GOVERNMENT ARTS COLLEGE (AUTONOMOUS),

COIMBATORE-18

DEPARTMENT OF PHYSICS

A PROJECT REPORT ON

IRevolution: A Data Driven Exploration Of Apple's IPhone Impact In India

BASED ON THE COURSE

FUNDAMENTALS OF DATA ANALYTICS WITH TABLEAU – SMARTBRIDGE

SUBMITTED BY

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DEPARTMENT OF PHYSICS

SUBMITTED TO

NAAN MUDHALVAN – SMART INTERNZ

DATA ANALYTICS AND UPSKILL PROGRAMMING

Dissertation submitted in partial fulfilment of the requirements for the course of

FUNDAMENTALS OF DATA ANALYTICS WITH TABLEAU - SMARTBRIDGE

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Thankyou!

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1.INTRODUCTION

1.1 OVERVIEW

The iPhone has played a significant role in the iRevolution . The iPhone is a powerful tool that can be used to access information, connect with others, and organize for social change. The iRevolution has used the iPhone to provide training on digital literacy and coding to people in marginalized communities around the world. It has also supported people to use the iPhone to organize and advocate for social change.

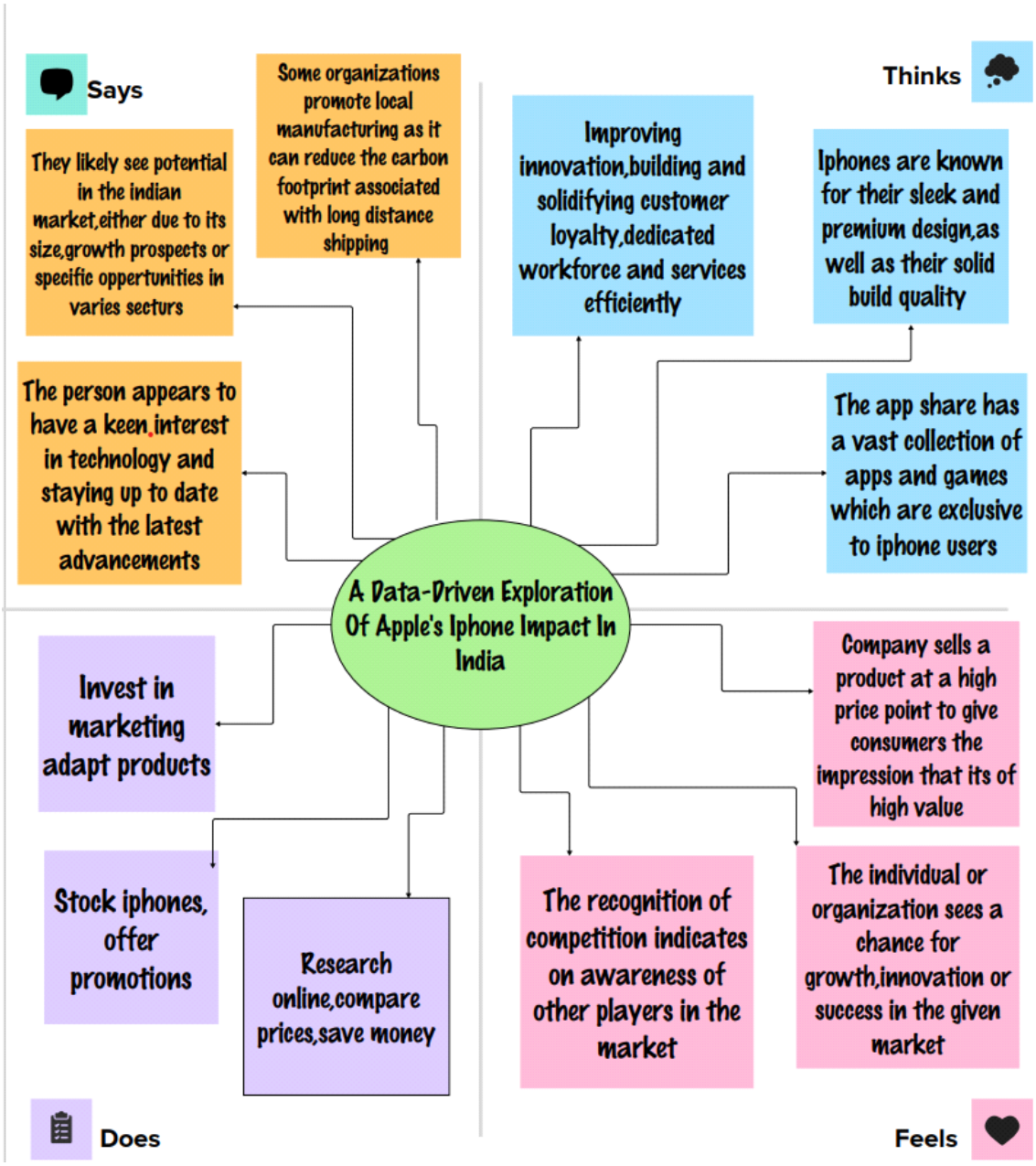
1.2 PURPOSE

I found a project called iRevolution: A Data-driven Exploration of Apple's iPhone Impact in India. The project aims to investigate the impact of Apple's iPhone in India by analysing large datasets and using advanced data analytics techniques. The study will offer insights into important factors like market penetration, customer preferences, economic ramifications, and societal changes. The research report will perform a data-driven investigation of the impact of the iPhone in India to shed light on the transformative impact of the iPhone on India's technological landscape and the lives of its consumers. The project will also explore the relationship between brand names, product names, sales prices, and consumer behaviour.

