

XYZ Ads Airing Report Analysis

Final Project-3



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Project Description:

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. Target audience for businesses could be local, regional, national or international or a mixture. So they use different ways for advertisement. Some of the types of advertisement are: Internet/online directories, Trade and technical press, Radio, Cinema, Outdoor advertising, National papers, magazines and TV. 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 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.

The dataset contains different TV Airing Brands, their product, their category of some brands from the Automobile industry. Dataset includes the network through which Ads are airing, types of network like Cable/ Broadcast and the show name also on which Ads got aired. We can also see the data of Dayparts, Time zone and the time & date at which Ads got aired. It also includes other data like Pod Position (the lesser the valuable), duration for which Ads aired on screen, Equivalent sales &, total amount spent on the Ads aired.

Approach:

In this analysis, the first step is to go through the data set, clearly understand the variables, contained in the dataset. We will observe how given variable are related with case study and given task. Their inter-relation between columns, null values in the given task. The analysis can be done using statistical formulas and can also be done using Tech tools like MS-excel and MS-word.

Tech-stack:

- MS-Excel- it is used for data cleaning, visualization and analysis of the provided data.
- MS-word- It helps in creating and editing document, and also helpful in making document interactive with tools.

Analysis outcome:

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 Details with examples from the dataset provided)

Solution: An ad pod is a group of ads that are sequenced together to be played back-to-back within a single ad break/placement, similar to ad breaks in traditional linear TV. Ad pods give publishers the opportunity to maximize revenue from each ad break and give advertisers more control over ad positioning.

Sum of Spend (\$)	Day Part									
Pod position	DAYTIME	EARLY FRINGE	EARLY MORNING	EVENING NEWS	LATE FRINGE	OVERNIGHT	PRIME ACCESS	PRIME TIME	WEEKEND	Grand Total
1	36765656	16295390	14190369	13324043	35714201	10775301	14932069	117784874	64243126	324025029
2	23864137	10323417	9551438	8188369	18350464	6879095	9331634	62493661	38672407	187654622
3	23697102	9230394	8444422	6960507	18802811	5972298	8451169	73076610	41797269	196432582
4	21384869	8646039	7751759	5688848	16166144	4258170	7251418	74871188	32527264	178545699
5	16881755	6622124	6476063	4598102	14463068	3843957	5355537	49866095	24041868	132148569
6	14249658	5322848	5907133	4416765	12293071	3318931	4223661	41569566	14679686	105981319
7	11385149	3958629	4887067	3113954	9458546	2283335	3259736	28977439	9931244	77255099
8	9444312	3189499	3780429	2427157	7803421	1591732	2815021	20086056	7068301	58205928
9	6412151	2418433	2677172	2022430	6326515	1121357	2163177	13501234	5266678	41909147
10	4466264	1554000	1811478	1368643	3937191	832947	1587155	8738089	4410704	28706471
Grand Total	168551053	67560773	65477330	52108818	143315432	40877123	59370577	490964812	242638547	1330864465

Figure-1

EQ units is the measure to tell how much product is into the audience as compare to the product of same type of product.

