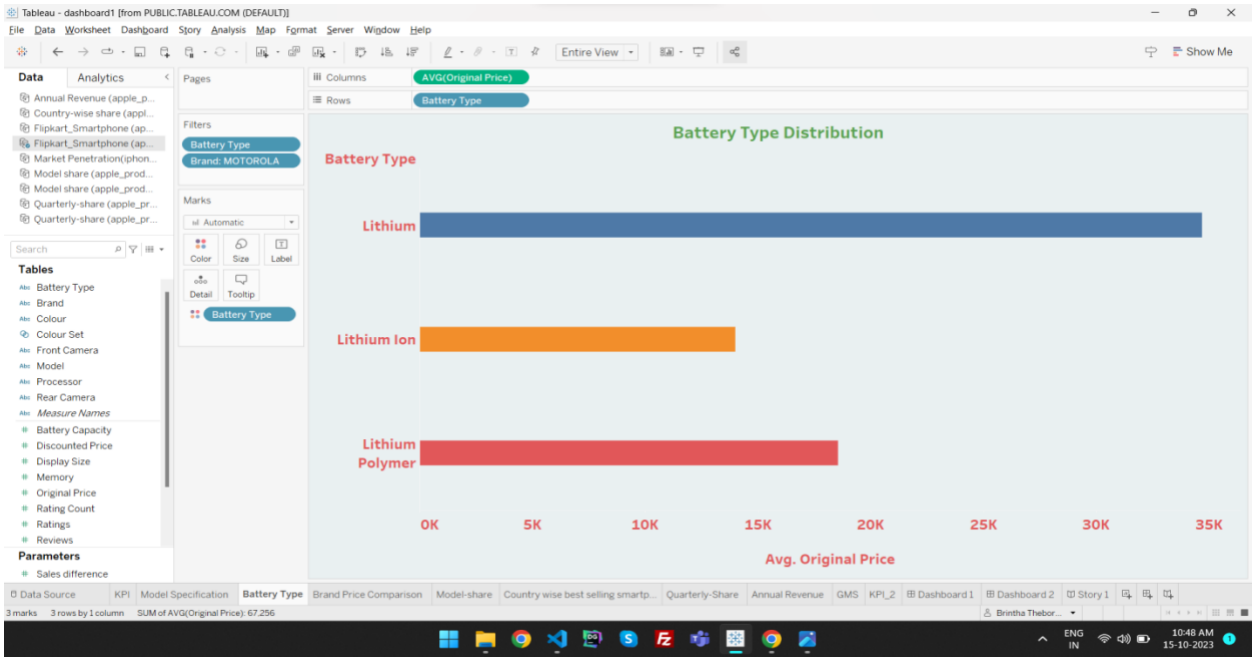
KPI



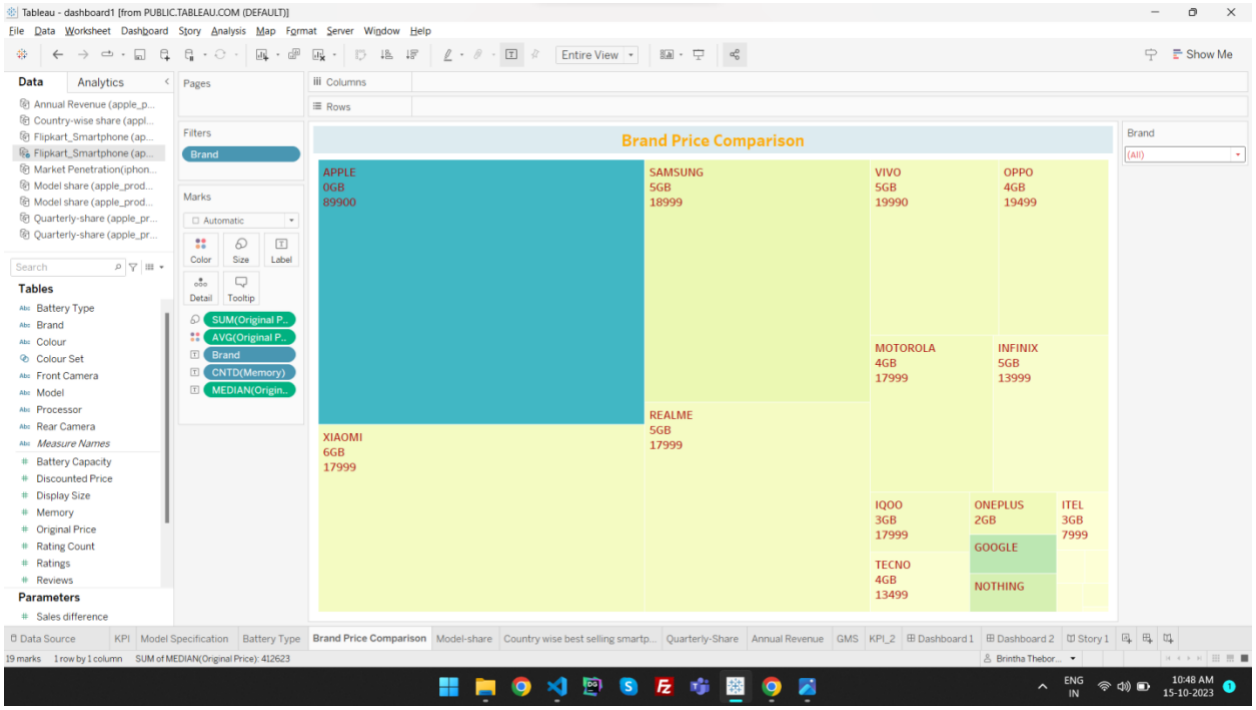
Model Specification Explanation



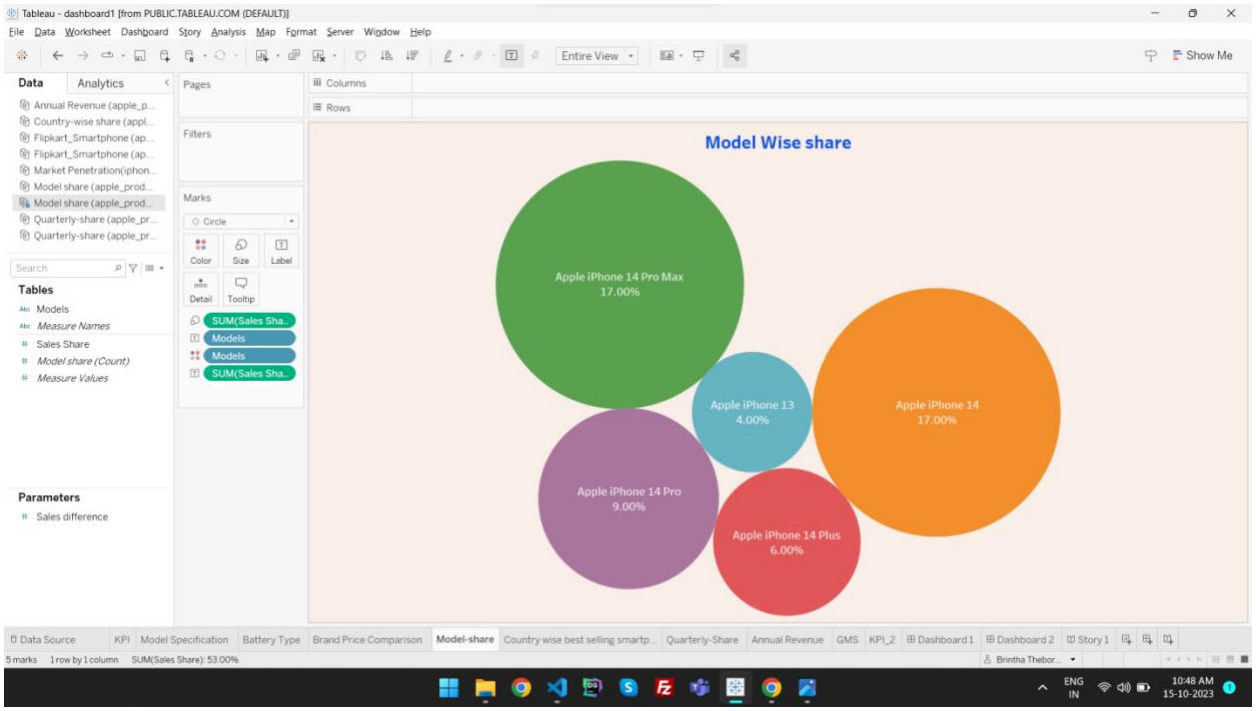
Battery – Type Distribution



