



TV ADVERTISING DATA CHALLENGE

Hongwei Han

INTRODUCTION OF DATASET

Timespan of dataset

- 2018. Dec. 23 ----- 2019. May. 22

Irregularities of dataset

- In amount of data, the value of visits is negative (N = 1529)
- Visitors got access to trivago website without being contacted (N = 234)
- The value of contacts is equal to zero with many visits

Solution of the irregularities

- Corrected the value of visits
- Removed data, in which the value of contacts is zero and that of visits is positive

Outliers

- The value of visits is equal to zero (N = 10)
- Both the value of visits and the value of cost are equal to zero (N = 1)
- Removed the outliers when I researched cost per visit (CPV)

The size of dataset

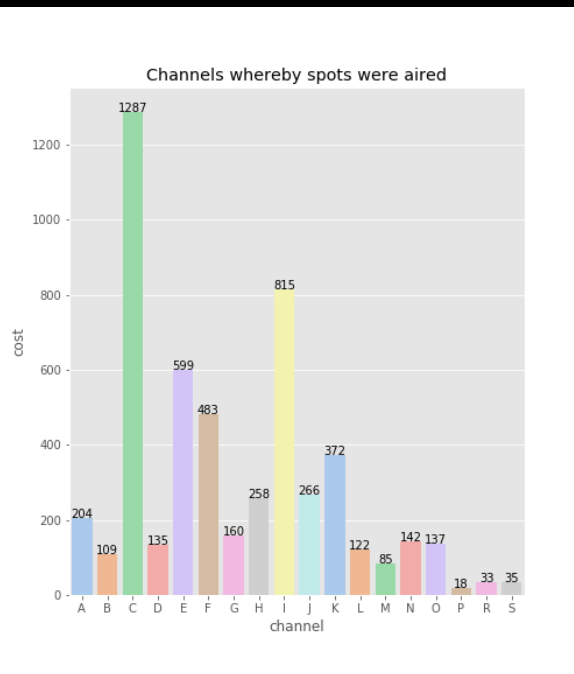
- Raw data: N = 5494
- After cleaning: N = 5249

SPOTS WITH MOST AIRING

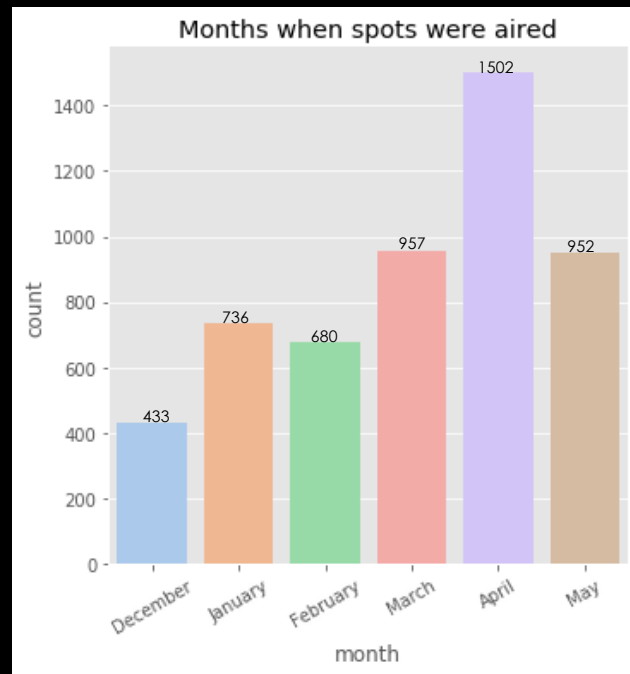
Type of Spots	The number of airing	Cost	Contacts
Campaign	FPV	FPV	FPV
Name	Pangalactic-Gargleblaster	Pangalactic-Gargleblaster	Pangalactic-Gargleblaster
Length	25	90	25