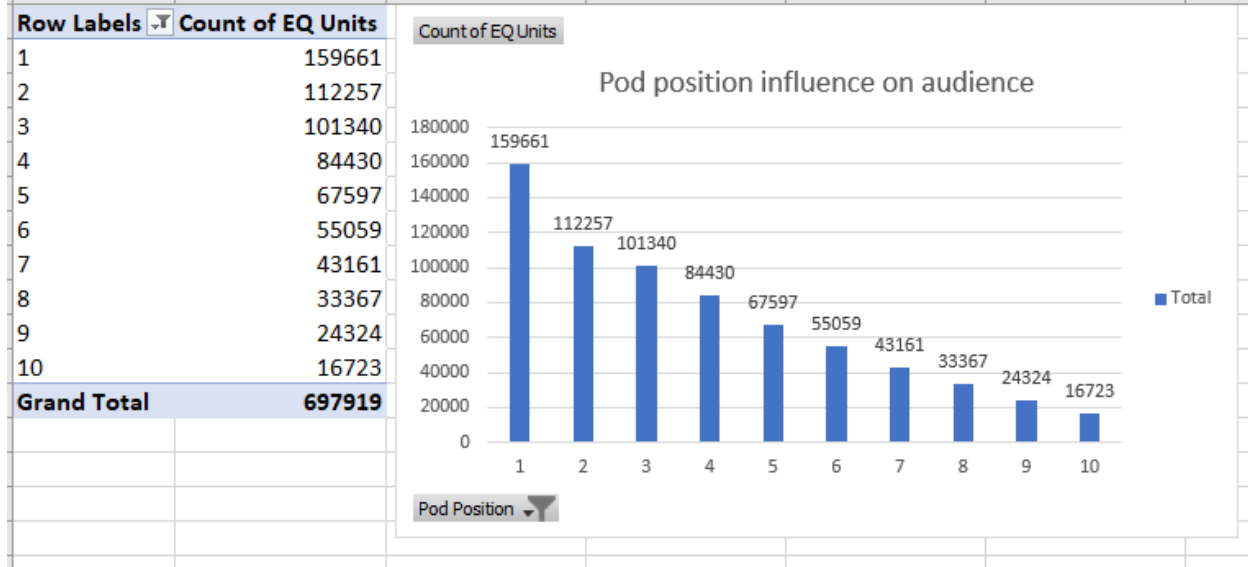


Figure -2

From both the above graph, we can say that pod position influences the reach of that product in the audience and to get low pod position you have to spend so much money.

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

Solution- In the below shown graph:

- 4 groups (i.e. Q1, Q2, Q3, Q4) are group of 3 months.
- Maruti Suzuki has highest share among all the quarters.
- The graph shows that share decreases from Q1 to Q4.

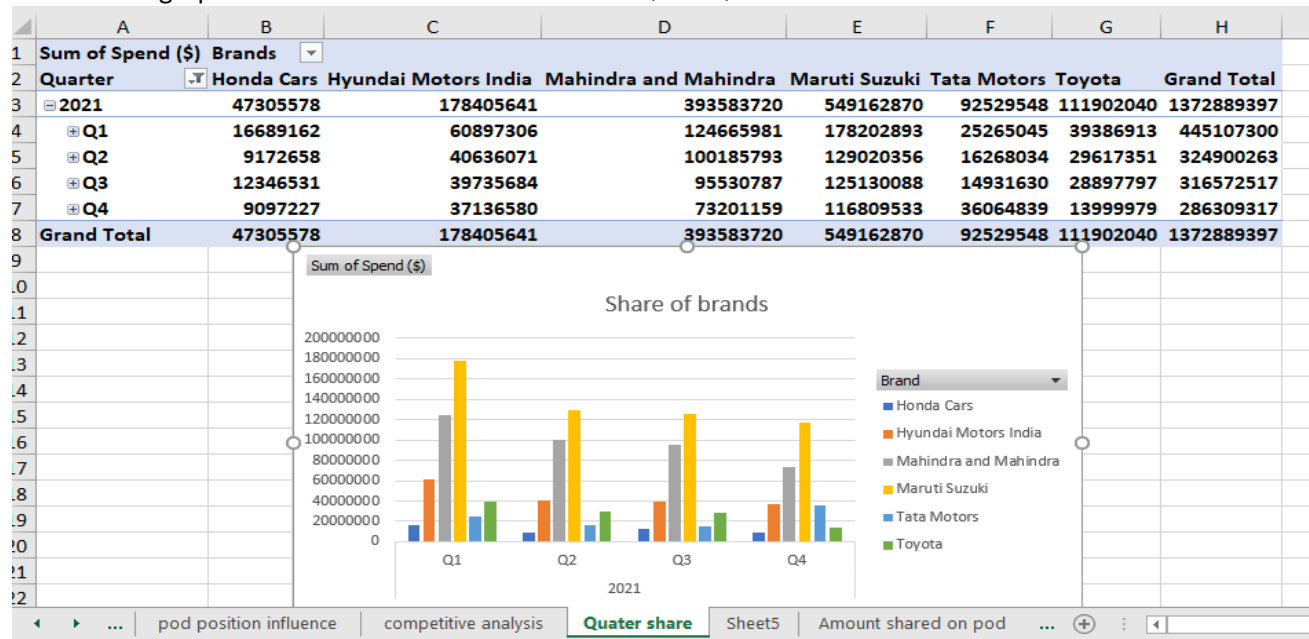


Figure-3

C. Conduct a competitive analysis for the brands and define advertisement strategy of different brands and how it differs across the brands.

