XYZ Ads Airing Report Analysis

BY

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◆ Project Description:

1. 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 actually buys your products or services, your advertising may help to form their first impressions of your business.
2. Target audience for businesses could be local, regional, national or international or a mixture. So they use different ways for advertisement.
3. Some of the types of advertisement are: Internet/online directories, Trade and technical press, Radio, Cinema, Outdoor advertising, National papers, magazines and TV.
4. Advertising business is very competitive as a lot of players bid a lot of money in a single segment of business to target the same audience. Here comes 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.

◆ Approach:

- To successfully carry out this project we are going to use **SIX STEP** of Data Analysis Process i.e (Ask, Prepare, Process, Analyze, Share, Act)
- Ask step include asking right set of question which justify goal and give motivation to carry out analysis
- We have following Objective (reasons) to justify goal of this project.
  - Does the Pod position number affect the amount spent on Ads for a specific period of time by a company?
  - What is the share of various brands in TV airings and how has it changed from Q1 to Q4 in 2021?

- o Conduct a competitive analysis for the brands and define advertisement strategy of different brands and how it differs across the brands.
- o 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.
- Prepare: We have data in excel format which need to first clean, transform and load into correct format to make it suitable for analysis purpose.
- This step includes selecting right data, tools, data source to make project successful
- Process: Data we have in excel format we need to clean data such as removing null values, identifying data type, removing outliers which affect the analysis.
- Analyze: We are using excel itself which come with inbuilt statistical formulae and visualization tool to analyze data to draw insight.
- Share: we are showing data obtain from analysis in the form of row and column as well as chart wherever required for better and easy understanding.
- Act: Step include taking decision based on insight opt from this project.

◆ Tech-Stack Used:

- In this project we are going to perform medium level complex analysis using excel power query, pivot, formulae, chart are suitable tool to carry out analysis without investing in high technology and free open source tool Jupyter notebook.
- For using Jupyter notebook one must know the python programming language.
- Excel is not suitable for large dataset so it is advice to use good BI tool for large dataset for better analysis.

◆ Insights:

**Brief about data:**

Total number of columns=19
Total number of original record=731785
There are no missing values in dataset.

DAYPART columns has different category lets understand this

DAYTIME	EARLY FRINGE	EARLY MORNING	EVENING NEWS	LATE FRINGE	OVERNIGHT	PRIME ACCESS	PRIME TIME	WEEKEND
9AM-4AM	3PM-7PM	4AM-10AM	5PM-7PM	10PM-1AM	12AM-5AM	6PM-8PM	6PM-11PM	SAT-SUN

1. Load dataset using power query and change data type of columns accordingly.

2. Open blank excel workbook refer below Image to load data using power query.
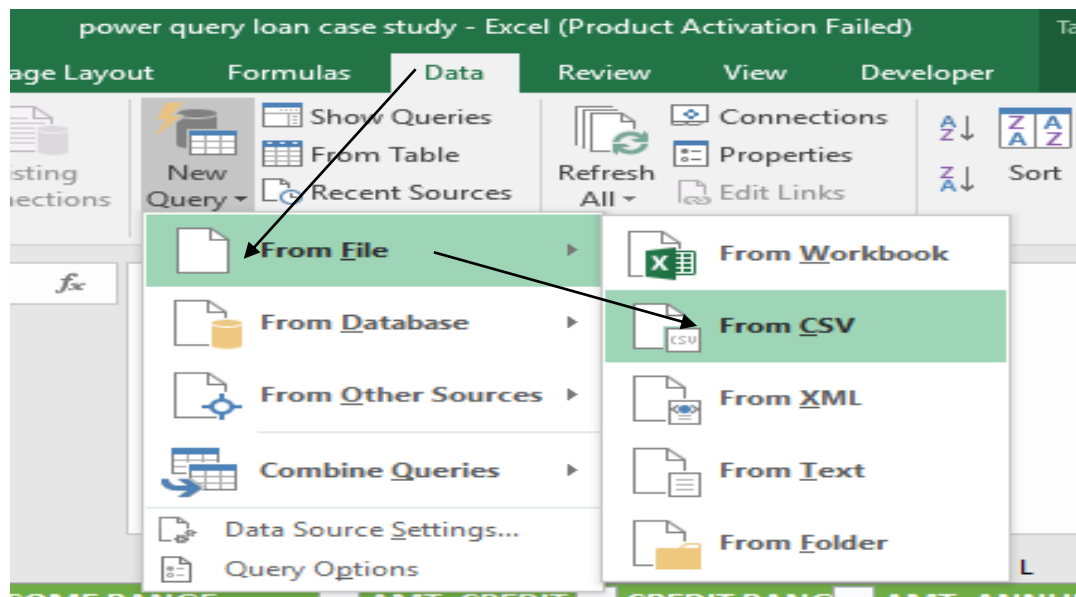
3. Select file format accordingly from the folder where data is stored.

