

# **XYZ Ads Airing Report Analysis**

## **Description:**

For your Final Project, we are providing you with a dataset having different TV Airing Brands, their product, their category. Dataset includes the network through which Ads are airing, types of networks 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, Equivalent sales &, total amount spent on the Ads aired.

## **Business Understanding:**

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 deal 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 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.

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## **Tech Stack Used**

- Microsoft Excel 2019 for data analysis.
- Microsoft Power BI Desktop for visualization.

## **Cleaning the data**

- I began by looking for the empty cells in each column, but there were none.
- Since my research only covers the year 2021, I eliminated the data for 2022.
- Then, for a more precise analysis, I looked for outliers in the "Spend (\$)" column and removed them.
- For broadcast month, I used VLOOKUP to construct the "Quarter" column, as seen below.

Months	Quarter
JAN	Q1
FEB	Q1
MAR	Q1
APR	Q2
MAY	Q2
JUN	Q2
JUL	Q3
AUG	Q3
SEP	Q3
OCT	Q4
NOV	Q4
DEC	Q4

O	P	Q	R
Broadcast Month ▾	Quarter ▾	Broadcast ▾	Day Of We ▾
JUN	=VLOOKUP(O47,\$Y\$7:\$Z\$18,2,FALSE)		
APR	Q2	15	
OCT	Q4	41	
MAY	Q2	22	
MAR	Q1	12	
APR	Q2	14	
JUL	Q3	29	
JAN	Q1	3	
DEC	Q4	49	
MAR	Q1	12	
OCT	Q4	42	
JAN	Q1	5	
JAN	Q1	5	

This will make the analysis more understandable.

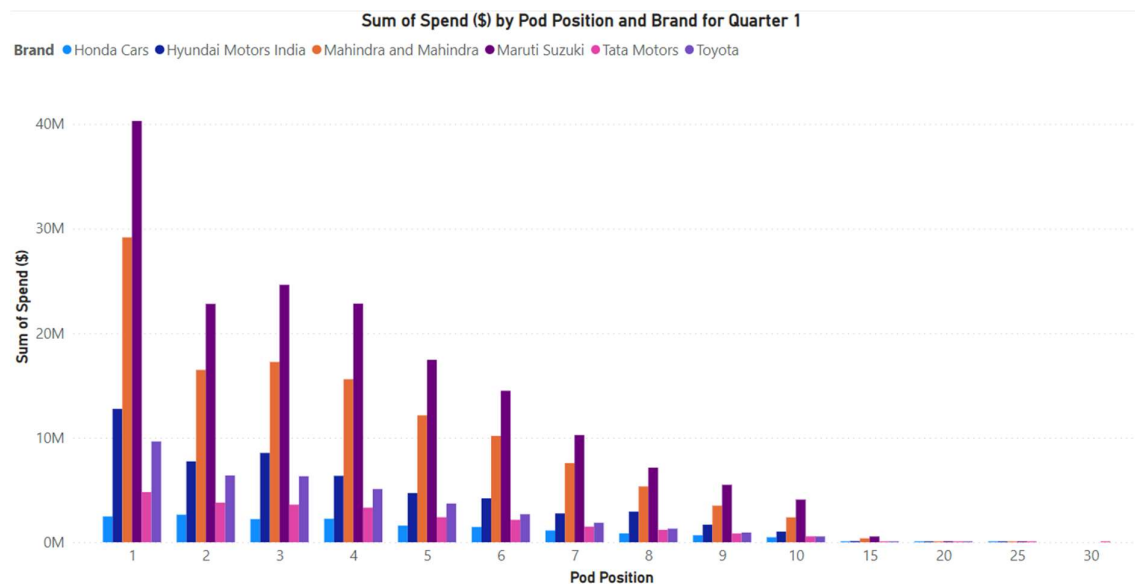
## Case Study Objectives:

Attached is the dataset of TV Ad Airings of some brands from the Automobile category. Use this data to answer the following:

- 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)

An ad pod is a grouping of commercials that have been scheduled to run consecutively during an ad break. Ad pods allow advertisers greater control over ad positioning and give businesses the chance to maximise revenue from each ad break.

To display their advertisements, each brand is allotted a certain pod position. The pricing of different pod placements varies according to the position. A brand's ability to spend money on an advertisement is influenced by the pod position they choose. The lower the pod position, the higher the value, as illustrated below by the graph from the given dataset.

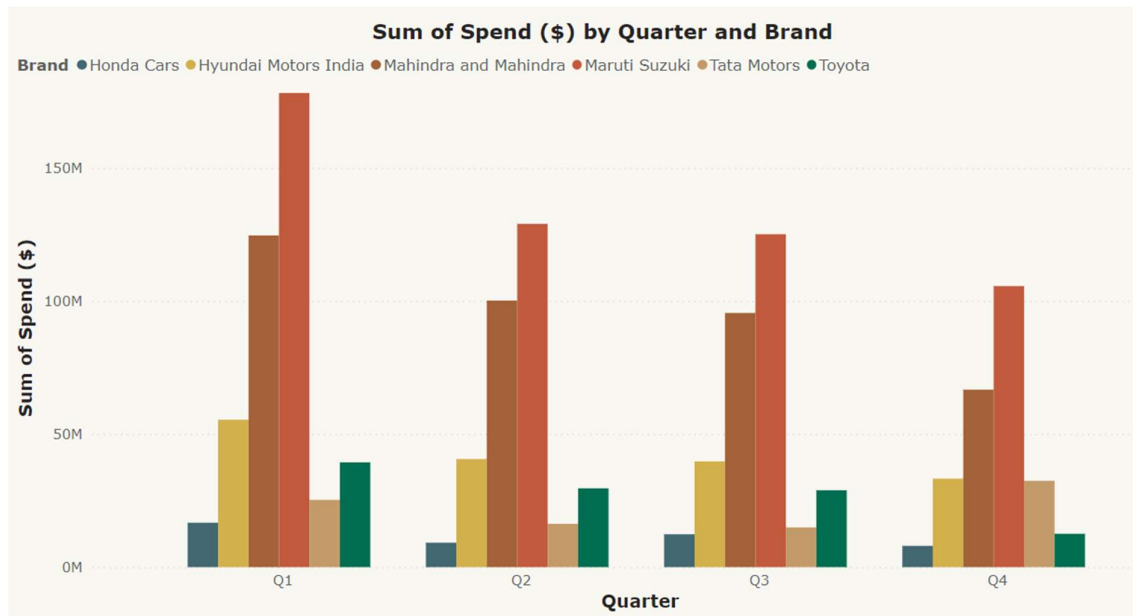


The graph depicts the relationship between various pod positions and overall brand spending for that position in Quarter 1. The chart illustrates that the Top 10 positions have the biggest amount of brand advertising investment. Additionally, expenditure drops significantly as one moves upwards in the pod positioning numbers compared to the top 10.

- The only brand that spends more per pod position than its rivals is Maruti Suzuki.
- We can observe that this brand has spent a total of \$40 million on pod position 1.
- I can infer from this that the pod position number affects how much a brand spends on its advertisements.

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

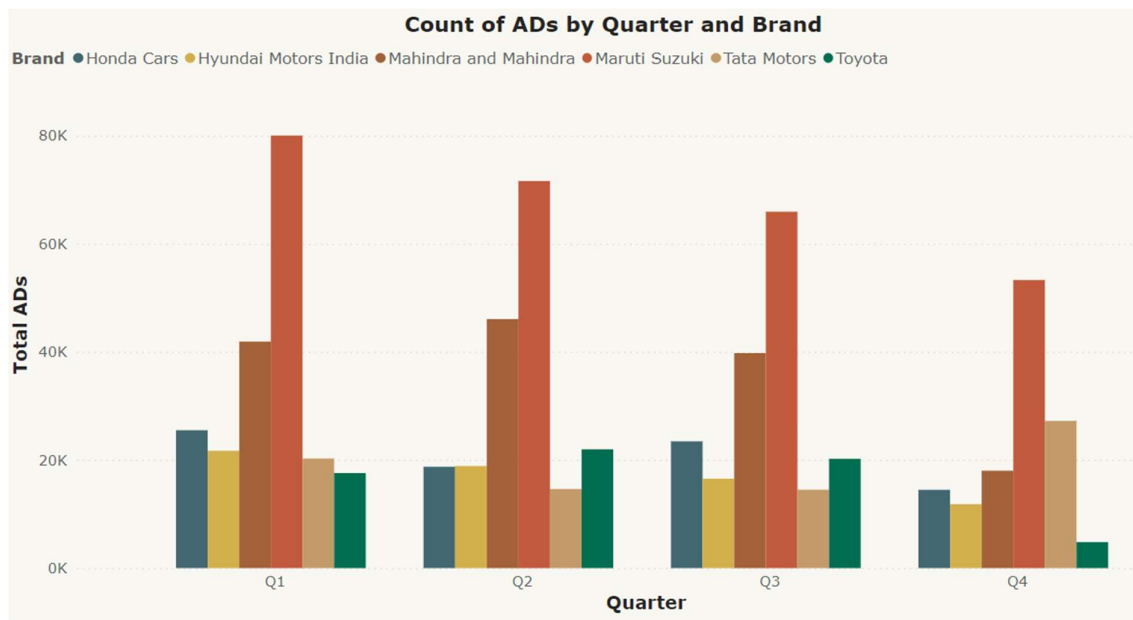
**A. Share of brands in TV airing according to total spends**



This graph displays the total amount that each brand spent on advertising during the four quarters of 2021. I deduced the following from this chart:

- Overall, we can observe that over time, spending on every brand gradually declined. Spending in the second quarter is lower than in the first quarter. Spending in third quarter is lower than in prior quarters, such as quarters 1 and 2, and so on.
- From this chart, I can deduce that Maruti Suzuki is the brand that spends the most on advertising in all quarters, followed by Mahindra and Mahindra.

