

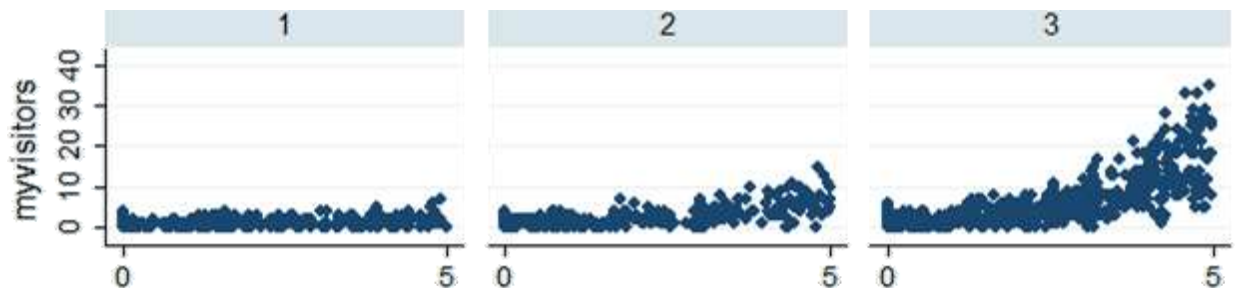
Background Information

The goal of the research was to investigate the determinants which lead to relatively higher number of visitors to our website from one webpages comparing to the others. The depending non-categorical variable (number our visitors) was implied to depend on number of visitors from source website, presence and intensity of our advertising policy on that website and theme of that website.

Descriptive Statistics

Our analysis has begun from looking at the general statistical properties of the data. The key findings here are that only about 20.5% of all sites were advertised, half of the source websites have theme “sports” and `myvisitors` has a distribution that looks like Poisson one. Also further we have created dummies for sites’ themes in order to catch the impact on the different groups.

Finally, looking at by theme scatterplots of `myvisitors` vs `advertisin~y` proved that different sites visitors respond differently to our ads.



Poisson model

The first approach we implemented was the Poisson model. The variable signifying the presence of the advertising was omitted because of its statistical insignificance and multicollinearity with variable signifying the intensity of advertising.

We have found out that *ceteris paribus*, differently themed sites bring different number of visitors to us and that sports sites have the highest responsiveness to advertisement (we provide exact numbers in the .do file).

Negative Binominal Model

We suspected overdispersion in our dependent variable, but Likelihood-ratio test of $\alpha=0$ suggested that there is none, so we stick to the original Poisson model.

Conclusion

We have proved that sites with higher number of visitors bring more visitors to our site (as expected), also we conclude that visitors are responsive to advertisement and level of response is different on different site theme. Thus we would suggest focusing our advertisement campaign on sites that are themed “sports” (prime prospect) and “news” secondly. Finally, when controlling for cost of advertisement on different sites, we should focus on sites that have a higher number of visitors.