Web and Social Media Analytics

For a Mobile Manufacturing firm

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- Data source:Amazon review data (ucsd.edu)
- Analysis related files during python analysis(Excel,CSV) with folder name as Solution_files:
  - https://drive.google.com/drive/folders/1Xu79qhQjQ2JjZQrNagx5wqVXK3NooHTR?usp=sharing

Business understanding

With a growing trend towards digitisation and prevalence of mobile phones and internet access, more consumers have an online presence and their opinions hold a good value for any product-based company, especially so for the B2C businesses. The industries are trying to fine-tune their strategies to suit the consumer needs, as the consumers leave some hints of their choices during their online presence.

Problem statement

To Provide major insights for a cell phone industry to help them develop a new product optimally.

To tweak the marketing strategies in order to add more value to the product and close the supply demand gap.

Agenda of analysis

- By analysing the sentiment of the reviews, you can find the features of the phones that have resulted in positive/negative sentiments. This will help companies include or improve those particular features while developing a new product. If the data is of the competitor brands, the company will benefit by not repeating the same mistake during product development as their rival.
- Companies can effectively design their Ad campaign by highlighting the features that are most talked about among the consumers.
- Comparing the competitors' pricing and their market shares will help companies decide the price of their products.
- It can be assumed that if the number of reviews for a particular brand is high, the number of people buying phones of that brand is also high. This will help companies gauge the market share of their competitors.
- Before purchasing any product, we all look at similar products in various brands. This data will help the companies know their major competitors in the market.

Methodology for analysis

1. Mounting colab & drive to read files
2. Data preprocessing using EDA
3. Sentiment analysis , Text analytics ,
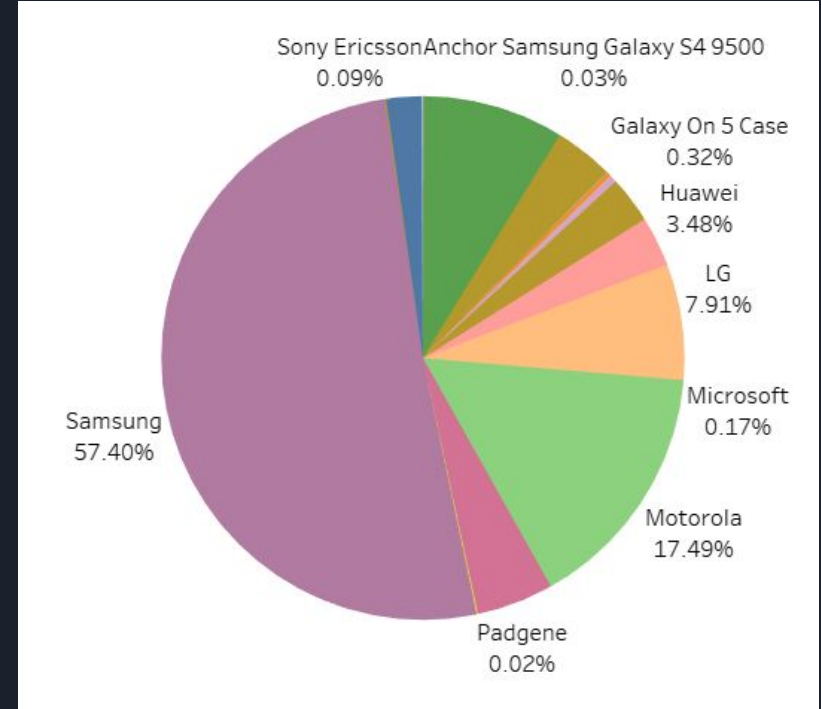4. Visualization and storytelling using Tableau

Visualisations using Tableau

- Most popular brands
- Rating on brands w.r.t to Customer reviews
- Review with features
- Brand with sentiment reviews

Most popular brands

- The most reviewed brands that has major popularity among users are Samsung(57.40%), Motorola(17.49%), LG(7.9%), Huawei(3.48%).
- Since we are aware that the market is owned by this competitors will further look into the features and ratings.