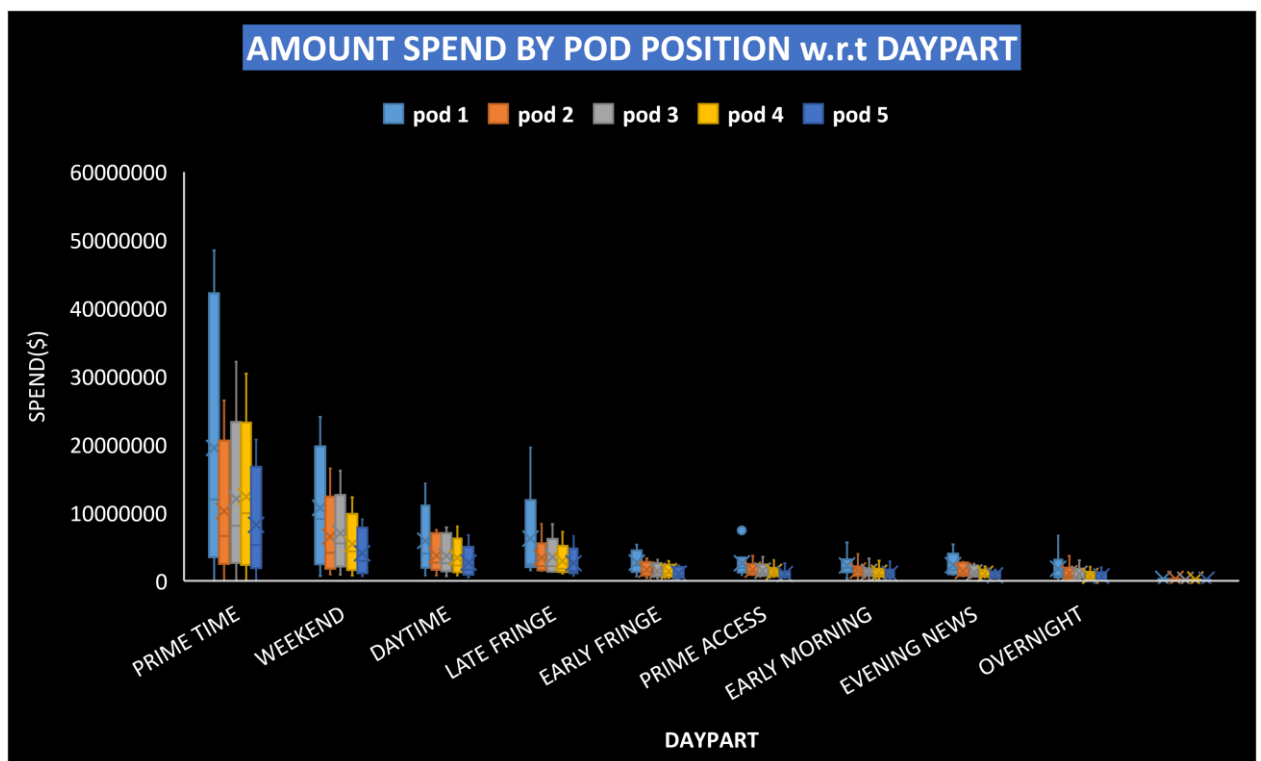4. Add new column called Quarter refer Image below.
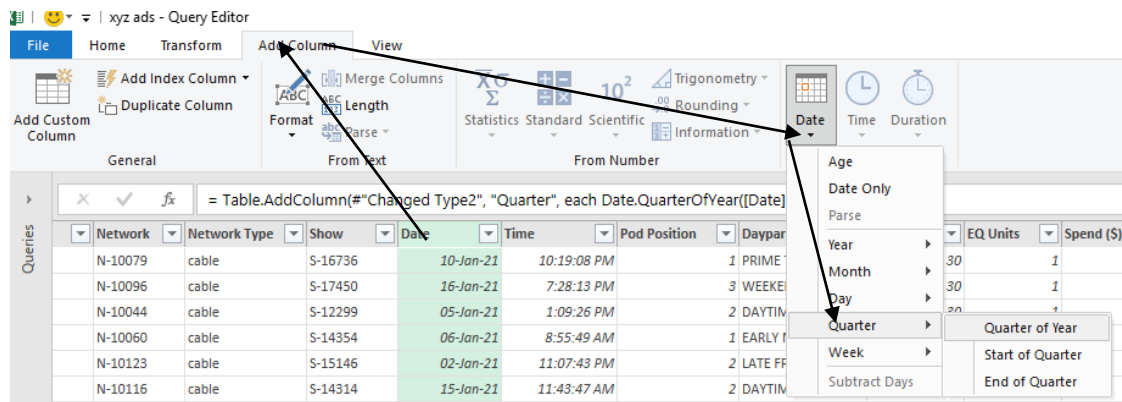
1. Does the Pod position number affect the amount spent on Ads for a specific period of time by a company?

- Pod position refers to the placement of an advertisement within a podcast episode. Advertisers can choose to have their ads placed at the beginning, middle, or end of an episode, and the podcaster may offer different rates for each position.

- From above fig it is clearly visible that rate of pod position 1 is more than other pod position for all the different time of DAYPART.

- Prime time is most prefer time of people to watch podcast.
- Amount spend by company on pod position 1 in PRIME TIME is more as compare to other DAYPART

Pod position affect the effectiveness of the ad, as ads placed at the beginning of an episode may be more likely to be heard than ads placed at the end of an episode.

For example, if a company is looking to promote a new product and they want to maximize their ad's exposure, they might choose to place their ad in the first position of a popular podcast episode. This would increase the chances that people will hear/watch the ad and be more likely to remember the product when they make their purchase decisions.