WHERE WERE THE SPOTS AIRED

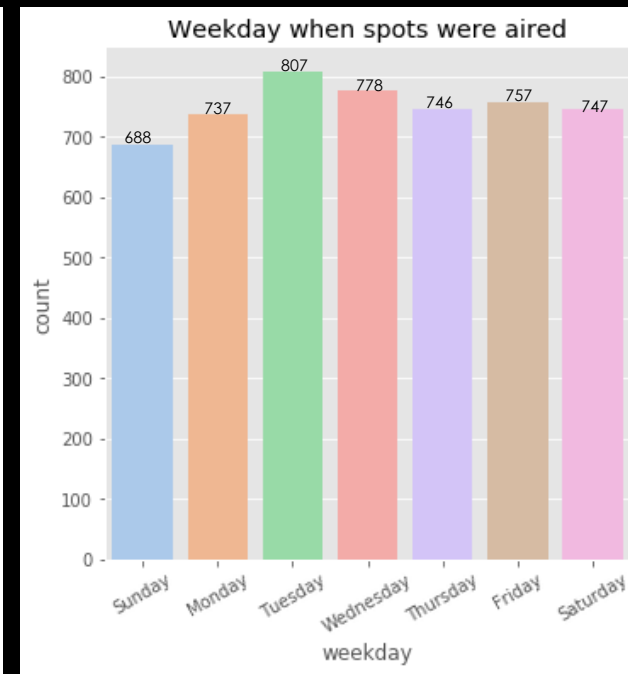
Channel



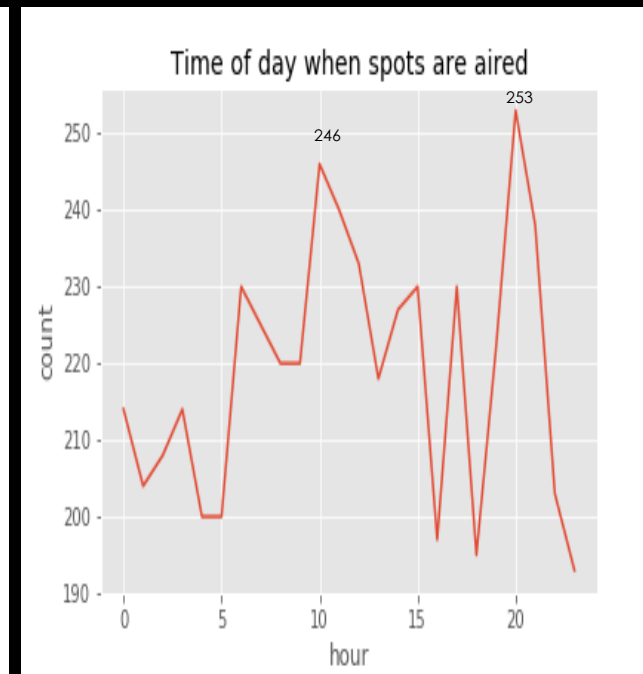
Month



Weekday



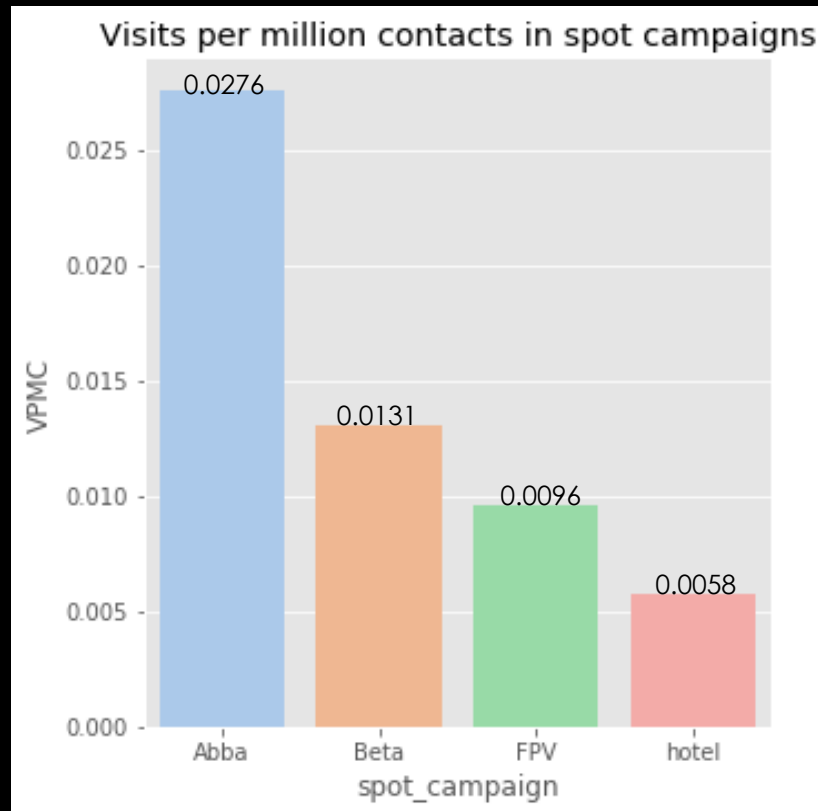
Time of day



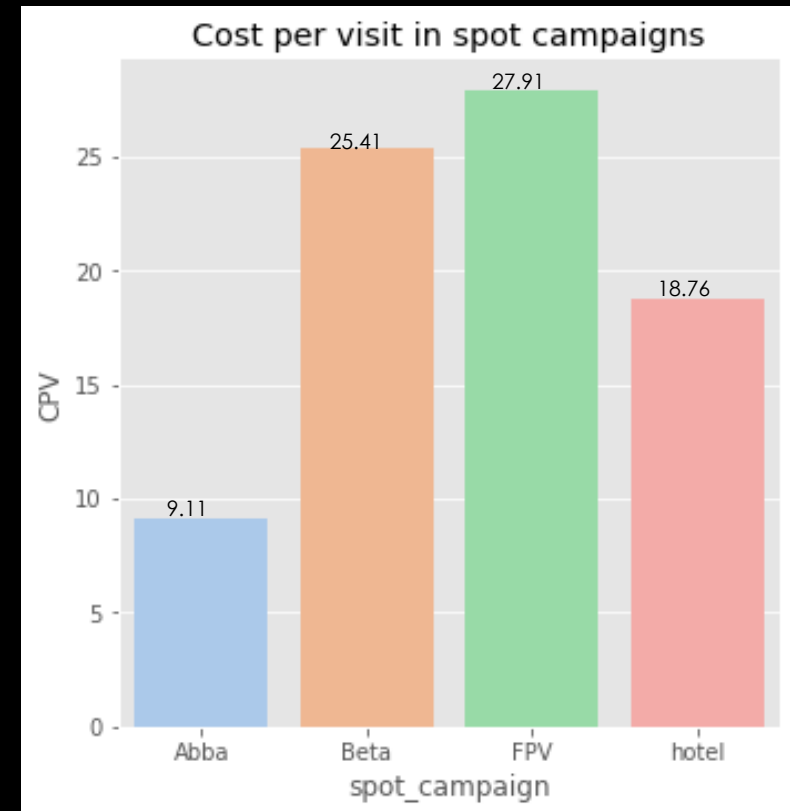
Visit per million contacts (VPMC) = Visit / Contacts (Million)
Cost per visits (CPV) = Cost / Visit

