

XYZ Ads Airing Report Analysis

Description:

This case study aims to give us an idea of applying EDA in a real business scenario. Here we are given a dataset having different TV Airing Brands, their product, their category. 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. You 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, total amount spent on the Ads aired.

Approach: Here I followed below steps to get the key insights:

1. Here the data was already cleaned so data cleaning was not required.
2. But in the questions, we were asked to find insights on quarterly basis. So added a new column in the excel sheet as Quarter to find the quarter based on broadcast month column.
3. I copied the original dataset just to be on the safer side to keep the original data intact.
4. Performed analysis using pivot table and visualized results in different graphs.
5. Performed some of the analysis in Power BI also. So opened the power bi application and loaded the csv data and performed analysis.

Tech-Stack Used:

- Microsoft Excel for analysis
- Microsoft Power BI for analysis
- Microsoft Word for the presentation

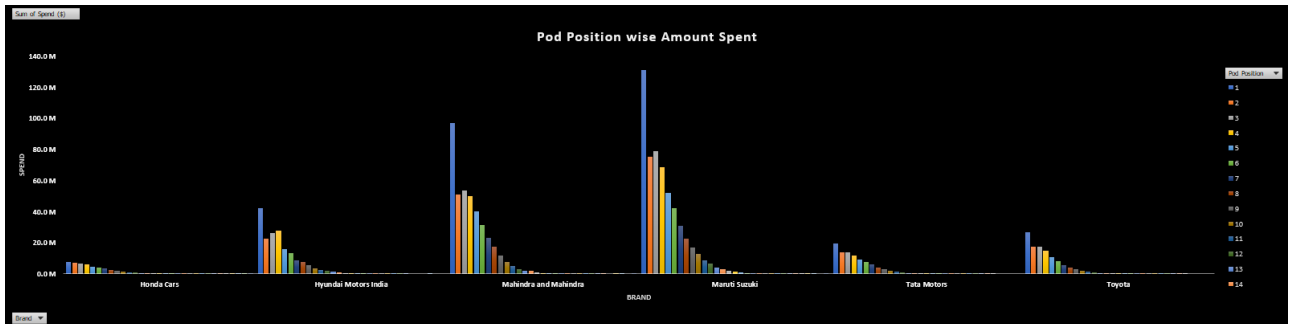
Insights:

1. What is Pod Position? Does the Pod position number affect the amount spent on Ads for a specific period of time by a company?

Pods: An ad pod is a group of ads that are sequenced together to be played back-to-back within a single ad break/commercial break.

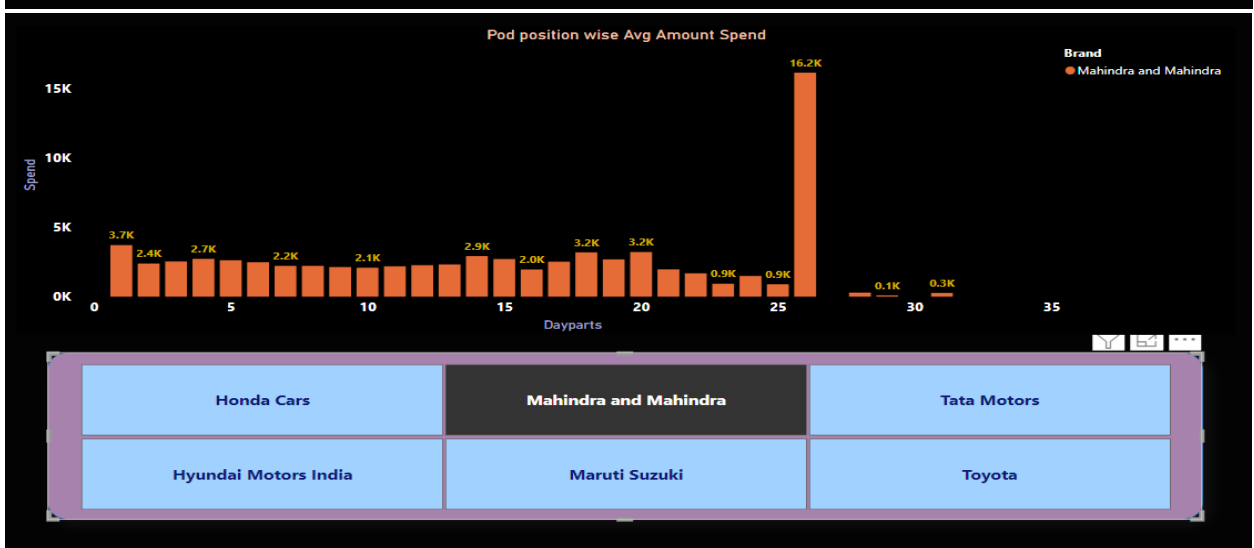
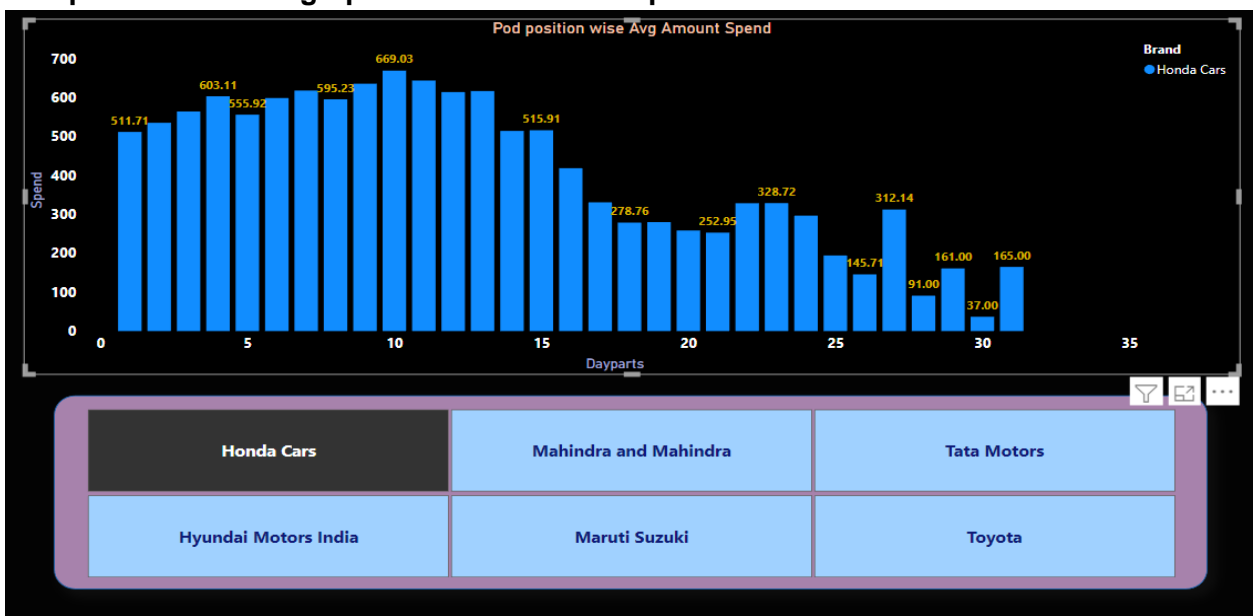
Pod Positions: The sequential location of an individual commercial within a commercial pod.