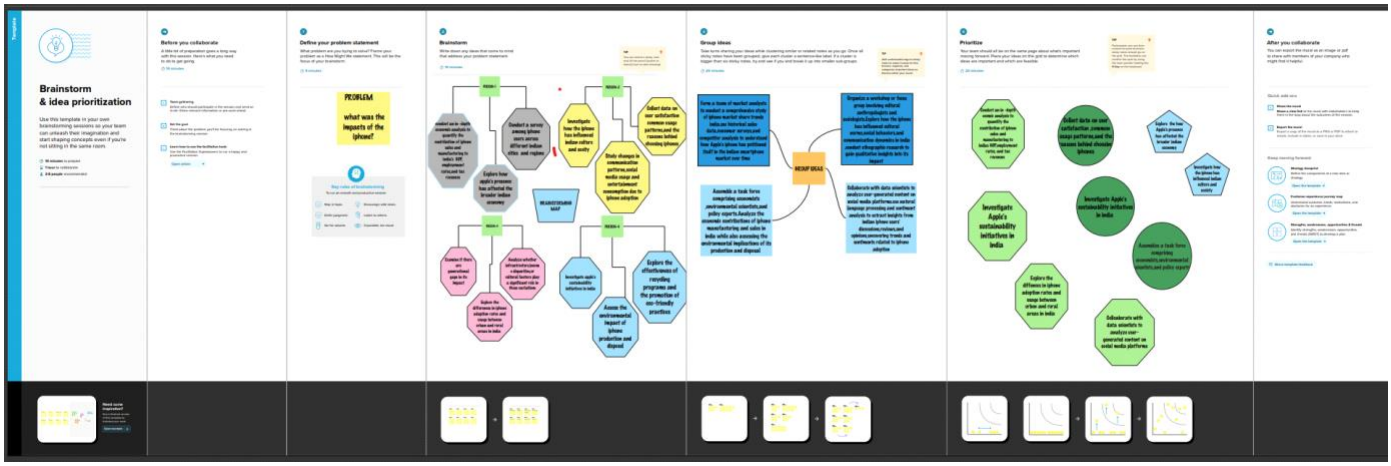
2.PROBLEM DEFINITION & DESIGN THINKING

In order and find solutions for the problems and understanding it we have conducted many discussions within our team and presented it in the form of Empathy map and Brainstorming map

2.1 EMPATHY MAP



2.2 IDEATION & BRAINSTORMING MAP



3.RESULT

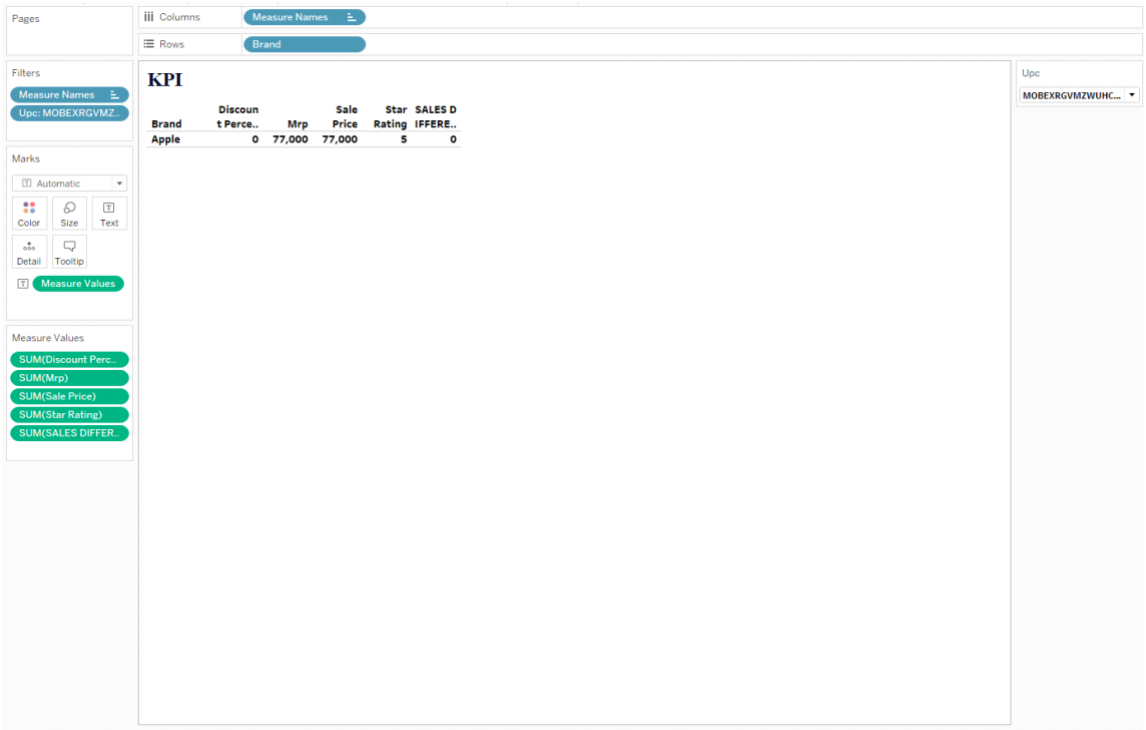
DATA VISUALISATION:

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.

NUMBER OF UNIQUE VISUALISATIONS:

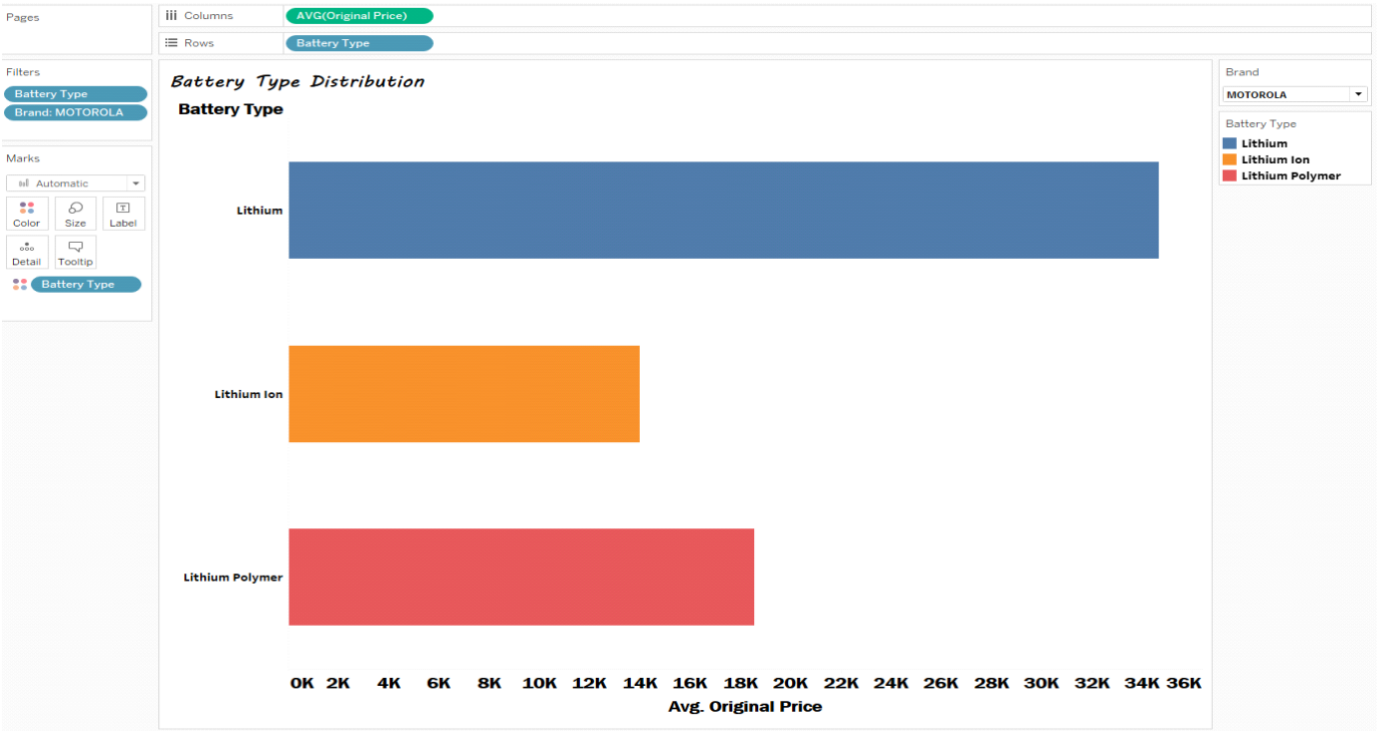
The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyse the performance and efficiency of a project include bar charts, line charts, heat maps, scatter plots, pie charts, Maps, etc. These visualizations can be used to compare performance, track changes over time, and show distribution, and relationships between variables.

