wayfair

Marketing Analytics Hackathon – Executive Summary

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Problem Solving Process and Assumptions

We used Tableau to visualize the conversion rates of users who engaged with the banner. We also created visualizations to check whether the campaign was effective. We dug deep into geographic data, demographic data and behavioral data to recommend new markets, understand barriers to overcome so that Wayfair can effectively reach their target market (women of income range 50-100k) and improve user experience. We finally analyzed psychographic trends to understand possible barriers to conversion. We came up with a hypothesis that if users spend more than 65 minutes on Wayfair or if they browse more than 70 pages, they would have a lower propensity to purchase. We tried to find the reason by surveying a small sample of customers. We found that this could happen because users get jaded or overwhelmed with the number of options, and hence leave items in the cart without purchasing. This hypothesis needs to be validated by A/B testing on a bigger sample.

The experience of exploring the data through Alteryx was very exciting because we got to build a Machine Learning model that can predict whether a user who views the sale and clicks the banner will finally purchase items from Wayfair. Please note this model can very accurately (99.98%) predict users who do not convert. This cannot be used to predict whether a user will purchase items.

Final Recommendations

- For prior visitor group, it looks like emails from Wayfair aren't as effective. This can be changed by positioning the email blasts specific to prior visitors. A/B testing should be performed on prior visitors in terms of discounts offered, layout of email, pictures in email and frequency of emails.
- Recent external data shows us that MN, MI, and LA are some of the states with the highest percentage of new millennial residents. Since this would be your target customers, it would be best to identify regional micro trends and create customized banners that target those users. Wayfair also needs to work on raising awareness by performing marketing campaigns in those states.
- Wayfair is not able to convert its target market (50-100k income women). This could be because the items portrayed on the banner ads, discounts offered, etc. Customizing the experience for 50-100k women by carefully selecting items (based on discounted price and preference) to display on the page after the banner is clicked could drastically change conversions.
- We need to work on improving the layout of the shopping cart and payment web pages or the general user experience for android users using Chrome browsers.
- When we deploy the Machine Learning model in Wayfair's server to identify users who are about to abandon their cart, we can change our interaction with the user in the following way:
    o Offer a special VIP sale that ends in a few hours.
    o Grant the jaded user a sneak peek into the new AR capability
    o Grant customer access to other specialized tools
    o Show relevant recommendation based on user's demographics and past searches

Please Note: Everything is outlined in detail in the Power Point. We wanted to write a narrative in the presentation so that it would be easy to follow. If the presentation gets selected, we will reduce the verbal content of the Power Point and present everything in detail.