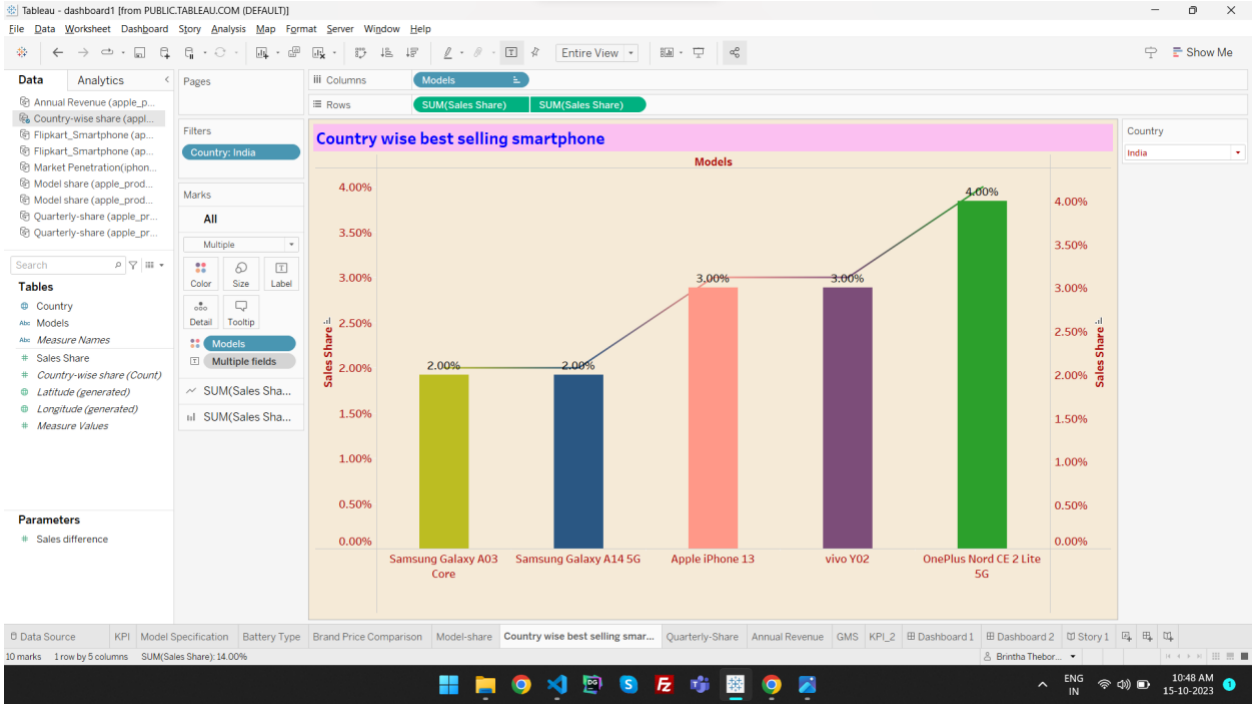
Brand Price Comparison



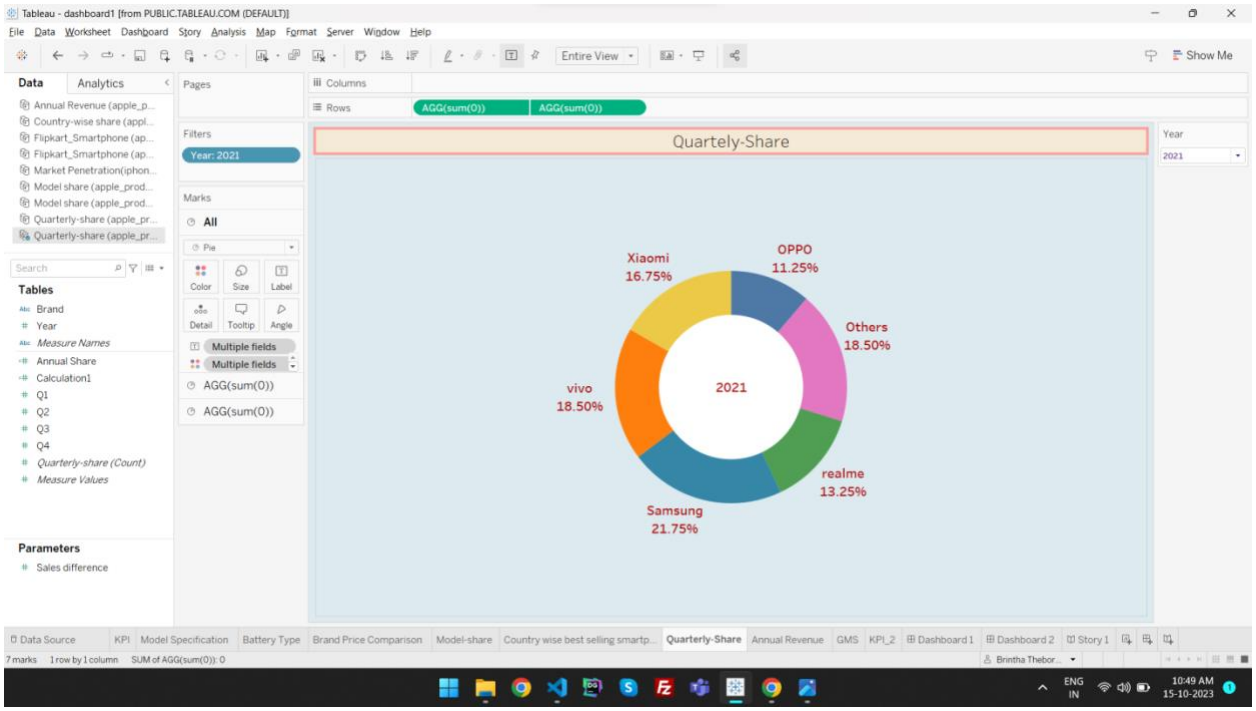
Model – Wise Share



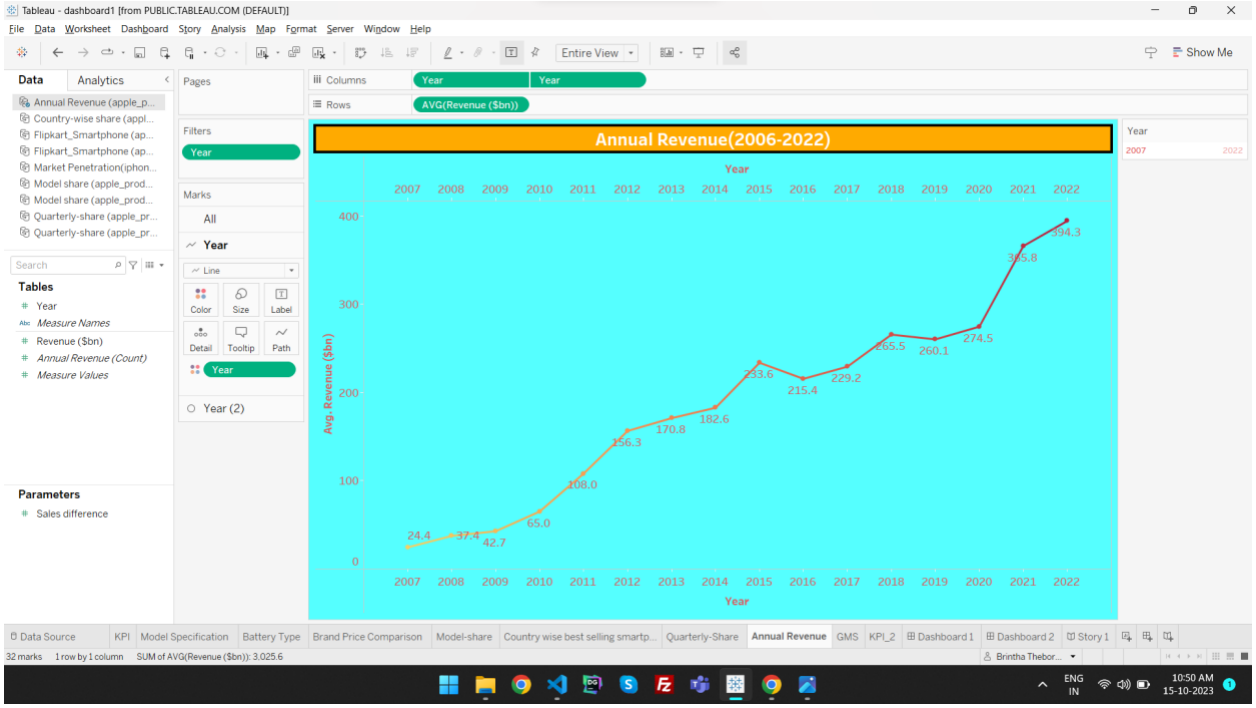