On the other hand, if a company is looking to target a specific audience and they have a limited budget, they might choose to place their ad in the middle of a podcast episode that has a similar theme to their product. This would increase the chances that people who are interested in the topic will hear/watch the ad and be more likely to engage with it.

Overall, the pod position number can be an important consideration when it comes to ad placement. It is important for the company to consider their target audience and their budget when choosing the pod position.

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

Percentage share of brands w.r.t Quater
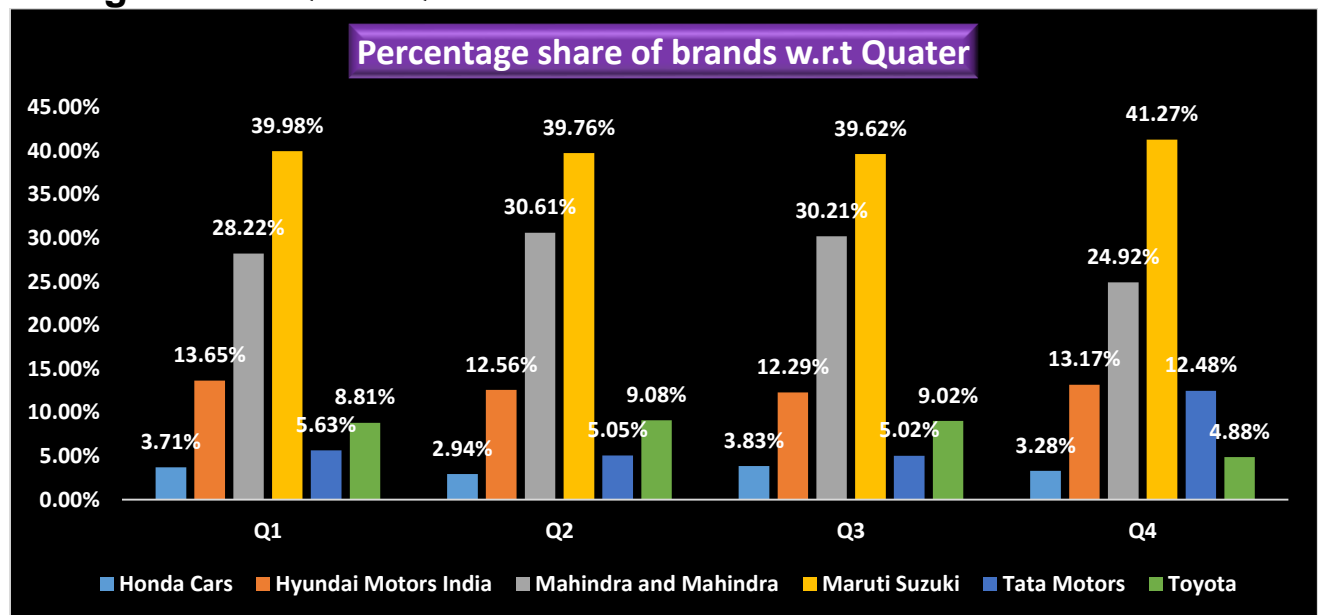
1. Maruti Suzuki has highest per share in each quarter as compare other brand.
2. Maruti Suzuki per share is avg 40 % in each quarter

3. Honda car in each quarter spent in between 3 to 4% except in Q2 share percentage decreased below 3% it might be due to tight budget in Q2
4. Mahindra & Mahindra per share increase in Quarter 2 as compare to Q1
5. In Q2 & Q3 Avg 30.50% contribution of Mahindra & Mahindra, then in last Quarter i.e. Q4 per share decline by 6%
6. Tata Motor Avg per share of 5% in first three Quarter
7. In last quarter Q4 amount spent of ad airing almost increased by 7%
8. Hyundai Motors India per share lies in between 12 to 13.70 % in each quarter.