Solution:

Brands	Day part Honda Cars		Hyundai Motors India		Mahindra and Mahindra		Maruti Suzuki		Tata Motors		Toyota	
	Count of Duration	Sum of EQ Units	Count of Duration	Sum of EQ Units	Count of Duration	Sum of EQ Units	Count of Duration	Sum of EQ Units	Count of Duration	Sum of EQ Units	Count of Duration	Sum of EQ Units
DAYTIME	28031	22966.34	12485	9552.5	33552	33220.61	43811	43134.04	17745	3674.67	17333	19591.45
EARLY FRINGE	7056	5723.12	4367	3479.5	3335	3103.34	17124	16333.53	5346	2306.6	4611	4104.33
EARLY MORNING	14877	12666.41	8153	6352.5	13399	13590.05	35078	34764.42	3226	5055.9	8807	7240.14
EVENING NEWS	3067	2543.82	2411	1936.5	4543	4485.87	3968	3866.62	3007	1608.53	2535	2126
LATE FRINGE	6168	5114.31	10214	8304.5	24468	24078.43	45224	44707.73	11137	6228.76	7716	6057.16
OVERNIGHT	5714	4598.13	6621	5233.5	6480	6464.27	27224	26807.81	5819	3146.02	3458	2710.23
PRIME ACCESS	1903	1571.16	2970	2403.5	4038	4018.1	3473	3213.33	3030	1624.64	2353	1915
PRIME TIME	8391	6771.95	13508	10917.5	28302	28213.41	47738	47224.18	13553	7437.94	9204	7325.5
WEEKEND	10058	8232.21	10567	8229	23167	22896.04	38634	38210.14	12178	6627.04	9341	7947
Grand Total	85265	70260.05	71296	56481	147890	146036.18	280274	276874.46	81041	44310.16	66018	59016.87

Figure-4

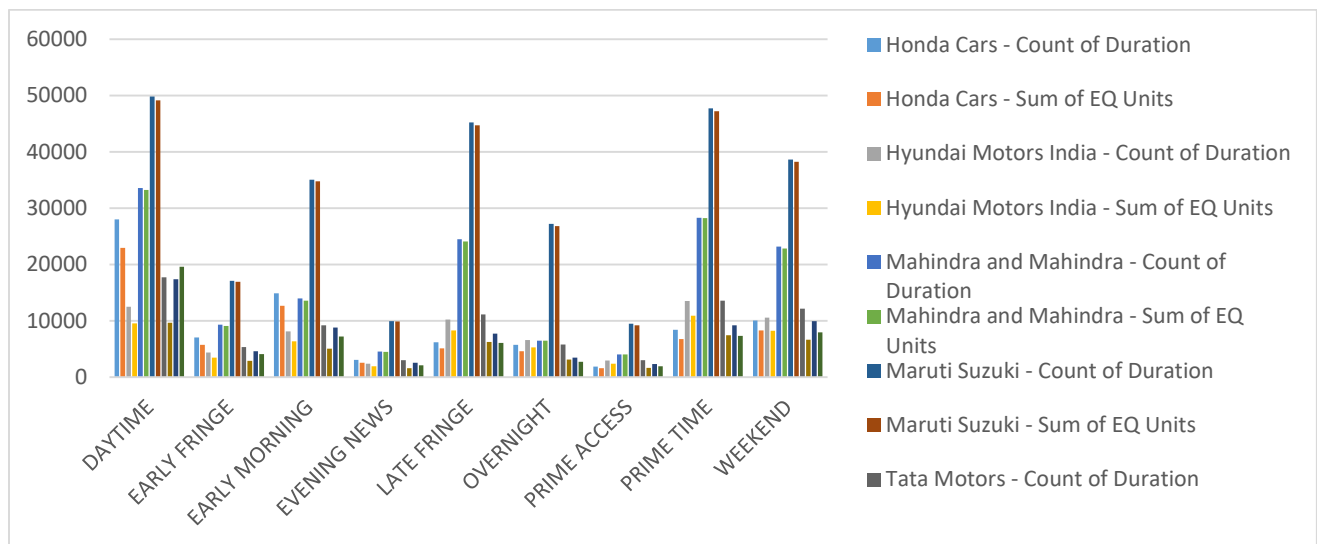


Figure-5

- I have considered columns, Dayparts, Duration, Brand, EQ Units, Brand Months as Quarters.
- Maruti Suzuki advertise their products in all their day parts, with high duration and high EQ.
- The ads of maruti Suzuki are more people engaging in all the day parts and with high play duration which make them profit more.