Pie chart of most popular brands:
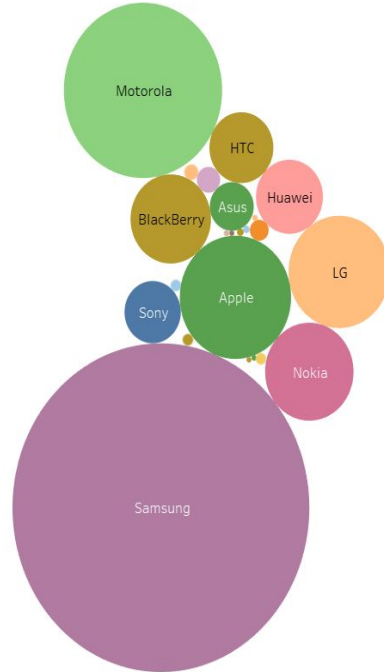- Sony Ericsson Anchor 0.09%
- Samsung Galaxy S4 9500 0.03%
- Galaxy On 5 Case 0.32%
- Huawei 3.48%
- LG 7.91%
- Microsoft 0.17%
- Motorola 17.49%
- Padgene 0.02%
- Samsung 57.40%

Review with features

- One of the highest selling brands seems like Samsung not only in rating but in features too. This feature includes : Display: 5.1 inch, Camera : 16MP, Processor: 2.5GHz with maximum speed, OS: Android: 4.4.2
- The adoption of an all-metal design and the incorporation of LTE functionality within the Android operating system provide valuable insights into the market orientation of our focus. It suggests a predominant inclination towards open-source platforms within the targeted market.

Review with features
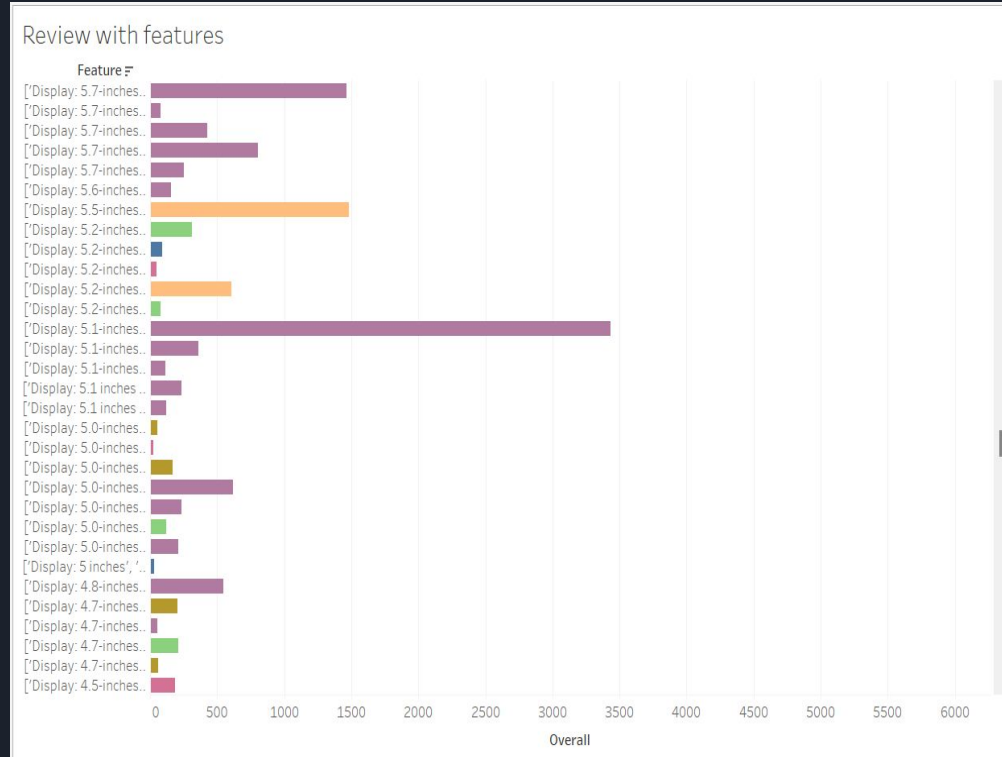
Ratings on brands w.r.t customer ratings