ABBA IS THE BEST CAMPAIGN

Abba appeals more visitors than other campaigns



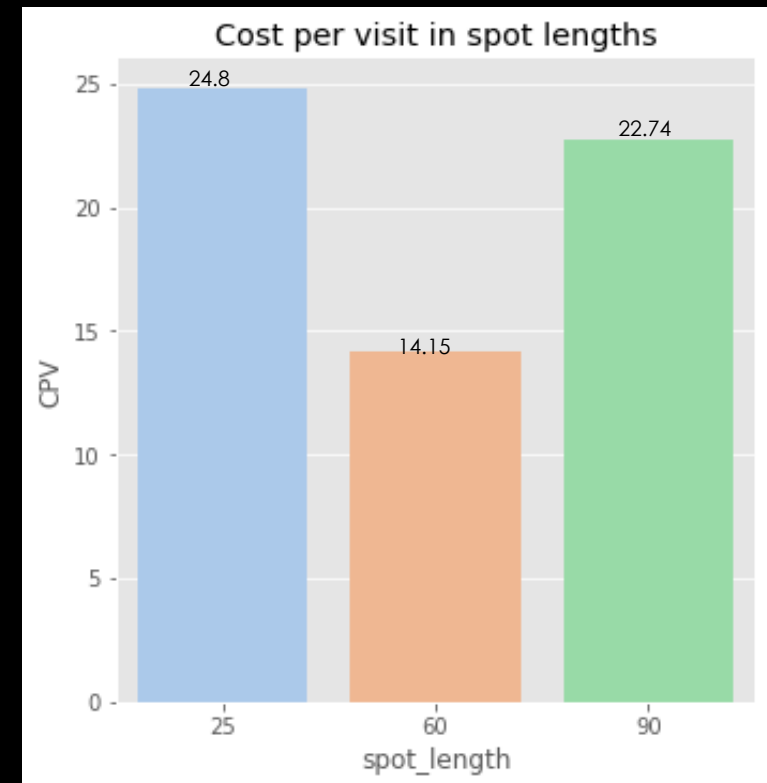
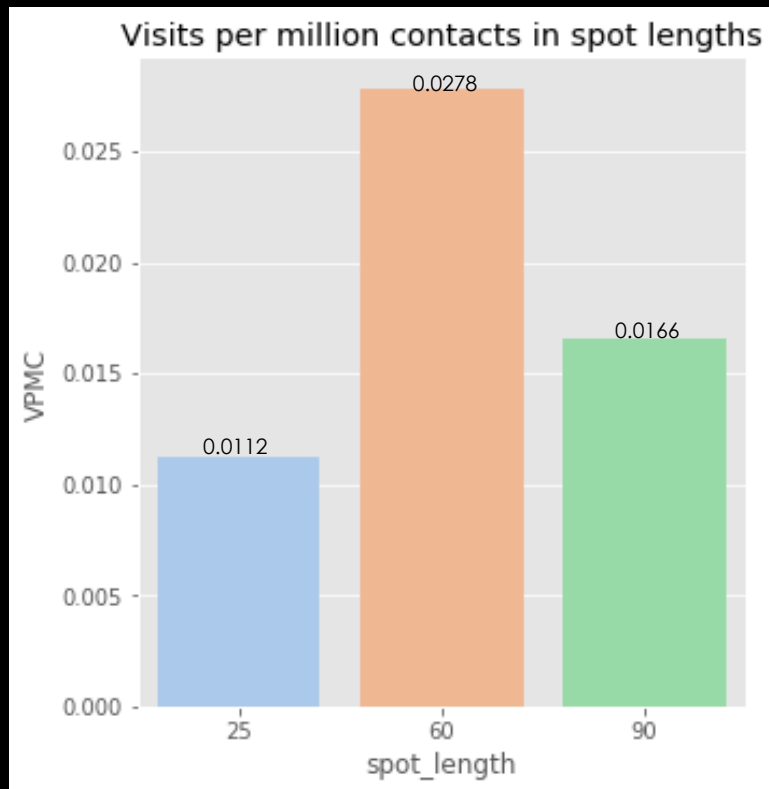
Abba is the most economical campaign



60S CREATIVE WORKS BEST

60s creative has the best performance

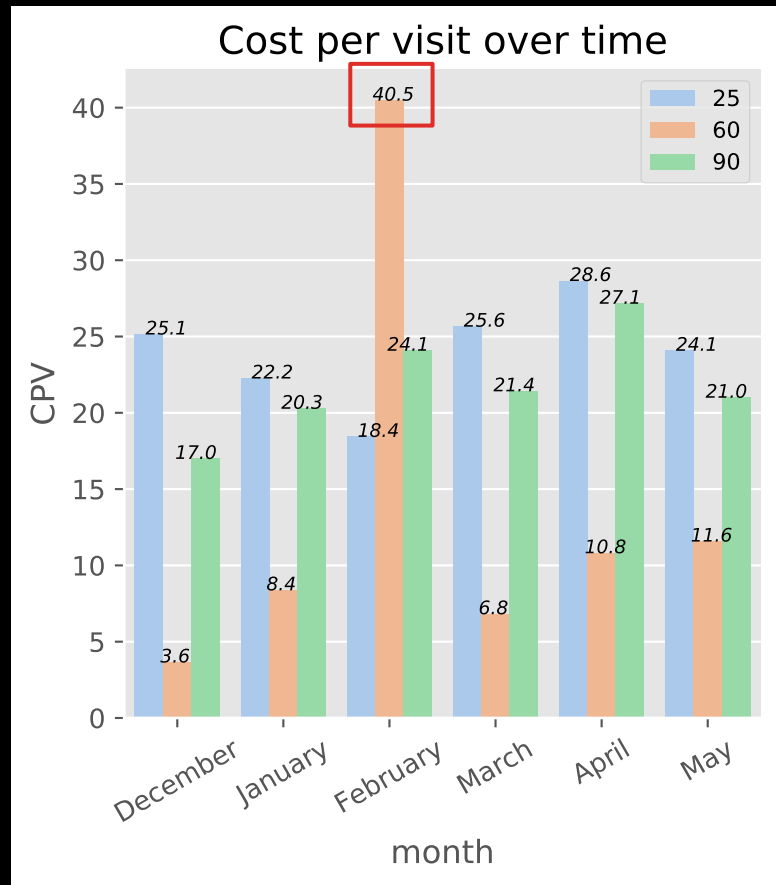
60s creative is the most economical



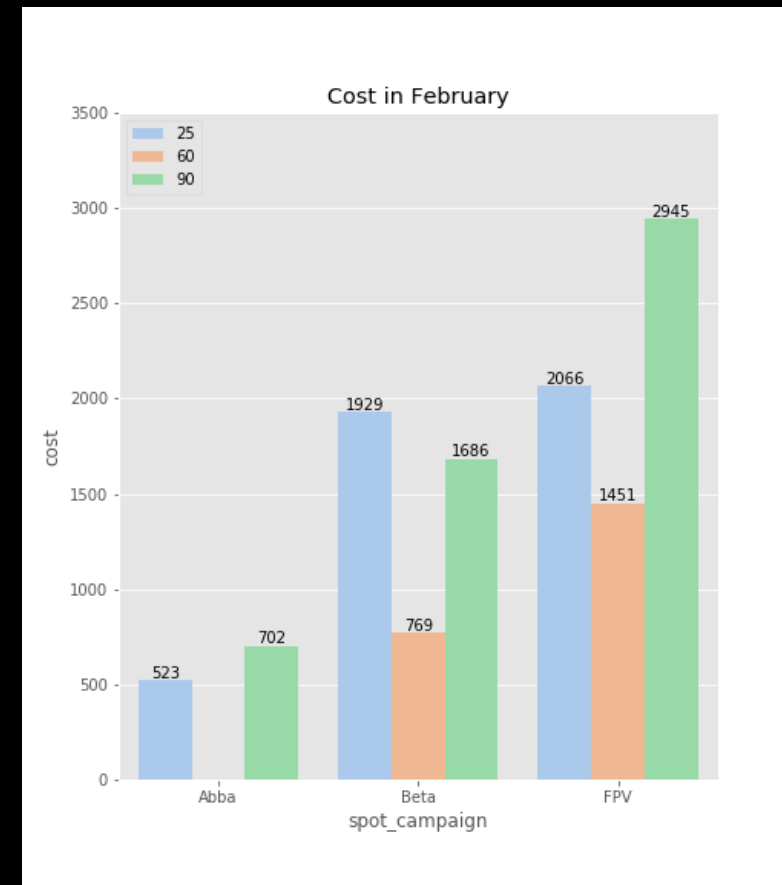
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60S CREATIVE WORKS BEST

