

Improving Your New Product Batting Average with Predictive Analytics

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Batting averages were an early predictive metric in baseball, and while there are some problems with it, many fans still find it very useful. If a player with a .162 average comes up to the plate, we know we can expect that a hit is unlikely to happen, and if he maintains that average the player is unlikely to be with the team next year.

In business, however, the likes of .162 averages are not uncommon. When companies introduce new products and services the majority often fail in several industries. In pharmaceuticals, for example, just under 10% of drug development projects that undergo clinical trials eventually receive FDA approval. Because of creative accounting, it's difficult to know what percentage of Hollywood films make money, but one economist's analysis suggested that it was only 22%. And a low percentage—about 30%—of network television programs ever make it to a second season. These industries and many others have grown accustomed to low batting averages for new products and services, and executives in them say that nothing can be done to improve them. But they haven't explored the potential of predictive analytics to raise batting averages.

In the entertainment industry, companies have long believed that predictive analytics on commercial success are impossible. The screenwriter William Goldman once famously noted, "Nobody knows anything.....Not one person in the entire motion picture field knows for a certainty what's going to work. Every time out it's a guess and, if you're lucky, an educated one."

Netflix, however, has raised the TV show batting average considerably. You're probably familiar with the company's use of predictive analytics to improve customer recommendation algorithms for movies. But you may not know how the company has used analytics to predict whether TV shows will be home runs, solid base hits, or strikeouts.

The most prominent example of Netflix's bulking up at the plate is the show *House of Cards*, which was the company's first original series. The political drama stars Kevin Spacey and is now entering its fourth season; Netflix has spent at least \$200 million producing it thus far, so it's a big decision. Netflix doesn't release viewership figures, but the show is widely regarded as a home run. And it's not by accident. Netflix employed analytics to increase the likelihood of its success.

If you've heard about the analytics for *House of Cards*, skip the details below, but the key is that Netflix used attribute analysis to predict whether customers would like the series. Netflix has identified as many as 70,000 attributes of movies and TV shows, some of which it drew on for the decision whether to create it:

- Netflix knew that many people had liked a similar program, the UK version of *House of Cards*;

- They knew that Kevin Spacey was a popular leading man;
- They knew that movies produced or directed by David Fincher (*House of Cards*' producer) were well-liked by Netflix customers.

Knowing these facts, there was certainly still some uncertainty about investing in the show, but it made for a much better bet. The company also used predictive analytics in marketing the series, creating ten different trailers for it and predicting for each customer which one would be most likely to appeal. And of course these bets paid off. Netflix is estimated to have gained more than 3 million customers worldwide because of *House of Cards* alone.

And while we don't know the details of Netflix's analytics about its other shows, it seems to be using similar approaches on them. Virtually all of the original shows produced by Netflix were renewed after their first seasons—the company's batting average is well over .900. In addition, Netflix has had many shows nominated for Emmys and has won its fair share as well.

Netflix isn't the only entertainment company to employ predictive analytics. Amazon, which undoubtedly also uses analytics for its Prime Video original shows, has become one of Netflix's primary competitors in original streaming series. Legendary Entertainment uses analytics to predict various aspects of customer behavior relative to its movies—particularly what types of marketing approaches will be effective. And the actor Will Smith is known for his informal analytics to pick movies in which he will act, studying the attributes of box office hits.

So if your company's new product/service batting average is low, take a cue from Netflix. Classify some of the key attributes of your past and current products or services. Then model the relationship between those attributes and the commercial success of the offerings. You'll have a predictive model that should give you some sense of how likely a new product or service is to be successful. With these types of predictive analytics you won't hit a home run every time at bat, but you should be able to become a much better hitter.