1.KEY PERFORMANCE INDICATORS (KPI)



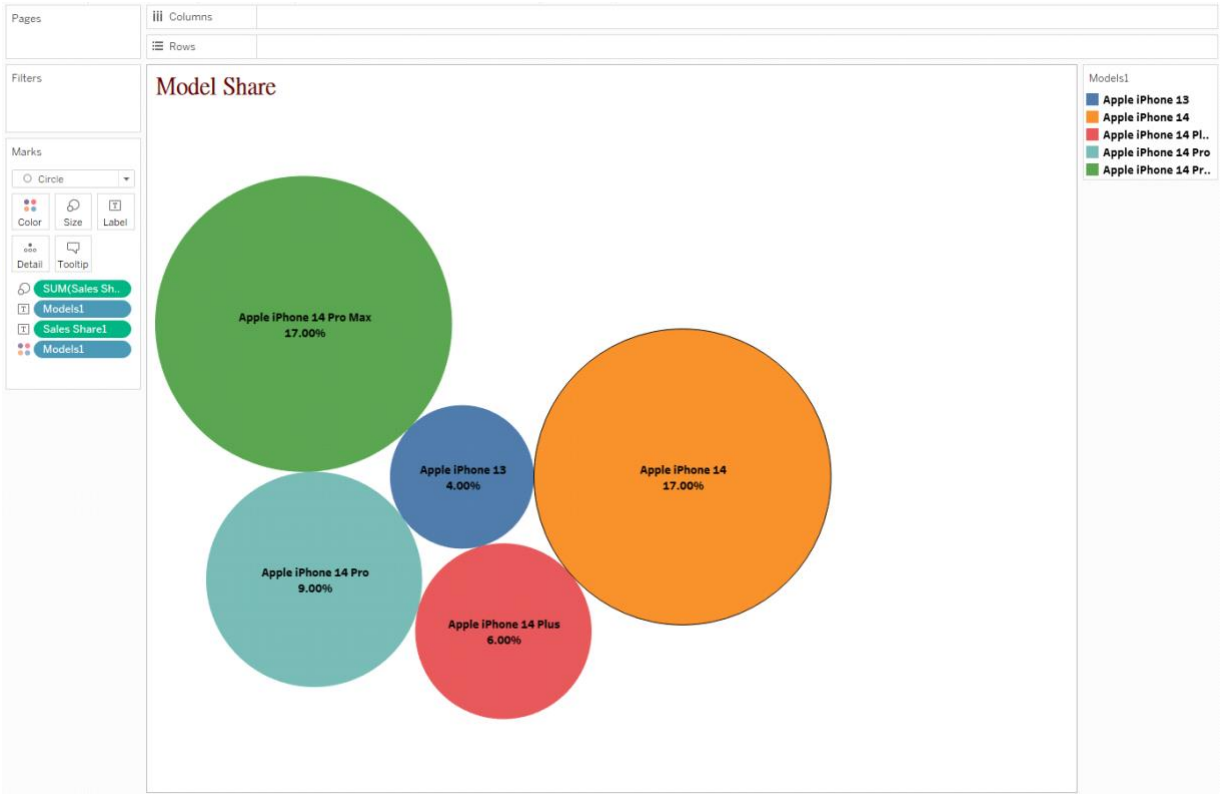
2. MODEL SPECIFICATION

3.BAR CHART SHOWING BATTERY – TYPE

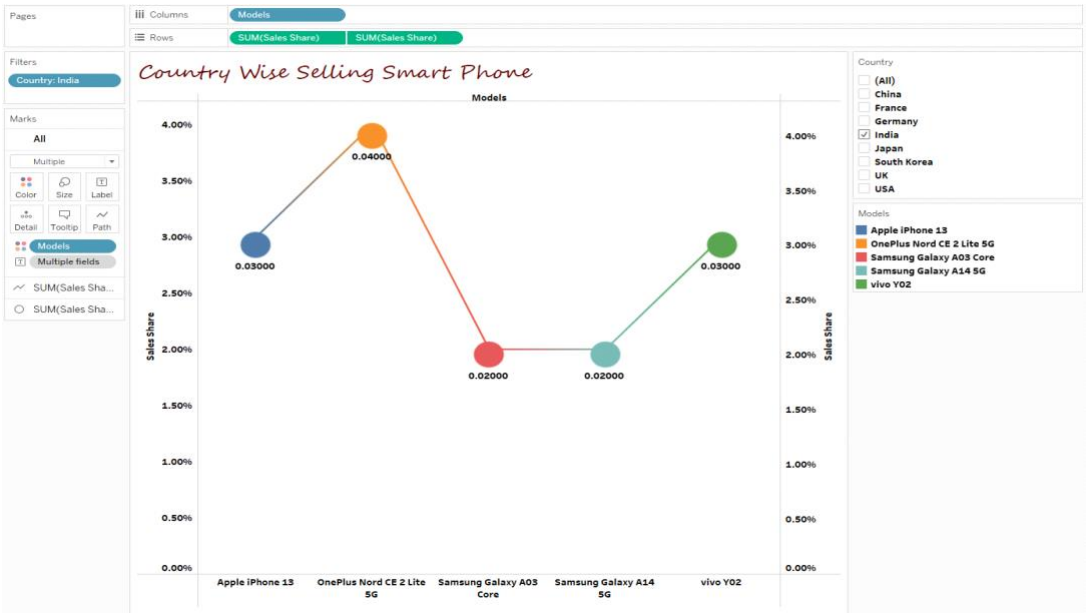


4.BUBBLE CHART SHOWING MODEL - WISE SHARE OF IPHONE

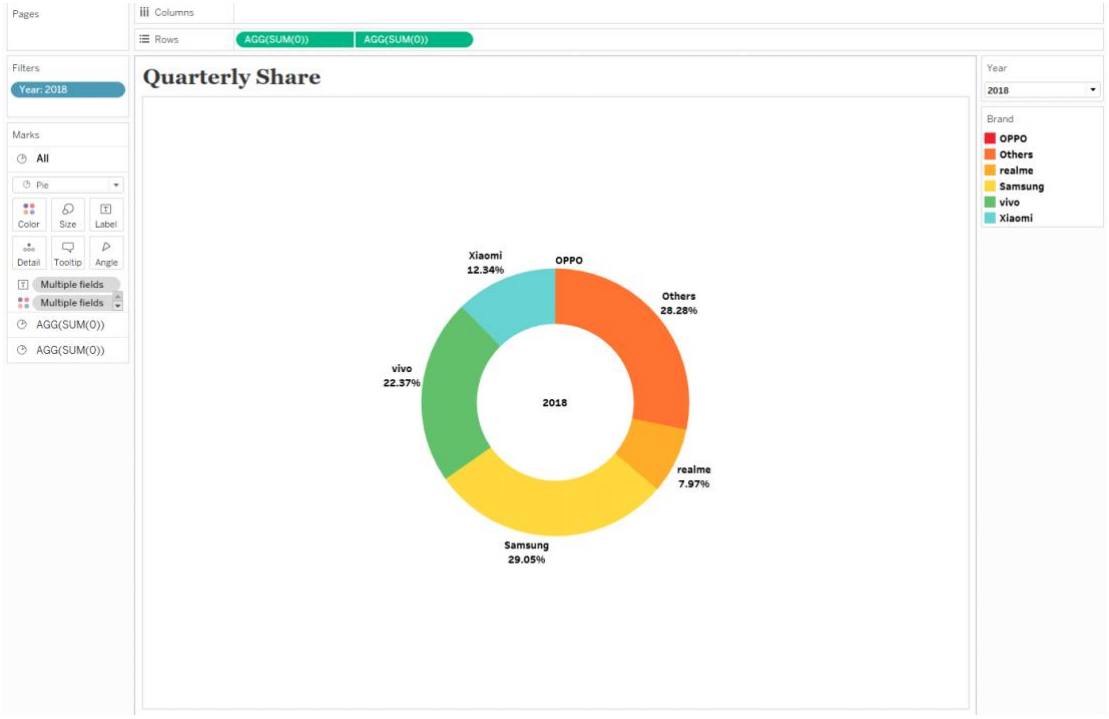
5. TREEMAP SHOWING BRAND – PRICE COMPARISON



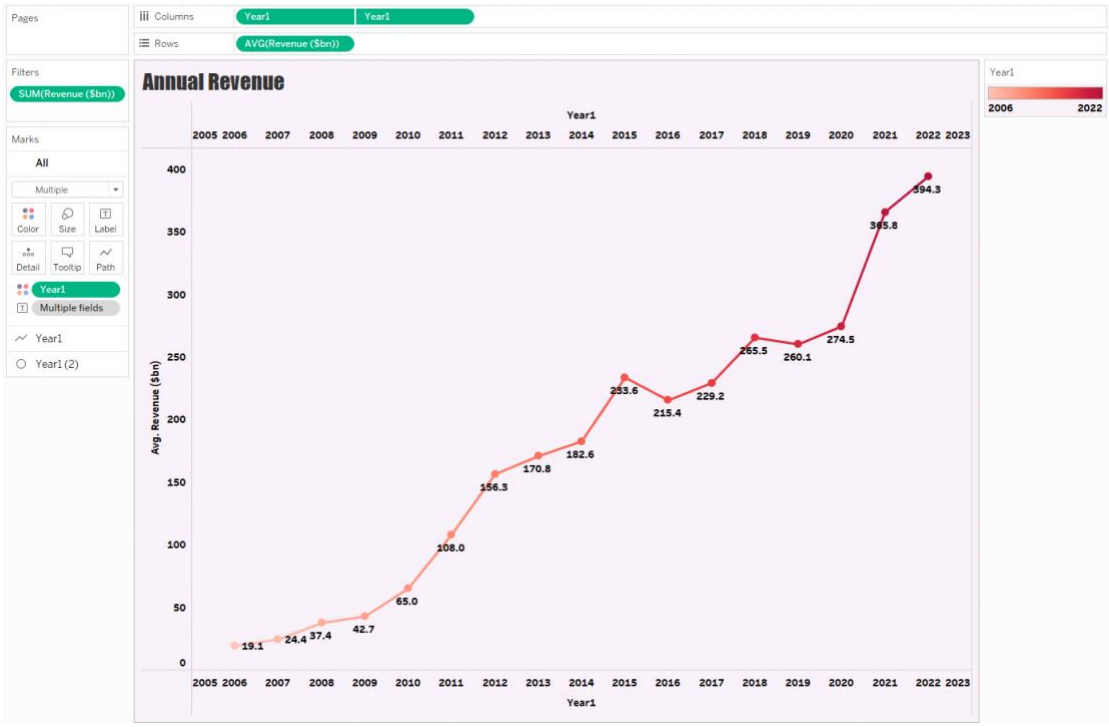
6. LINED BAR – CHART SHOWING COUNTRY -WISE BEST-SELLING SMARTPHONE



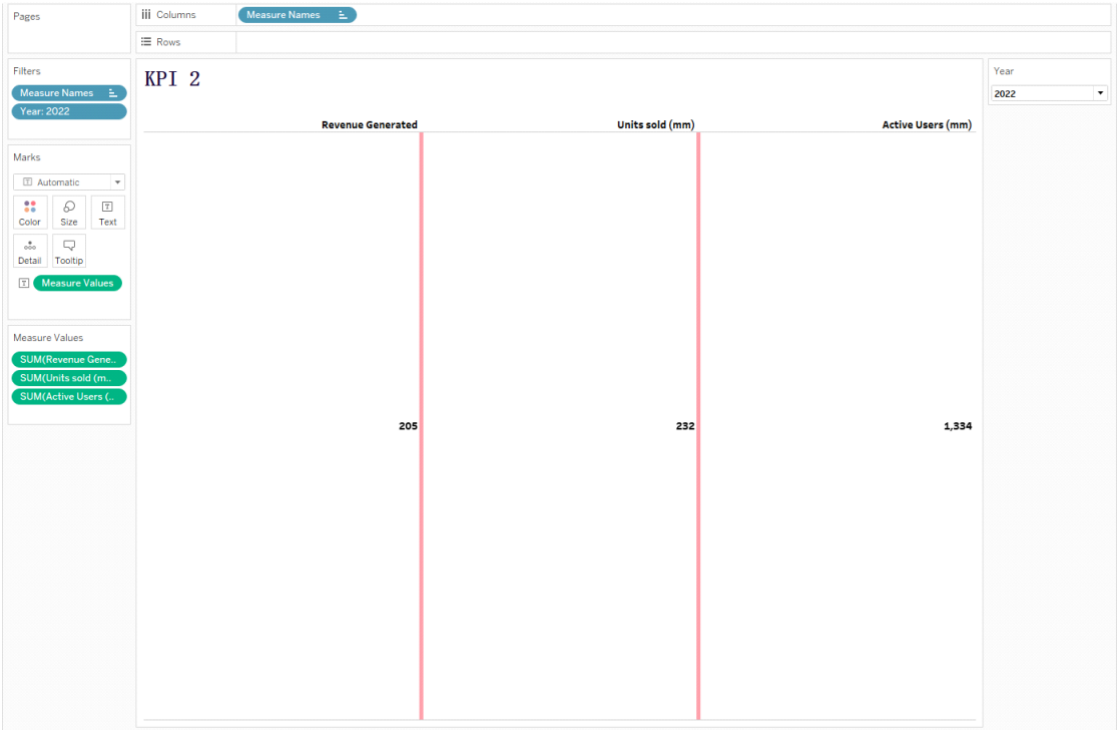
7. DONUT CHART FOR QUARTERLY SHARE



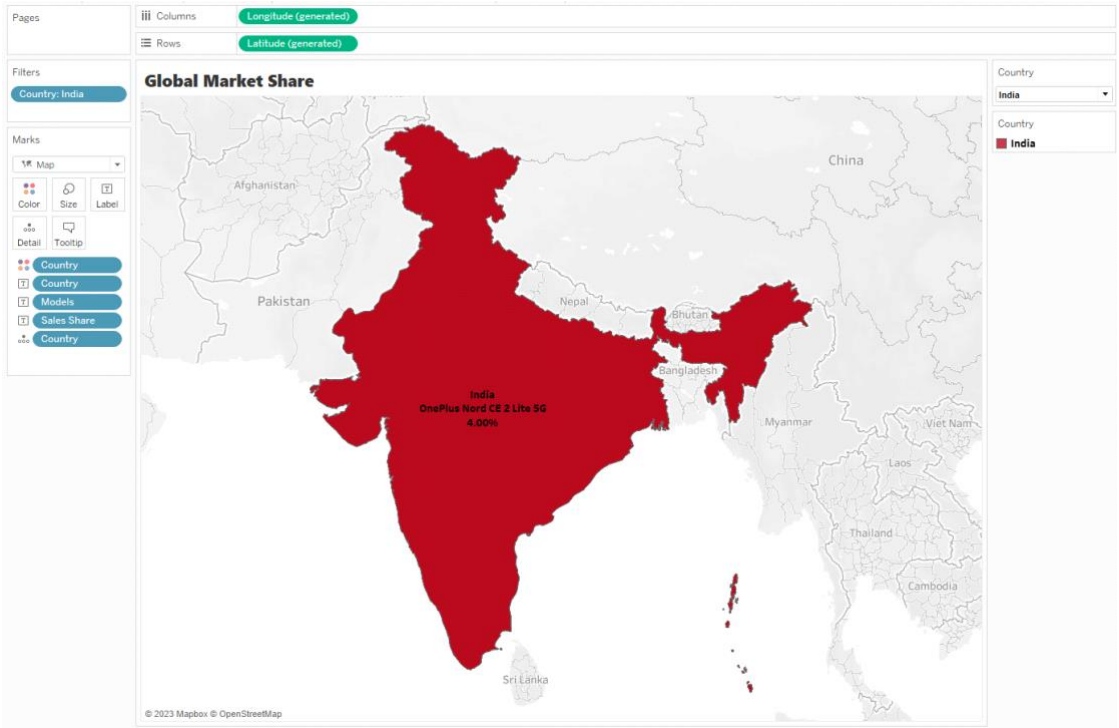
8.LINE CHART FOR ANNUAL REVENUE YEAR - WISE



9.TEXT TABLE FOR YEARLY KPI