The CPV of 60s creative peaked in February



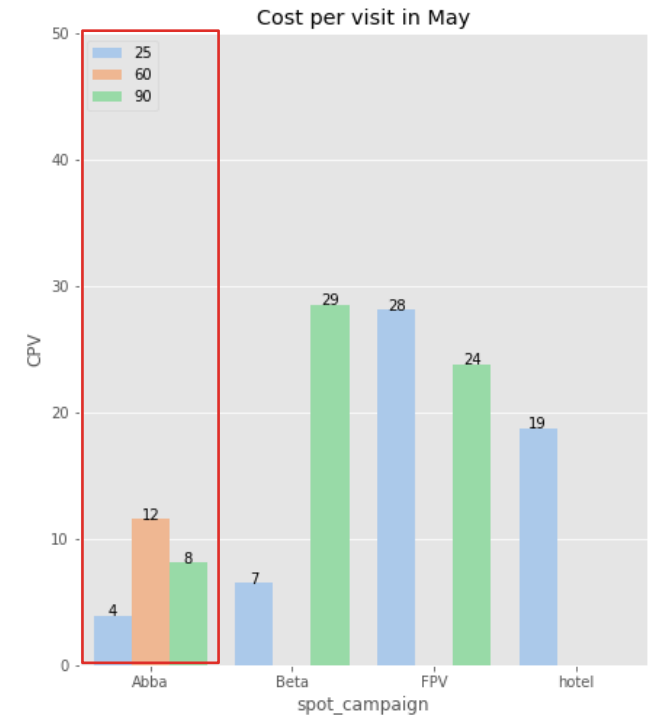
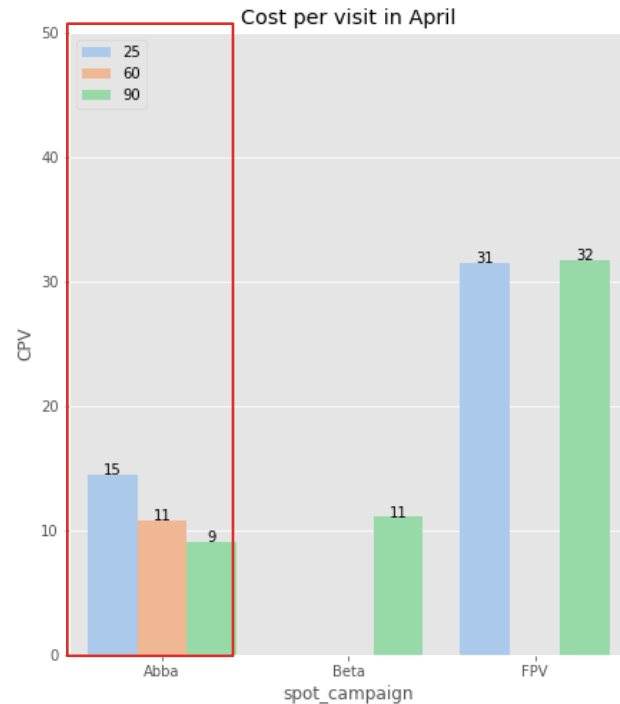
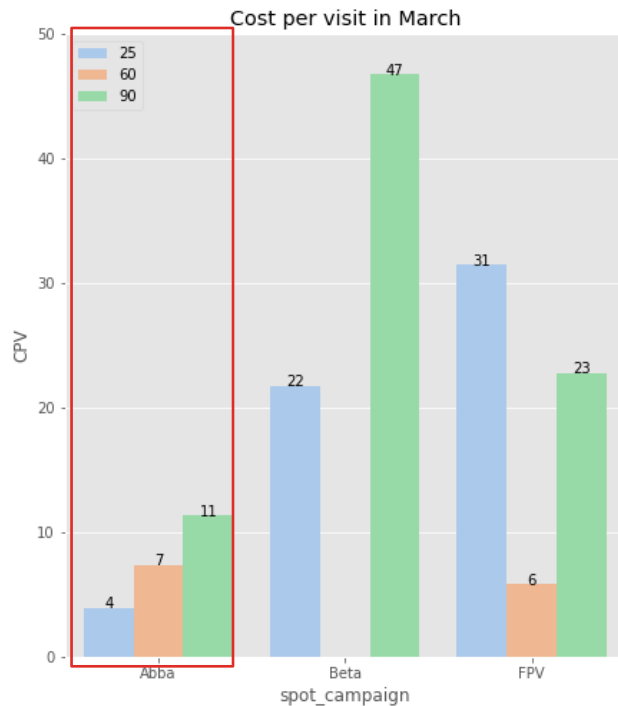
That the 60s creative was absent from the campaign, Abba, in February brings about the high CPV of 60s creative



Visit per million contacts (VPMC) = Visit / Contacts (Million)
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CAMPAIGN PROBABLY PLAYS A MORE IMPORTANT ROLE THAN SPOT LENGTH

