XYZ Ads Airing Report Analysis

Project Description:

In this project, we have analyzed the meaningful data from the XYZ Ads dataset. Advertising is a way of marketing your business in order to increase sales or make your audience aware of your products or services. Until a customer deals with you directly and buys your products or services, your advertising may help form their first impressions of your business. The target audience for businesses could be local, regional, national, international, or a mixture. So they use different ways for advertisement. Some of the types of advertisements are Internet/online directories, Trade and technical press, Radio, Cinema, Outdoor advertising, National papers, magazines, and TV.

The advertising business is very competitive as a lot of players bid a lot of money on a single segment of business to target the same audience. Here come the analytical skills of the company to target those audiences from those types of media platforms where they convert them to their customers at a low cost.

Here, we have drawn out the profitable way of broadcasting various brands' advertisements and discussed their strategies in 2021.

Approach:

First of all, we have studied the dataset's columns where the dataset contains the ID of an AD, the Name of advertising brands (Honda, Toyota, Hyundai, etc.), car products of brands, the Network name through which the Ad was aired, its network type (broadcast or cable), the advertisement details including – its shows detail, time, date, its pod position (position of an individual advertisement within a certain commercial pod), its day parts (Early morning,

Weekends, Primetime, etc.), length of Ad. Equivalent sales, the total amount spent on ads aired ($), Broadcast year, month, week, day, hour, and time zone of Ads aired is also given

Case Study Objectives:

a. **What is Pod Position? Does the Pod position number affect the amount spent on Ads for a specific period of time by a company? (Explain in Detail with examples from the dataset provided)**
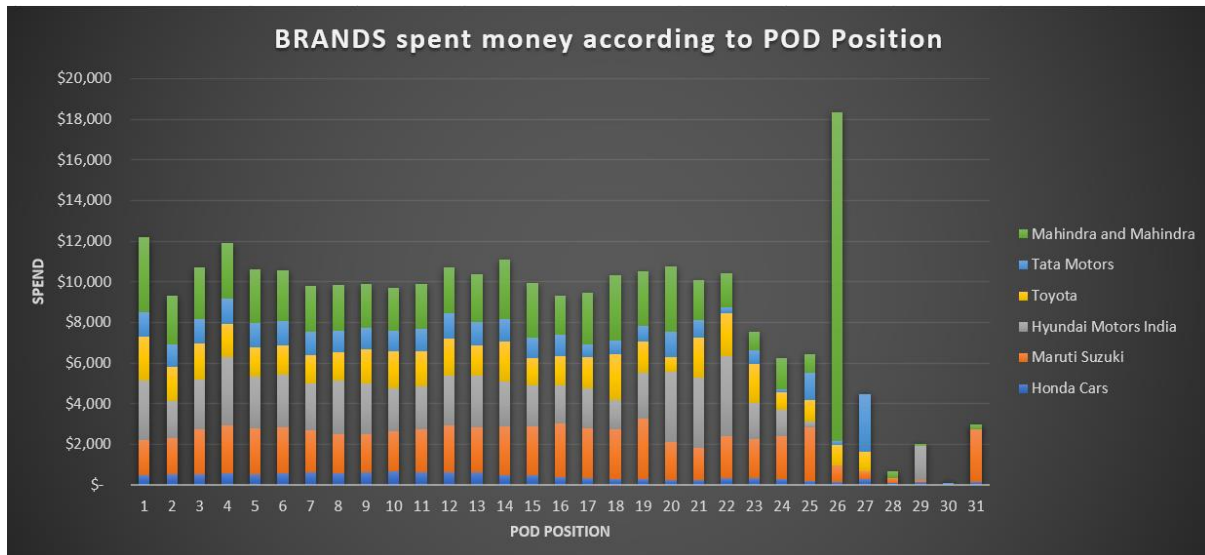