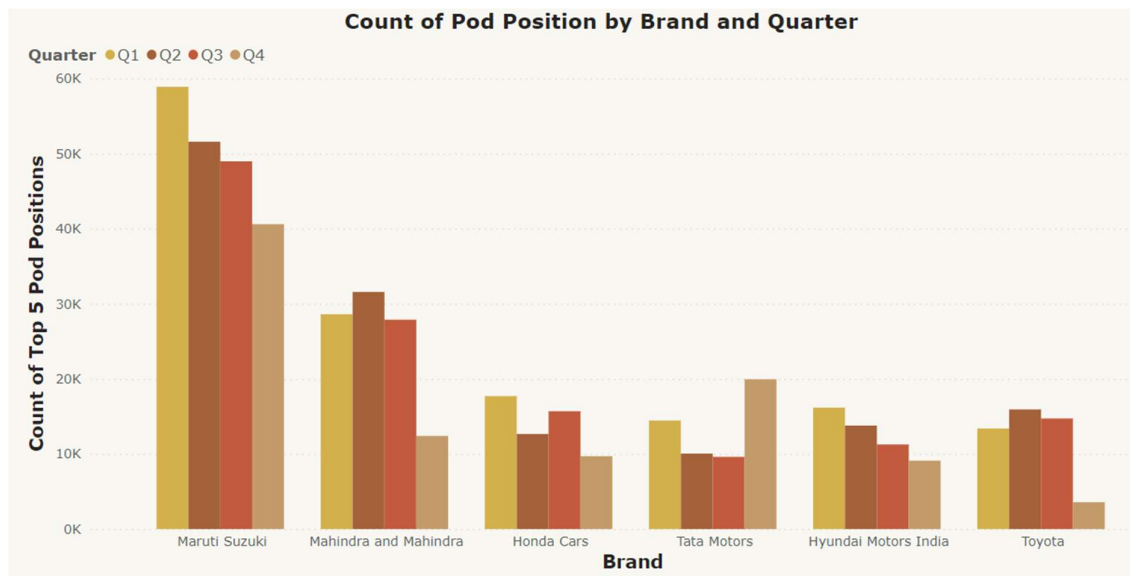
## B. Share of brands in TV airing according to total number of ads



This graph displays the total number of ads of each brand during the four quarters of 2021. I deduced the following from this chart:

- Maruti Suzuki, followed by Mahindra & Mahindra, is the brand with the most advertisements each quarter. However, Tata Motors surpassed Mahindra and Mahindra in the fourth quarter for the second-highest number of advertisements.
- In alternative quarters, Honda Cars advertisements are nearly identical in number. They have about 25000 commercials in the first and third quarters. Then they run about 16000 commercials in the second and fourth quarter.
- Hyundai Motors India began the year with a large number of advertisements, but by year's end, their numbers had decreased.
- In comparison to Toyota, Tata Motors boosted the frequency of its advertisements in the fourth quarter whereas Toyota saw a decline.

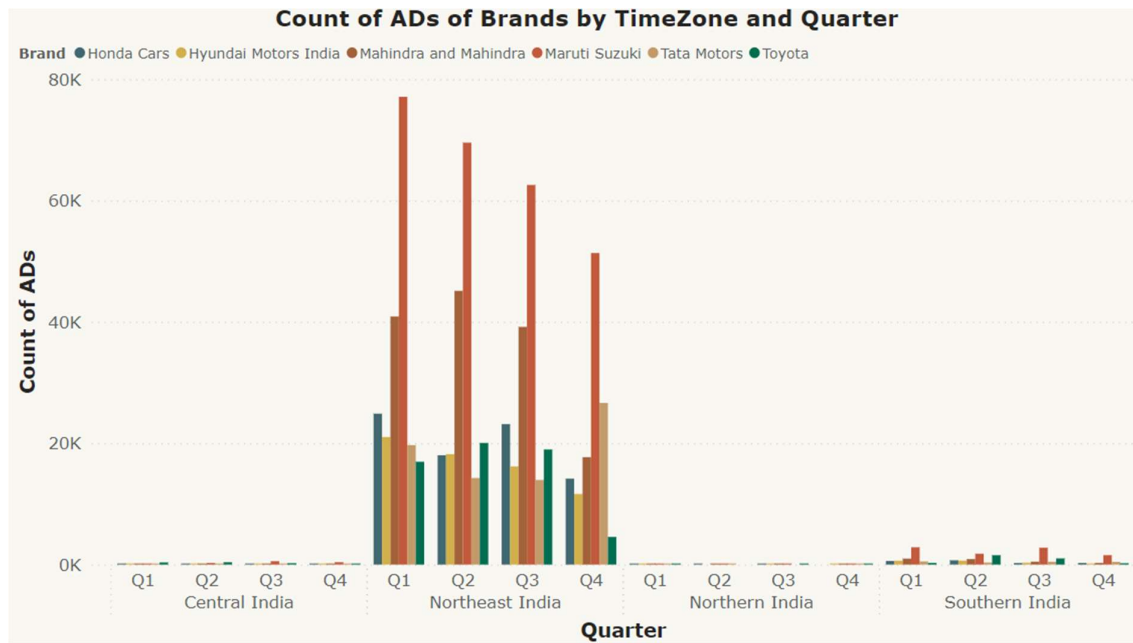
### C. Share of brands in TV airing according to Top 5 pod positions



This graph displays the total number of top 5 positions grabbed by all brands during the four quarters of 2021. I deduced the following from this chart:

- Maruti Suzuki is the only brand among all others that has the potential to consistently rank in the top 5 pod positions throughout the entire year 2021. Maruti Suzuki broadcast about 60k advertisements in the top 5 pod positions in Q1, although this amount fell throughout the course of the year. By the end of the year, this number had fallen to about 40k.
- Mahindra and Mahindra were able to maintain the top 5 pod positions for their advertisements up until Q3 of 2021. During this time, they broadcast about 30k advertisements in the top 5 pod positions, but in Q4, this number fell dramatically to just 12k.
- This graph makes the Honda Cars' strategy quite apparent. They invest money on top 5 pod slots for their advertising in each alternate quarter of 2021.
- Tata Motors began with roughly 15k advertising on the top 5 pod slots, but by the second and third quarters, this value had dropped to just 10k. However, in the last quarter, they increased to 20k ads on the top 5 pod positions.
- The graph for Hyundai Motors India shows a downward trend, indicating that less of their advertisements appeared in the top five pod positions throughout the course of the year.
- Toyota was able to keep their advertisements in the top 5 pod positions through Q3 of 2021. They broadcast over 15k advertisements over this time period on the top 5 pod positions, but in Q4, this number sharply dropped to 4k.

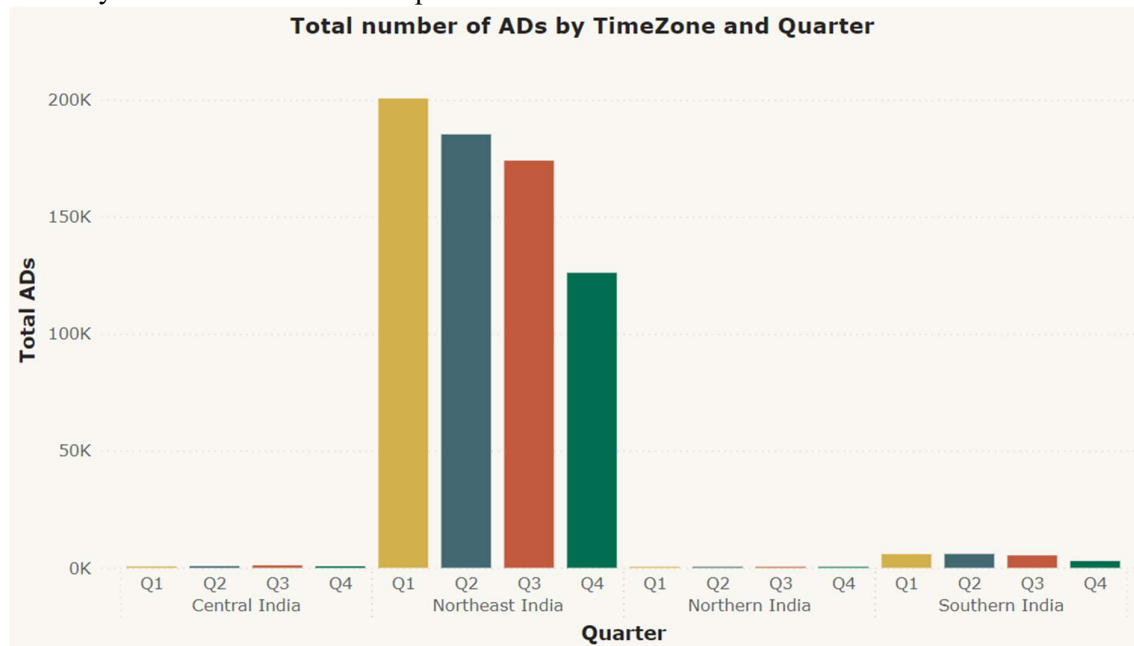
#### D. Share of brands in TV airing according to Time zone



This graph displays the total number of ads for all brands according to time zone during the four quarters of 2021. I deduced the following from this chart:

- This graph makes it very evident that during every quarter of 2021, all brands concentrated their marketing efforts mostly in Northeast India.
- In terms of the overall quantity of advertisements broadcast during the year, Southern India comes in second to Northeast India.

The graph below also displays the total number of advertisements for all brands broken down by time zone and calendar quarter in 2021.



- This graph also shows that all brands have Northeast India as their primary marketing emphasis.
- Nearly 200K advertisements were broadcast in this region during Q1, which is a large number compared to other regions.