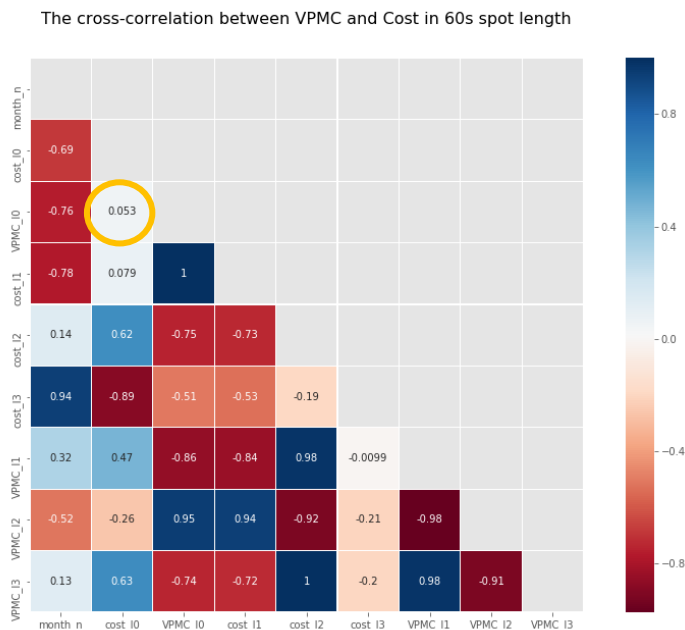
In the campaign, Abba, the CPA of 60s creative was not lower than other creatives either in March, April or May. So, the performance of 60s creative is NOT unchallengeable



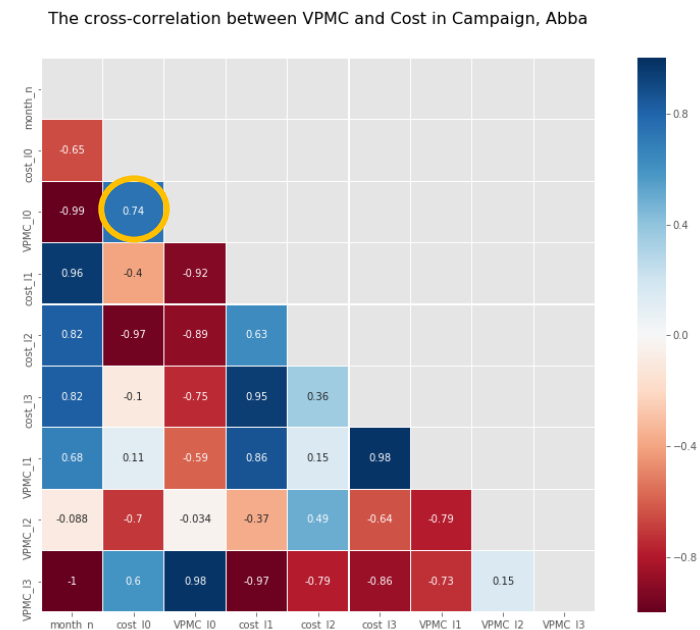
Visit per million contacts (VPMC) = Visit / Contacts (Million)
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VERIFYING THAT CAMPAIGN PLAYS A MORE VITAL ROLE THAN SPOT LENGTH

The correlation between VPMC and cost concerning the 60s creative is NOT significant



The correlation between VPMC and cost concerning the campaign, Abba, is significant

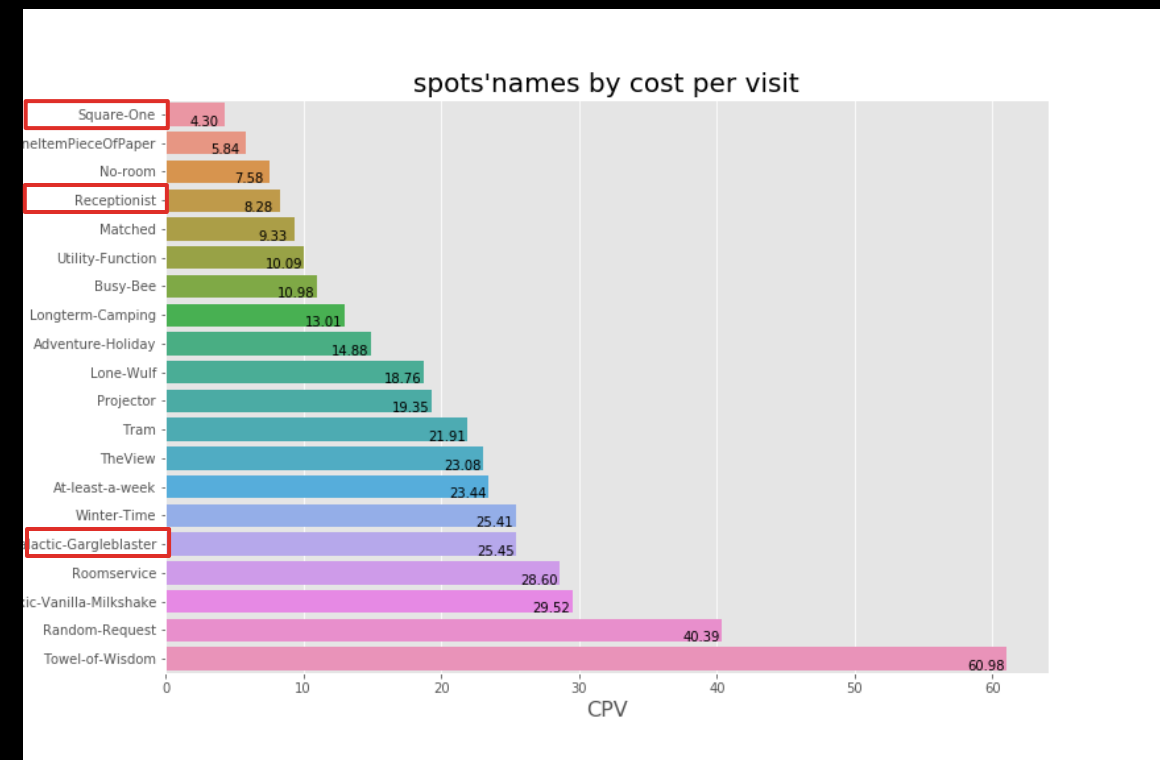
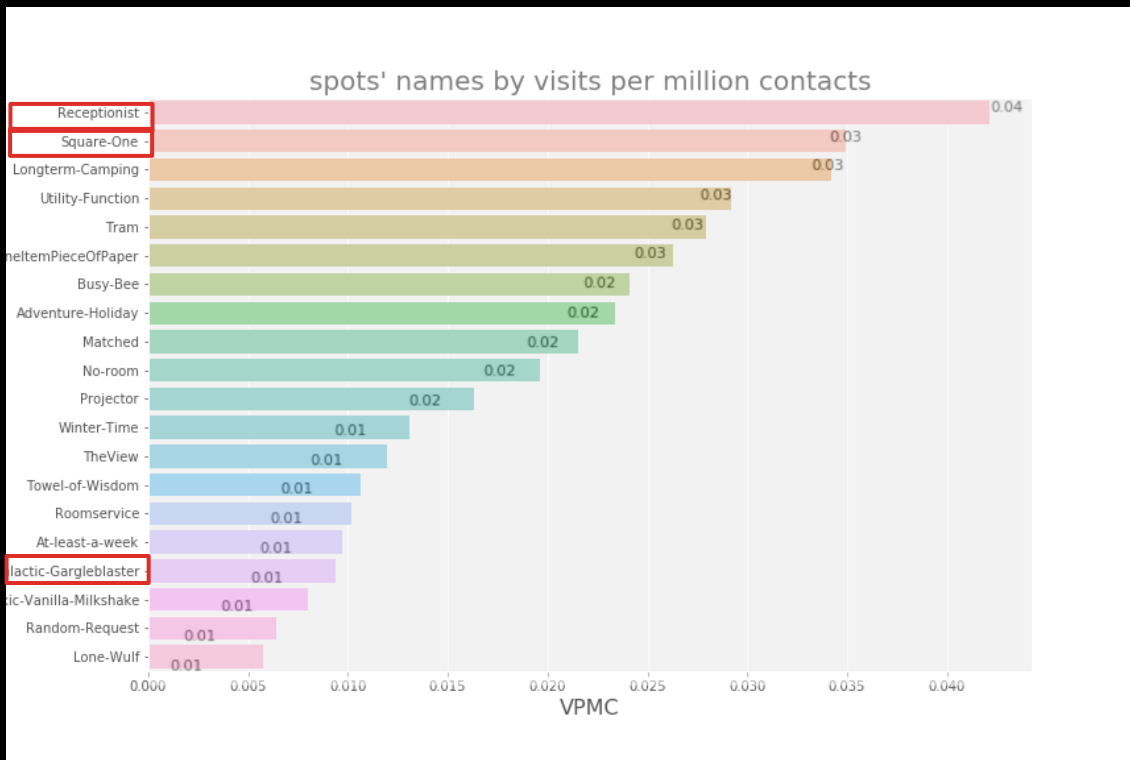


