

Why Should Companies Forecast and What Is The Best Method?

Treatises have been written on these subjects and most experts will agree that the best method produces the most accurate portrayal of results in advance of the actual occurrence of those results. To borrow a concept from Kahneman, the best method is the one that provides the most accurate pre-mortem before the eventual post-mortem.

In a July 1971 article from the Harvard Business Review entitled "How To Choose the Right Forecasting Techniques", authors John C. Chambers, Satinder K. Mullick, and Donald D. Smith ⁽¹⁾ try to explain forecasting's potential to managers. They focused attention on sales forecasting for products of Corning Glass Works as these have matured through the product life cycle. Considered a classical dissertation on the subject, the authors foretold of the future of forecasting. "Further out, consumer simulation models will become commonplace. The models will predict the behavior of consumers and forecast their reactions to various marketing strategies such as pricing, promotions, new product introductions, and competitive actions. Probabilistic models will be used frequently in the forecasting process."

The future that the authors predicted some 48 years ago is here and managers of companies, irrespective of size or capital structure, must be deeply immersed in the utilization of technology that will help them in forecasting future outcomes. One could argue that the smaller the company, the greater the need since such a company would not have the capital structure to withstand a wrong decision.

Companies might consider a two-step forecasting process.

Suppose Company A has news of a competitor's planned rollout of a new product offering in the next quarter and is considering an appropriate response. The competitor's product is priced a little higher than Company A's but its technological improvements and product packaging are seen as a real threat to Company A's existing product. To be most effective Company A takes a two step process.

In the first step of its forecasting process, Company A plans to qualitatively evaluate its strengths, weaknesses, opportunities and threats in terms of several proposed reactions to its competitor's plan. Company A's management team in a collaborative environment lays out several alternative responses to its competitor's plan. To obtain the most information, Company A performs a Bayesian Inference analysis of its proposed responses. This powerful analysis calculates a metric for the probability of success.

But the metric, at 75%, isn't high enough for Company A's management. They are looking for an 85% chance of being effective to counter the competitor's planned action. So, it's back to the drawing board in a collaborative way as the managers draw upon their combined wisdom and expertise to tweak the responses to see if they can get the metric higher. Success!!! The metric is now at 86% - biases stemming from overconfidence have been allayed. Company A is now ready for step two of the forecast process.

Step 1 has been a qualitative view. Now, let's examine a quantitative view using Monte Carlo simulation. Let's create an Income Statement and a Cash Flow Statement for the Step 1 agreed upon plan. We will be able to measure the risk versus the reward of the agreed upon plan of action.

We cannot know today what the next 48 years will bring us in terms of technological advancements. We do know that great strides are being made in the area of Artificial Intelligence. The effect on forecasting is likely to be huge. We can't wait for new tools to be invented. It is vital that we use the tools that are available to us today.

- (1) John C. Chambers, Satinder K. Mullick, and Donald D. Smith, "How to Choose the Right Forecasting Technique", Harvard Business Review Magazine, July 1971. <http://hbr.org/1971/07/how-to-choose-the-right-forecasting-technique/ar/4>