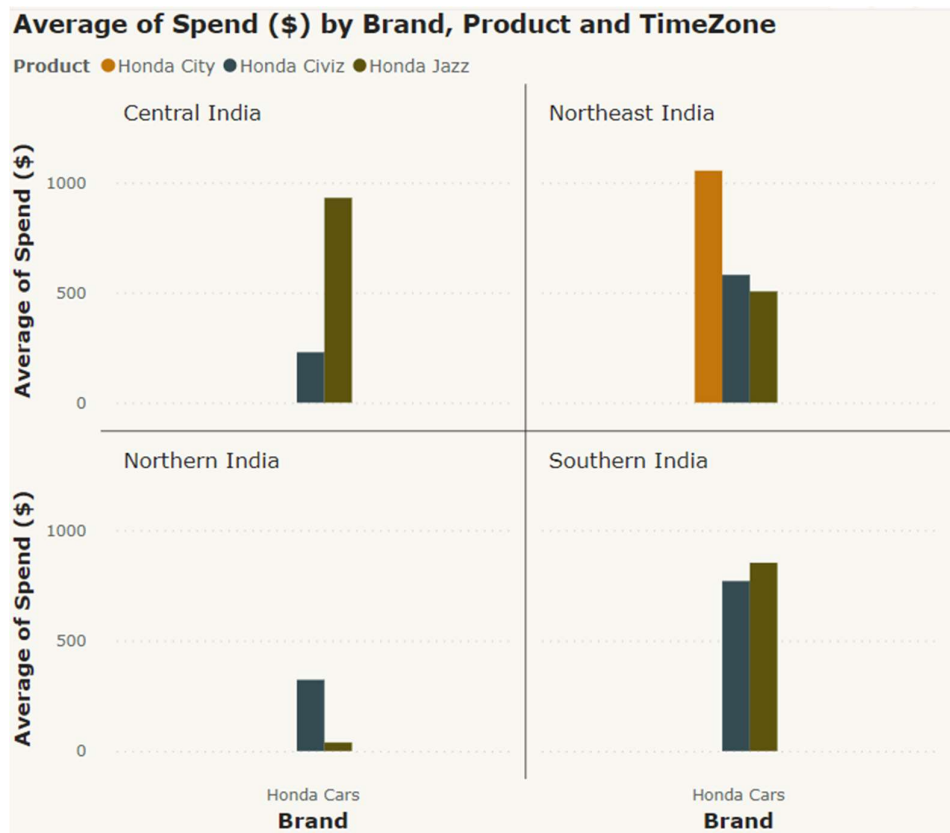
c. Conduct a competitive analysis for the brands and define advertisement strategy of different brands and how it differs across the brands.

#### A. Honda Cars

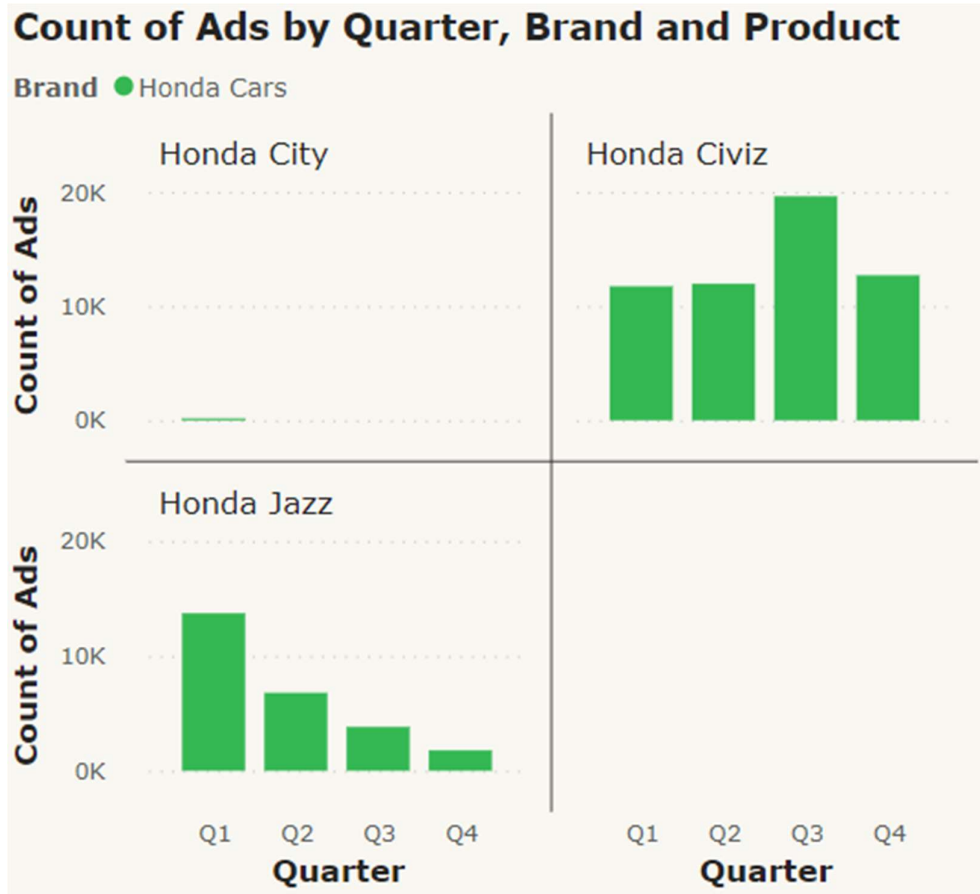
Brand	Average of Spend (\$)	Average of EQ Units
☐ <b>Honda Cars</b>	<b>562.07</b>	<b>0.83</b>
Honda City	1054.48	0.50
Honda Civiz	584.62	0.84
Honda Jazz	512.62	0.80
<b>Total</b>	<b>562.07</b>	<b>0.83</b>

- This matrix demonstrates that, in Y2021, Honda Cars spent most of their money, on average, on the Honda City, but that their average EQ units were somewhat lower for this product than for others.
- This implies that in order to boost sales, this product must be improved.



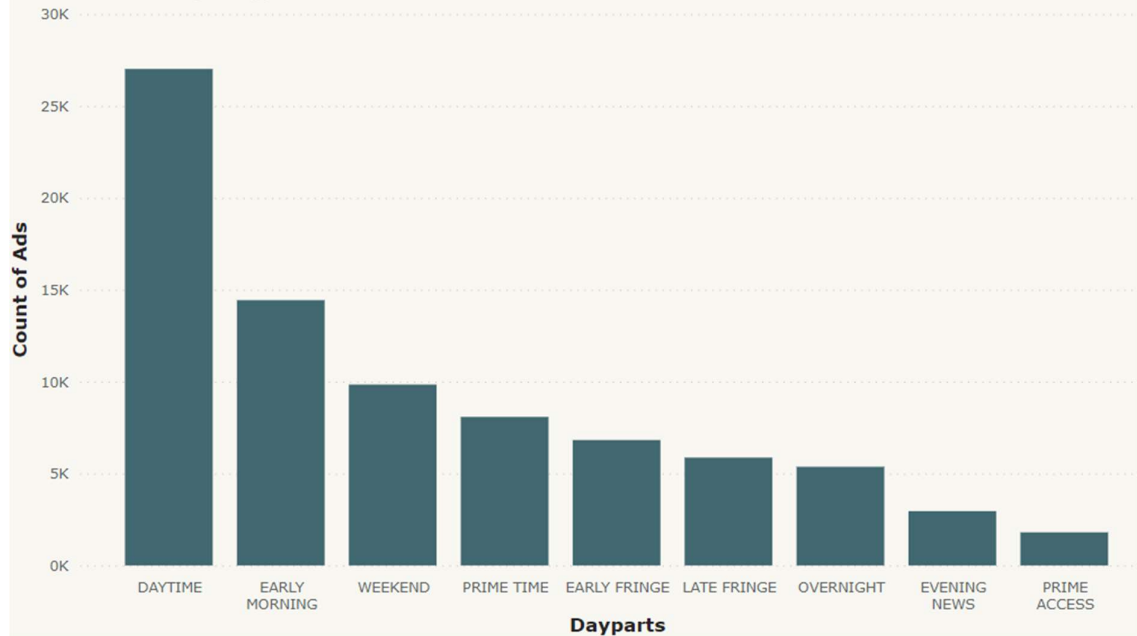


- These figures demonstrate that Honda Cars spend more on all of their products in Northeast India.
- Only two of Honda Cars' products are promoted in other markets. This indicates that the company is focusing on a specific geographic audience.



- Honda Cars broadcast the most Honda Civic and Honda Jazz advertisements each quarter.
- Because Honda Cars concentrated the promotion of this model in just one zone, Honda City advertisements are extremely scarce and only appeared in Q1.
- The ideal course of action would be to evenly fund and air all of their product advertisements throughout all of the locations.