3.Conduct a competitive analysis for the brands and define advertisement strategy of different brands and how it differs across the brands.
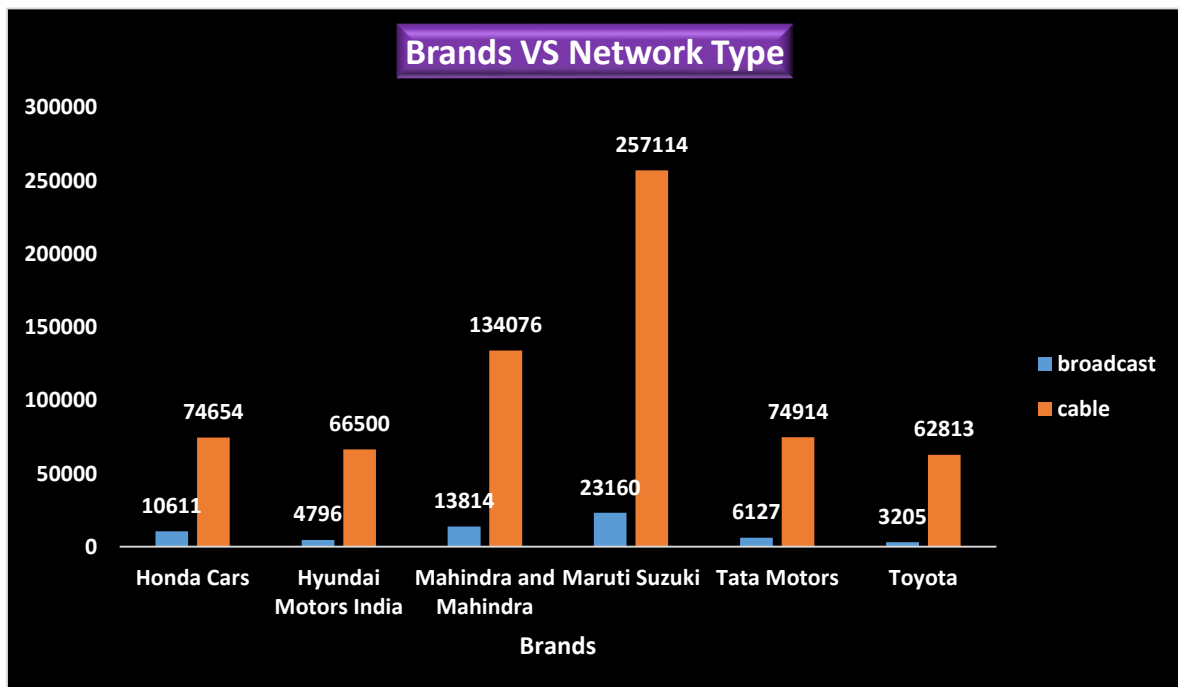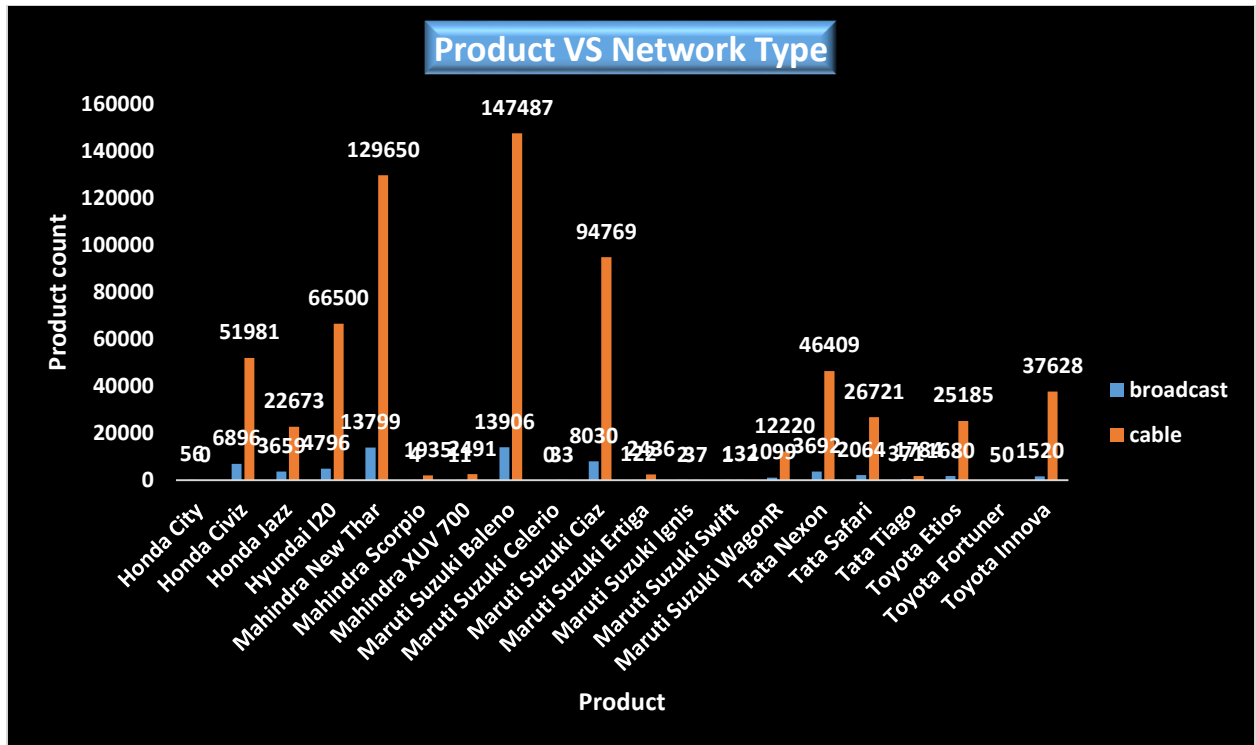
- All the brands are heavily targeting people having cable type of network.
- Maruti Suzuki is a top competitor for all brand as it heavily investing in cable type of network for its Baleno car advertising
- Second competitor is Mahindra & Mahindra who's mostly promoting their Mahindra New Thar.
- In Broadcast Type of network Number of times ads shown for Maruti Suzuki Baleno & Mahindra New Thar are almost equal, they are the major competitor in broadcast type of network
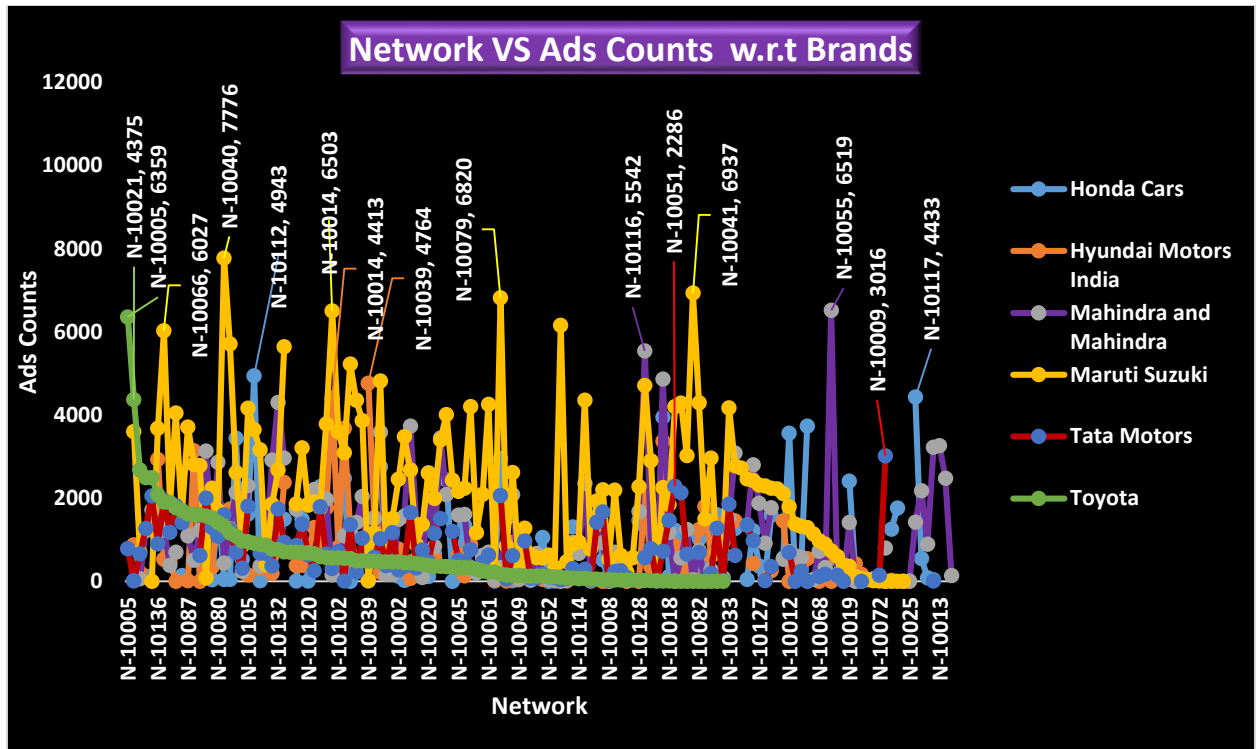
- Maruti Suzuki has highest contribution in TV airing Ads.
- Maruti Suzuki has ads running on all network, also as compare to other brands its contribution in all network is also high.
- Maruti Suzuki majorly focusing on **N-10040, N-10066, N-10014, N-10079, N-10041** this network
- Mahindra & Mahindra majorly focusing on **N-10116, N-10055** this network.
- Hyundai Motors India majorly focusing on **N-10014, N-10039** this network.
- Tata Motors majorly focusing on **N-10009, N-10051** this network.
- Honda Cars majorly focusing on **N-10117, N-10112** this network.
- Toyota majorly focusing on **N-10021, N-10005** this network.