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SQUARE-ONE IS THE BEST SPOT CONSIDERING BOTH VPMC AND CPV

Receptionist and Square-One are the best two spots

Square-One requires less costs than others



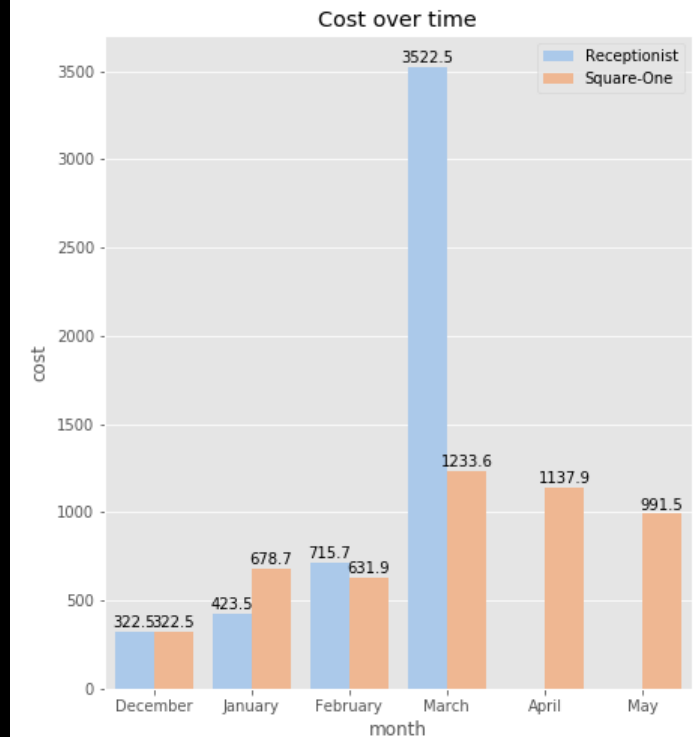
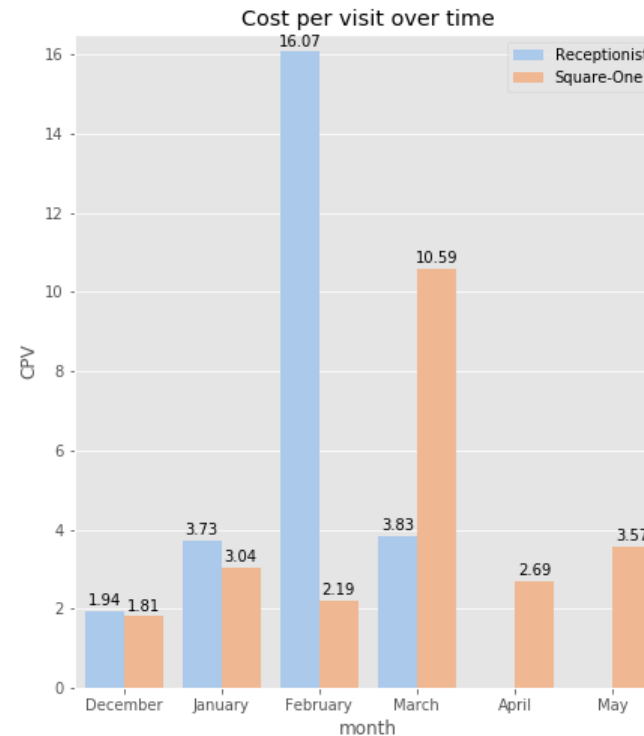
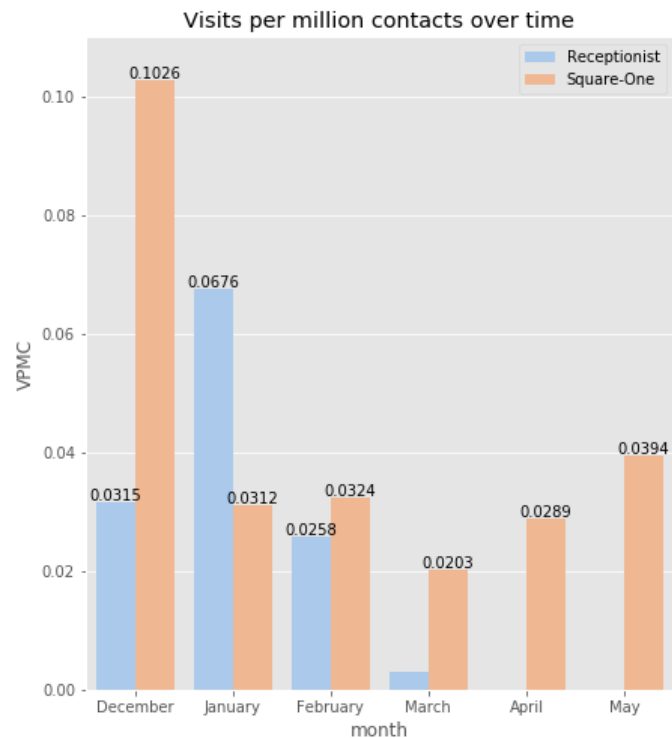
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WHY SQUARE-ONE IS BETTER THAN RECEPTIONIST