**Count of Ads by Dayparts**

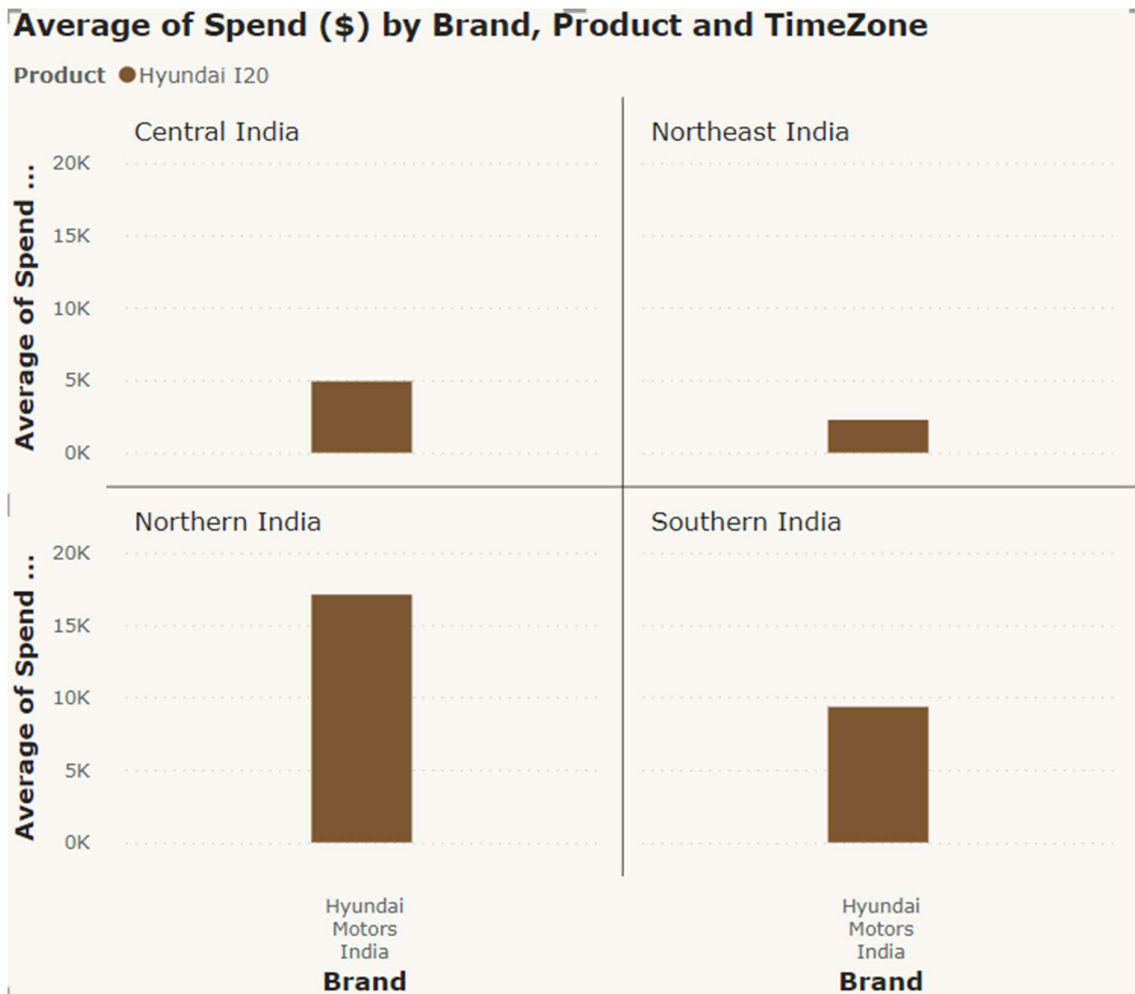


- This graph demonstrates that daytime hours were when Honda Cars commercials were aired the most.
- They ought to focus more of their product advertisements, in my opinion, on prime time. Although it is an expensive slot, they ought to aim for it for some of their products to boost their sales.

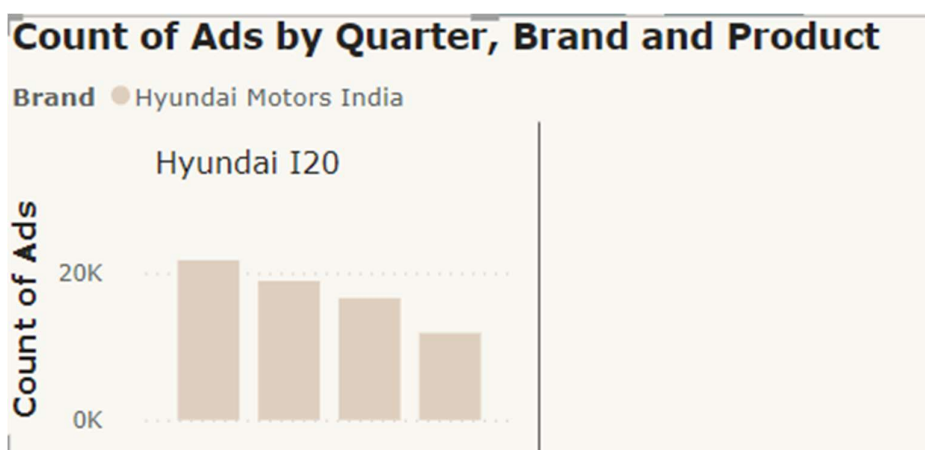
## **B. Hyundai Motors India**

Brand	Average of Spend (\$)	Average of EQ Units
Hyundai Motors India	2450.64	0.79
Hyundai I20	2450.64	0.79
Total	2450.64	0.79

- This matrix demonstrates that, in Y2021, Hyundai Motors India have only one product for their commercials.

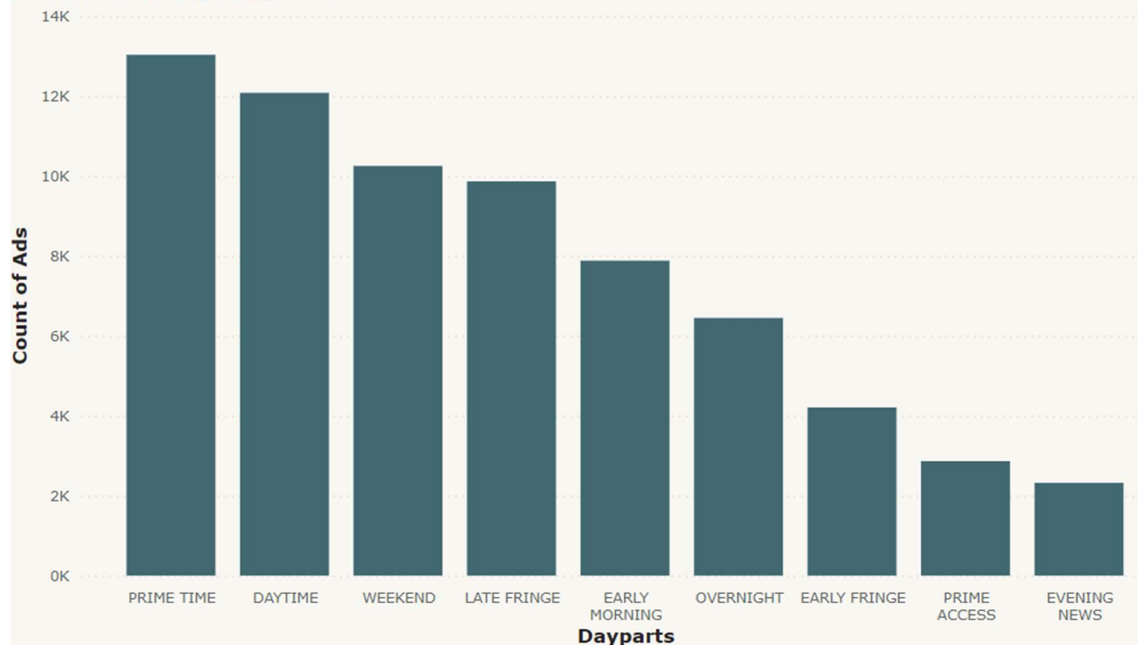


- These figures demonstrate that Hyundai Motors India spend more for their commercials in Northern India followed by Southern India.



- The trend on this graph is decreasing. In Q1 of Y2021, Hyundai Motors India had approximately 20k commercials broadcast, a number that fell during the course of the year.

**Count of Ads by Dayparts**

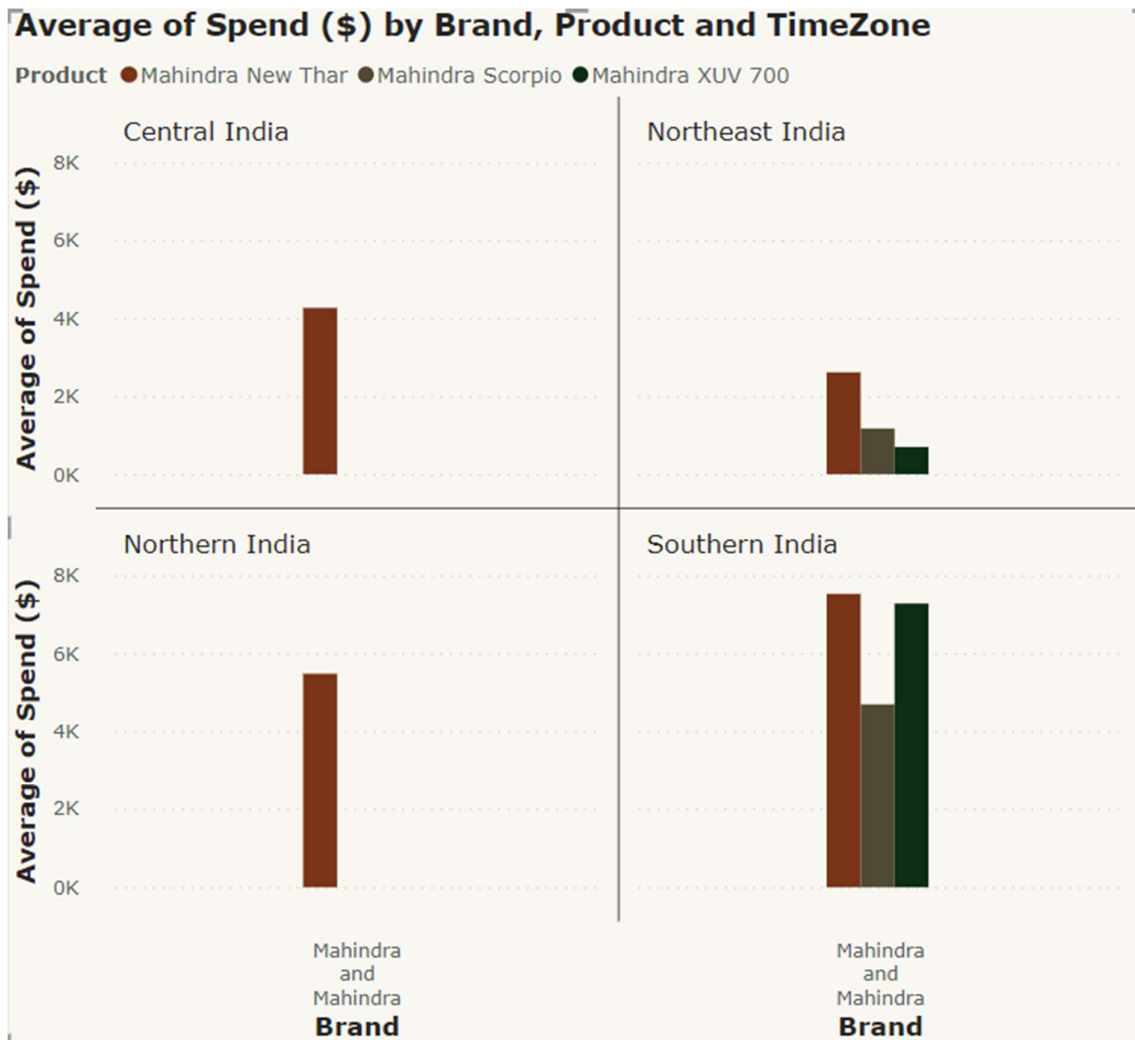


- This graph shows that Hyundai Motors India advertisements were shown more frequently at primetime, which indicates that they are investing more in their advertising, which is good news for their sales.