Brands vs Amount Spent w.r.t Duration
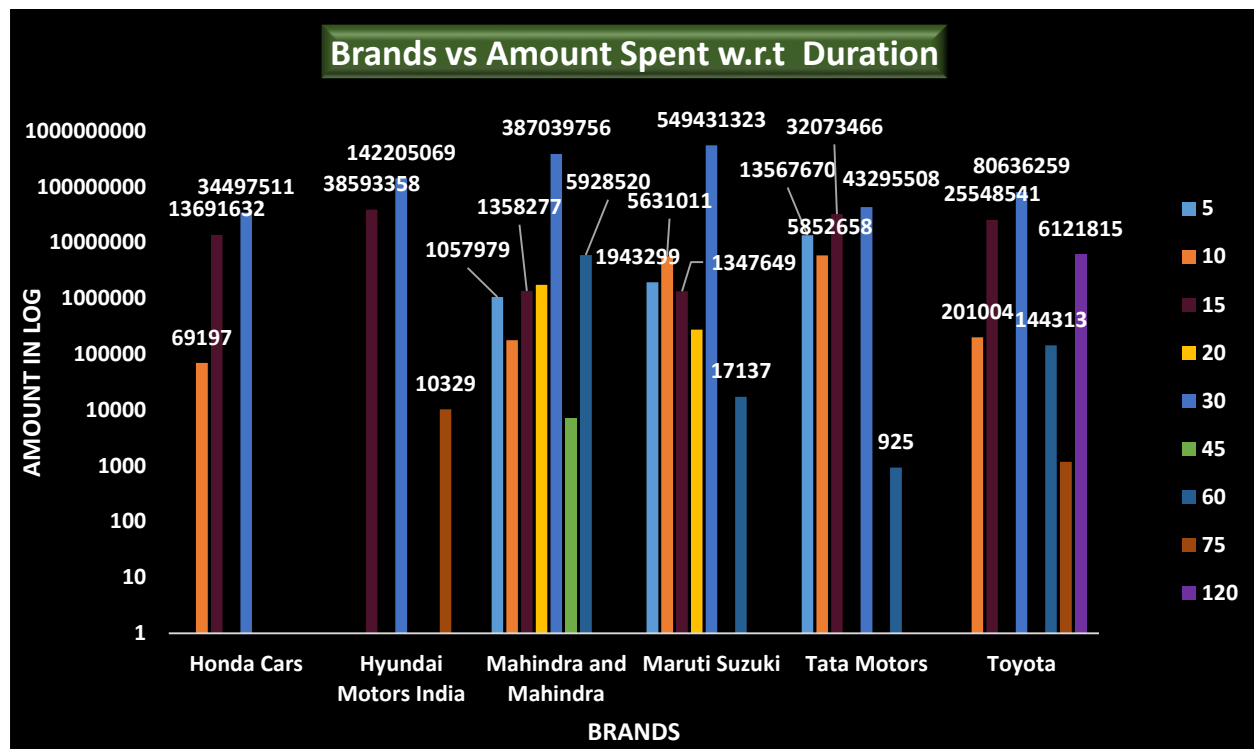
- 30 second of Ads mostly use by all the brands.
- Honda Cars use the 10,15,30 second of ads.
- Hyundai Motors India use 15,30 and 75 sec of ads.
- Mahindra & Mahindra spend high amount on 15,20,30 and 60 second of ads.
- Maruti Suzuki spend high amount on 5,10,15 and 30 second of ads.
- Tata Motors spend high amount on 5,10,15 and 30 second of ads.
- Toyota spend high amount on 15,30 and 120 second of ads.
- Duration affect the price of ads arising if duration of ads greater than 30 its rate would be higher as multiple can be run in that duration.
- Short duration ads below 20 seconds can be good, its rate also low but it's must convey all the important feature of product to convince the audience.