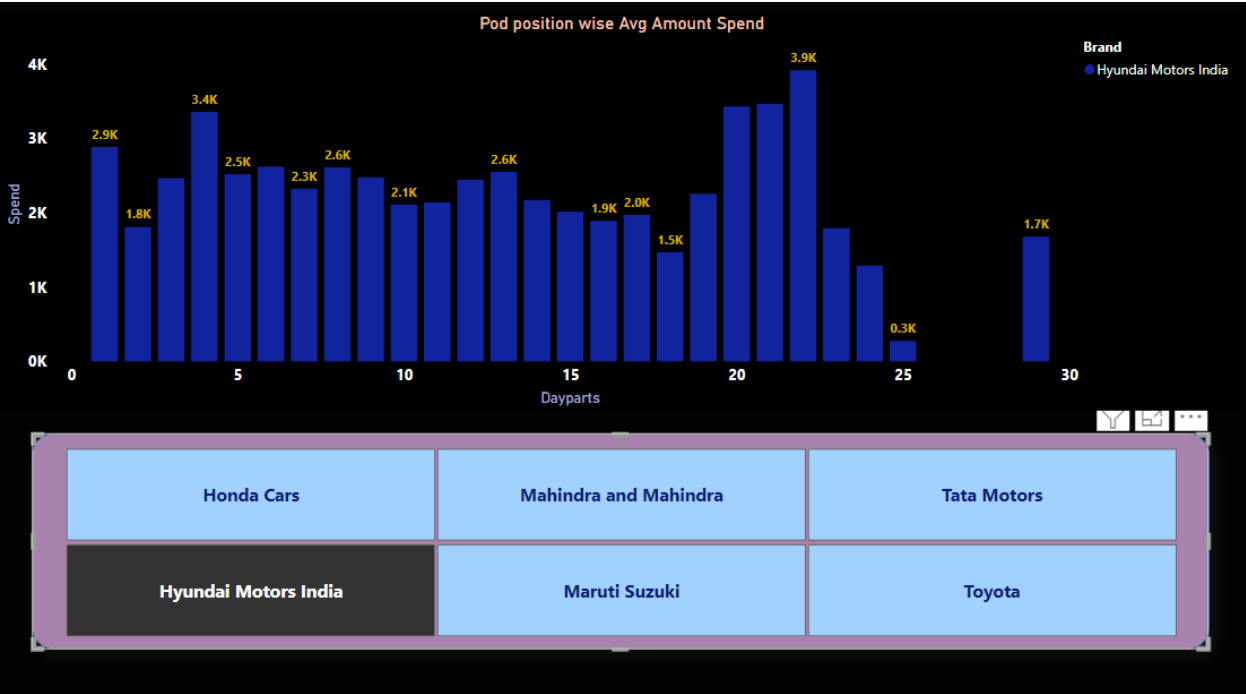
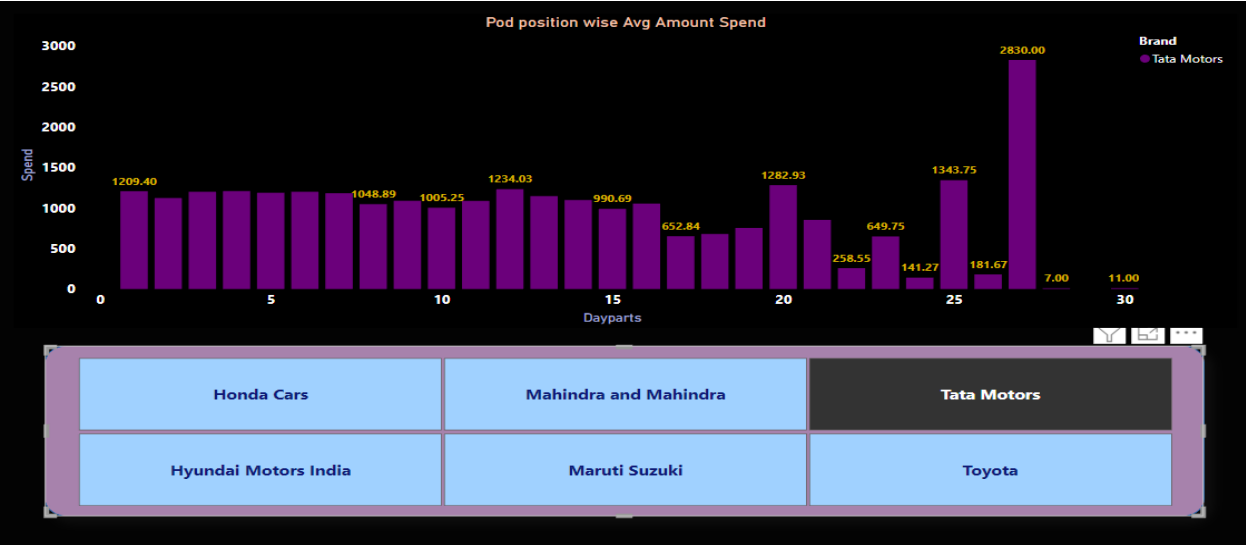
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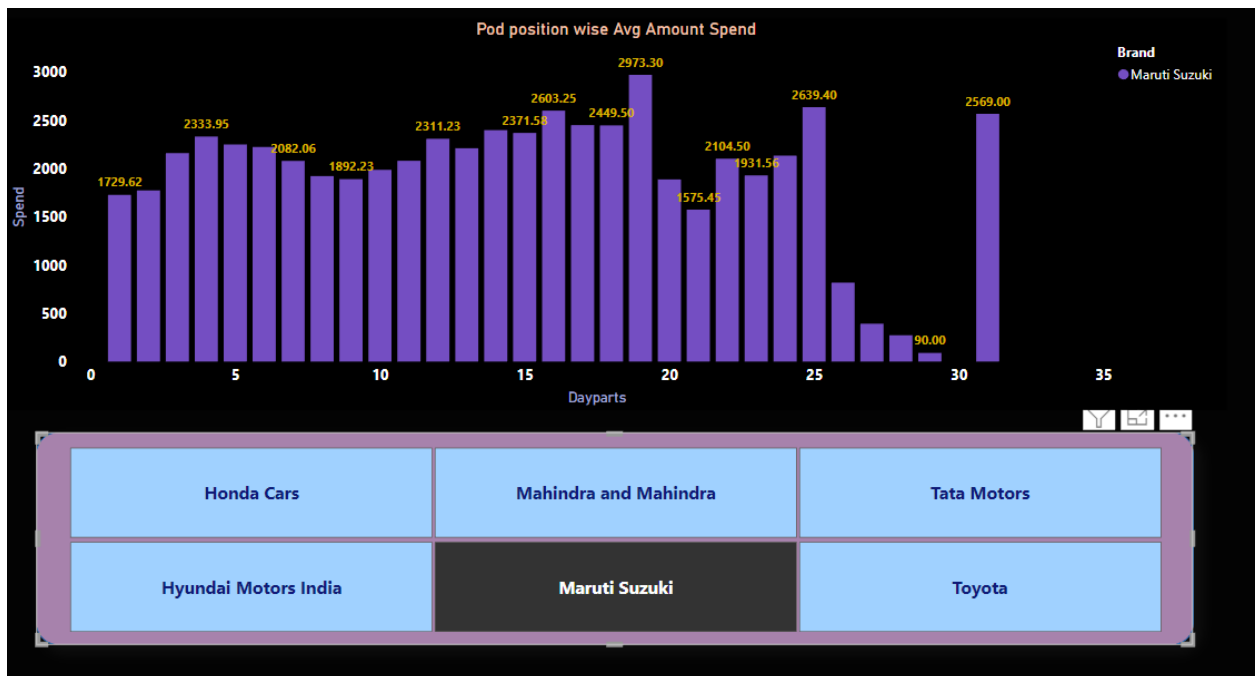