- Pod Position is the position of an individual advertisement within a certain commercial pod.
- From the above graph we can see that the pod position affects the amount spent on an Ad as the lesser the pod position more valuable.
- As we can see the total amount spent by brands on Ads airing seems to be decreasing as the value of pod position decreases.
- To catch the audience attraction, brands spent more money to broadcast their Ads first from others.
- The amount spent on Ads by Brands is directly proportional to pod position as pod position increases amount spent also increases.
- Total amount spent VS Pod position of each brand is shown in the Excel sheet attached at the end of the report.

b. **What is the share of various brands in TV airings and how has it changed from Q1 to Q4 in 2021?**

- For this analysis work, I have made a separate column after the 'broadcast month' column named 'Quarter' by using the combined formula of OR and IF:

=IF(OR(O6="JAN",O6="FEB",O6="MAR"),"Q1",IF(OR(O6="APR",O6="MAY",O6="JUN"),"Q2",IF(OR(O6="JUL",O6="AUG",O6="SEP"),"Q3","Q4"))) where O6 is cell location, Q1-Q2-Q3-Q4 are named for each quarter.
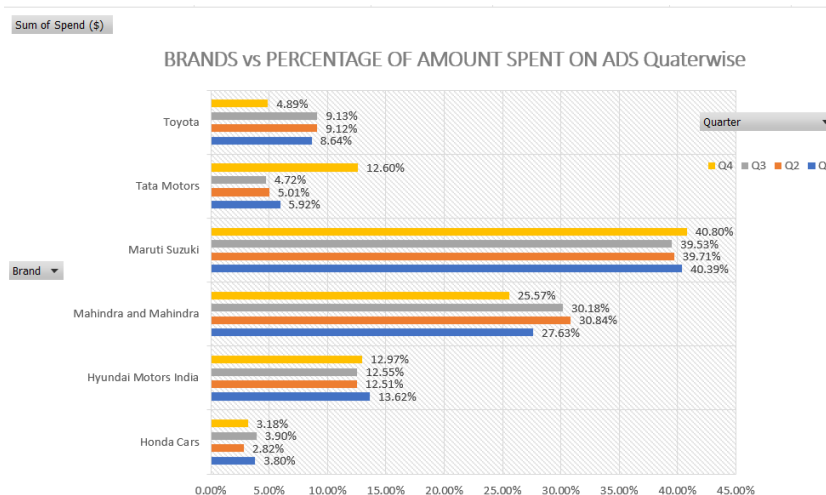
- In terms of the amount spend on Ads, **Toyota**'s share got decreased from 8.64% to 4.89% approx. halfed from Q1 to Q4.
- Whereas **Tata Motors'** investment got increased at the end of the year from 5.92% in Q1 to 12.60% in Q2 and in Q3 there was a slight dip in numbers i.e. 4.72%.
- **Maruti Suzuki**'s numbers were quiet and they have the highest numbers of shares (40.80%) followed by **Mahindra and Mahindra** and **Hyundai Motors India**, and from Q1 to Q4 there were no changes in terms of shares whereas, in mid of year 2021, their numbers got slightly reduced.
- **Mahindra and Mahindra** brand had more shares rate in Q2 and Q3 as compared to Q1 and Q4.
- **Hyundai Motors India** brand has an almost balanced rate of shares over the year (13.62, 12.51, 12.55, 12.97)%.
- **Honda Cars** has the least amount of shares as compared to others.
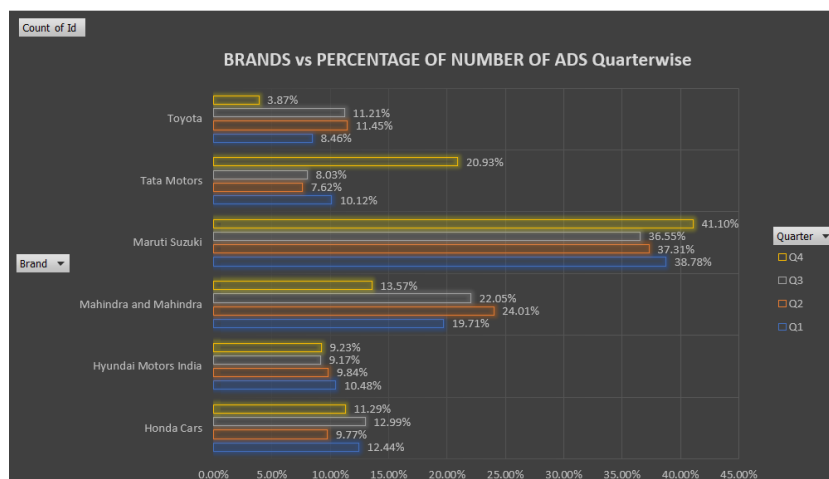
- **Toyota, Mahindra and Mahindra, Hyundai Motors India,** and **Honda Cars** these brands' rates of aired Ads were high at the start of the year in **Q1** it is noticed from Q1 to Q4 the rate got reduced at the end of the year in **Q4.**