Top 10 shows brands targeting for their different product.

- ## Brand Name: Honda Cars

Shows	Honda City	Shows	Honda Civiz	Shows	Honda Jazz
S-14609	7	S-15148	1028	S-12680	483
S-15551	6	S-15146	815	S-16010	424
S-12279	5	S-20311	761	S-16697	360
S-15892	4	S-14098	634	S-10037	299
S-17321	4	S-19337	624	S-12900	280
S-11786	3	S-16483	586	S-15079	273
S-18782	3	S-19877	577	S-15148	266
S-19883	3	S-18294	560	S-14666	265
S-11816	2	S-16747	556	S-14098	253
S-14082	2	S-13776	495	S-17278	233

- ## Brand Name: Hyundai Motors India

Shows	Hyundai I20
S-19396	3444
S-12551	2003
S-15148	1401
S-15146	1240
S-12560	1227
S-17278	1048
S-19909	1025
S-14098	1001
S-17261	909
S-18528	865

- **Brand Name: Mahindra and Mahindra**

Shows	Mahindra New Thar	Shows	Mahindra Scorpio	Shows	Mahindra XUV 700
S-16994	2717	S-21922	90	S-21922	231
S-12900	2439	S-14098	66	S-13307	100
S-14098	2163	S-17278	57	S-17278	92
S-15892	1893	S-22486	54	S-10725	69
S-22486	1484	S-13307	41	S-22314	66
S-19337	1447	S-15779	37	S-11608	41
S-13726	1370	S-15267	34	S-12075	39
S-21922	1335	S-15146	33	S-20290	37
S-17910	1147	S-10078	32	S-19654	35
S-11384	984	S-20028	27	S-18071	35

- **Brand Name: Maruti Suzuki**

Shows	Maruti Suzuki Baleno	Shows	Maruti Suzuki Celerio	Shows	Maruti Suzuki Ciaz	Shows	Maruti Suzuki Ertiga
S-19407	3369	S-16893	5	S-19407	1295	S-19407	228
S-19396	2733	S-10959	4	S-19396	1289	S-20470	82
S-18528	1758	S-11979	3	S-18528	1037	S-17878	58
S-12551	1108	S-11066	2	S-12551	850	S-20522	40
S-14243	1094	S-14000	2	S-16747	811	S-12722	38
S-16747	1033	S-20300	2	S-14243	614	S-14223	35
S-12560	965	S-10985	2	S-20756	594	S-19396	30
S-13884	900	S-20975	2	S-13726	592	S-11802	30
S-20756	893	S-21073	2	S-15870	576	S-10934	28
S-15892	885	S-17878	1	S-12900	574	S-10959	27

Shows	Maruti Suzuki Ignis	Shows	Maruti Suzuki Swift	Shows	Maruti Suzuki WagonR
S-17208	5	S-22451	13	S-19407	409
S-17881	4	S-19790	6	S-19396	197
S-20412	4	S-11417	5	S-18528	159
S-17466	4	S-13465	5	S-22451	124
S-19363	3	S-10321	4	S-16886	124
S-19198	2	S-16729	4	S-14243	107
S-22528	2	S-17337	4	S-16729	99
S-14026	2	S-14276	3	S-13726	98
S-14961	2	S-11267	3	S-12900	97
S-11419	1	S-10322	3	S-15870	84

- **Brand Name: Tata Motors**

Shows	Tata Nexon	Shows	Tata Safari	Shows	Tata Tiago	Shows
S-20470	605	S-15892	441	S-10725	39	S-12560
S-19396	532	S-20470	219	S-20522	34	S-19396
S-15892	516	S-16747	216	S-19523	33	S-17401
S-16747	454	S-15870	216	S-14708	25	S-11824
S-19055	454	S-18528	211	S-15892	21	S-16386
S-14243	280	S-12279	196	S-14252	21	S-15870
S-15870	274	S-19396	193	S-17878	20	S-16388
S-11229	264	S-17319	169	S-12722	18	S-10130
S-12551	259	S-15148	156	S-13323	18	S-12279
S-10725	258	S-19055	155	S-21127	18	S-17347