Apart from January, Receptionist was less able to convert contacts to visits in comparison with Square-One. Since April, Receptionist has been suspended

Prior to March, the CPV of Receptionist was higher than that of Square-One

The real cost of Receptionist was obviously higher than that of Square-One in March. The real cost of Receptionist stably grew over time

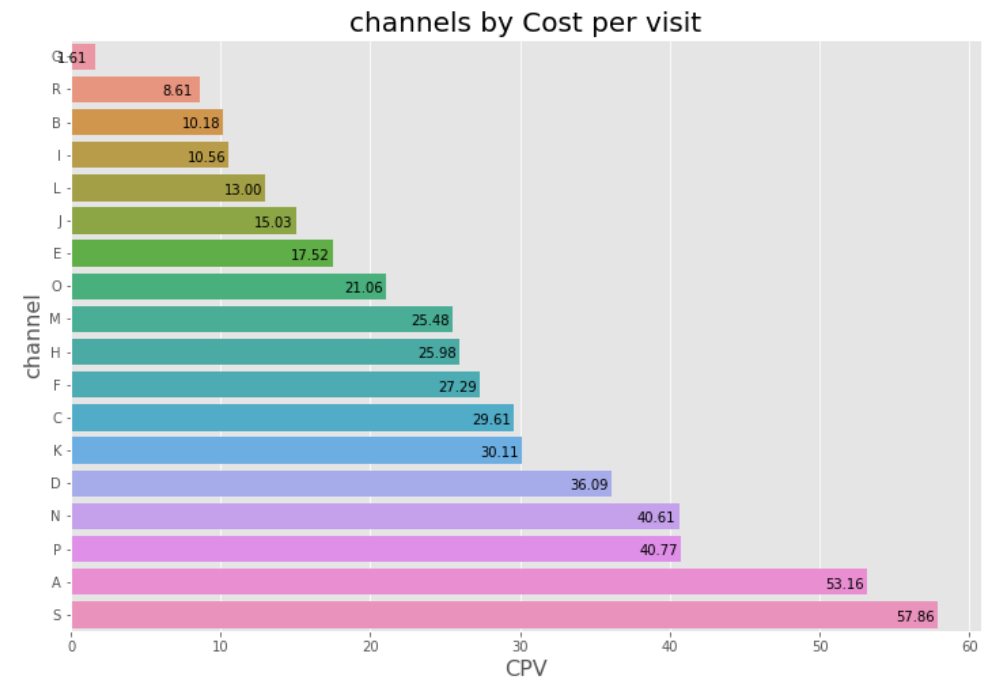
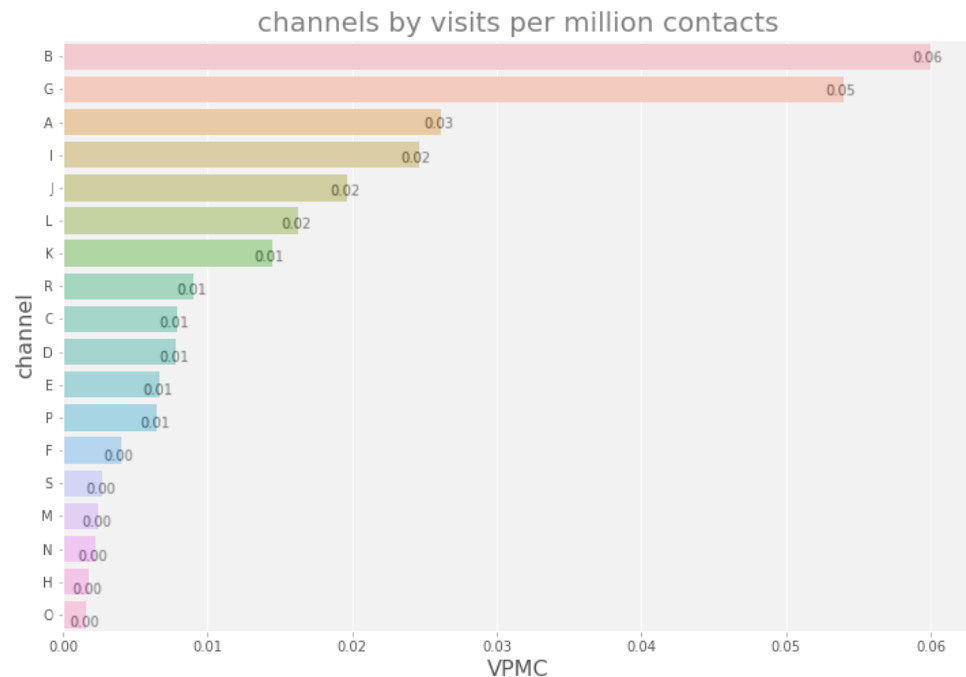


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THE CHANNEL, G, HAS THE BEST PERFORMANCE