Yes, Based on the analysis we can say Pod position affects the amount spent on Ads for a specific period of time by a company. Companies has spent more amount in the pod positions which are positioned earlier.

Pod position wise Avg Spent for different companies:



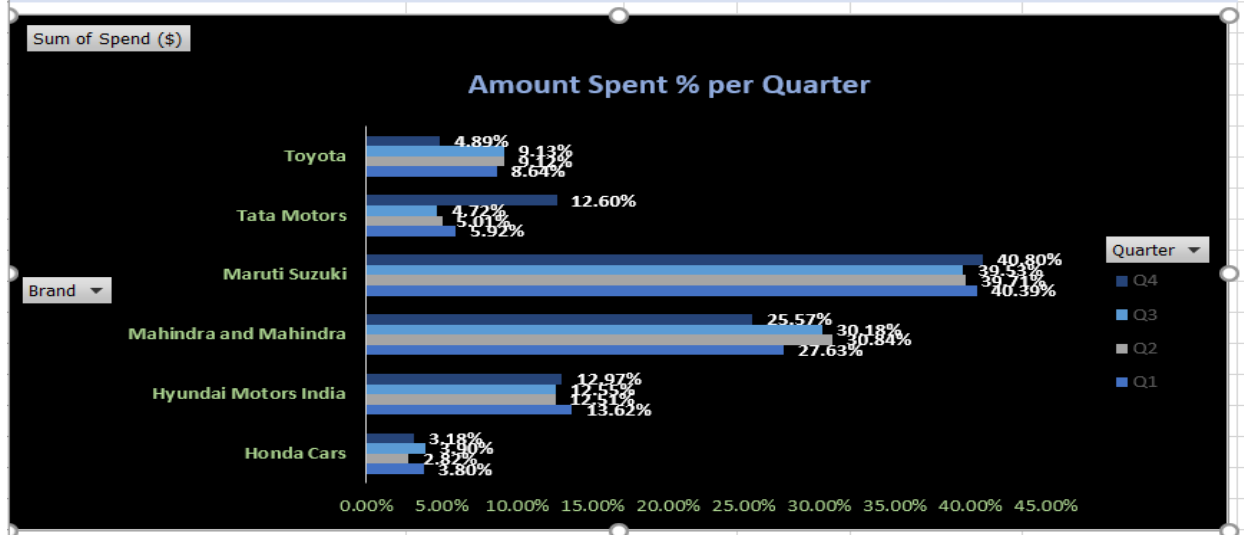




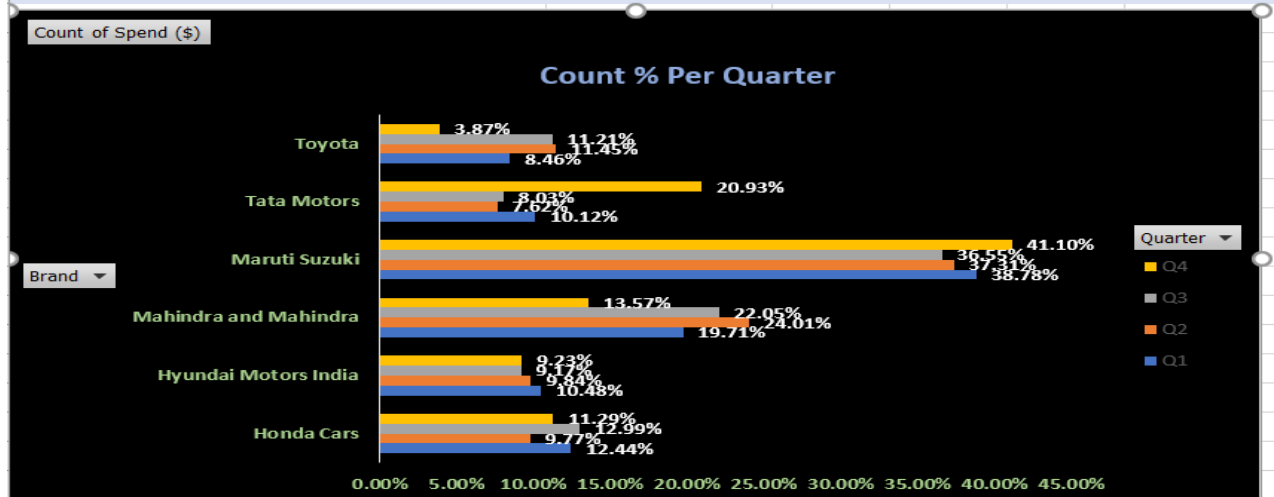
So we can see companies are more interested in the pod positions which are earlier

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

Sum of Spend (\$)	Column Labels				
Row Labels	Q1	Q2	Q3	Q4	Grand Total
Honda Cars	3.80%	2.82%	3.90%	3.18%	3.47%
Hyundai Motors India	13.62%	12.51%	12.55%	12.97%	12.98%
Mahindra and Mahindra	27.63%	30.84%	30.18%	25.57%	28.53%
Maruti Suzuki	40.39%	39.71%	39.53%	40.80%	40.12%
Tata Motors	5.92%	5.01%	4.72%	12.60%	6.81%
Toyota	8.64%	9.12%	9.13%	4.89%	8.09%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%