- **Brand Name: Toyota**

Toyota Etios	Shows	Toyota Fortuner	Shows	Toyota Innova
674	S-17401	5	S-12551	718
497	S-12560	0	S-16386	527
452	S-19396	0	S-19396	481
350	S-11824	0	S-11824	438
229	S-16386	0	S-15870	296
225	S-15870	0	S-21151	295
213	S-16388	0	S-19055	285
210	S-10130	0	S-15029	268
202	S-12279	0	S-12969	267
198	S-17347	0	S-14023	265

Product	Broadcast Month	Date	Time	Pod Position	Dayparts	Duration
Toyota Fortuner	NOV	14-11-21	2:24:47 PM	5	WEEKEND	30
Toyota Fortuner	NOV	14-11-21	5:40:22 PM	6	WEEKEND	30
Toyota Fortuner	NOV	14-11-21	2:10:47 PM	5	WEEKEND	30
Toyota Fortuner	NOV	14-11-21	2:09:40 PM	5	WEEKEND	30
Toyota Fortuner	NOV	14-11-21	5:37:33 PM	5	WEEKEND	30

1. Ads for Toyota Fortuner seem to be run on weekend in only Nov month.
2. Ads run in daytime between 2 to 5 pm
3. Targeting audience from **S-17401 show**

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?
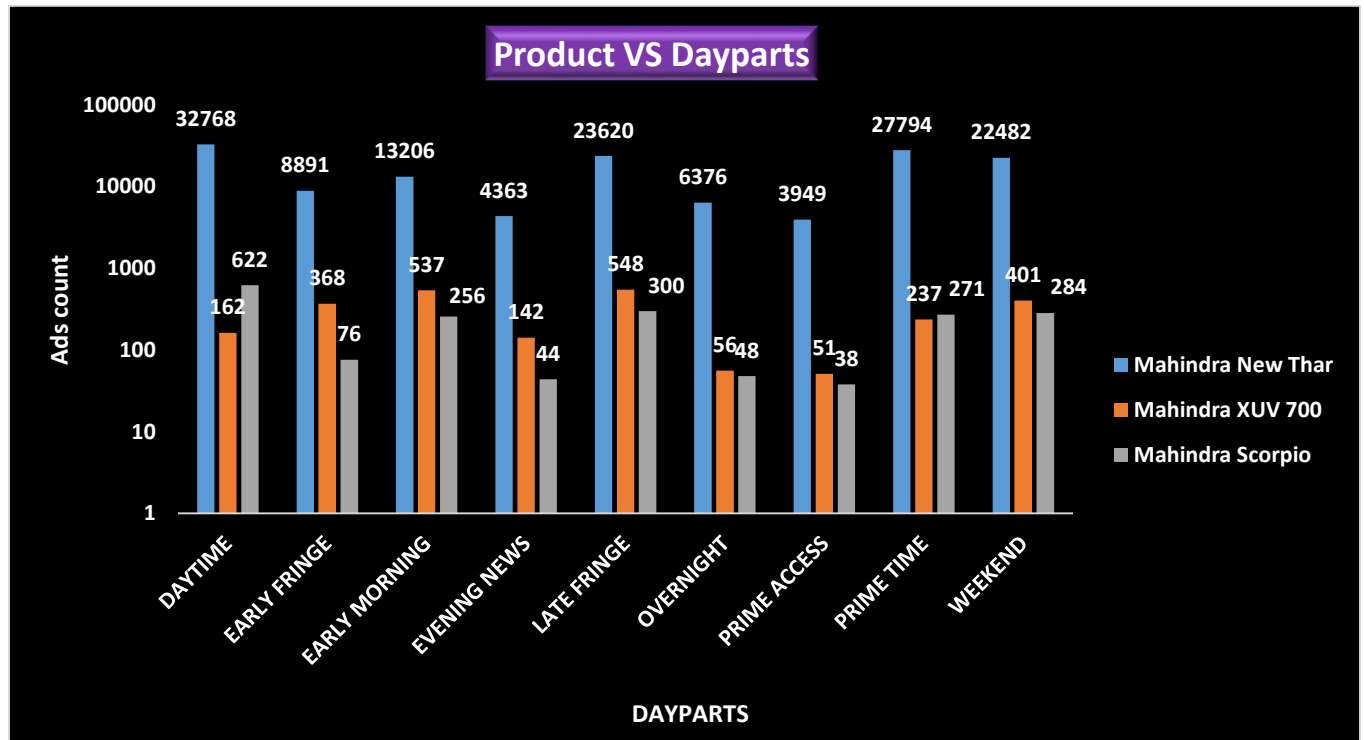
- Mahindra mostly focusing to promote their New Thar car in all daypart
- For XUV700 they are focusing audience from WEEKEND LATE FRINGE and EARLY MORNING
- For Scorpio they are focusing PRIME TIME and DAYTIME