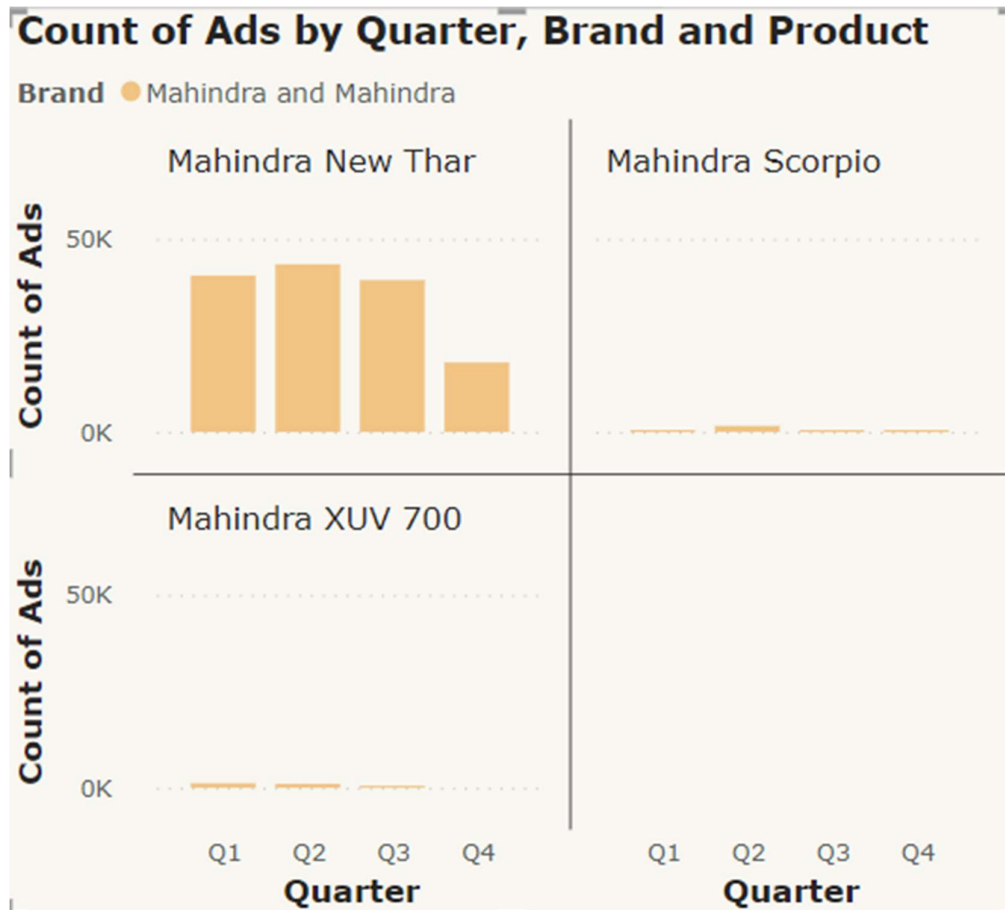
### C. Mahindra and Mahindra

Brand	Average of Spend (\$)	Average of EQ Units
<b>Mahindra and Mahindra</b>	<b>2654.68</b>	<b>0.99</b>
Mahindra New Thar	2709.12	0.99
Mahindra Scorpio	1176.15	1.00
Mahindra XUV 700	723.23	0.68
<b>Total</b>	<b>2654.68</b>	<b>0.99</b>

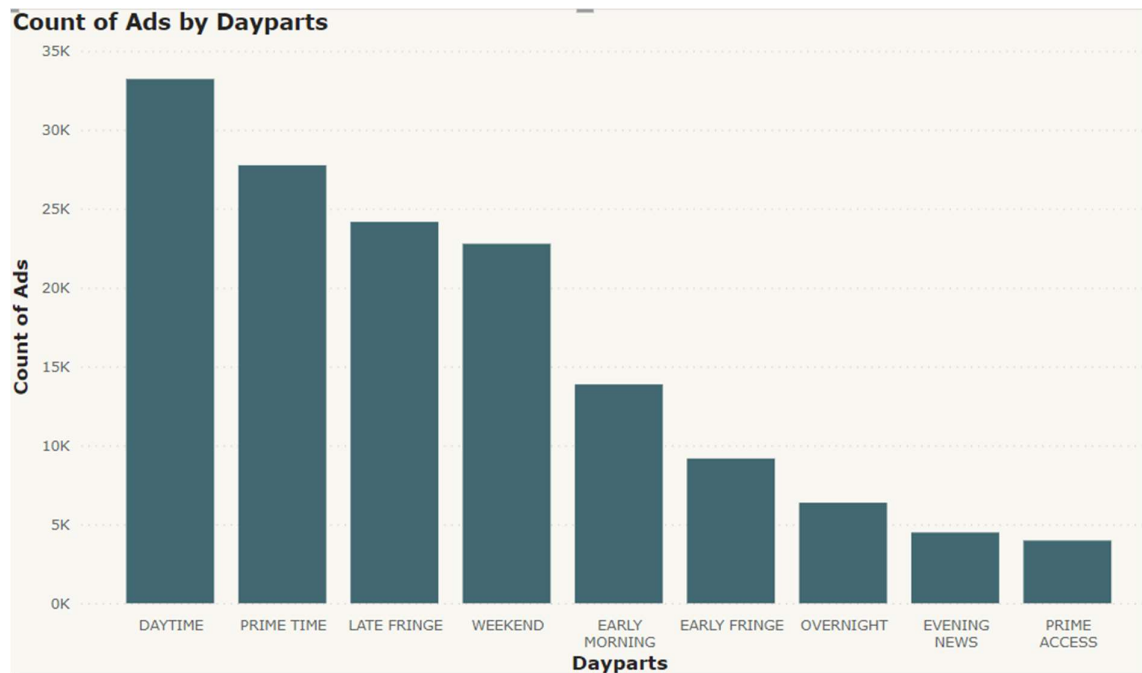
- This matrix shows that, in Y2021, Mahindra and Mahindra spent most of their money, on average, on the Mahindra New Thar, and that, for this product, their average EQ units were likewise high, suggesting that their investment in their commercials is yielding positive results.



- These numbers show that Mahindra and Mahindra spend more on every one of their products in Southern India.
- The fact that Mahindra Thar spends practically everywhere suggests that this vehicle is their flagship offering.



- As we now understand Mahindra and Mahindra's approach, the graph also showed that this company broadcast the most Mahindra New Thar commercials each quarter.
- Their other products trail in terms of the quantity of advertisements broadcasted.



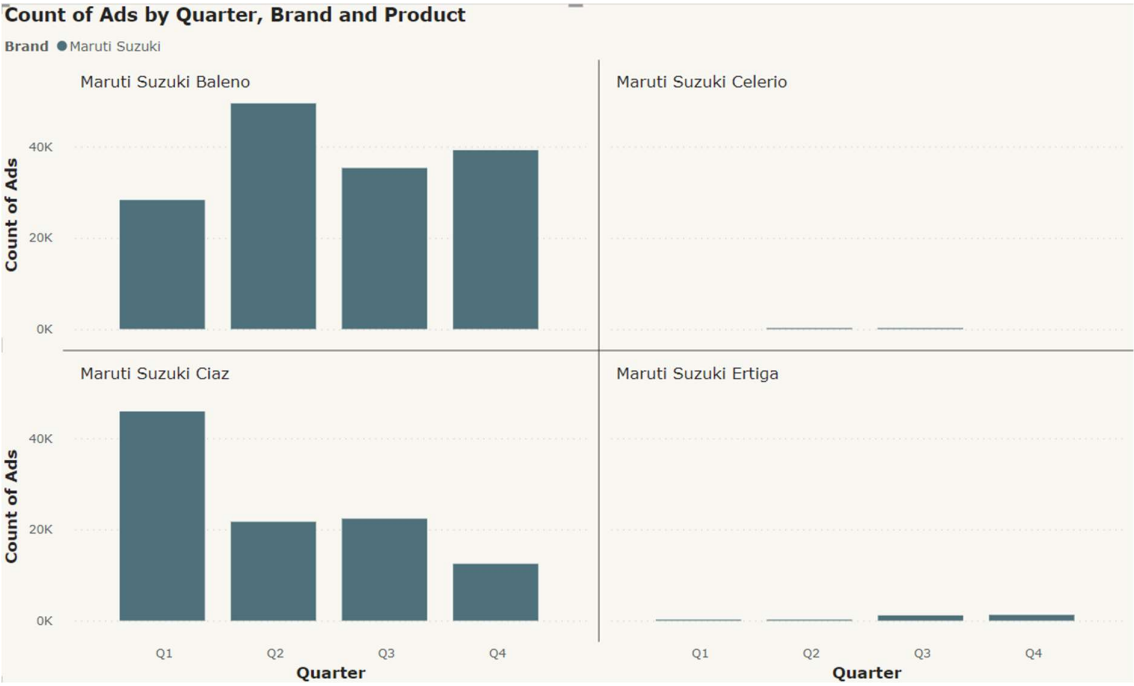
- This graph shows that Mahindra and Mahindra ads were broadcast most frequently during the day.