Count of Spend (\$)	Column Labels				
Row Labels	Q1	Q2	Q3	Q4	Grand Total
Honda Cars	12.44%	9.77%	12.99%	11.29%	11.65%
Hyundai Motors India	10.48%	9.84%	9.17%	9.23%	9.74%
Mahindra and Mahindra	19.71%	24.01%	22.05%	13.57%	20.21%
Maruti Suzuki	38.78%	37.31%	36.55%	41.10%	38.30%
Tata Motors	10.12%	7.62%	8.03%	20.93%	11.07%
Toyota	8.46%	11.45%	11.21%	3.87%	9.02%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%



Quarter Wise Total Amount Spent by Companies					
Brand	1	2	3	4	Total
Maruti Suzuki	183019481	129229242	124833119	121564630	586646472
Mahindra and Mahindra	129215380	99500908	95196781	73392586	397305655
Hyundai Motors India	62470842	40830200	38727107	38780607	180808756
Toyota	40351398	29509857	28424768	14367089	112653112
Tata Motors	25796631	16408174	15831865	36753557	94790227
Honda Cars	16963778	9549604	12073060	9671898	48258340
Total	457817510	325027985	315086700	294530367	1392462562

Quarter Wise Total Amount Spent by Companies in percentages					
Brand	1	2	3	4	Total
Toyota	8.81%	9.08%	9.02%	4.88%	8.09%
Tata Motors	5.63%	5.05%	5.02%	12.48%	6.81%
Maruti Suzuki	39.98%	39.76%	39.62%	41.27%	40.12%
Mahindra and Mahindra	28.22%	30.61%	30.21%	24.92%	28.53%
Hyundai Motors India	13.65%	12.56%	12.29%	13.17%	12.98%
Honda Cars	3.71%	2.94%	3.83%	3.28%	3.47%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Quarter Wise No of Ads by Companies					
Brand	1	2	3	4	Total
Honda Cars	25929	19388	23020	16928	85265
Hyundai Motors India	22396	18623	16484	13793	71296
Mahindra and Mahindra	43371	46244	39537	18738	147890
Maruti Suzuki	82381	71695	66196	60002	280274
Tata Motors	20679	14967	14912	30483	81041
Toyota	18212	22083	19678	6045	66018
Total	212968	193000	179827	145989	731784

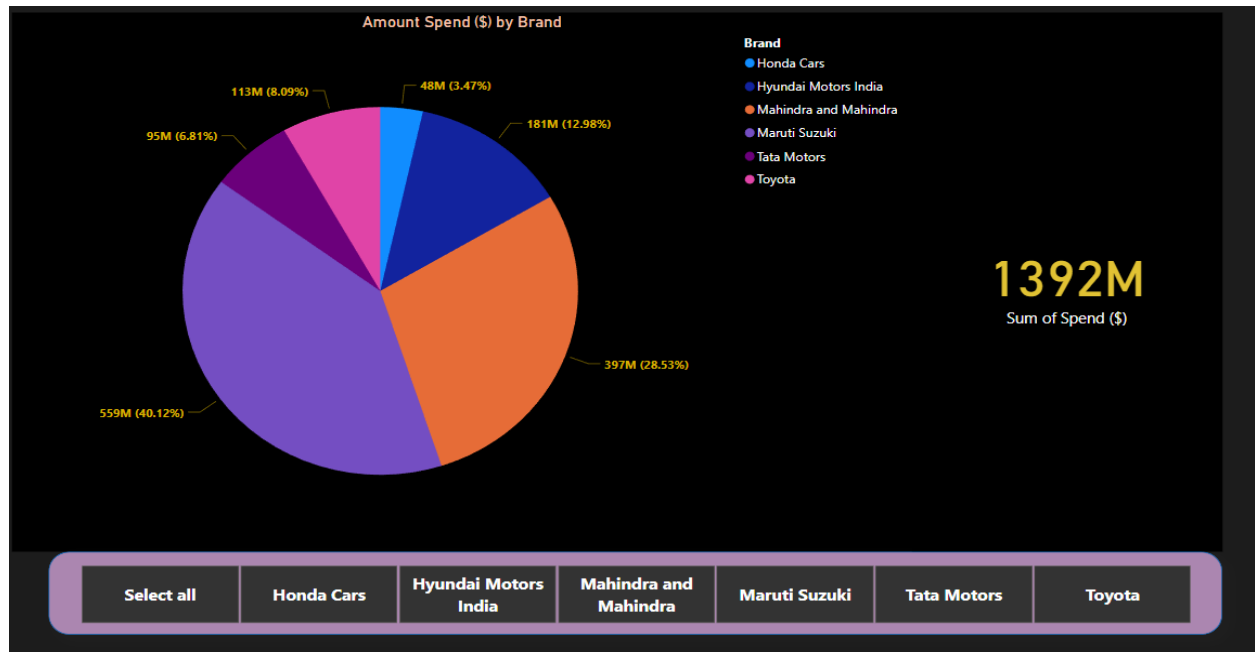
Quarter Wise No of Ads by Companies in percentage					
Brand	1	2	3	4	Total
Honda Cars	12.18%	10.05%	12.80%	11.60%	11.65%
Hyundai Motors India	10.52%	9.65%	9.17%	9.45%	9.74%
Mahindra and Mahindra	20.37%	23.96%	21.99%	12.84%	20.21%
Maruti Suzuki	38.68%	37.15%	36.81%	41.10%	38.30%
Tata Motors	9.71%	7.75%	8.29%	20.88%	11.07%
Toyota	8.55%	11.44%	10.94%	4.14%	9.02%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Conclusion:

From the above analysis using pivot table and through power bi visualization of spend of ads in different quarters by different companies we can say:

- Toyota's share on ads expenditure and number of ads remains almost same for Q1, Q2 and Q3 but heavily decreased in Q4.
- Tata Motors share on ads expenditure marginally decreased for Q1,Q2 and Q3 but substantially increased in Q4. Almost same pattern is followed in number of ads
- Maruti Suzuki share on ads expenditure remains almost same for all the 4 Quarters and increased in the Q4.It has the highest expenditure on ads in total compared to other brands(40.12%).
- Mahindra and Mahindra expenditure on ads increased for Q2 from Q1 then slightly decreased in Q3 and then again substantially decreased in Q4.
- Hyundai Motors India share on ads expenditure remains more or less same for all the 4 Quarters.
- Honda Cars expenditure also remains more or less same for all the 4 Quarters and Honda Cars has the lowest expenditure on ads(3.47%).
- Maruti Suzuki has the highest number of ads (38.30%) and Toyota has the lowest number of ads (9.02%)