30	Sum of Spend (\$)	Day part										
31	Brands	DAYTIME	EARLY FRINGE	EARLY MORNING	EVENING NEWS	LATE FRINGE	OVERNIGHT	PRIME ACCESS	PRIME TIME	WEEKEND	Grand Total	
32	Honda Cars	31.30%	11.94%	10.76%	4.36%	7.09%	5.84%	2.80%	14.51%	11.39%	100.00%	
33	Hyundai Motors India	6.84%	3.96%	4.82%	2.97%	7.55%	1.76%	4.27%	47.97%	19.88%	100.00%	
34	Mahindra and Mahindra	16.15%	4.83%	3.05%	4.03%	10.52%	2.16%	2.59%	38.44%	18.23%	100.00%	
35	Maruti Suzuki	8.71%	4.07%	5.18%	3.72%	13.26%	4.23%	5.19%	38.24%	17.40%	100.00%	
36	Tata Motors	17.42%	6.39%	7.50%	6.15%	11.77%	2.69%	6.12%	27.06%	14.89%	100.00%	
37	Toyota	16.48%	8.65%	7.36%	4.80%	7.87%	1.52%	7.97%	21.43%	23.91%	100.00%	
38	Grand Total	12.59%	5.08%	5.05%	3.99%	10.98%	3.05%	4.54%	36.62%	18.11%	100.00%	

Figure-6

From the above table, we can say that:

- At prime time, all brands spend most of the money.
- Honda Car spend most at the daytime, early fringe and early morning ads.
- At weekend, Toyota car spends the most.
- On late fringe and overnight ads, Maruti Suzuki spends the most.

- 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.

Solution: We will look at the data of Mahindra and Mahindra in the dataset in order to get some fruitful insights.

Table1:

Count of Id	Brands							
Pod position	Honda Cars	Hyundai	Moto	Mahindra and Ma	Maruti Suzuki	Tata Motors	Toyota	Grand Total
2021	78202	66731	141098	264459	75885	63287	689662	
1	14236	14285	25940	74698	15858	12107	157124	
2	13168	12406	21281	41885	11831	10247	110818	
3	11675	10477	20969	36001	11308	9837	100267	
4	9959	8179	18179	29000	9411	8832	83560	
5	7906	6148	15162	22839	7723	7179	66957	
6	6463	4906	12532	18639	6372	5623	54535	
7	5139	3740	10285	14635	4893	4049	42741	
8	4174	2965	7703	11658	3847	2669	33016	
9	3215	2106	5430	8880	2733	1722	24086	
10	2267	1519	3617	6224	1909	1022	16558	
Grand Total	78202	66731	141098	264459	75885	63287	689662	

Figure-7

Table2:

Sum of EQ Units	Day part									
Pod Position	DAYTIME	EARLY FRINGE	EARLY MORNING	EVENING NEWS	LATE FRINGE	OVERNIGHT	PRIME ACCESS	PRIME TIME	WEEKEND	Grand Total
2021	31690.41	8737.99	12956.53	4305.7	22841.92	6317.43	3849.1	26852.2	21764.01	139315.29
1	4724.94	1529.99	2159.12	738.42	4152.2	1496.21	747.96	5732.65	4355.75	25637.24
2	4409.69	1392.67	2182.75	686.76	3456.25	1066.52	595.35	3847	3370.45	21007.44
3	4676.71	1305.59	2063.23	596.74	3497.1	973.55	553.87	3721.5	3305.8	20694.09
4	4194.17	1047.51	1754.4	552.08	2934.78	796.06	516.36	3378.85	2765.88	17940.09
5	3426.61	965.8	1455.23	442.57	2499.88	674.69	378.69	2862.63	2249.99	14956.09
6	2972.07	755.25	1170.97	397.73	1984.37	527.68	307.51	2436.24	1829.14	12380.96
7	2695.42	604.72	878.76	333.36	1634.45	349.18	282.02	1876.91	1502.24	10157.06
8	2147.89	508.21	620.71	252.86	1224.94	215.68	220.17	1389.69	1027.72	7607.87
9	1461.39	395.56	398.34	205.67	890.24	136.68	145.17	936.36	780.7	5350.11
10	981.52	232.69	273.02	99.51	567.71	81.18	102	670.37	576.34	3584.34
Grand Total	31690.41	8737.99	12956.53	4305.7	22841.92	6317.43	3849.1	26852.2	21764.01	139315.29