Country – Wise Best Selling Smartphone



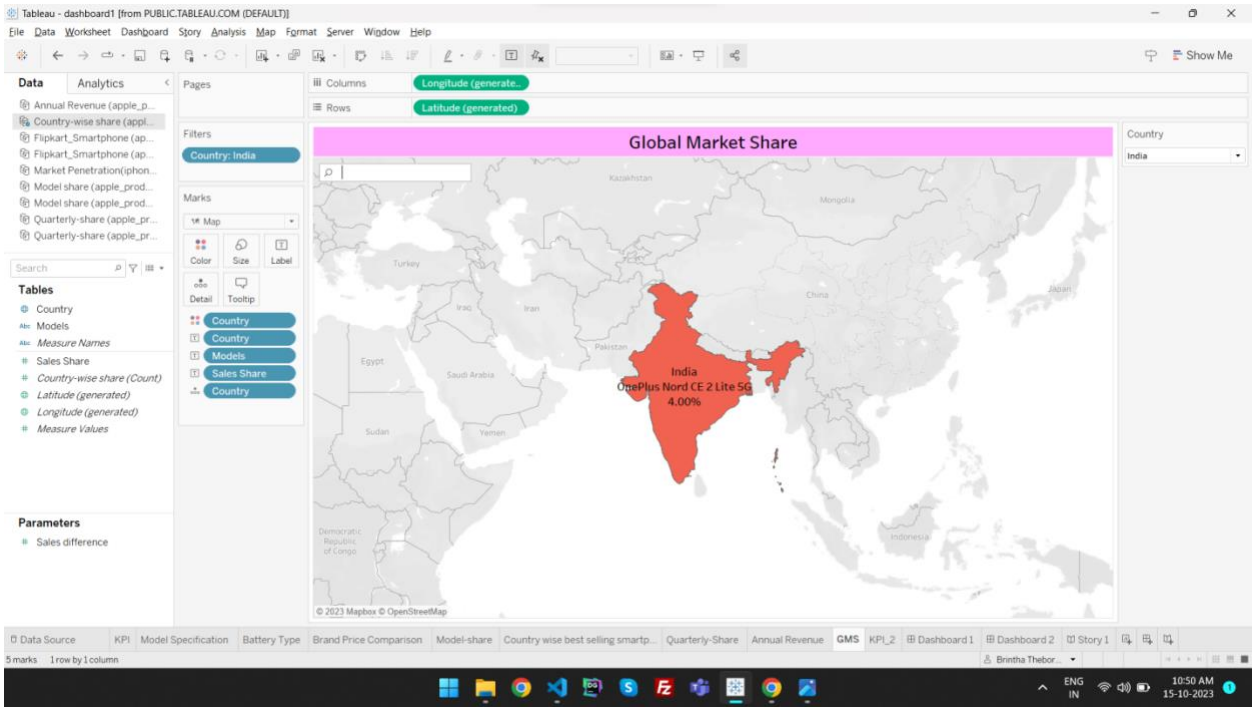
Quarterly - Share



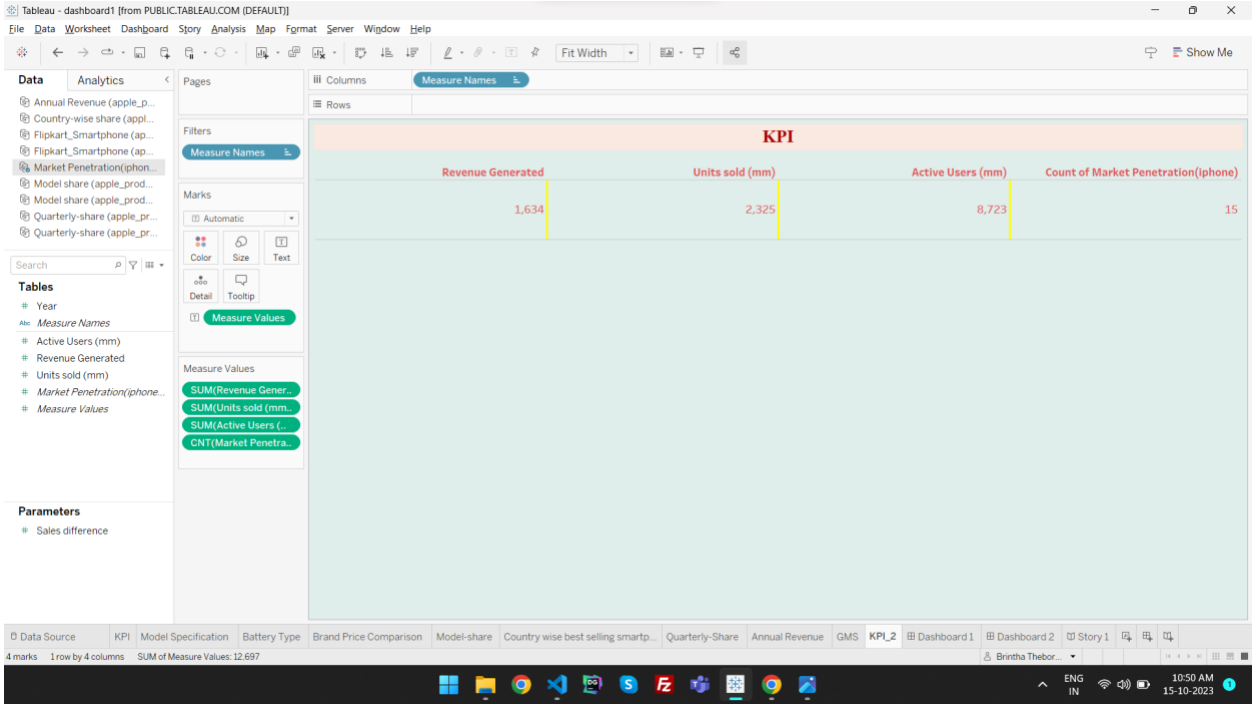
Annual Revenue Year – Wise (2006-2022)