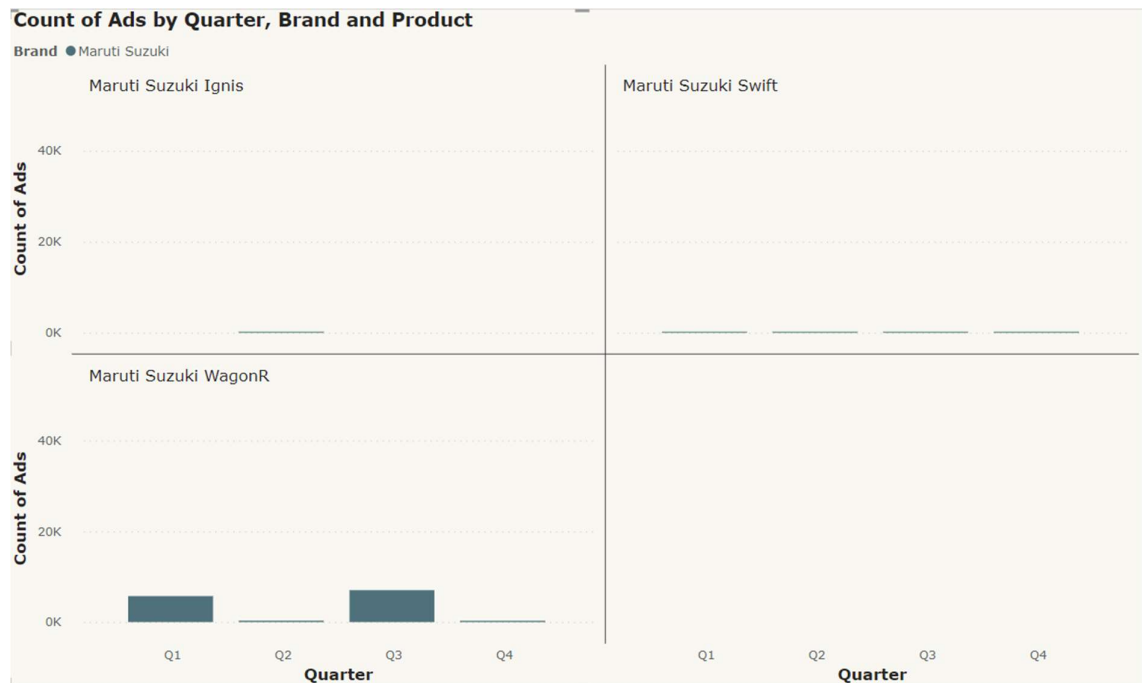
#### D. Maruti Suzuki

Brand	Average of Spend (\$)	Average of EQ Units
<b>Maruti Suzuki</b>	<b>1985.58</b>	<b>0.99</b>
Maruti Suzuki Baleno	2048.89	0.99
Maruti Suzuki Celerio	3153.79	1.00
Maruti Suzuki Ciaz	1941.92	0.99
Maruti Suzuki Ertiga	1578.73	0.99
Maruti Suzuki Ignis	904.69	0.67
Maruti Suzuki Swift	115.39	1.00
Maruti Suzuki WagonR	1694.07	1.00
<b>Total</b>	<b>1985.58</b>	<b>0.99</b>

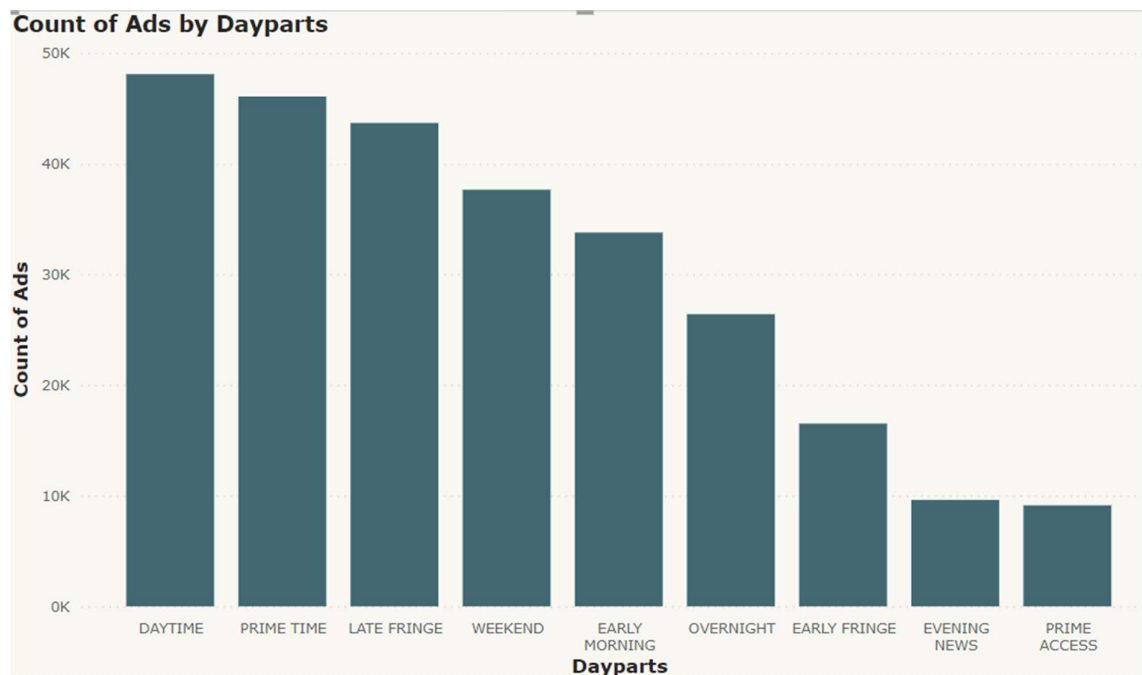
- This matrix shows that Maruti Suzuki products are producing extremely excellent sales for the company in Y2021, even if they were spending less on average than other brands.
- This suggests that Maruti Suzuki has a very established market.







- The top two items for the brand that received the most advertising in Y2021 across all quarters are the Maruti Suzuki Baleno and Ciaz.