The channels, B and G, are the top 2 channels

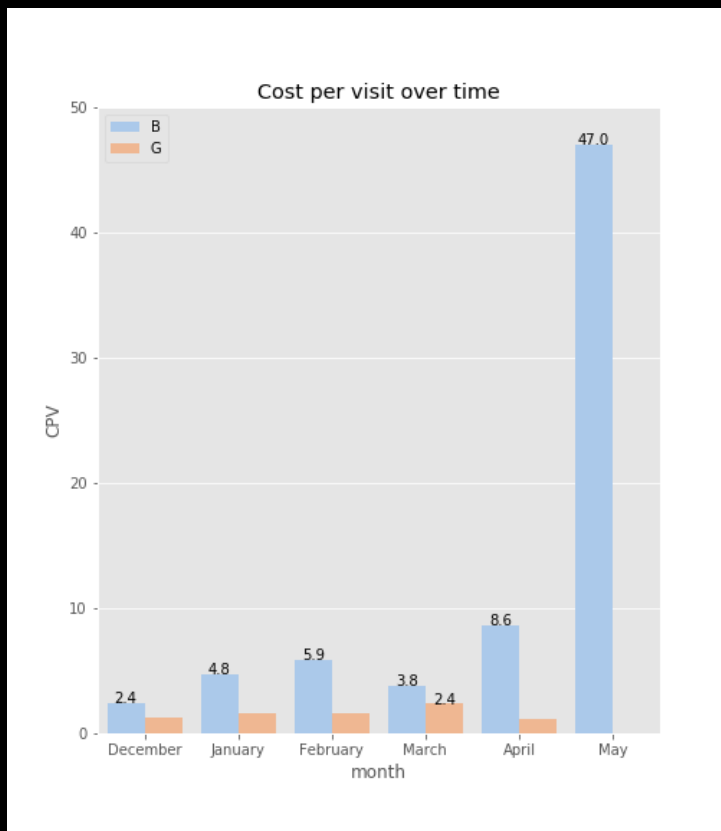
The channel, G is the most economical channel



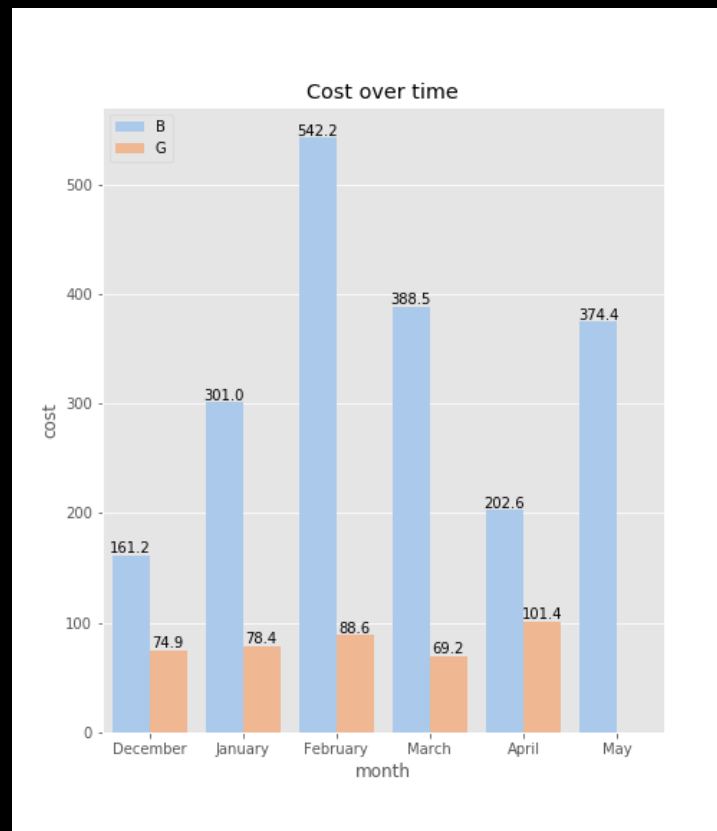
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WHY CHANNEL G IS THE BEST

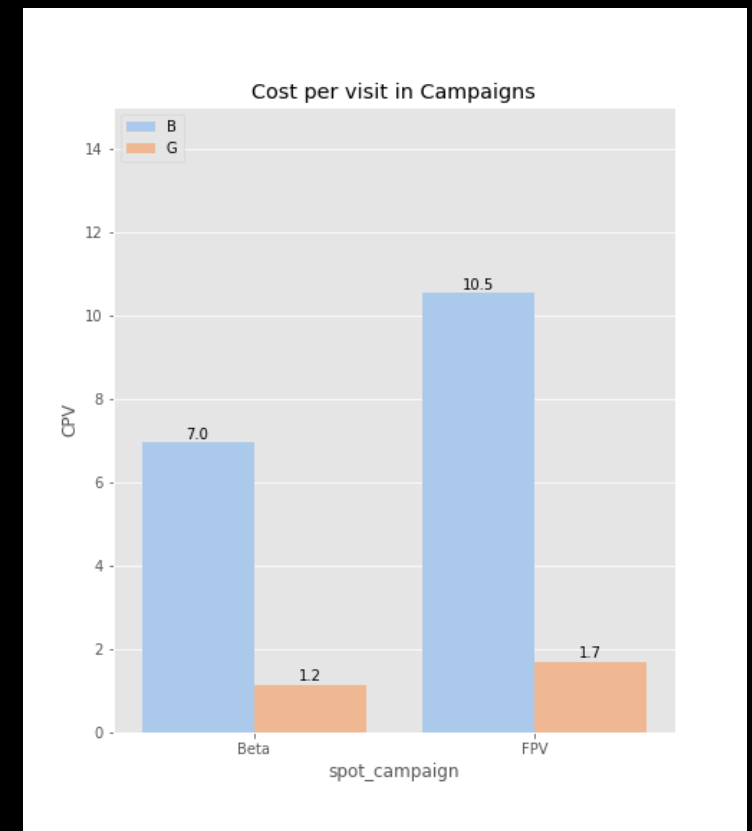
The CPV of channel B steadily grows. In contrast, the CPV of channel G maintains a low level



The low cost of Channel G accounts for the low CPA in the timespan



Only the campaigns, Beta and FPV have been applied in Channel G



SUMMARY

Though the campaign, FPV, has the highest number of airing and most contacts, the campaign, Abba, is the best approach to appeal visitors

According to both visits per million contacts and cost per visit, 60s creative performs better than others

- The 60s creative had low performance in February due to the low-performing campaign

Campaign plays a more vital role than the duration of creative

The spot, Pangelactic-Gargleblaster, attains the highest number of airing and most of the contacts at the expense of cost

- The spot, **Square-One**, can convert more contacts to visits with the lowest price

Channel G works best in terms of visits per million contacts and cost per visit

- This is attributed to the low cost of channel G
- However, only the campaigns, Beta and FPV have been applied in Channel G

Because this dataset only covers six months, the issues regarding seasonality cannot be addressed

ADVICE

To increase the campaign, Abba, which is the most effective and economical approach

To produce more 60s creative with any proper campaigns such as Abba

To draw more attention to the spot, Square-One, rather than Pangalactic-Gargleblaster

To resume Channel G with applying the campaign, Abba in the future