Global Market Share



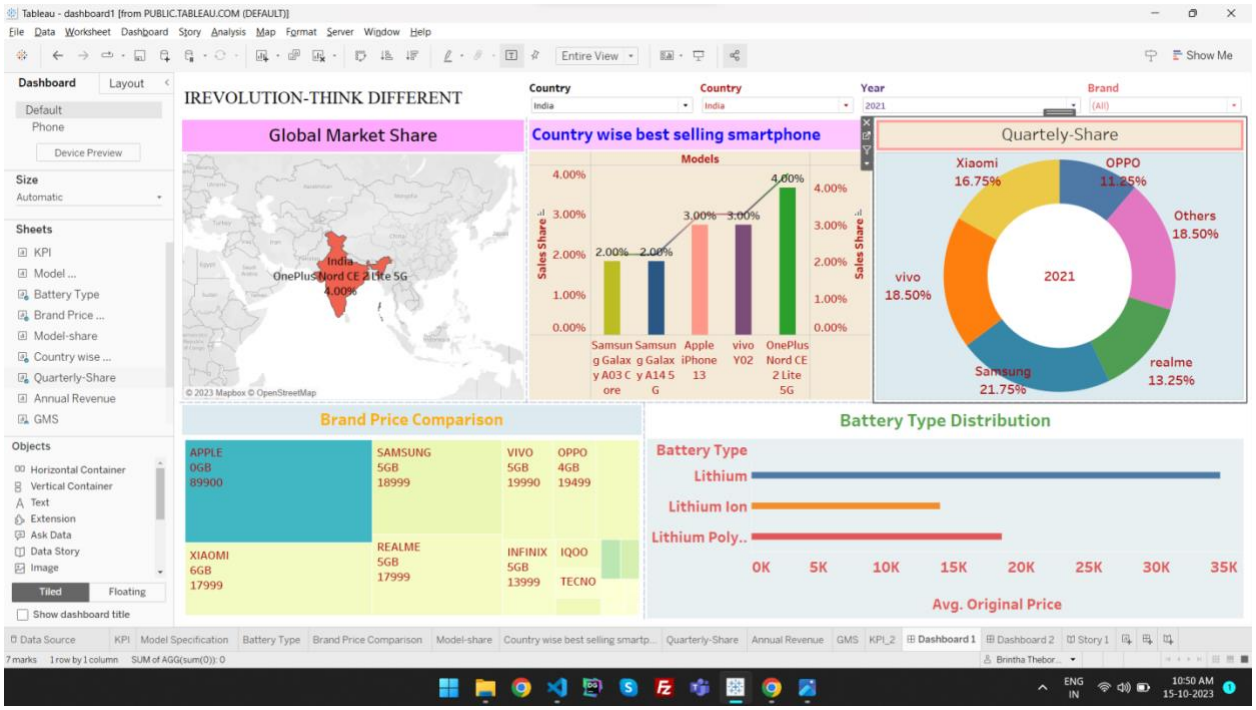
KPI 2



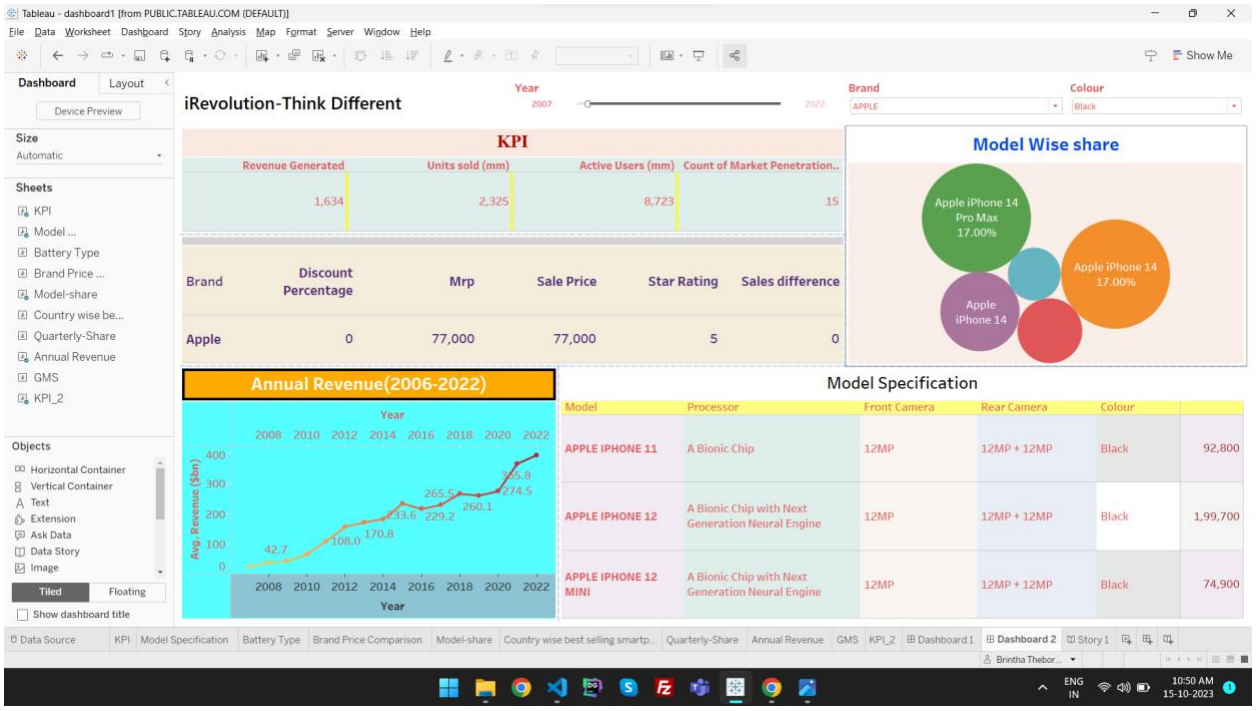
3.2 Dashboard

A dashboard is a graphical user interface (GUI) that displays information and data in anOrganized, easy-to-read format. Dashboards are often used to provide real-time monitoring And analysis of data, and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, Healthcare, and many other industries. They can be used to track key performance Indicators (kpis), monitor performance metrics, and display data in the form of charts, Graphs, and tables.