- Whereas **Toyota** and **Mahindra and Mahindra** have released more Ads in Q2 and Q3 as compared to Q1 and Q4.
- More numbers of Ads and more shares of **Maruti Suzuki.**
- And the point is **Toyota** has the least counts of Ads and has a shares rate fewer than the count rate of Ads over the year.

c. Conduct a competitive analysis for the brands and define advertisement strategy of different brands and how it differs across the brands.
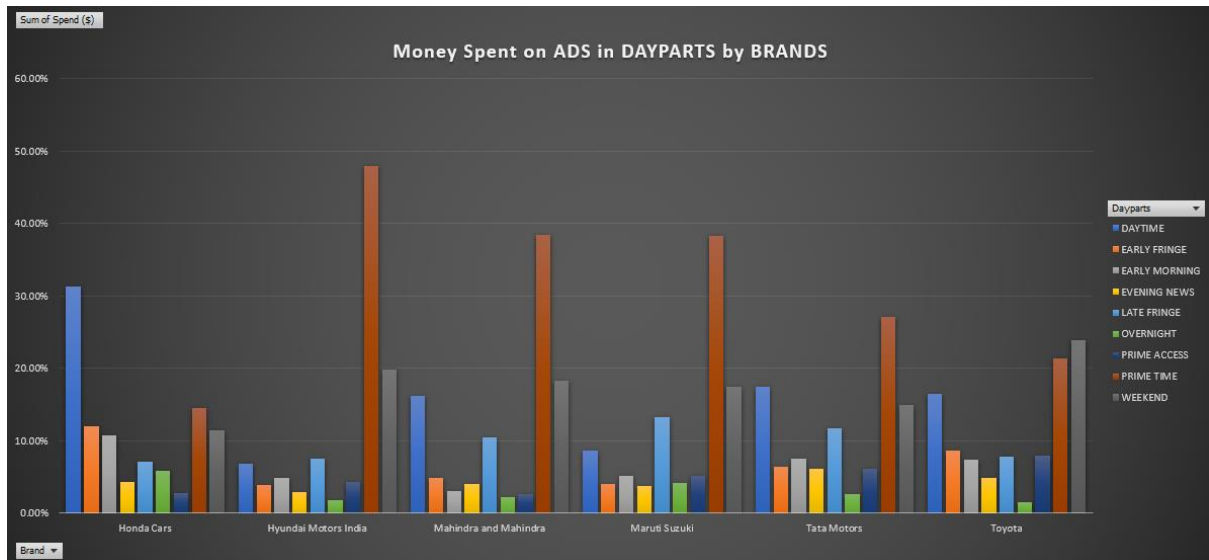
- In the manner of Dayparts, for Daytime**, Honda Cars** has invested the most, and **Hyundai Motors India** has the least shares in the Daytime.
- For Early Fringe and Overnight, only **Honda Cars** has shown more interest in comparison with others.