10.MAP SHOWING GLOBAL MARKET SHARE



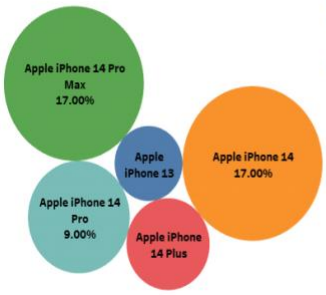
DASHBOARD

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, 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.

RESPONSIVE AND DESIGN OF DASHBOARD

After completion various sheets using the available data, we can pull all those sheets into a Dashboard and present it for better understanding and analysing problems.

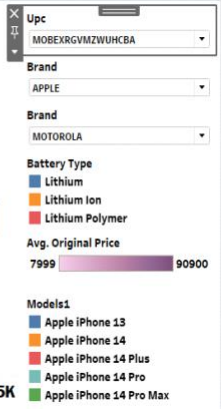
Model Share



KPI

Brand	Discount Perce..	Mrp	Sale Price	Star Rating	SALES DIFFERE..
Apple	0	77,000	77,000	5	0

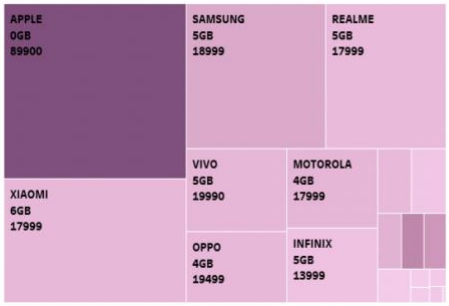
Battery Type Distribution