- Through an analysis of customer ratings pertaining to various brands, it becomes evident that while Samsung dominates a significant portion of the market in terms of popularity, other brands such as LG, Apple, Blackberry, HTC, and Huawei also exhibit a positive correlation. To gain a detail understanding, it is imperative to look upon the features offered by each of these brands.
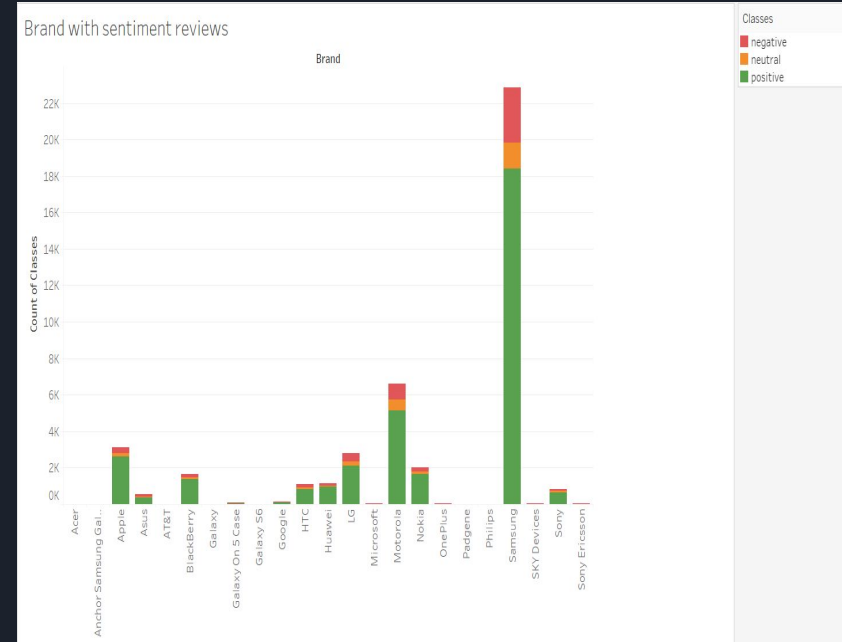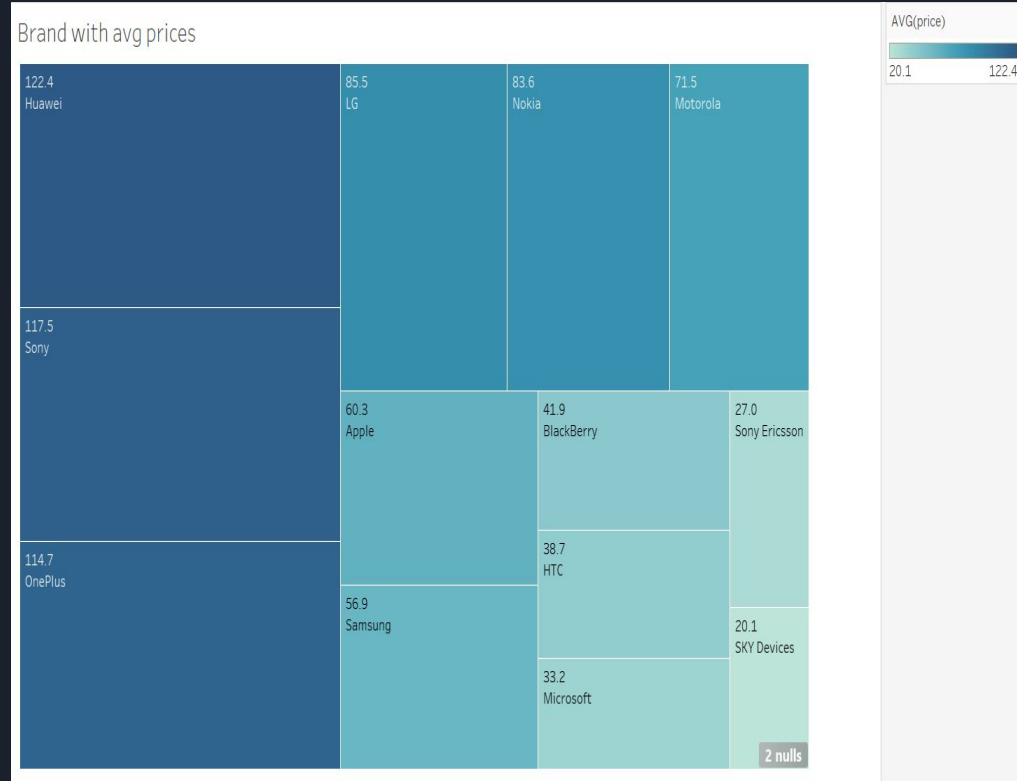