Dashboard 1



Dashboard 2

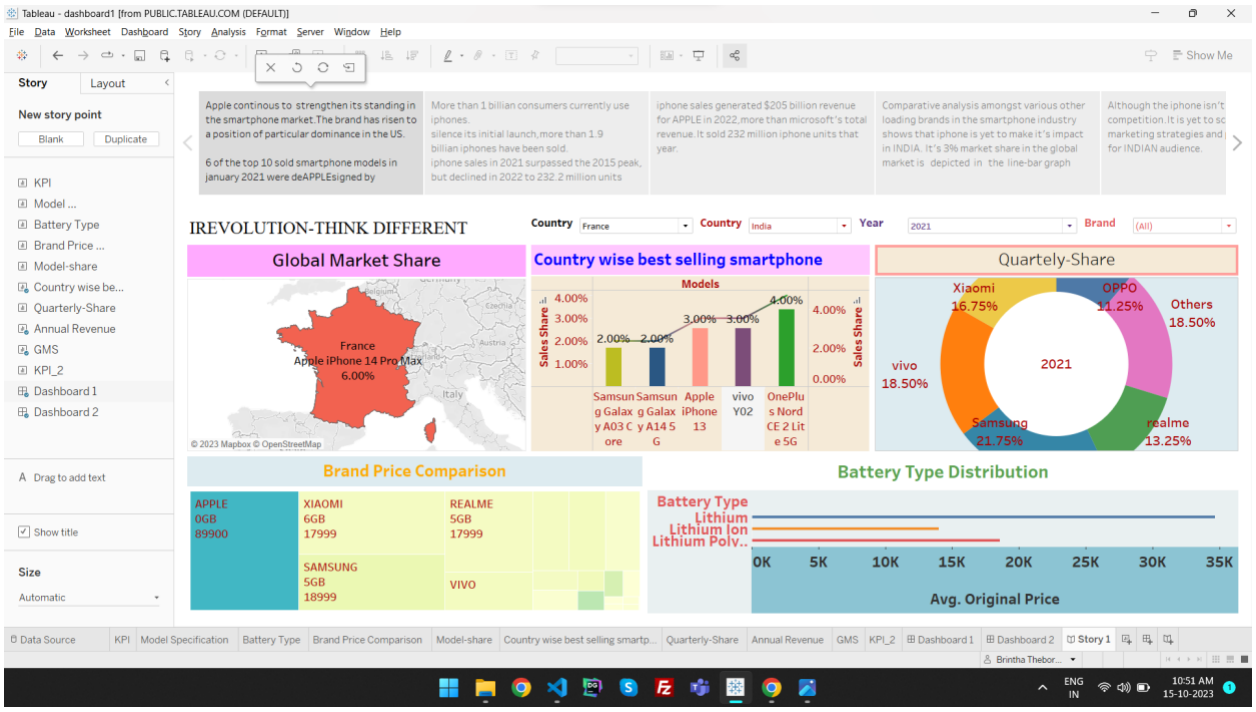


3.3 Story

A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typicallyincludes a clear introduction that sets the stage and explains the context for the data, a bodythat presents the data and analysis in a logical and systematic way, and a conclusion thatsummarizes the key findings and highlights their implications. Data stories can be told usinga variety of mediums, such as reports, presentations, interactive visualizations, and videos.

The number of scenes in a storyboard for iRevolution will depend on the complexity of theanalysis and the specific insights that are trying

to be conveyed. A storyboard is a visualrepresentation of the data analysis process and it breaks down the analysis into a series of steps or scenes.