Model Specification

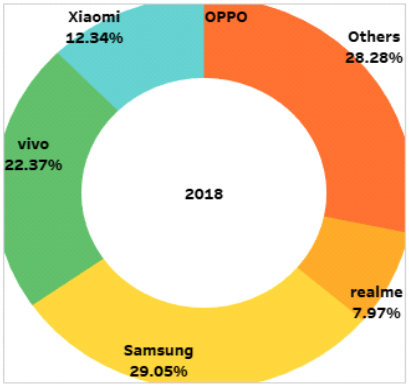
Model	Processor	Front Cam..	Rear Camera	Colour	
APPLE IPHONE 11	A Bionic Chip	12MP	12MP + 12MP	Black	92,800
				White	92,800
APPLE IPHONE 12	A Bionic Chip with Next Generation Neural Engine	12MP	12MP + 12MP	Blue	59,900
				Black	1,99,700
APPLE IPHONE 12 MINI	A Bionic Chip with Next Generation Neural Engine	12MP	12MP + 12MP	Black	74,900
				Blue	74,900
APPLE IPHONE 13	A Bionic Chip	12MP	12MP + 12MP	Blue	1,49,800
				Pink	1,69,800
APPLE IPH..	A Bionic Chip, Core	12MP	12MP + 12MP	Blue	1,89,800
APPLE IPH..	A Bionic Chip, Core	12MP	12MP + 12MP	Blue	99,900