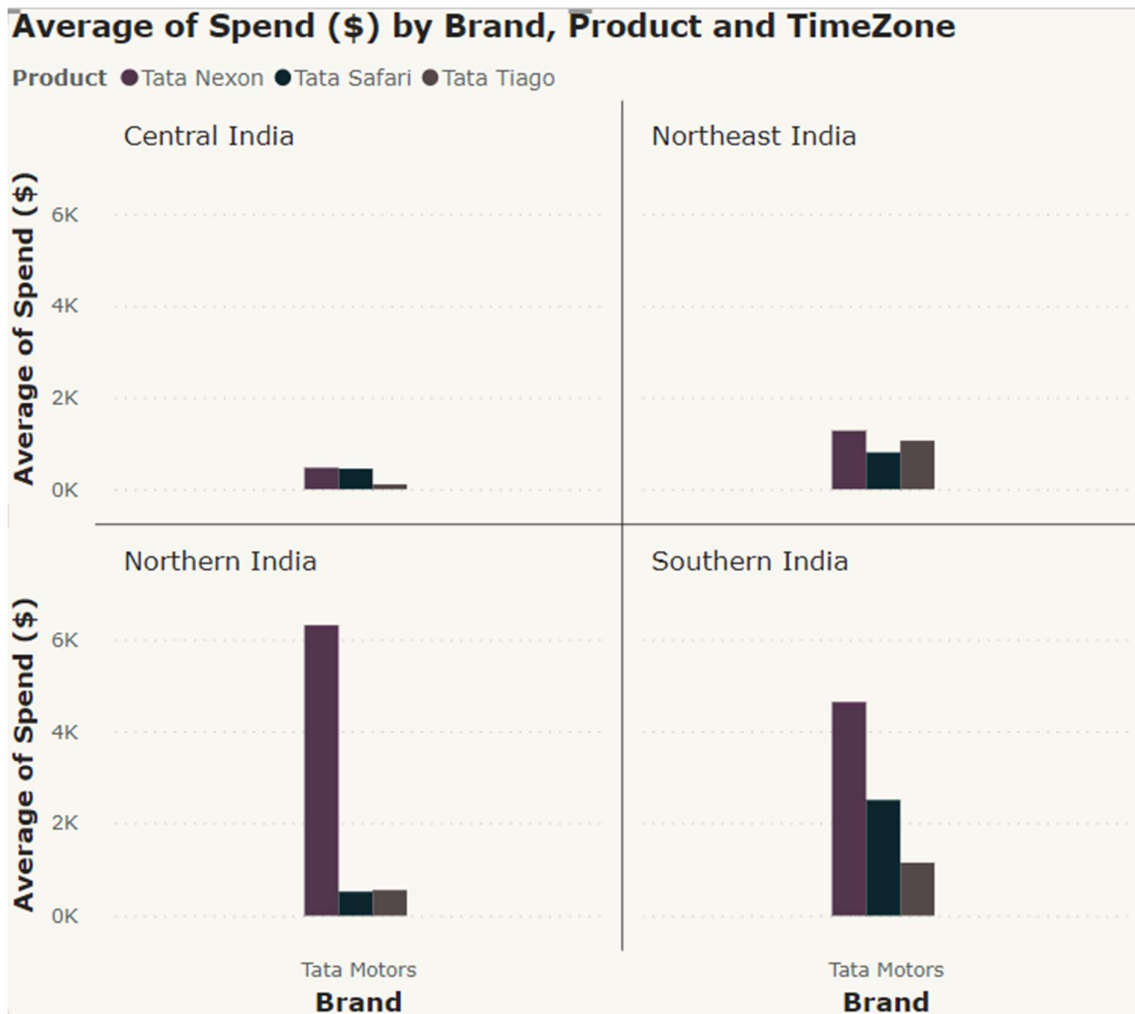


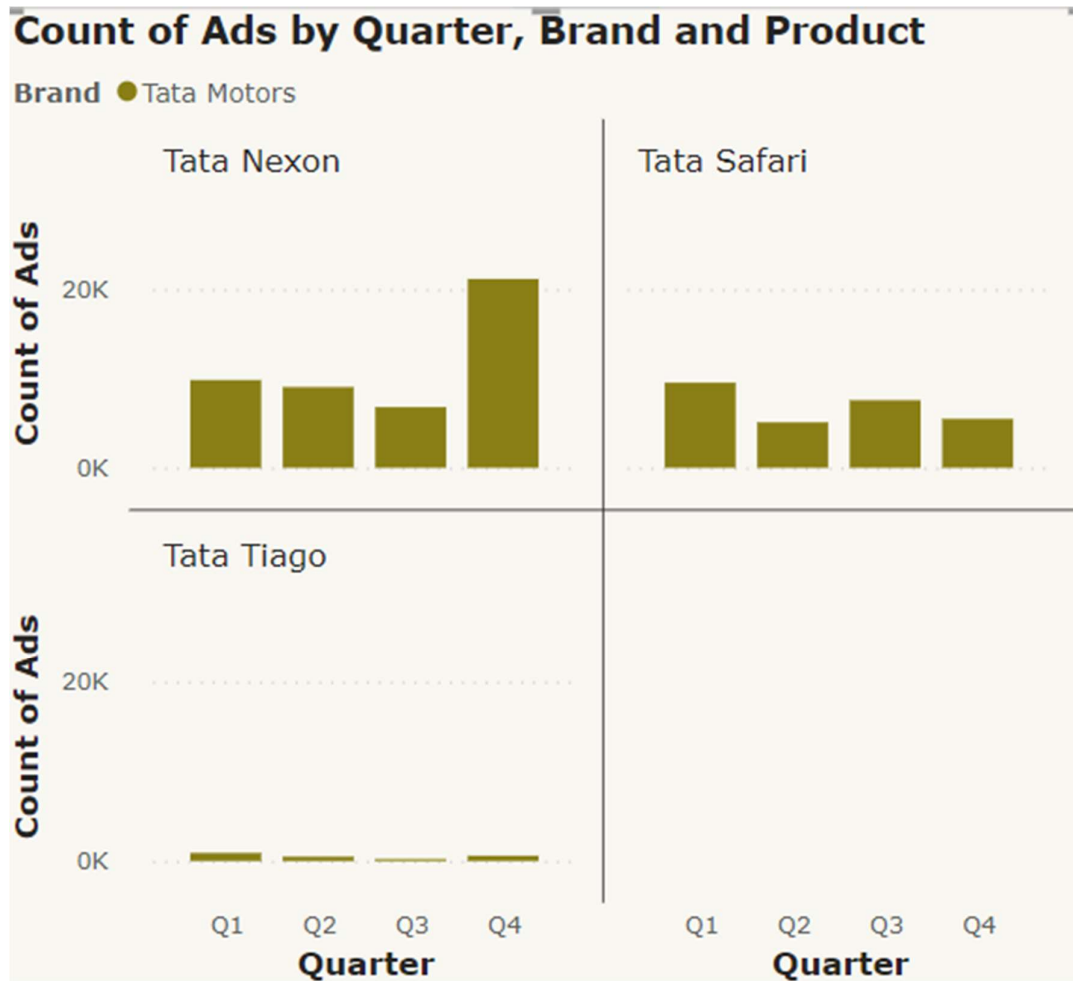
- This graph shows that Maruti Suzuki ads were broadcast most frequently during the day.

## E. Tata Motors

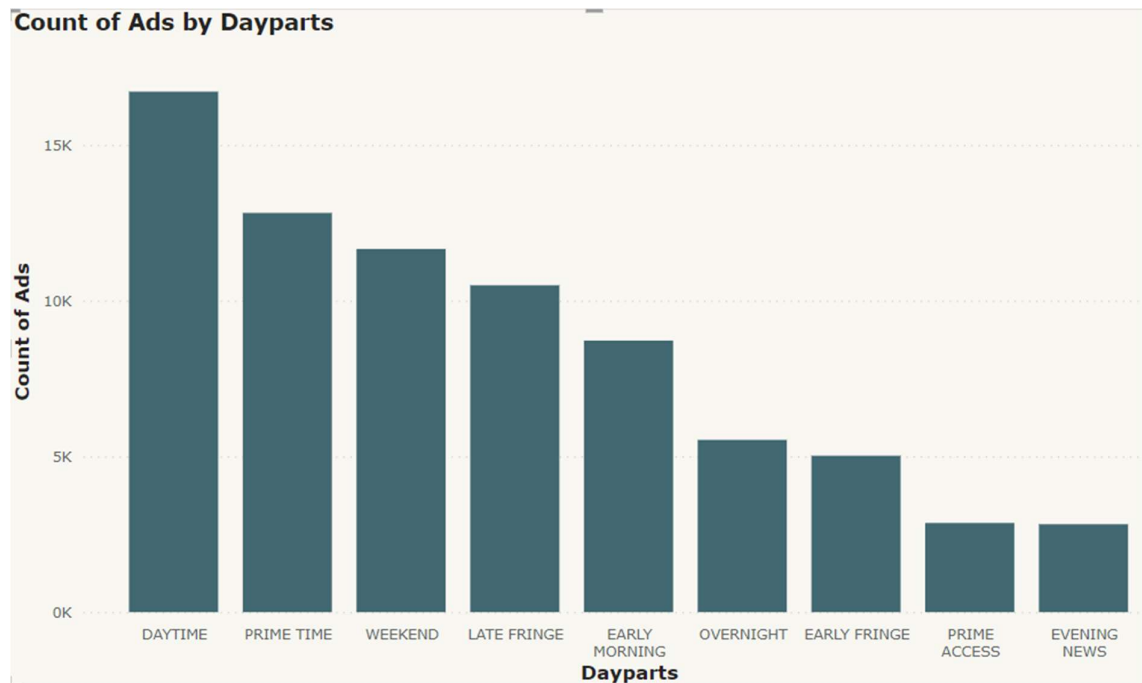
Brand	Average of Spend (\$)	Average of EQ Units
<b>Tata Motors</b>	<b>1160.09</b>	<b>0.53</b>
Tata Nexon	1354.73	0.64
Tata Safari	838.61	0.34
Tata Tiago	1058.04	0.86
<b>Total</b>	<b>1160.09</b>	<b>0.53</b>

- This matrix shows that Tata Motors spent the majority of its efforts on the Tata Nexon in Y2021, despite the fact that this product's average EQ units were a little lower.
- Tata Tiago advertisements often cost less than Tata Nexon commercials, but the former's sales were better.





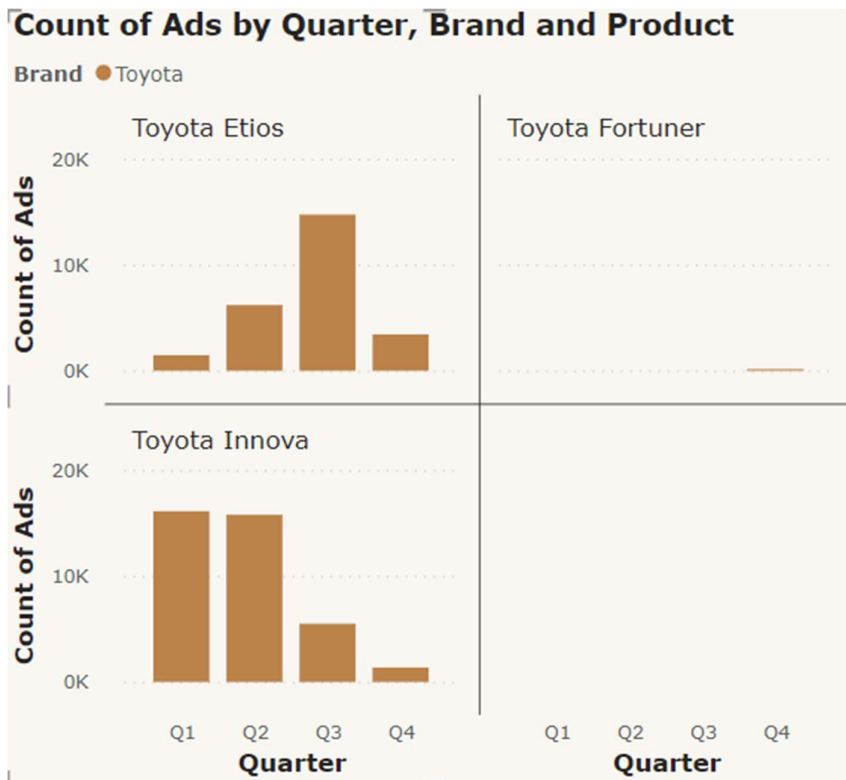
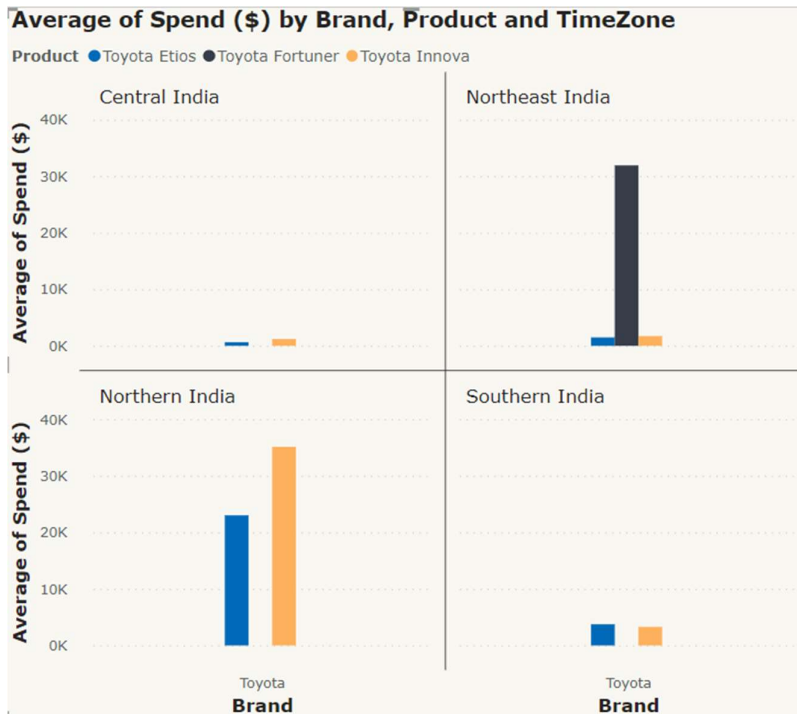
- Each quarter, Tata Motors airs the most ads for the Tata Nexon and Tata Safari.
- However, while having fewer advertisements than others, Tata Tiago still manages to generate a high volume of sales.
- This demonstrates that Tata Motors should concentrate on improving their subpar product rather than investing in advertisements.