Brand with customer ratings

Brands with sentiment review

- Red : Negative
- Orange: Neutral
- Green: Positive
- With highest positive rating , Samsung bags the top position followed with Motorola at second. However, their is minimal negative to neutral review for this brands.
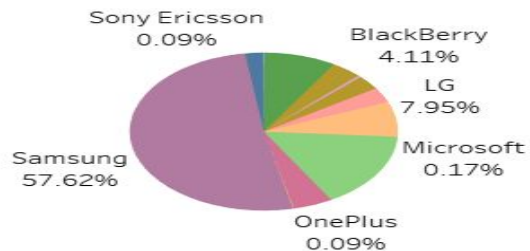
Brand with average prices

- The price preferred by the customers lies in the range of 20$ - 130$. This should be the price segment that we should be targeting.
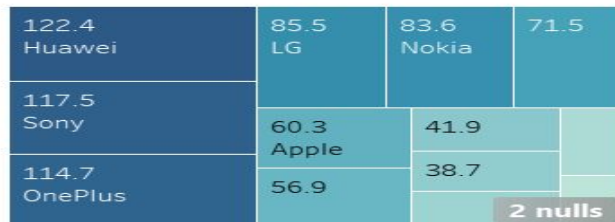- It seems the max average price is bagged by Huawei with price of $122.
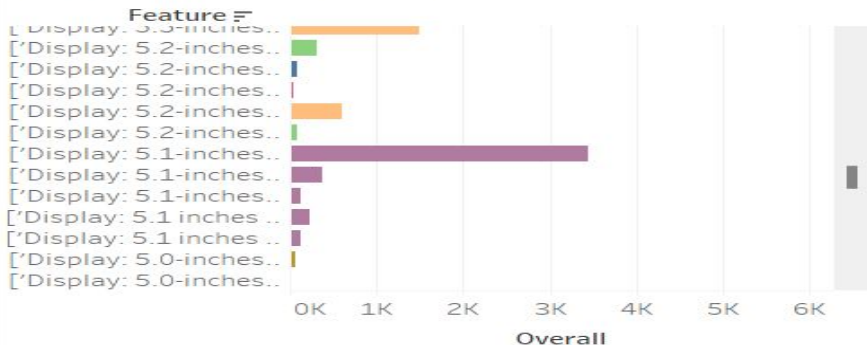
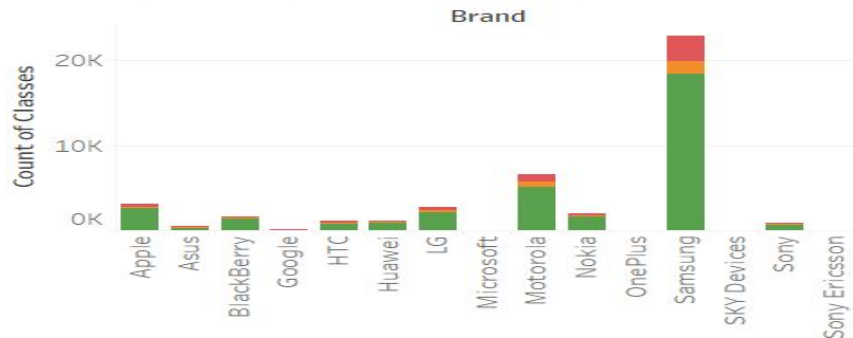# Final Visualisation dashboard

Recommendation and final insights

- Now that we've identified competitors such as Samsung, Motorola, HTC, Huawei, and Apple, it is imperative for us to closely monitor the services and features they offer. Our target market is positioned within the mid-range price segment, with a preferred price range falling between $130 and $20. This delineates the specific market segment where we should concentrate our efforts and introduce our product range.
- Key features that are essential for our products include:
    - Operating System: Android OS
    - Screen Size: 5.1-5.7 inches
    - Processor: 2.7 GHz
    - Camera: 16MP lens
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