- Most of the Brands have been engrossed in Prime Time where **Hyundai Motors India** has a big bar followed by **Mahindra and Mahindra** and **Maruti Suzuki**.
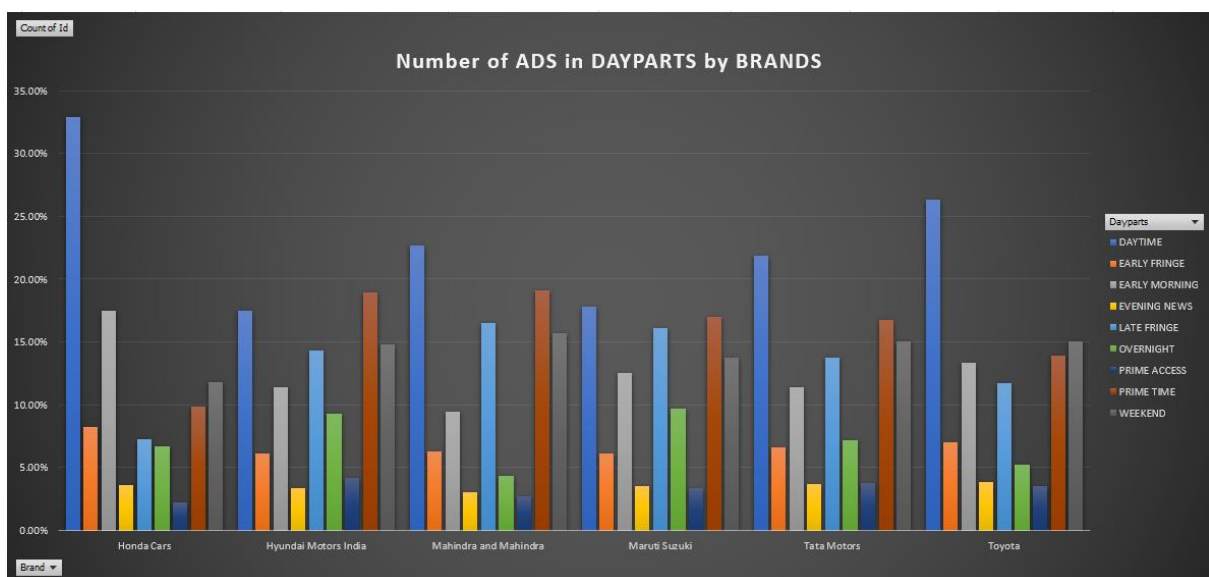
- As stated above **Honda Cars** has the most shares in the Daytime it seems to be beneficial as less amount money has aired the greatest number of Ads in Daytime as compared to others.
- Also, **Honda Cars** has the most number of Ads aired in Early Fringe and Early Morning.
- As we have seen most of the Brands were interested in Primetime but only **Hyundai Motors India's** shares seem to be beneficial as they broadcasted the most Ads in Prime Time as compared to others.