Figure-8

Table3:

Count of Broadcast Month	Brands								
Pod Position	Honda Cars	Hyundai	Motors India	Mahindra and Mahindra	Maruti Suzuki	Tata Motors	Toyota	Grand Total	
1	9.12%		9.10%		16.35%	47.50%	10.21%	7.72%	100.00%
2	11.91%		11.20%		19.04%	37.83%	10.76%	9.26%	100.00%
3	11.67%		10.46%		20.78%	35.93%	11.38%	9.78%	100.00%
4	11.97%		9.79%		21.62%	34.76%	11.33%	10.54%	100.00%
5	11.84%		9.18%		22.50%	34.17%	11.60%	10.70%	100.00%
6	11.88%		9.03%		22.81%	34.25%	11.76%	10.28%	100.00%
7	12.09%		8.76%		23.92%	34.30%	11.50%	9.43%	100.00%
8	12.70%		8.98%		23.16%	35.35%	11.74%	8.07%	100.00%
9	13.41%		8.75%		22.40%	36.93%	11.39%	7.12%	100.00%
10	13.78%		9.14%		21.68%	37.67%	11.56%	6.17%	100.00%

Figure-9

- Here, we have used the pivot table feature of MS word in INSERT tab.
- We have considered ID, BRAND, POD POSITION and BROADCAST_YEAR to form table1.
- We have considered BRAND, POD POSITION and EQ_UNITS, BROADCAST_YEAR and DAY PART to form table2.

- We have considered BRAND, POD POSITION and BROADCAST_MONTHS to form table3.

From these tables, we can say that:

- From table1, we can say that, the company must show more number of ads at pod position 1, 2 and 3 because lower position has more impact on people.
- From Table 2, Ads during daytime, prime time and weekends have more reach among people due to high EQ sum and at evening, prime access and overnight have low EQ sum. So, company must increase frequency of ads in that period of low EQ sum.
- From table3, Percentage of broadcast in a month specially at low pod positions is very low. So company must make strategies in order to draw attention of more number of peoples.

Target Audience: Mahindra and Mahindra should target the audience of prime access, Evening and Overnight audience because at this time audience reach is less due to least EQ sum.

ADDITIONAL:

How much amount is spending on advertisement on different products of company?

Solution:







	A	B	C	D	E	F	G	H	I	J	K	L											
1	Sum of Spend (\$)	Pod positions	1	2	3	4	5	6	7	8	9	10 Grand Total											
2	Brands & Product																						
3	 Honda Cars		2.30%		3.81%		3.39%		3.41%		3.37%		3.69%		4.17%		4.33%		4.95%		5.37%		3.39%
4	Honda City		0.00%		0.00%		0.01%		0.00%		0.01%		0.02%		0.01%		0.01%		0.01%		0.01%		0.00%
5	Honda Civic		1.68%		2.68%		2.52%		2.37%		2.41%		2.63%		2.92%		3.21%		3.60%		3.99%		2.43%
6	Honda Jazz		0.62%		1.13%		0.88%		1.04%		0.95%		1.06%		1.24%		1.11%		1.34%		1.37%		0.95%
7	 Hyundai Motors India		12.96%		12.13%		13.32%		15.55%		11.82%		12.30%		11.37%		13.45%		12.58%		11.24%		12.96%
8	Hyundai I20		12.96%		12.13%		13.32%		15.55%		11.82%		12.30%		11.37%		13.45%		12.58%		11.24%		12.96%
9	 Mahindra and Mahindra		29.98%		27.27%		27.27%		27.95%		30.30%		29.51%		29.77%		29.59%		27.82%		26.44%		28.75%
10	Mahindra New Thar		29.65%		26.98%		27.01%		27.71%		30.02%		29.22%		29.46%		29.24%		27.50%		26.10%		28.45%
11	Mahindra Scorpio		0.15%		0.14%		0.11%		0.12%		0.20%		0.18%		0.23%		0.24%		0.24%		0.24%		0.16%
12	Mahindra XUV 700		0.19%		0.15%		0.14%		0.11%		0.07%		0.11%		0.08%		0.12%		0.08%		0.10%		0.13%
13	 Maruti Suzuki		40.48%		40.18%		40.09%		38.36%		39.35%		39.60%		39.89%		38.98%		40.55%		43.64%		39.89%
14	Maruti Suzuki Baleno		23.95%		24.63%		24.10%		22.64%		23.09%		23.63%		23.78%		23.03%		23.36%		25.41%		23.74%
15	Maruti Suzuki Celerio		0.02%		0.01%		0.01%		0.00%		0.00%		0.00%		0.01%		0.00%		0.00%		0.00%		0.01%
16	Maruti Suzuki Ciaz		14.66%		13.50%		14.38%		13.93%		14.32%		14.14%		14.26%		13.70%		14.85%		15.60%		14.24%
17	Maruti Suzuki Ertiga		0.22%		0.33%		0.27%		0.20%		0.27%		0.25%		0.38%		0.37%		0.51%		0.74%		0.28%
18	Maruti Suzuki Ignis		0.00%		0.00%		0.00%		0.00%		0.00%		0.01%		0.00%		0.00%		0.00%		0.05%		0.00%
19	Maruti Suzuki Swift		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%
20	Maruti Suzuki WagonR		1.64%		1.71%		1.34%		1.59%		1.68%		1.57%		1.47%		1.88%		1.82%		1.83%		1.61%
21	 Tata Motors		6.08%		7.24%		7.06%		6.48%		7.06%		7.34%		7.60%		7.06%		7.21%		6.77%		6.82%
22	Tata Nexon		4.58%		5.46%		5.20%		4.50%		5.16%		5.18%		5.23%		4.87%		4.94%		4.32%		4.94%
23	Tata Safari		1.38%		1.64%		1.71%		1.81%		1.80%		1.91%		2.19%		2.03%		2.06%		2.26%		1.72%
24	Tata Tiago		0.13%		0.14%		0.15%		0.17%		0.10%		0.25%		0.19%		0.16%		0.20%		0.19%		0.16%
25	 Toyota		8.19%		9.36%		8.87%		8.25%		8.09%		7.56%		7.18%		6.59%		6.89%		6.54%		8.20%
26	Toyota Etios		3.18%		3.55%		3.55%		3.31%		3.06%		2.70%		2.45%		2.33%		2.47%		3.03%		3.15%
27	Toyota Fortuner		0.00%		0.00%		0.00%		0.00%		0.09%		0.04%		0.00%		0.00%		0.00%		0.00%		0.01%
28	Toyota Innova		5.01%		5.81%		5.33%		4.94%		4.94%		4.82%		4.73%		4.26%		4.41%		3.51%		5.04%
29	Grand Total		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%

Figure-10

- In the above pivot table, we can see, almost no money spends for Honda City, Maruti Suzuki Celerio, Maruti Suzuki Ignis, Maruti Suzuki Swift and Toyota Fortuner.
- The money spends the most on the advertisement of Mahindra New Thar (28.45%) and Maruti Suzuki Baleno (23.74%).
- The total share of money spends by Mahindra and Mahindra is 28.75%.

- The total share of money spends by maruti Suzuki is 39.89%.
- The total share of money spends by Hyundai motor India is 12.96%.
- For pod position1, Maruti Suzuki spend highest money (40.48%).

Insights:

- The share value is high in Quarter 1 and low in Quarter 4 of 2021.
- Maruti Suzuki telecasts the advertisements in almost all day parts.
- Mahindra and Mahindra should telecast their advertisements in almost all parts, so that it can be a good growth start for the year 2023.
- Maruti Suzuki has spent equal amount in all the quarters.
- The brand's money spent for the advertisement is the least for the last quarter pod position and the highest for the first quarter pod position.
- The money spent by Mahindra and Mahindra is the most for the pod position ads.
- The money spent by Honda Cars is the least for the pod position ads.
- The money spent by the Maruti Suzuki is the most consistent for all the Quarters of the year.
- People watch the most in the prime time and on weekend.
- The Ads are shown the least in the prime access and evening news parts of the day.

Result:

- I learned how a data analyst can help the company to learn where to spend the money to get the maximum profit.
- I learned about the pod position. I got to know how the ordering of ads are related to the money spent by the company.
- I implemented the understanding of competitive analysis and how it can be done to get the valuable insights.
- I learned the analytical skills of how a company can convert the audience to their customers at a low cost.

This is my spreadsheet reference link:

Drive link: https://drive.google.com/drive/folders/19qGpG7l16-abZsUPnsOKj3tORDyxYOij?usp=share_link