Brand Price Comparison

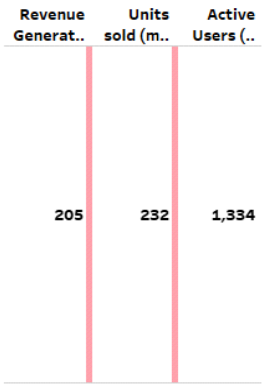


iREVOLITION

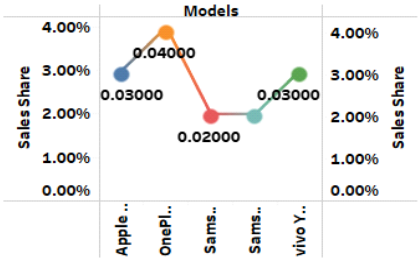
Quarterly Share



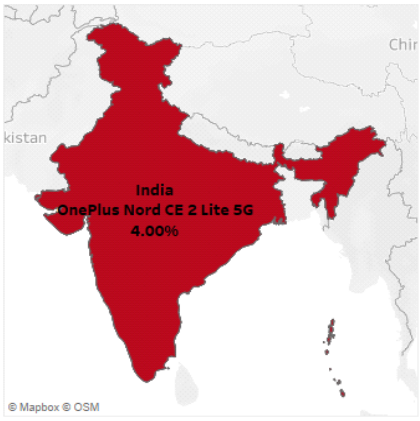
KPI 2



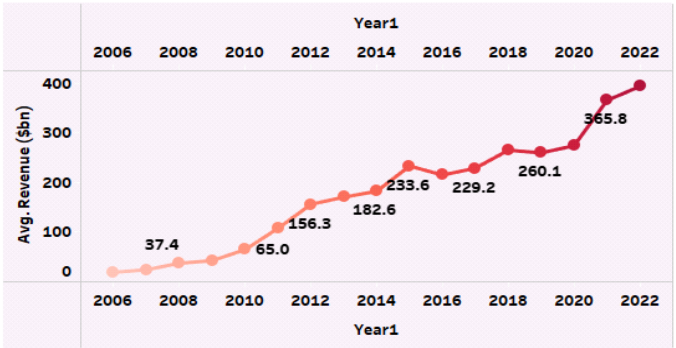
Country Wise Selling Smart Phone



Global Market Share

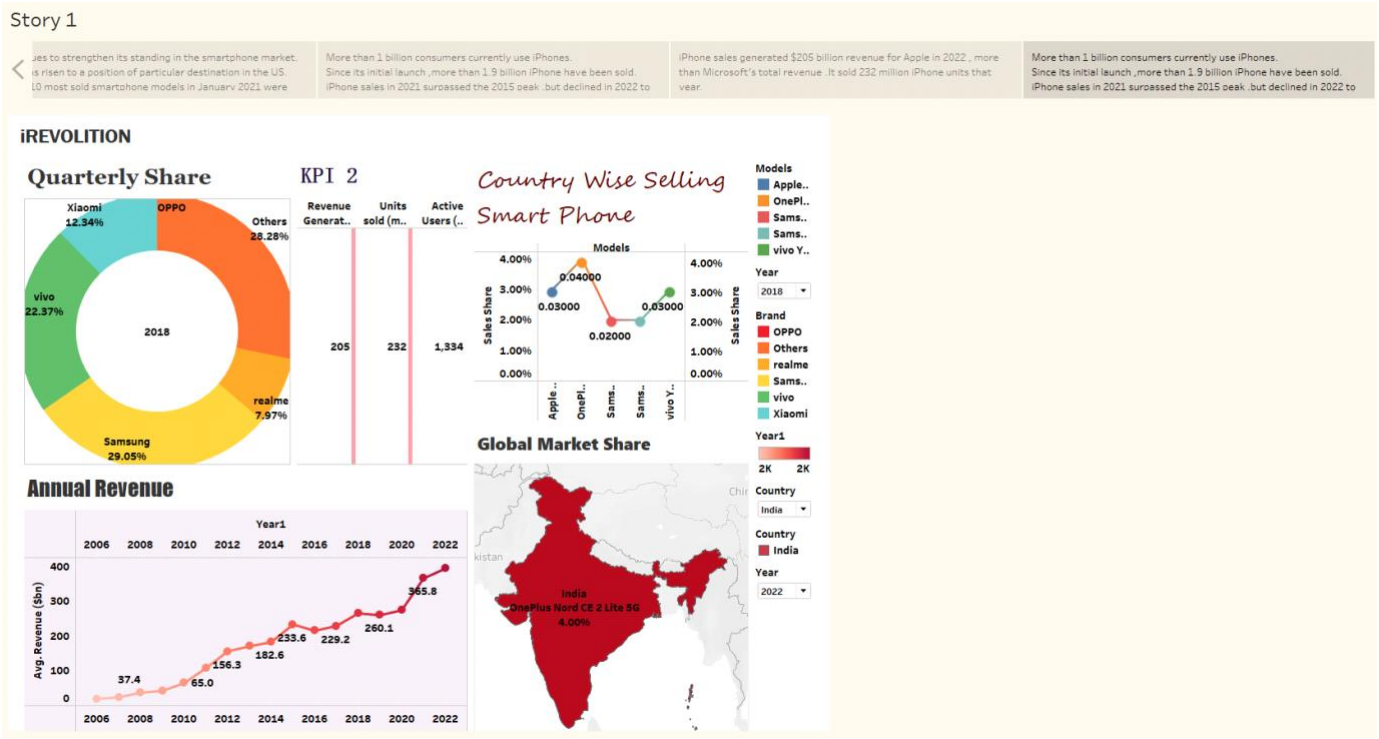


Annual Revenue



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 typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis in a logical and systematic way, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos



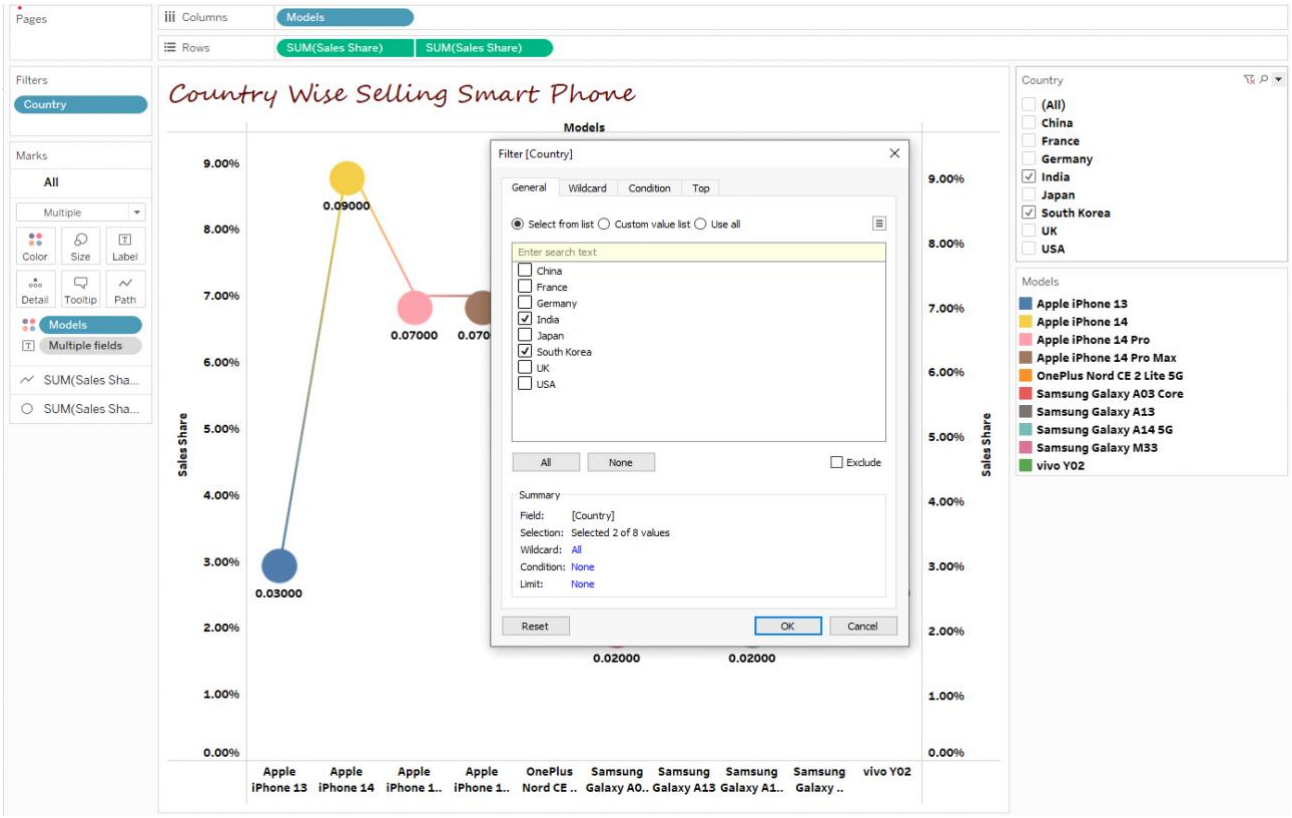
PERFORMANCE TESTING

1.AMOUNT OF DATA RENDERED

Amount of data rendered in our project is comparatively large set of data it has around 440+ rows we have used this data and prepared our sheets and done our analysis.

2.UTILISATION OF DATA FILTERS

We can use filters to analyse our data and get a wide range of understanding about it.



3. NUMBER OF CALCULATION FIELDS

Tables

- Abc Brand
- Abc Product Name
- Abc Product URL
- Abc Ram
- Abc Upc
- Abc *Measure Names*
- # Discount Percentage
- # Mrp
- # Number Of Ratings
- # Number Of Reviews
- # Sale Price
- =# SALES DIFFERENCE
- # Star Rating
- # *apple_products.csv (Count)*
- # *Measure Values*

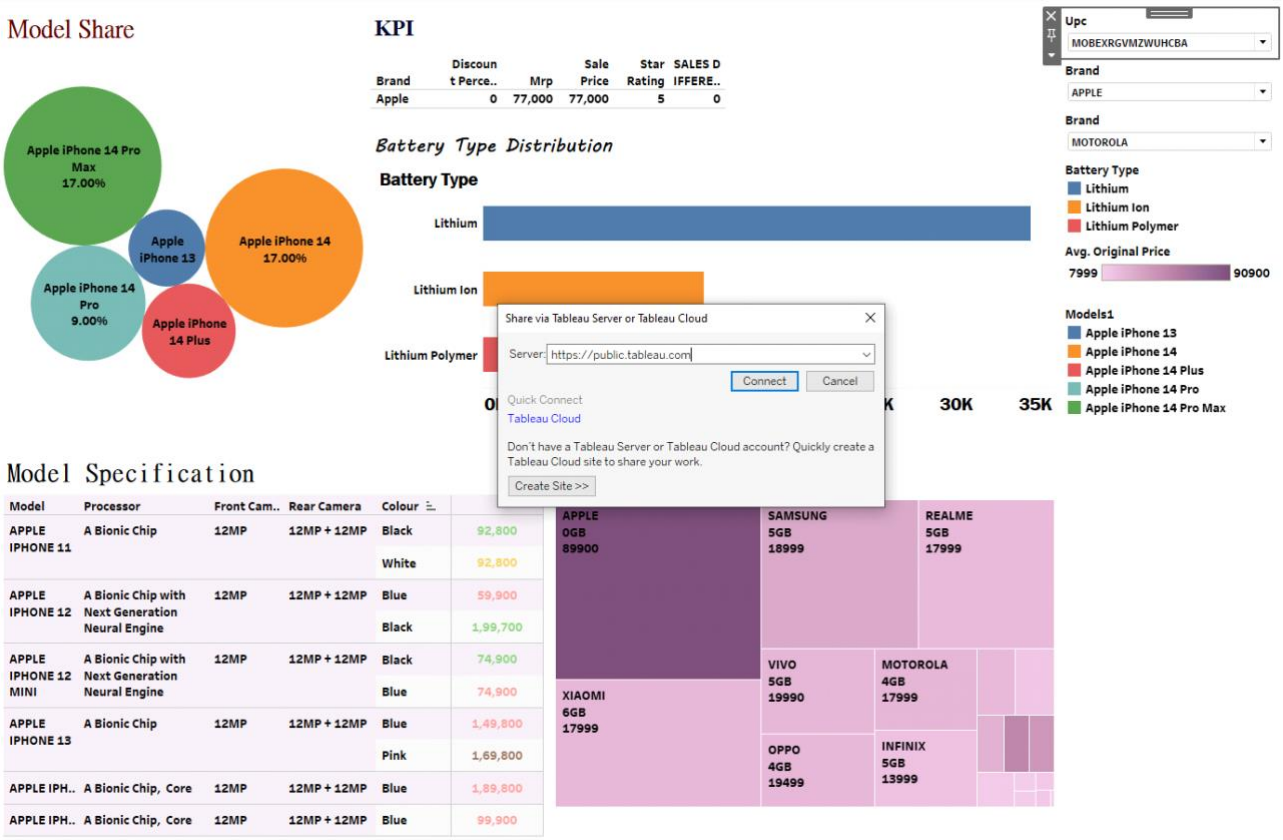
4.NUMBER OF VISUALISATION/GRAPHS

1. KPI
2. MODEL SPECIFICATION
3. BAR CHART SHOWING BATTERY - TYPE
4. BUBBLE CHART SHOWING MODEL WISE SHARE OF IPHONE
5. TREEMAP SHOWING BRAND – PRICE COMPARISON
6. LINE BAR CHART SHOWING COUNTRY – WISE BESTSELLING SMARTPHONE
7. DONUT CHART FOR QUARTERLY SHARE
8.LINE CHART FOR ANNUAL REVENUE YEAR – WISE
9.TEXT TABLE FOR YEARLY KPI
10.MAP SHOWING GLOBAL MARKET SHARE