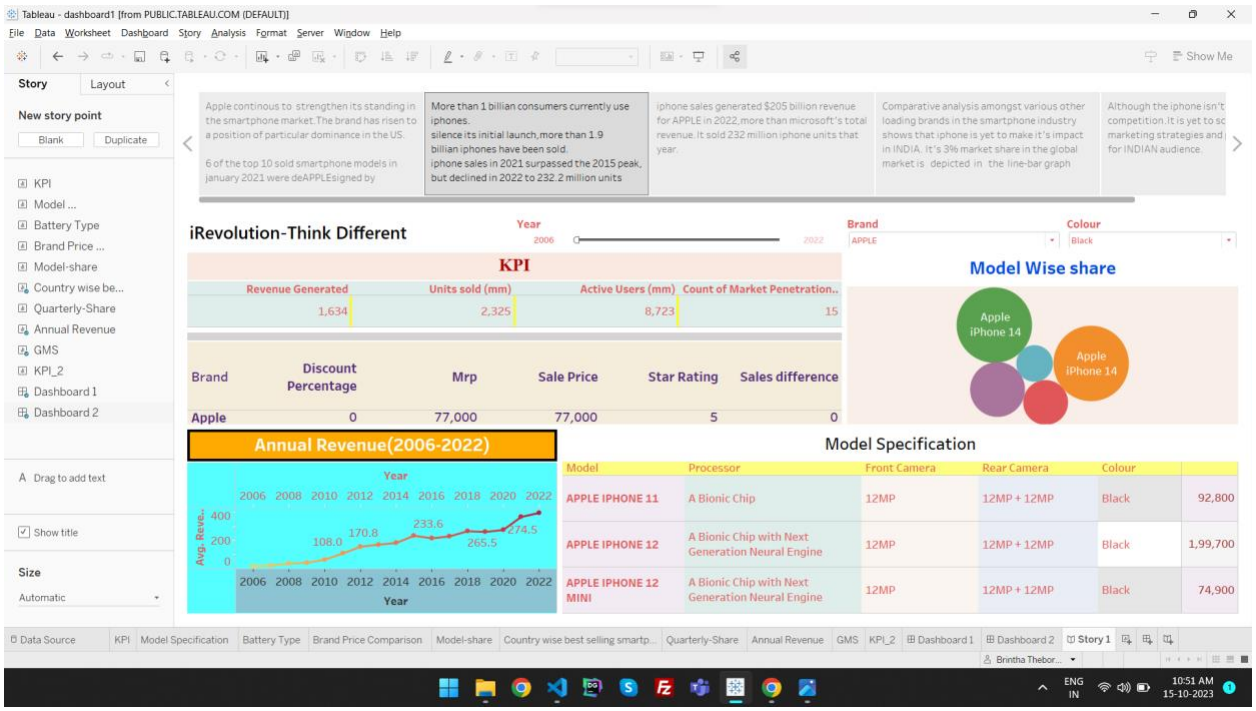


Tableau - dashboard1 [from PUBLIC.TABLEAU.COM (DEFAULT)]
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Show Me
Story
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KPI
Model ...
Battery Type
Brand Price ...
Model-share
Country wise be...
Quarterly-Share
Annual Revenue
GMS
KPI_2
Dashboard 1
Dashboard 2
Drag to add text
Show title
Size
Automatic
Apple continous to strengthen its standing in the smartphone market.The brand has risen to a position of particular dominance in the US.
6 of the top 10 sold smartphone models in january 2021 were deAPPLEsigned by
More than 1 billian consumers currently use iphones.
silence its initial launch,more than 1.9 billian iphones have been sold.
iphone sales in 2021 surpassed the 2015 peak, but declined in 2022 to 232.2 million units
iphone sales generated $205 billion revenue for APPLE in 2022,more than microsoft's total revenue.It sold 232 million iphone units that year.
Comparative analysis amongst various other loading brands in the smartphone industry shows that iphone is yet to make it's impact in INDIA. It's 3% market share in the global market is depicted in the line-bar graph
Although the iphone isn't competition.It is yet to sc marketing strategies and for INDIAN audience.
iRevolution-Think Different
Year
2006
2022
Brand
APPLE
Colour
Black
KPI
Revenue Generated
Units sold (mm)
Active Users (mm)
Count of Market Penetration..
1,634
2,325
8,723
15
Model Wise share
Apple iPhone 14
Apple iPhone 14
Brand
Discount Percentage
Mrp
Sale Price
Star Rating
Sales difference
Apple
0
77,000
77,000
5
0
Annual Revenue(2006-2022)
Year
Avg. Reve..
2006 2008 2010 2012 2014 2016 2018 2020 2022
400
200
0
108.0
170.8
233.6
265.5
274.5
Year
Model Specification
Model
Processor
Front Camera
Rear Camera
Colour
APPLE IPHONE 11
A Bionic Chip
12MP
12MP + 12MP
Black
92,800
APPLE IPHONE 12