Sum of Spend ($)	BRANDS						
Network Type	Honda Cars	Hyundai Motors India	Mahindra and Mahindra	Maruti Suzuki	Tata Motors	Toyota	Grand Total
broadcast	30.74%	47.95%	45.60%	42.82%	30.91%	26.04%	41.69%
cable	69.26%	52.05%	54.40%	57.18%	69.09%	73.96%	58.31%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

| Count of Id	Brands						
Network Type	Honda Cars	Hyundai Motors India	Mahindra and Mahindra	Maruti Suzuki	Tata Motors	Toyota	Grand Total
broadcast	12.44%	6.73%	9.34%	8.26%	7.56%	4.85%	8.43%
cable	87.56%	93.27%	90.66%	91.74%	92.44%	95.15%	91.57%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

- According to network type, **Honda Cars** has aired most ads through the **Broadcast** network type and Toyota has aired most ads through the **Cable** network type.

d. **Mahindra and Mahindra wants to run a digital ad campaign to complement its existing TV ads in Q1 of 2022. Based on the data from 2021, suggest a media plan to the CMO of Mahindra and Mahindra. Which audience should they target? *Assume XYZ Ads has the ad viewership data and TV viewership for the people in India.**

Spend and total ADS in DAYPARTS by Mahindra and Mahindra
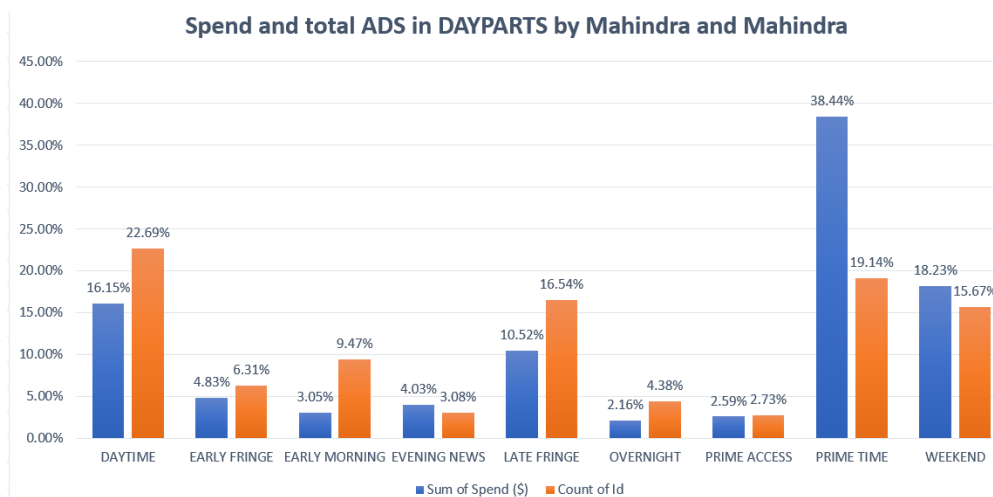
- **Mahindra and Mahindra** have the most shares in Primetime and the numbers of Ads in Primetime are also in large numbers where the rate of invested money is double the rate of the count of Ads.
- Whereas the rate of the number of Ads shown in the **Daytime (22.69%), Early Fringe (6.31%), Early Morning (9.47%),** and **Overnight (4.38%)** is greater than the rate of the amount spent on Ads.
- Whereas the rate of the amount spent on Ads in **Prime Access (2.59%), Prime Time (19.14%), and Weekend (18.23%)** is greater than the rate of the number of Ads shown.

- Throughout the day, **Mahindra and Mahindra** have spent more money on Ads between 8 pm to 9 pm (13.41%) and 9 pm to 10 pm (13.44%) where Ads shown between 8 pm to 9 pm (6.11%) and 9 pm to 10 pm (6.31%).
- Most of the Ads shown by the brand **Mahindra and Mahindra** were at night after 8 pm and before 2 am.

Spend and total ADS in hour of a day by Mahindra and Mahindra
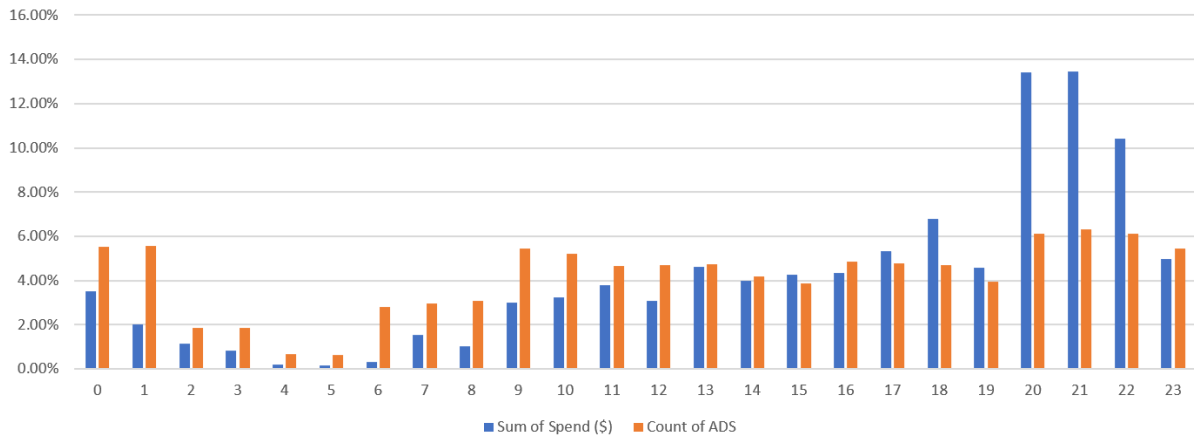
Additional Analysis work:

- In the first quarter, most of the Ads shown are of Mahindra and Mahindra, and Maruti Suzuki products namely **Mahindra New Thar** and **Maruti Suzuki Ciaz**.
- In the second quarter, Maruti Suzuki's present **Maruti Suzuki Baleno** comes into the picture with the greatest number of Ads after **Mahindra New Thar.**
- In the third quarter and fourth quarters the rate of the money spent on **Mahindra New Thar** was greater than the rate of the number of Ads shown. Whereas at the end of the year, Ads of Tata motors present **Tata Nexon** were also displayed at larger rate.
- ✓ More visualizations of additional analysis work is done in spreadsheet which is attached at the end of the report

Note: The above analysis work is done using pivot tables, the PIVOT table technique is used to summarize large amounts of data in a more effective way.

Tech-Stack Used:

- **Microsoft Excel:** MS Excel is a good tool for data analysis when the dataset is small and provides a better way of aggregating the summary of the data and presenting them using different graphs and charts.
- **Microsoft Word:** It is used for making the report.

Insights:

- The amount spent on Ads by Brands is directly proportional to pod position as pod position increases amount spent also increases.
- Brands spent more money to display their Ads at the top than others.

- Honda Cars, Maruti Suzuki, Toyota, and Mahindra and Mahindra almost follow the same trend (the amount spent decreases with a decrease in pod position number).
- Quarterly, Honda cars spent more money on Ads in Q1 and Q3 and 13% of the Ads for Honda products were shown in Q3.
- Hyundai Motors India has focused more on the start of the year i.e., in Q1.
- Mahindra and Mahindra have spent 25% in the last months of the year 2021 where their Ads are shown were only 13%.
- Maruti Suzuki has the highest percentage of shares and they have focused more on the Q4 months of the year 2021.
- The percentage of shares of Toyota decreases from Q1 to Q4 i.e., 8.64% to 4.89%.
- In the case of Day Parts, most of the brands have invested in Prime time but as per their shares, their Ads were not shown up to that margin.
- Whereas Ads of almost all brands were shown in the Daytime.
- Only Hyundai Motors India has a greater number of Ads in Primetime as compared to others.
- Brand Toyota's numbers look in profit as their spent money over the year and the numbers of Ads of their products are shown below:

	Percentage of shares ($)	Percentage of Ads shown
Q1	5.92%	10.12%
Q2	5.01%	7.62%
Q3	4.72%	8.03%
Q4	12.60%	20.93%

- Most of the Ads were shown through cable network type whereas money spent by brands for broadcast network type was also in high numbers.
- For the digital Ads campaign by Mahindra and Mahindra, Chief Marketing Officer (CMO) should strengthen their Ads strategies at Night time (between 8 pm to 2 am).
- Also, they should target the audience of daytime, as the rate of the number of Ads in the Daytime were often high than the rate of money spent.
- The investment for Primetime seems to be in loss for Mahindra and Mahindra because the rate of the number of Ads shown is half of the rate of the amount spent.

Result:

From this project, I got to know the marketing strategies of various brands for advertising and how to extract useful data from the raw data. I learned how to present the key points by analyzing the data through a pivot table. Getting a better understanding of presenting data in a graphical manner through proper graphs and charts means understanding through which graph the data will be more understandable.

Excel File Link:

https://docs.google.com/spreadsheets/d/16otnNDtoPniADvrl9ufnu1o2pnxJz12Y/edit?usp=share_link&ouid=10274620563544467842&rtpof=true&sd=true

Please open in Microsoft Excel