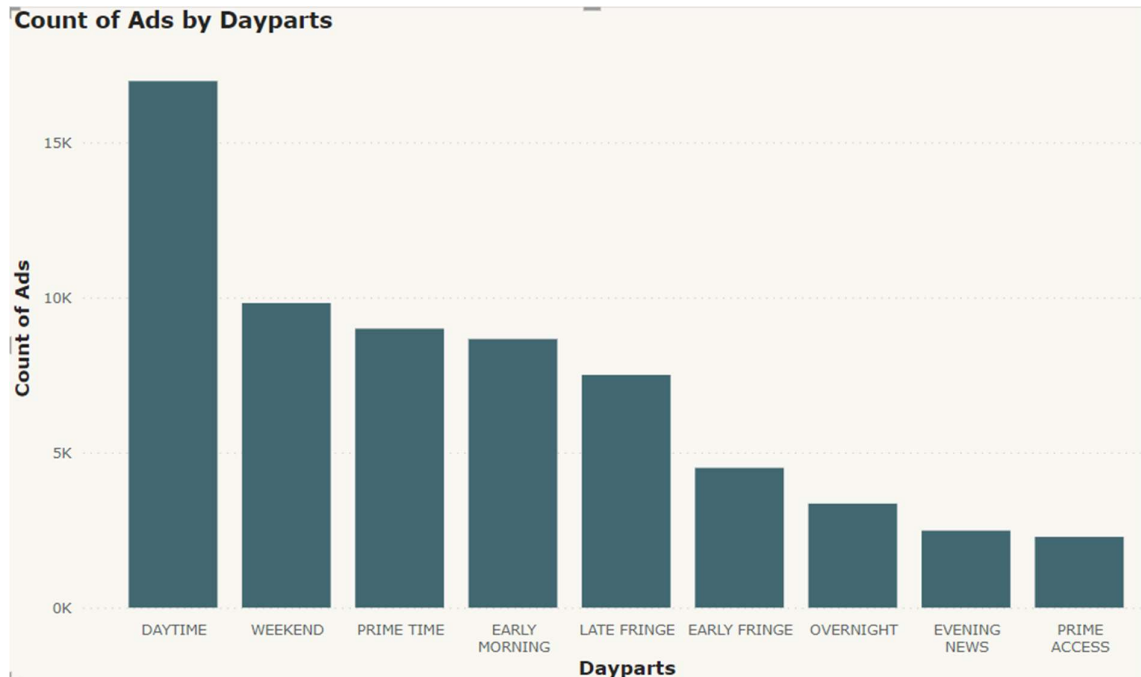


#### F. Toyota

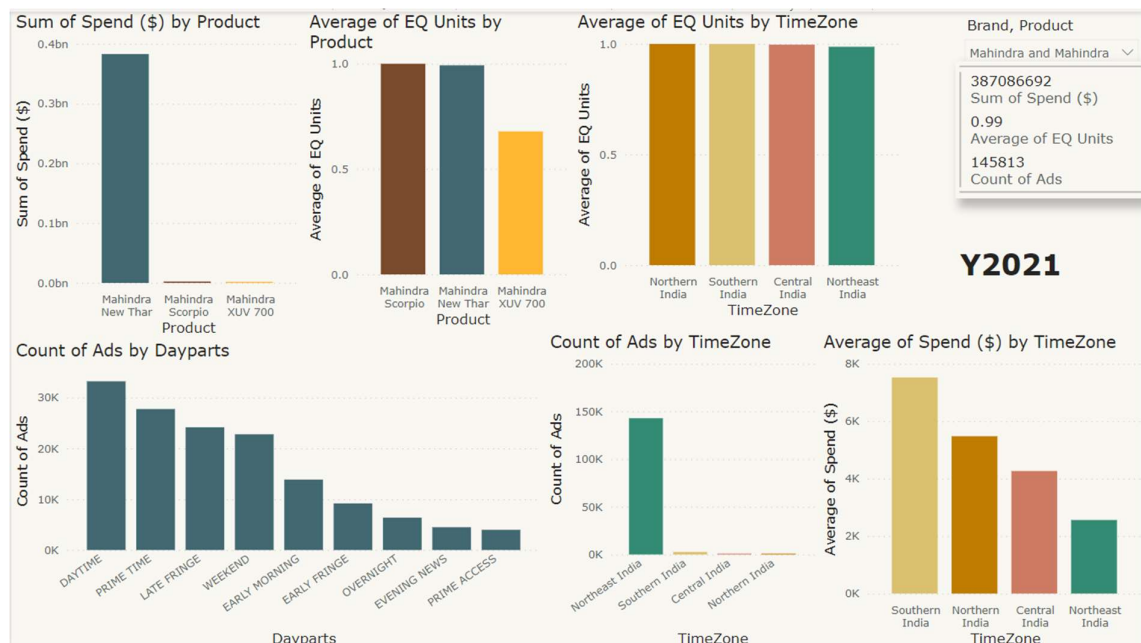
Brand	Average of Spend (\$)	Average of EQ Units
<b>Toyota</b>	<b>1709.80</b>	<b>0.90</b>
Toyota Etios	1611.62	0.76
Toyota Fortuner	31910.80	1.00
Toyota Innova	1771.38	0.99
<b>Total</b>	<b>1709.80</b>	<b>0.90</b>

- This matrix illustrates that Toyota spent a significant amount of money on the Toyota Fortuner ads on average in Y2021, which led to higher sales of the Toyota Fortuner than of their other goods.
- Despite having much lower costs of commercials than the Toyota Fortuner, the Toyota Innova nonetheless manages to sell a lot of units.

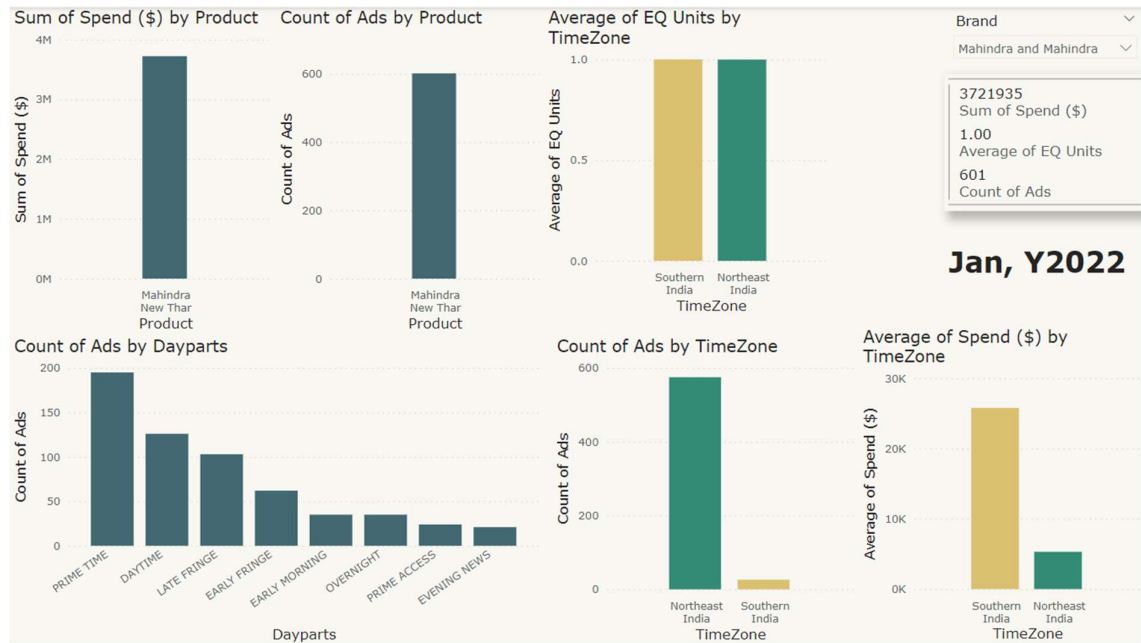




- d. Mahindra and Mahindra want to run a digital ad campaign to complement its existing TV ads in Q1 of 2022. Based on the data from 2021, suggest a media plan to the CMO of Mahindra and Mahindra. Which audience should they target? \*Assume XYZ Ads has the ad viewership data and TV viewership for the people in India. P.S. Brownie points for any additional actionable insights you can draw from the dataset.



This is the visual report for Mahindra and Mahindra for the year 2021.



This is the visual report for Jan, 2022.

From both these reports, I can conclude following things:

- Like in Y2021, Mahindra and Mahindra are concentrating on Mahindra New Thar in Y2022.
- Sales of this product are up from the previous year.
- However, they also need to focus on marketing other products, as we can see in the Y2021 report, where Mahindra Scorpio's average sales were higher than those of Mahindra New Thar despite the fact that the former's investments were far lower than those of the latter as shown in the graph.
- The brand spent very little on ads for Mahindra XUV700 in Y2021, but it still produced a sizable number of sales. In light of the fact that this product has the potential to produce a sizable number of sales for this brand, Mahindra and Mahindra should enhance their proportion of expenditure on it in Y2022.
- It's great that the brand prioritises airing advertising during prime time; it's obvious that this resulted in strong sales for the business.

## Insights:

- The Northern time zone has the greatest average spend by all brands, making it the most expensive time zone for ads.
- Compared to other time zones, Northeast India has a very high volume of advertisements, although brands in this region still spend on average significantly less on commercials than in other time zones. This indicates that the Northeast zone is the least expensive for ads.
- Central India accounts for the majority of sales for all brands.
- Maruti Suzuki is the most popular brand overall, followed by Mahindra and Mahindra.
- The overall sales volume for all brands throughout all quarters have declined.



**Thank You**