A Bionic Chip with Next Generation Neural Engine
12MP
12MP + 12MP
Black
1,99,700
APPLE IPHONE 12 MINI
A Bionic Chip with Next Generation Neural Engine
12MP
12MP + 12MP
Black
74,900
Data Source
KPI
Model Specification
Battery Type
Brand Price Comparison
Model-share
Country wise best selling smartp...
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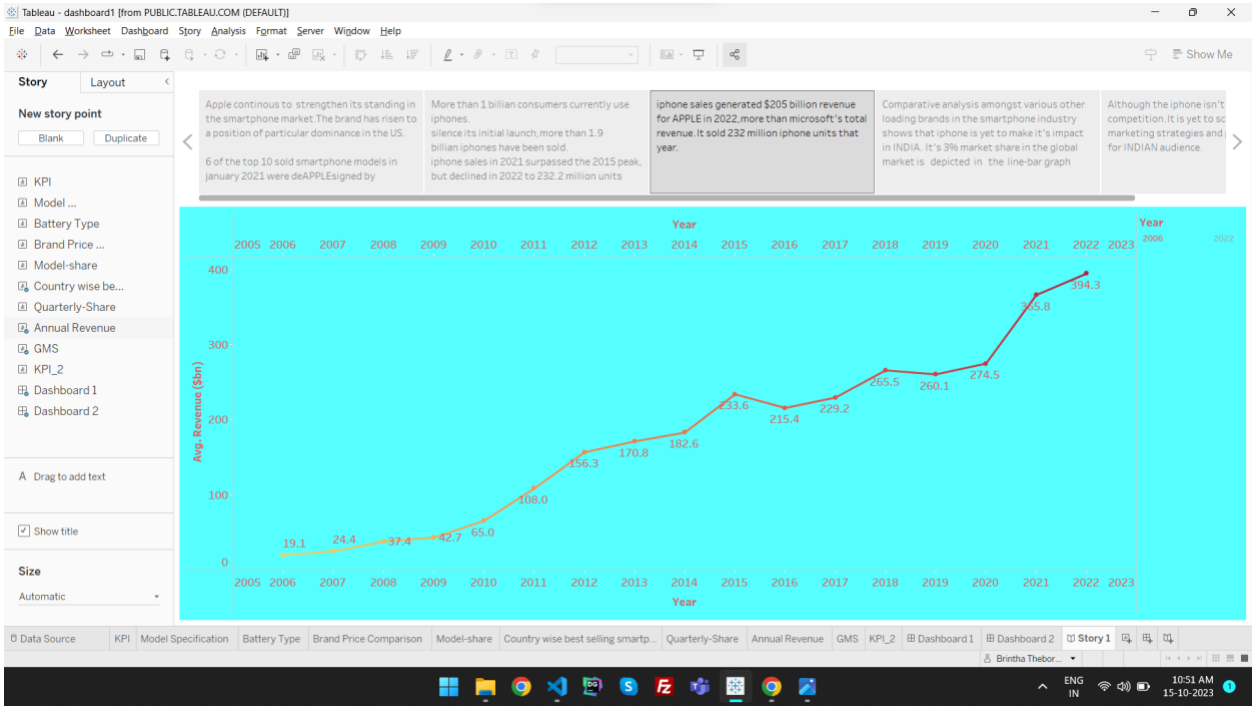
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Year
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Year
2006
2022
Avg. Revenue ($bn)
400
300
200
100
0
19.1
24.4
37.4
42.7
65.0
108.0
156.3
170.8
182.6
233.6
215.4
229.2
265.5
260.1
274.5
365.8
394.3
Year
Data Source
KPI
Model Specification
Battery Type
Brand Price Comparison
Model-share
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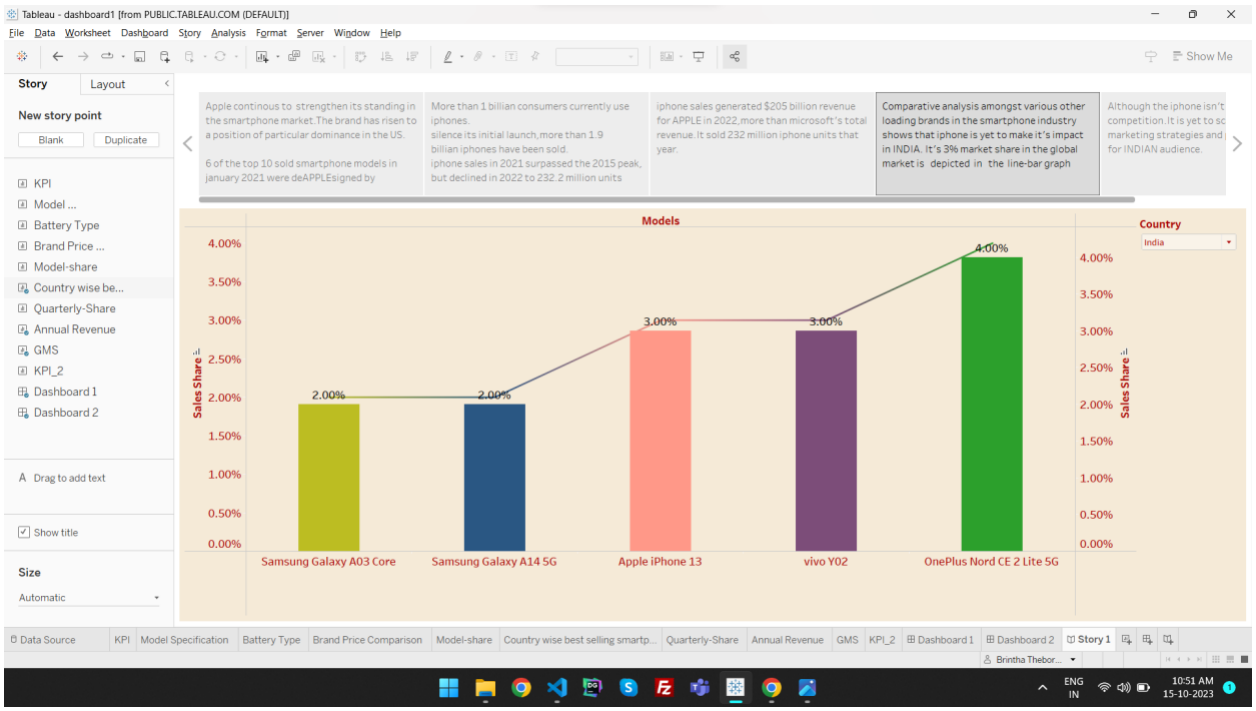
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Models
Country
India
Sales Share
4.00%
3.50%
3.00%
2.50%
2.00%
1.50%
1.00%
0.50%
0.00%
2.00%
2.00%
3.00%
3.00%
4.00%
Samsung Galaxy A03 Core
Samsung Galaxy A14 5G
Apple iPhone 13
vivo Y02
OnePlus Nord CE 2 Lite 5G
Data Source
KPI
Model Specification
Battery Type
Brand Price Comparison
Model-share
Country wise best selling smartp...
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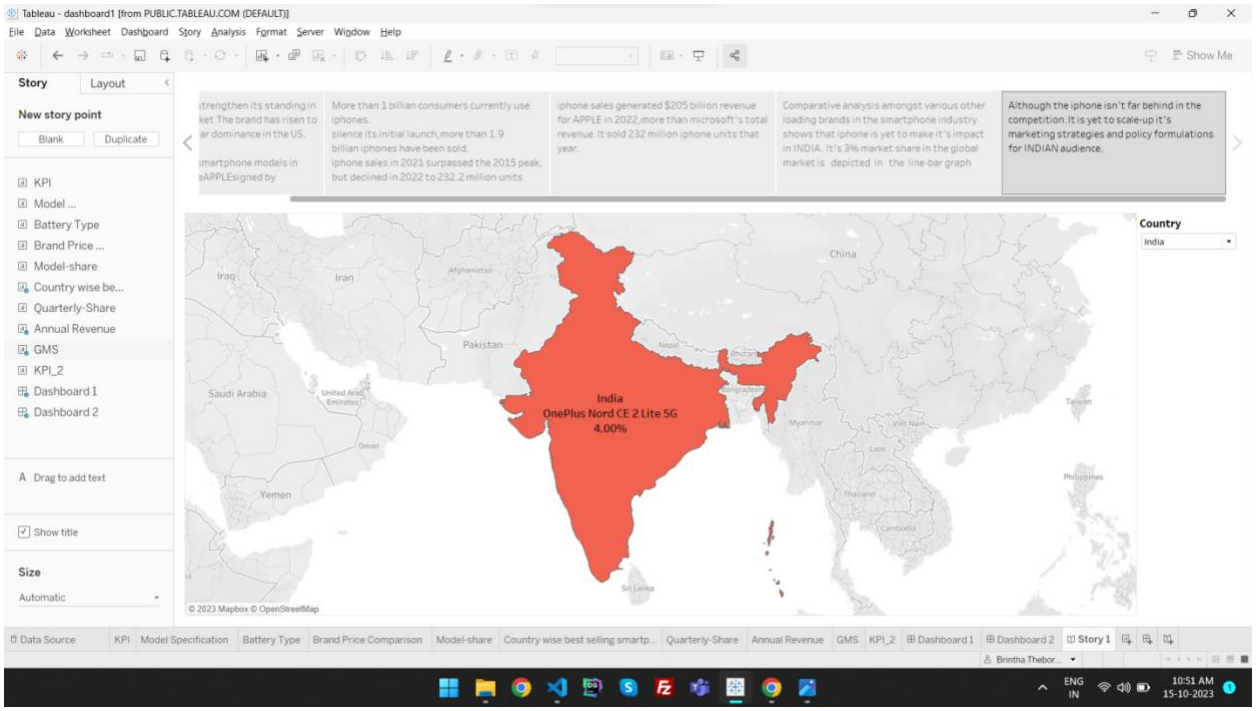
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Country
India
China
Iraq
Iran
Afghanistan
Pakistan
Nepal
Bhutan
Bangladesh
Myanmar
Saudi Arabia
United Arab Emirates
Oman
Yemen
Laos
Thailand
Cambodia
Taiwan
Philippines
Sri Lanka
India
OnePlus Nord CE 2 Lite 5G
4.00%
© 2023 Mapbox © OpenStreetMap
Data Source
KPI
Model Specification
Battery Type
Brand Price Comparison
Model-share
Country wise best selling smartp...
Quarterly-Share
Annual Revenue
GMS
KPI_2
Dashboard 1
Dashboard 2
Story 1
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4. ADVANTAGES & DISADVANTAGES