Pod Position wise Amount spend($)
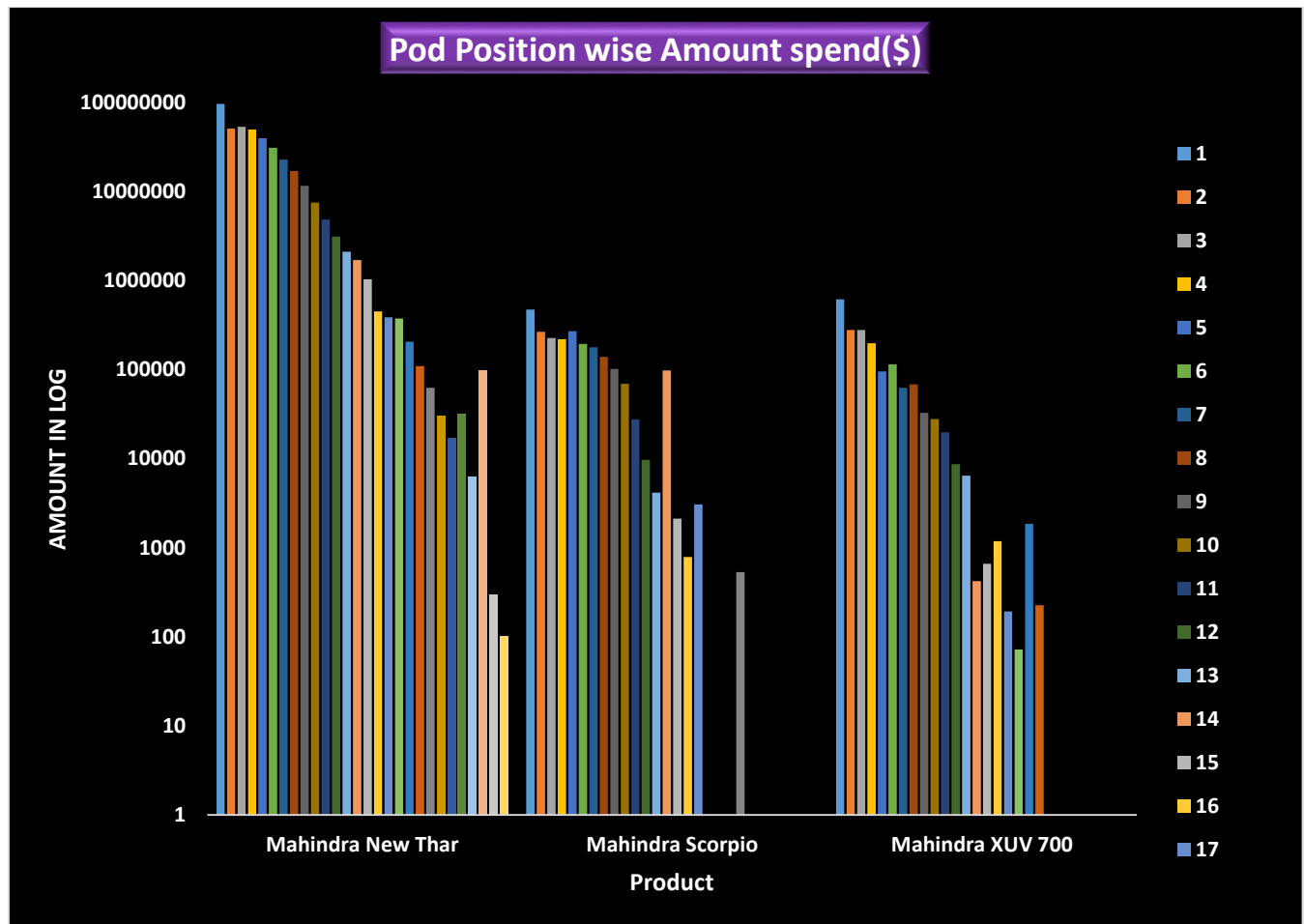
- For Scorpio Mahindra spending more on 14th pod position it doesn't seem to be worth it.
- People don't watch too much ads after 2-3 ads they switch channel to watch other show.
- If Mahindra wants to increase the sales of Scorpio, they must focus on pod positon between 1 to 5 with duration of ads between 20 -30sec
- PRIME TIME and WEEKEND would be best time to run ads as most of audience watch their favourite shows on Weekend and between 7-11pm.

Mahindra and Mahindra wants to run a digital ad campaign to complement its existing TV ads its must consider following point

1. Try to make ads with duration less than 20 seconds which convey the message to audience if possible.
2. Short duration ads having lower rate which lower amount spent on ads campaign
3. PRIME TIME and WEEKEND will be preferring to target audience, most of viewer are watching shows on this time.
4. Consider to run ads between pod position 1 to 5 for the shows which have highest viewership.

◆ Summary:

- In this project we understand how to use SIX step process of Data analysis.
- In this project we learn to use excel pivot to perform ad-hoc analysis and different chart and graph to represent data.
- Learnt to use power query for data cleaning and feature engineering

Key project insight are:

- Maruti Suzuki and Mahindra & Mahindra are two major competitors in TV airing adds in automobile sector.
- 50% of good time slot and pod positon are book by only this two Brands.
- Shorter duration of ads would be good if it conveys the feature of product as its lower the expense on ads campaign.
- Company can consider running multiple short duration ads.
- PRIME TIME and WEEKEND are best time to target audience.
- Running ads between pod position 1 to 5 are more likely to convert viewer into customer.
- Consider TV shows having higher viewership to run ads.