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Prediction markets: value among the crowd

By Philip Delves Broughton

Executives seeking new sources of insight for planning ahead have long been promised help from increasingly expert gatherers of data.

Their sophistication in analysing information is encouraging new kinds of industry and company-specific prediction markets. These are intriguing potential tools for corporate use that offer the kind of "wisdom of crowds" that operates in the way that, say, a stock exchange reflects expectations of companies' earnings, or in how the gambling odds on horse races and political elections reflect punters' collective predictions of the outcomes.

The idea behind prediction markets for companies is that the accumulation of informed opinion will be more accurate than the best guesses of executives. They have been billed as a way to tap communities of employees, consumers and experts to generate insights into issues affecting businesses and their operations, from product delivery schedules to marketing and quarterly sales.

But the prediction market revolution in business is taking longer than expected. The recent shutdown of Intrade, the Dublin-based prediction market, under scrutiny from the US

Commodities Futures Trading Commission, revealed many of the challenges.

Unlike forecasting methods such as polling or focus groups, prediction markets look to some too much like gambling, especially for American legal tastes. Also, to many managers, prediction markets remain too much of a mathematical mystery.

At the Microsoft Research Lab in New York, one of its 12 advanced research laboratories, academics are exploring both their potential in forecasting and ways to make them more useful and user friendly. "What we're trying to do with prediction markets is to achieve two main goals," says economist David Rothschild. "To make a more efficient world by allowing people to understand what's going to happen so they can allocate resources more efficiently. And second, by understanding forecasts better and seeing how forecasts move in response to certain factors."

The mathematics behind prediction markets can be a beast. In the simplest form, participants are asked a yes/no question. While a poll might ask who they will vote for in an election, a prediction market will ask a yes/no question such as "do you think President Obama will be re-elected?"

The answers are then turned into a probability. If, say, 60 per cent say "yes", that becomes a contract you can buy or sell. If the ultimate payout is set at $10, you would buy the contract for $6. If you turn out to be right, you make $4; if you are wrong, you get nothing. From this basic scheme prediction markets can become almost infinitely complex as they integrate all kinds of other information to generate probabilities.

Given the heavily technical aspects, it is hardly surprising that companies using prediction markets are often in the technology sector.

Google experimented extensively with internal prediction markets to gauge the likely success of products. Employees were invited to bet using goobles, a fake currency, on various outcomes. The company stimulated participation with small cash prizes and T-shirts for the best predictors, and mixing fun bets about sports and movies with the business bets. It stopped the experiment after worries in its legal department about information sharing on these markets.

Futures strategy

How to make prediction markets work inside a company

- **Create incentives for participants.** Offer bragging rights, or small, non-financial rewards such as T-shirts or gift cards, for those who make accurate predictions. Make sure anonymity is guaranteed for those who want it.

- **Involve senior managers in the market.** Because the predictions emerging from the market might challenge senior executives' beliefs or decisions, managers should be involved from the start.

- **Hide the complexity.** Prediction markets can be mathematically highly complex. Look among providers for a user interface that keeps things simple for participants, and a results dashboard that non-technical managers can easily grasp.

Google did make some unanticipated discoveries about its employees, however, including that people who sat close to each other tended to make very similar bets, yielding an indicator of how information flowed around the company.

Intel has used prediction markets to foretell how its products might fare, and Hewlett-Packard has used them to predict the prices of memory components. But for companies without this kind of financial and technical muscle, prediction markets have been a tougher sell.

Linda Rebrovick, chief executive of Consensus Point, a Nashville-based provider of ready-to-use prediction market software, says: “The reputation of prediction markets was for a long time that they’re difficult to run. We wrote, built and designed our market, called Huunu, so it was plug and play and easy to use,” she says. “We’ve stripped out all of the difficult, intimidating statistics and made it so people see it as they would any research tool.”

From both the managerial and participant perspective, making prediction markets easier to use is vital. Consensus Point recommends companies make these markets inviting for employees, including offering small financial rewards, or creating leader boards and tickers so people can see the immediate effect of their bets in moving the market. Another way to stimulate participation is to encourage anonymous play so employees are not afraid to offer sincere opinions.

However, the real trick, says Consensus Point, is to attract the right participants: those with deep expertise whose real views are not otherwise heard.

In the US, fear of legal repercussions has limited the growth of prediction markets in the world’s biggest sales arena. There is no US equivalent, for instance, of PaddyPower, the Irish bookmaker, which will create markets in almost anything, from horse races and football matches to New York’s mayoral race and Prince Harry’s next girlfriend.

The Iowa Electronic Markets were set up as an academic exercise by faculty members at the University of Iowa to test the power of prediction markets in forecasting outcomes in political contests. They have been successful but are strictly limited in the amount of money they can trade, and operate under a special dispensation of the CFTC. The Hollywood Stock Exchange, owned by Cantor Fitzgerald, predicts movie news, such as box office takings, but has never evolved into a full-blown, real money futures exchange.

Another brake on prediction markets has been managers’ fears about loss of authority. Donald Thompson, emeritus marketing professor at York University in Toronto, and author of *Oracles: How Prediction Markets Turn Employees Into Visionaries* , says: “There’s a culture . . . that the CEO is the smartest guy in the room. To change that and say everyone in the company has information that could make better decisions, including the receptionists, is a major culture change.

"No one wants to tell the CEO that maybe all of us are smarter than any of us. The other major issue is, who's going to be embarrassed by the questions we ask? If you're going to ask important questions, you're going to challenge certain decision makers. You need a culture that allows this."

Equally, trained forecasters do not want what they see as a gimmicky computer game replacing their traditional tools. But, says Prof Thompson, the hostility is diminishing. The success of prediction markets in well populated fields such as politics and movies is increasing confidence in them.

Within 10 years, he believes, they will have replaced surveys. That would bring a new transparency to forecasting and allow unheralded experts to emerge to challenge conventional wisdom.

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