Advantages:

- Better Performance
- Easy to Use
- Timely OS Update
- Security and Privacy
- Third-party App Security
- No Bloatware
- Family Sharing
- The Apple Ecosystem
- Retain Value
- Best Support

Disadvantages:

- Overpriced
- Apple Ecosystem
- Fixed Storage
- Too Much Space
- No FM Ratio Built-In
- Short Battery Life
- Several Security Issues
- Break Easily

5. APPLICATIONS

There are many solutions in this project. Some of them are,

- Inro to privacy and safety tools

- Update you Apple software
- Set a unique passcord
- Delete unknown fingerprints from iphone
- Keep your Apple ID secure

Applications are software programs developed for end-users to accomplish specific computing tasks. Apps, on the other hand, mostly refer to programs developed for mobile devices.

6. CONCLUSION

Problem definition and design thinking is made through the Empathy map and Ideathion & Brainstorming map. Data is analysed through data visualization by Tableau desktop. Ten visualizations, dashboare, and story are made in Tableau desktop. This dashboard and story published to tableau public.

7. FUTURE SCOPE

The future looks bright for iOS development, IoT, Machine learing, Artificial intelligence and Augmented reality are just a few of the latest technologies on which they can improve their knowledge. It's clear it's all going to be with a rosy smile for iOS, and we can expect to see exciting innovations from Apple.