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

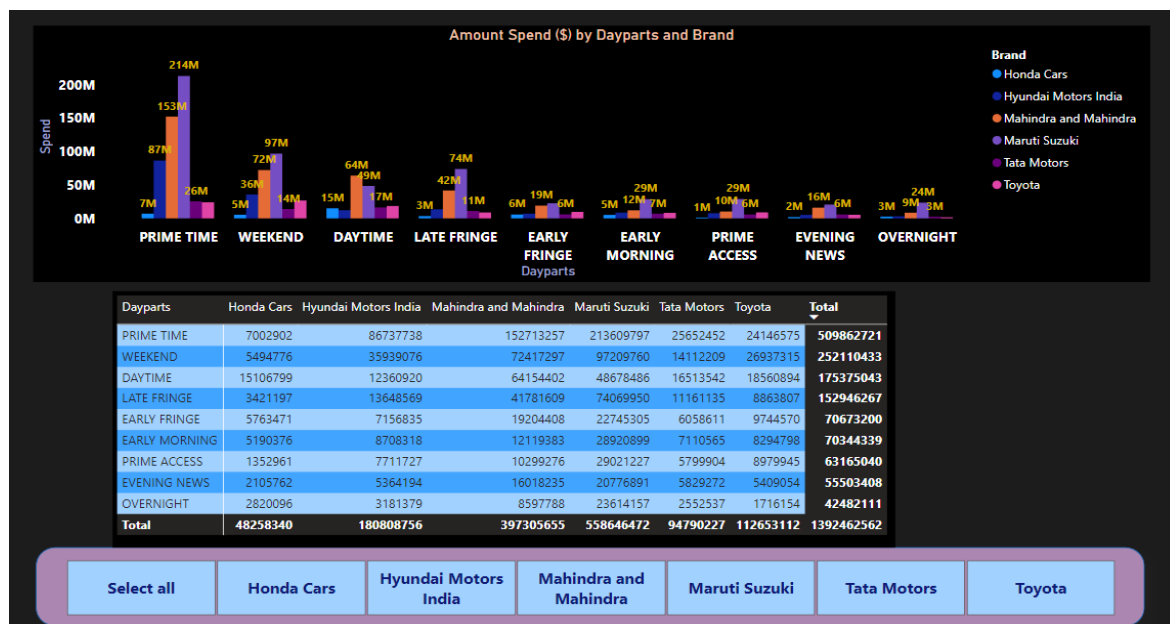


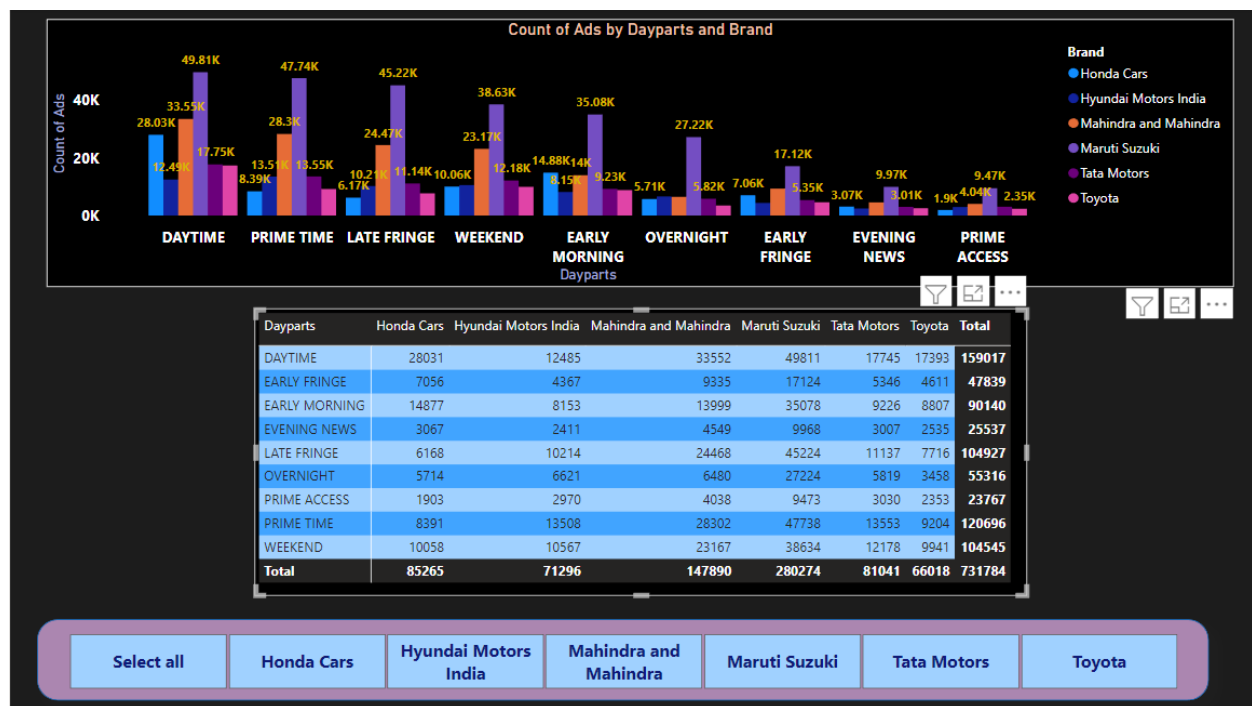
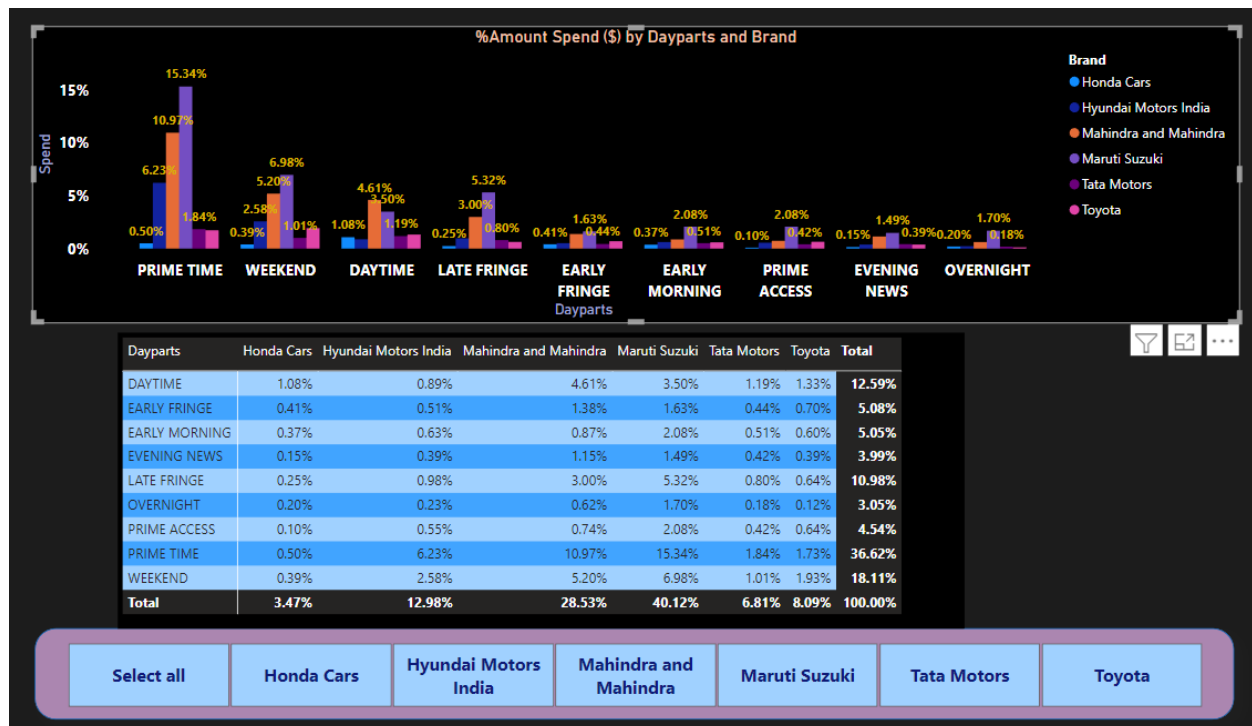
Conclusion:

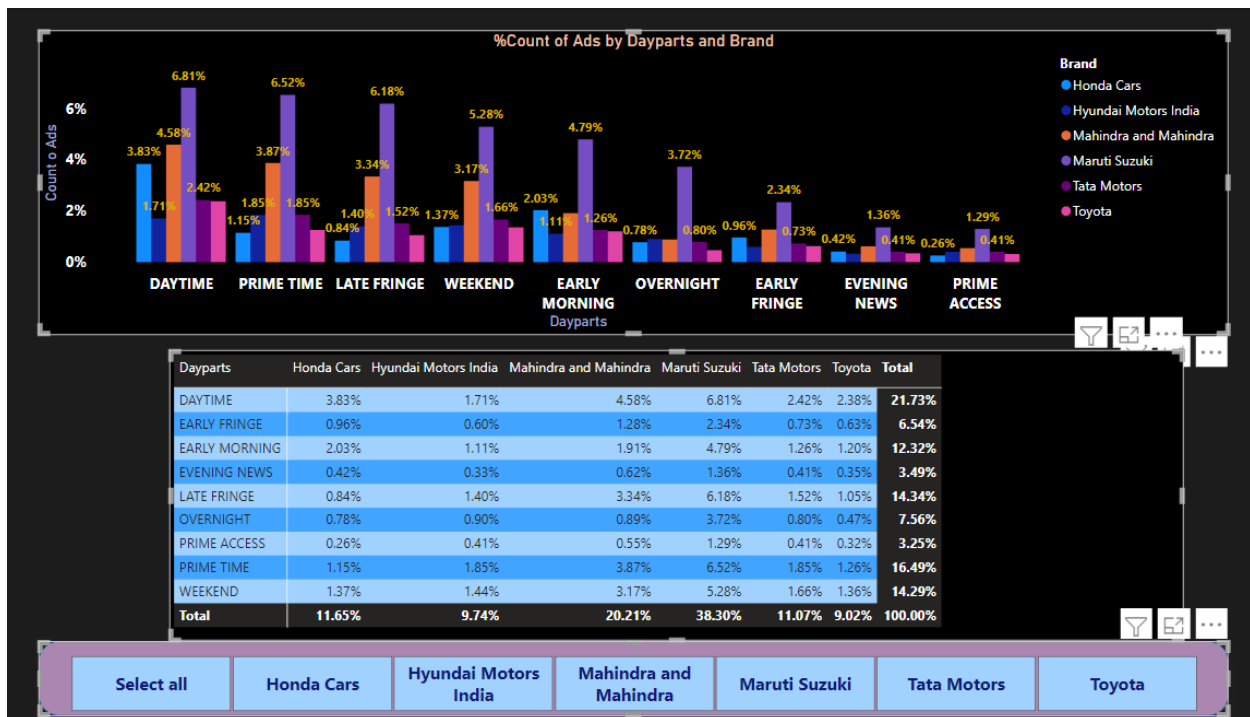
From the above analysis using power bi we get know the below things:

Total Amount Spent by all the companies for ad is 1392M \$ out of which Maruti Suzuki Spent 559M \$ which is highest and Honda Cars spent the least 48M \$

Daypart:



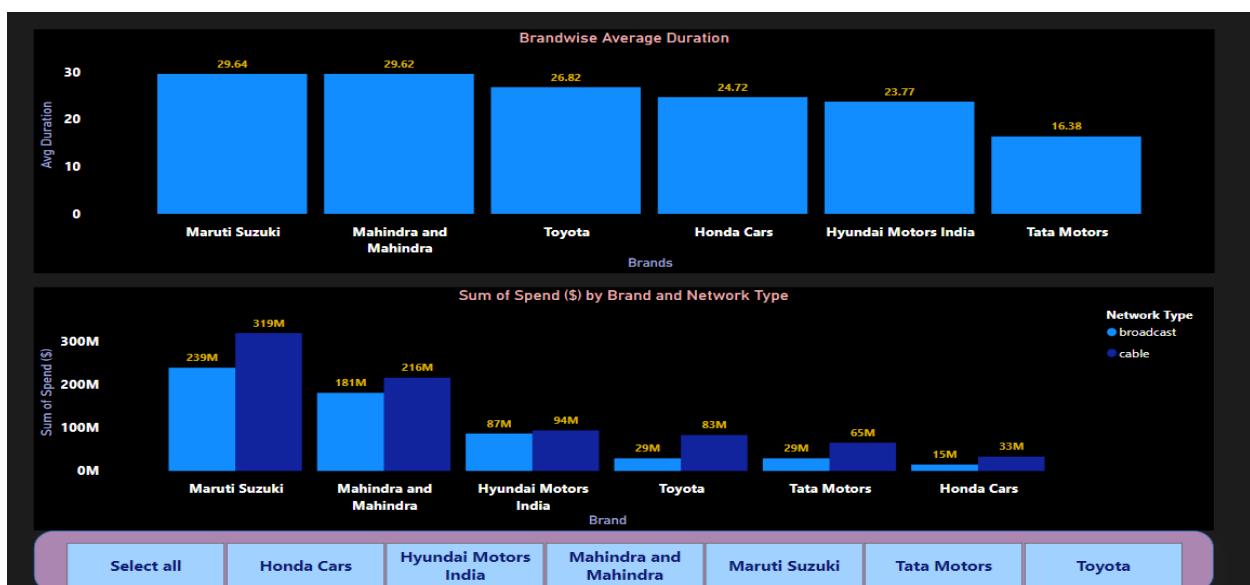




Conclusion:

- Companies has mostly spent their money on Prime Time, Weekend, Daytime, Late Fringe. They have spent 36.62% money on Prime Time.
- Companies has spent minimum of their money on Prime Access, Evening News, Overnight. They have spent lowest 3.05% money on Overnight slot.
- Most number of ads aired on Daytime 21.73%
- Least number of ads aired on Prime Access 3.25%

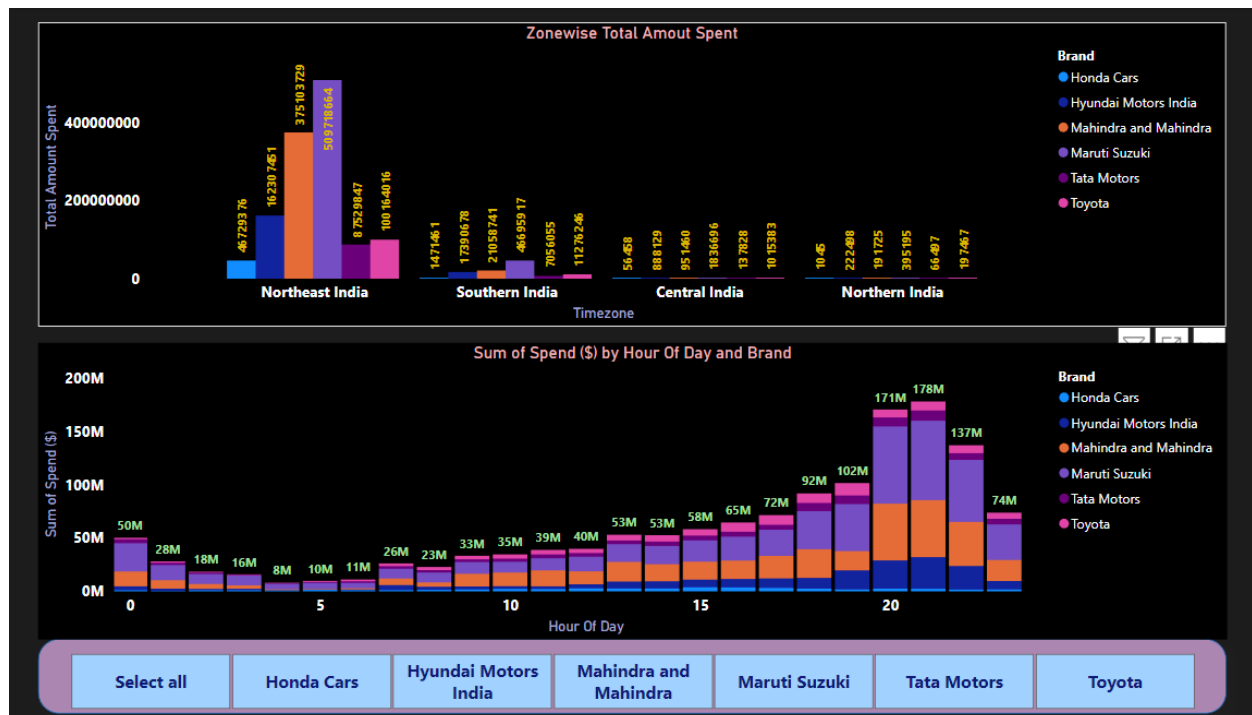
Avg Duration and Network Type:



Conclusion:

- Maruti Suzuki has the highest Avg Duration of ads i.e 29.64
- Tata Motors has the lowest avg duration of ads i.e 16.38
- All the brands has spent more in cable network than broadcast

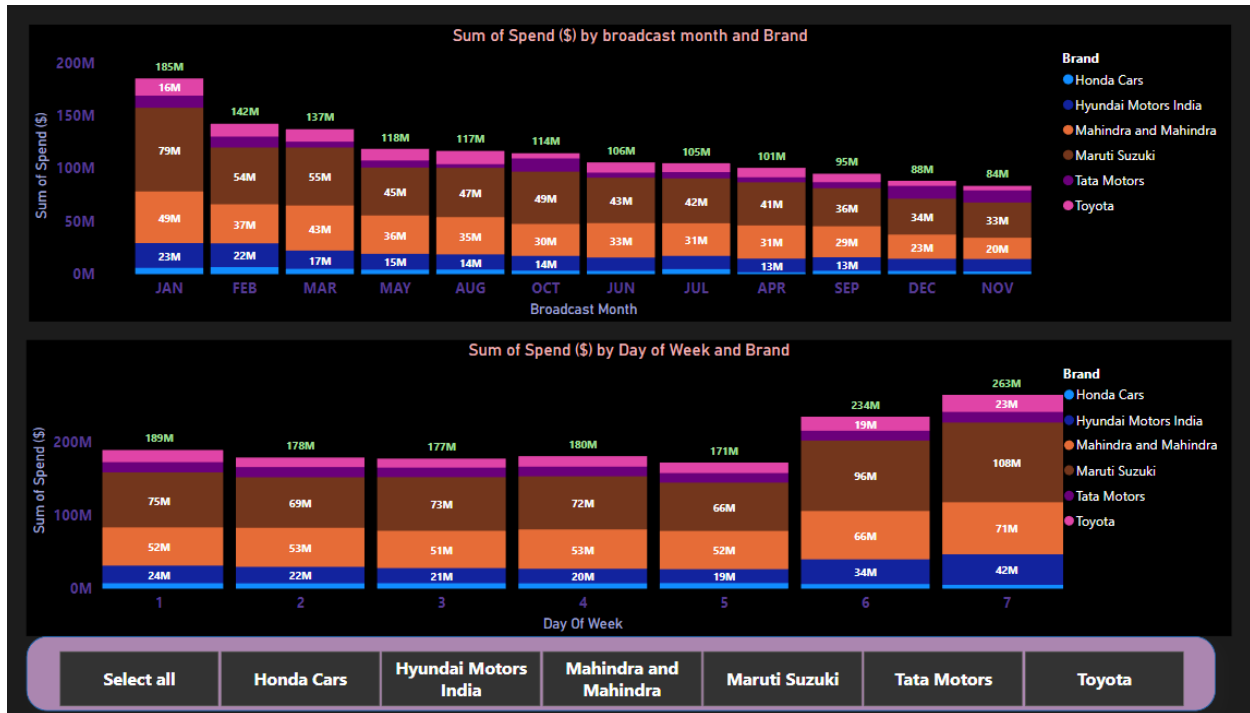
Timezone & Hour of Day:



Conclusion:

- Brands has mostly spent Northern region, In all other region they have spent very less amount.
- Brands has mostly spent in evening to mid night.19:00-24:00 hrs
- Brands has spent very less in the early morning
- Among all other brands Maruti Suzuki has spent the maximum