PUBLISHING

Publishing helps us to track and monitor key performance metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

The Story and Dashboard has been completed and uploaded in Tableau public server and the link is attached as a Hyperlink here – IREVOLUTION : A DATA DRIVEN EXPLORATION OF APPLE'S IPHONE IMPACT IN INDIA



PROJECT DOCUMENTATION AND DEMONSTRATION

We have completed our project and done both Documentation and Demonstration video explaining our project in an end-to-end manner, the link of video and all our project files has been attached as hyperlink below

PROJECT DEMONSTRATION

EMPATHY MAP

BRAINSTORM MAP

KPI

MODEL SPECIFICATION

BAR CHART SHOWING BATTERY - TYPE

BUBBLE CHART SHOWING MODEL WISE SHARE OF IPHONE

TREEMAP SHOWING BRAND – PRICE COMPARISON

LINE BAR CHART SHOWING COUNTRY – WISE BESTSELLING SMARTPHONE

DONUT CHART FOR QUARTERLY SHARE

LINE CHART FOR ANNUAL REVENUE YEAR – WISE

TEXT TABLE FOR YEARLY KPI

MAP SHOWING GLOBAL MARKET SHARE

DASHBOARD 1

DASHBOARD 2

STORY 1

4.ADVANTAGES

1.Empowering people:

The iRevolution project empowers people around the world to use technology to create a more just and equitable world. The project provides resources and training on topics such as digital literacy, coding, and online activism, which helps people to develop the skills they need to use technology to make a difference in their communities.

2.Promoting social change:

The iRevolution project supports people to use technology to advocate for social change. The project has worked with activists around the world to use technology to document injustice, organize protests, and hold governments accountable.

3.Building communities:

The iRevolution project helps people to connect with others who share their values and goals. The project has supported the creation of online and offline communities where people can learn from each other, share ideas, and collaborate on projects.

4.Creating new opportunities:

The iRevolution project helps people to use technology to create new businesses and jobs. The project has provided training and support to people in marginalized communities who are using technology to start their own businesses and create new opportunities for themselves and their families.

DISADVANTAGES

1.Digital divide:

The iRevolution project relies on access to technology and the internet. However, there is still a significant digital divide around the world, with many people lacking access to these resources. This means that the benefits of the iRevolution project are not evenly distributed.

2.Security risks:

Technology can be used for good or for bad. The iRevolution project aims to empower people to use technology for good, but there is always the risk that technology can be used for malicious purposes. For example, activists who use technology to document injustice may be targeted by repressive governments.

3.Capacity building:

The iRevolution project provides training and support to people who want to use technology for social change. However, it can be difficult to build the capacity of people in marginalized communities to use technology effectively. This is due to a number of factors, such as lack of resources, education, and technical skills.

4.Sustainability:

The iRevolution project is committed to building sustainable programs and initiatives. However, it can be difficult to sustain a grassroots movement over the long term. This is especially true in the face of challenges such as government repression and a lack of resources.

5.APPLICATIONS

1. Advocacy for social change:

iRevolution can be used to advocate for social change in a number of ways. For example, activists can use iRevolution to document injustice, organize protests, and hold governments accountable.

2.Community building:

iRevolution can be used to build communities around shared values and interests. For example, iRevolution has been used to create online and offline communities where people can learn from each other, share ideas, and collaborate on projects.

3.Education and training:

iRevolution can be used to provide education and training on a variety of topics, including digital literacy, coding, and online activism. This can help people to develop the skills they need to participate in the digital economy and to use technology to make a difference in their communities.

4.Productivity:

The iPhone can also be used to be more productive. Apps like Microsoft Office, Google Docs, and Evernote allow us to create and edit documents, presentations, and spreadsheets on the go. We can also use it to manage our calendars and tasks, and to stay organized.

5.Information consumption:

The iPhone gives us access to a vast amount of information at our fingertips. We can use it to read news articles, watch videos, listen to music, and learn new things. Apps like Google Maps, Wikipedia, and YouTube have become essential tools for everyday life.

6.Communication:

The iPhone has made it easier than ever to stay connected with friends and family around the world. With apps like FaceTime, WhatsApp, and Messenger, we can make video calls, send text messages, and share photos and videos with just a few taps.

7.Entertainment:

The iPhone is a powerful entertainment device. We can use it to play games, watch movies and TV shows, and listen to music. Apps like Netflix, Spotify, and Apple Arcade offer a wide variety of content to choose from.

6.CONCLUSION

The iPhone is one of the most iconic and revolutionary products of the iRevolution. It has transformed the way we communicate, consume information, and entertain ourselves.The iPhone has had a profound impact on society. It has made us more connected and informed than ever before. It has also made our lives easier and more efficient in many ways.

7.FUTURE SCOPE

1.Integration with other data analysis tools:

Tableau can already be integrated with a variety of other data analysis tools, such as R and Python. This integration will only continue to improve in the future, making it easier for businesses to use Tableau in conjunction with other tools to create a complete data analysis solution.

2.Artificial intelligence and machine learning:

Tableau is already starting to incorporate artificial intelligence and machine learning into its platform. This will allow Tableau to provide businesses with even more powerful insights into their data. For example, Tableau could use AI

and machine learning to identify trends and patterns in customer spending behaviour that would be difficult to detect manually.

3.Cloud computing:

Tableau is already available in the cloud, making it easy for businesses of all sizes to access. In the future, Tableau will become even more tightly integrated with cloud computing platforms, making it even easier for businesses to use Tableau to analyse their data.

4.Predictive analytics:

Tableau could be used to develop predictive analytics models that can forecast future customer spending behaviour, product demand, and other market trends. This information could then be used to make more informed business decisions.

5.Prescriptive analytics:

Tableau could be used to develop prescriptive analytics models that can recommend specific actions that businesses can take to improve their performance. For example, Tableau could recommend specific marketing campaigns that businesses can launch to reach new customers or to increase sales of certain products.

6.Natural language processing (NLP):

Tableau could be integrated with NLP capabilities to allow users to query data using natural language instead of having to learn complex SQL queries. This would make Tableau more accessible to a wider range of users, including those without a technical background.

7.Augmented reality (AR) and virtual reality (VR):

Tableau could be integrated with AR and VR capabilities to allow users to visualize data in new and innovative ways. For example, users could use AR to overlay data on the real world or VR to create immersive data visualizations.