**Ticketmaster’s True Fans**

Ticketmaster hosts a variety of customers which can be classified into 3 broad categories based on a simple ratio:Total Number of Tickets Purchased / Total Number of Purchases: One-Time Buyers (~80%), Scalpers (~0.1%) & True Fans (~20%).

Categories:

One-Time Buyers have a ratio that’s either exactly one or very close to it since they use Ticketmaster’s services only once but could buy multiple tickets to go as a group.

~80% of the data comprise of One-Time Buyers.

Scalpers have a ratio which is very high since they buy in excess on every purchase. We had to give a boundary because we know people usually go to these events in groups but if the ratio is above 6 tickets per purchase then consider a scalper.

These make up ~0.1% of the data so we say scalpers are not a huge issue as we thought they would be in making the ticket market secondary.

True Fans have ratios of ranges within 1-5 since they buy roughly the same amount of tickets on every purchase made plus they do so consistently.

~20% of the data comprise of True Fans.

How to identify True Fans? Leo

How much revenue do they bring to Ticketmaster?

*Where they are?*

We mapped the location of our True Fans onto a map and noticed that New York has most of these customers on average followed, surprisingly, by states like Illinois, Iowa & Minnesota. Meanwhile states like California, Texas or Washington, where most of the events take place anyways, there are less committed fans. This tells us that the proximity of customers’ locations to the events does not necessarily impact the frequency at which they use Ticketmaster. Clicks?

*What are their preferences?*

We calculated that 86% of our True Fans purchase exclusively for Concert-type events. Thus, we used this subset of the data to profile certain characteristics:

* Our results showed that within these customers 77% of fans follow at most 1-2 artists.
* Out of the 8 delivery methods, Mail, e-Ticket, TicketFast cover around 94% of the sales. We can infer from this that True Fans mostly prefer having physical tickets or be in priority lines regardless of the additional fees that are charged.

*Can we predict and help to convert customers to True Fans?*

Having the location and purchase behavior of our True Fans we ran a Bayesian Probit Regression Model to try and predict which One Time Buyers could potentially convert to more frequent customers of Ticketmaster. We trained our model on the first purchases conducted by our True Fans and regressed on purchase location, category event, number of tickets and ticket price. The regression indicates that the largest positive coefficient for categories are Concerts, but more interestingly the coefficients per state show a similar pattern to the locations of the current True Fans (e.g Purchasing from Illinois makes it more likely to become a more frequent user).

Takeaways:

* Most loyal customers for Ticketmaster are concert goers. The Sports and Art events offered are not doing well enough to keep customers interested.
* Ticketmaster should not only recommend the same kind of events/genres to their new costumers but focus on informing them about the future events of the artists they have already seen.

In conclusion, Ticketmaster’s most loyal customers (i.e. the True Fans) are the customers whom consistently purchase tickets for a small group of ‘acts’ within a single event category.