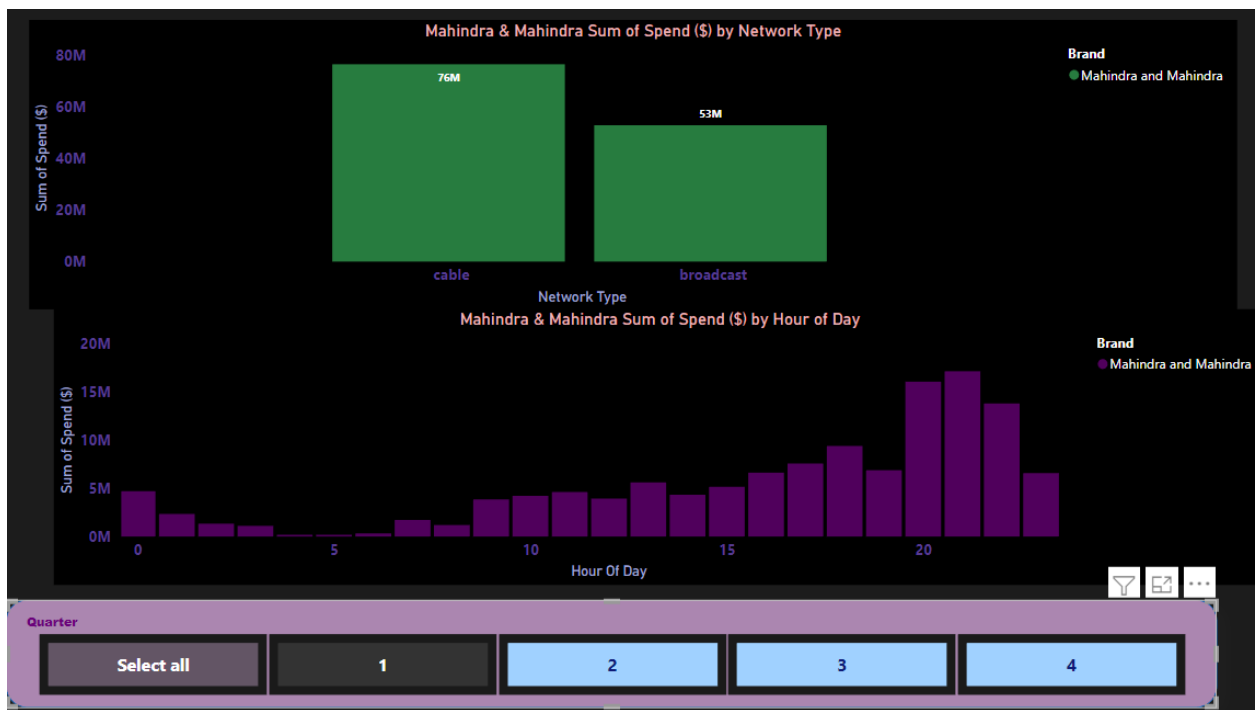
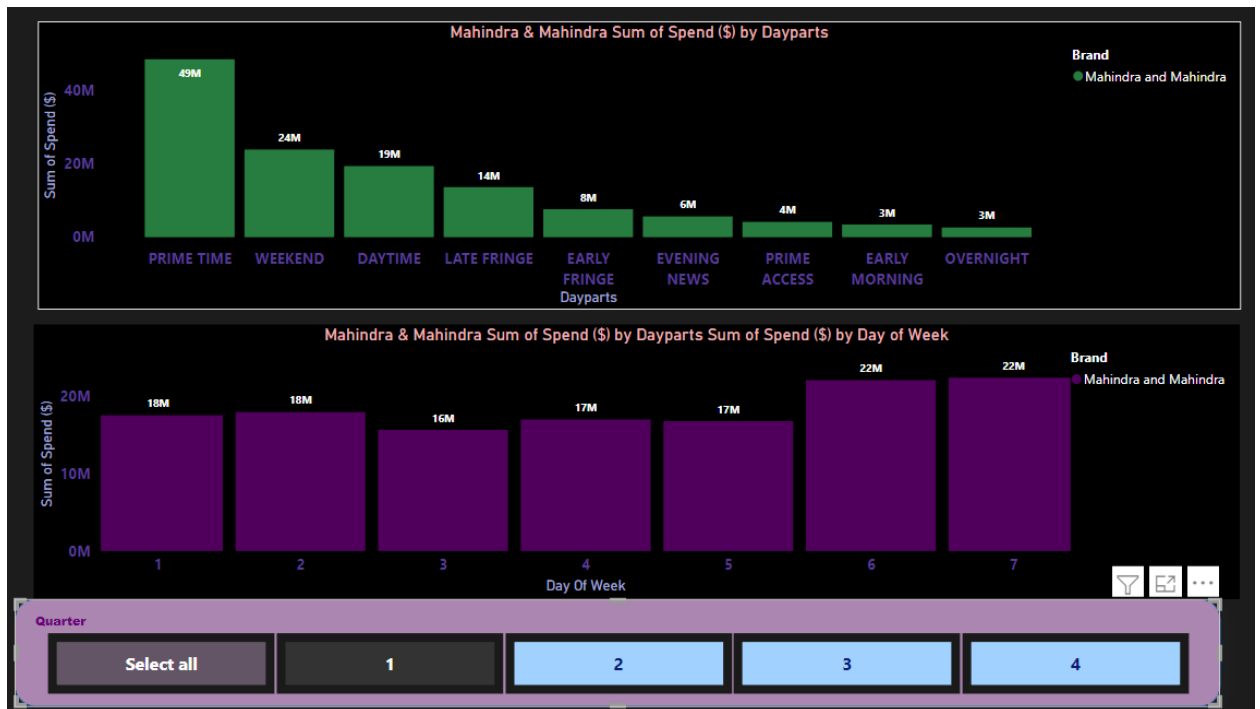
Broadcast Month & Day of week



Conclusion:

- Brands have spent the most in January and least in November.
- During weekday brands has spent almost same money but the amount has increased in the weekend
- Mahindra & Mahindra and Maruti Suzuki have spent the maximum amount.

4. 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?





Suggestions for Q1 2022 based on Q1 2021 data:

- Mahindra & Mahindra should target Prime time, Weekend ,Daytime for the daypart.
- Mahindra & Mahindra should maintain an avg amount for the weekdays and spent more in weekends.
- Mahindra & Mahindra should spend the amount from late evening to mid nights
- Mahindra & Mahindra should equally spend the amount from Jan-Apr. In 2021 They spent less money in April.
- Mahindra & Mahindra should equally spend the amount in all the regions. Last year they focused more in Northern and Southern region. They should boost Central and Northeast part.

- Last year they aired the ads mostly for Mahindra Thor and gave very less priority for Scorpio & XUV 700. I would suggest they should give more priority to Scorpio & XUV 700

Result:

- Learnt to work with huge datasets in Power BI.
- Learnt to work with large datasets in excel.
- Gained business knowledge on Ad airing industry