CALIBRATION DOCUMENT
BN 2.7  Are Online Reviews Statistical Samples?

Exhibit 1 - Questions

1. Describe three reasons listed in the article as to why you should be very cautious about online reviews.

   The first three listed in the article are quoted here, but several others are discussed in the article as well.
   
   • The marketplace for fake reviews operates fairly openly.
   • Companies give freebies in exchange for reviews.
   • Even if you think you can spot fake reviews, you probably can’t.

2. What was VIP doing to boost the ratings of its Kindle Fire cover? Be specific.

   “A New York Times story reported that a company called VIP Deals had been reimbursing customers for their tablet case purchases if they posted a review of the product on Amazon.”

3. Compared to computer algorithms, how well did people perform in spotting fake reviews? How does this study inform your perception of online reviews?

   “Cornell researchers created software to detect “opinion spam” (fake online reviews) in a pool of 800 reviews—half fake, half real. While the software’s algorithms spotted the fakes 90% of the time, regular people doing the same were about as accurate as if they flipped a coin.”

   Obviously it makes me very suspicious of the reviews. Pretty disappointing because now there is no real way to know if an item has been fairly reviewed or not.

Exhibit 2 – Prompt

Fixing the problem of biased online product reviews is not going to be easy to do. Let’s pretend for a moment that the founder and CEO of Amazon, Jeff Bezos, hired you to devise a solution that captures what you know about statistical sampling. Offer Mr. Bezos a sampling plan that is statistically defensible. Make sure you identify your population, your samples, and how you plan to select them. Identify, too, the parameter and statistic(s) of interest. Explain why your sampling plan is better than what is currently being done, and describe how it will correct for some of the problems you saw in Exhibit 1.
This might not be easy or cheap but it is possible and would probably go a long way to increasing confidence. Here’s what I’d recommend:

a. Don’t post reviews on an item until it has been purchased by at least 500 customers.
b. At that point, select a random sample of 30 of those 500 customers and confirm that none of those sampled have a vested interest in any particular rating of the product. That is, they don’t work for the company, have never been paid to review a product, etc.
c. Ask each of them to fill out a questionnaire related specifically to the integrity of the product being reviewed. Make sure the questionnaire is not about Amazon but about the product Amazon is selling. Make it clear that if it is not a good product then Amazon doesn’t want to continue to sell it.
d. Post the results of those 30 reviews.
e. Repeat the process over time as the numbers of items sold increases. But at any given time only have 30 vetted reviews posted.