Fall 2022 - MBAX 6330- Case 2: EverCommerce

TEAM # 14

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Customer Lobby Firmographics

To determine the firmographics for Customer Lobby we began by running a logistic regression including all of the customer features (org size, tenure, etc.) and then did backward selection (removing insignificant features one by one) to determine the most important features of a Customer Lobby customer

Firmographics:

- The majority of customer lobby customers are in the verticals healthcare, security, home improvement, and online [Table 1]
  - While a majority of the existing customers are not in the finance and fitness industries those vertical's coefficients have a significant positive relationship with Customer Lobby when analyzing the logistic regression
- Customer Lobby customers are smaller organizations
  - Org size may have a significant negative relationship. This may be because the customers using customer lobby's services are smaller companies that do not have dedicated in house marketing teams
- Customer lobby customers have referred Ever Commerce in the past
  - Referral may have a significant positive relationship because Customer Lobby customers are already using more than one of Ever Commerce's products signaling they are satisfied with the products

Customer Lobby Firmographics (Cont.)

Firmographics:

- Customer Lobby customers are organizations that have lower volumes of paysimple mobile and ACH transactions
  - Paysimple mobile transaction and ACH transaction volume may have a negative relationship because the customers using customer lobby are smaller and do not have a high volume of sales
- Customer Lobby customers are organizations that do not use the paysimple digital storefront
  - Paysimple's digital storefront may have a significant negative relationship because the organizations using customer lobby need to advertise their services but do not need a digital storefront to sell their services or host their own websites with ecommerce functionality
- Customer Lobby customers are also more likely to also be customers of Listen360

Customer Lobby Firmographics - Insignificant Coefficients

When running our regression we identified some features that were not significant in their influence :

- Touches did not have a significant relationship
    - This may be due to Customer Lobby customers already being satisfied customers of Paysimple and requiring less outreach for cross selling
- Median income did not have a significant relationship
    - This may be because the median income of the geographic region does not impact the need for a marketing platform.
    - Knowing the yearly revenue of the organization may be more helpful in targeting prospective customers
- Paysimple transaction volume and credit card transaction volume did not have a significant relationship
    - This may be because we saw that lower volumes of paysimple mobile and ACH transactions were significant predictors of being a customer lobby customer leading us to believe that these smaller organizations are not doing a huge volume of transactions

Customer Lobby Firmographics - Location

The zip codes in the original dataset were not useful when running our logistic regression model as they were creating a large amount of noise and not providing any significant coefficients.

- Instead we looked at the breakdown of number of Customer Lobby customers in each state and county to help inform locations that have existing users
- We utilized an outside dataset from Kaggle to tie the existing zip codes to their states and counties to be able to better understand what each zip code represents [1].
- Top states with Customer Lobby customers- [Table 2]
  - California, Texas, New York, and Pennsylvania have the highest number of Customer Lobby customers
  - You should consider these locations where you have an existing user base when targeting new customers
    - We also recommend breaking it down to the county level to better understand where the most customers are located in each state, such as Los Angeles county for California.
  - With more information about each zip code, such as number of competitors and population density, we could create a better profile for each location to guide decision making

Multicollinearity

We decided to build a correlation matrix to find if there were any highly correlated attributes, i.e., any attributes that could be representing similar things, causing duplicates in the model.

- After creating a correlation matrix, we found that several attributes were highly correlated with other attributes [Visualization 1]. This meant that some attributes were closely related to other attributes, making the overall model inaccurate.
- The top 3 highly correlated attributes pairs were:
  - Tenure and the PaySimple Subscription Revenues for each year listed (2007 - 2016) - this may be because tenure and the Revenues are closely related conceptually
  - The volume of PaySimple transactions and the volume of PaySimple Credit Card transactions - this may show that the transactions, might include the Credit Card transactions and be highly dependent on them
  - The volume of PaySimple transactions and the volume of PaySimple Mobile transactions - Same as above, this may show that the transactions, might include the Mobile transactions
- Although not mentioned before, Tenure and the PaySimple Subscriptions Revenues were not found to be significant, and so did not make it to the final model.
- The PaySimple transitions attribute was removed to avoid multicollinearity in the model and the PaySimple Credit Card transactions attribute was removed as it was also found to be insignificant. PaySimple Mobile Transactions was found to be a significant attribute, and was able to be used because of the removal of the PaySimple Transactions attribute.

Regression Analysis Rationale, Results, & Recommendations

To create an accurate regression model with the given data set, our strategy involved adjusting the factors used based on what combination gave us the lowest AIC (Akaike information criterion) score and most significant factors (each with < 0.05 p-value).

- After reviewing the final regression analysis results, it is apparent that some factors were more important than others to accurately predict the likelihood of a Customer Lobby customer.

- In order to increase the Customer Lobby customer base in the future, we recommend considering the following significant factors:
  - organization size, whether they are a customer already of a different EverCommerce product, service vertical of the customer, and the fact that PaySimple customers may not be interested in Customer Lobby services.

Based on the results, we have curated short-term and long-term plans to acquire/convert Customer Lobby customers.

Regression Analysis Rationale, Results, & Recommendations

Short Term Plan:

- We discovered that a significant amount of Listen360 customers are also Customer Lobby customers, according to our model.

- A low-effort action item that can be quickly implemented is to create a promotion involving these products.
  - For example, a bundle deal can be offered where customers can use both services at a discounted price for a limited time.
  - This promotion can be featured on both Listen360 and Customer Lobby websites to maximize reach.

Long Term Plan:

- The service verticals that show a positive relationship with being a Customer Lobby customer are healthcare, fitness, and finance.

- Creating Instagram advertisements for Customer Lobby and showing it to target businesses in those industries can be a start to increasing brand awareness.

- As time goes on and more data is collected on audience reached, the criteria of the audience for the ads can be adjusted further to maximize targeting accuracy.

References

[1] Ofer, D. (2018, March 18). *US zipcodes to county state to FIPS crosswalk*. Kaggle. Retrieved November 29, 2022, from https://www.kaggle.com/datasets/danofer/zipcodes-county-fips-crosswalk?resource=download

Appendix

Table 1

# of Customer Lobby Customers by Vertical	
Vertical	**# Cust_lobb customers**
healthcare	276
security	136
home improvement	117
online	115
therapy	87
legal	85
fitness	66
realestate	54
finance	45

Table 2

# of Customer Lobby Customers in Top 4 States	
State	**# of Customer Lobby Customers**
CA	67
TX	54
NY	52
PA	49

Appendix

Visualization 1