



OPINION

Expect the unexpected

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Innovators who keep their eyes open for unexpected results—and quickly take advantage of them—reap the biggest rewards

LATER this month, *The Economist* will announce the winners of its innovation awards following a day-long discussion on the factors that propel successful innovation inside some organisations but not in others. With the paper's Second Annual Innovation Awards and Summit, to be held at the Ritz-Carlton hotel in San Francisco on September 23rd, we would like to do two things. First, we want to celebrate, and thank, a handful of individuals who, through innovations in their chosen technological fields, have been singularly successful at creating new economic and intellectual wealth for the rest of us to enjoy. Second, we hope to see what can be learned from their endeavours—in particular, what was the source of their ideas, how radical or otherwise was the technology they embraced, and what were the market needs they sought to satisfy.

In his book "Why Innovation Fails"^{*}, Carl Franklin quotes an intriguing study by three academics, Donald Lehmann at Columbia University in New York, and Jacob Goldenberg and David Mazursky both at the Hebrew University of Jerusalem. The researchers looked at 197 product innovations, of which 111 were successes and 86 failures. What they found was that the successful innovations had some, or all, of the following features: they were moderately new to the market, based on tried and tested technology, saved money, met customers' needs and supported existing practices. By contrast, the products that failed were based on cutting-edge or untested technology, followed a "me-too" approach, or were created with no clearly defined solution in mind.

So far, so obvious. What was much less so was the researchers' list of "idea factors"—where the ideas for the innovations came from, and how they determined the success or otherwise of the ensuing innovation. For instance, "need spotting" involved actively looking for an answer to a known problem, while "solution spotting" meant finding a new way of using an existing piece of technology—much as the CD player capitalised on the recently invented laser diode. "Mental inventions" were things dreamed up in the head with little reference to the outside world, while "random events" were serendipitous moments when innovators stumbled on something they were not looking for but immediately recognised its significance. The two other sources of ideas were "market research" and "trend following".

When the team plotted the success-to-failure rate of the six different idea factors, the two worst by far turned out to be trend following and mental inventions. Both produced three times as many failures as successes. By contrast, need spotting produced twice as many successes as failures. Market research generated four times more, and solution spotting seven times more successes than failures. But the clear winner in the innovation stakes was "taking advantage of random events", which generated 13 times more successes than failures.

Stopping losers early

Such a taxonomy is clearly a powerful tool for predicting winners. The researchers reckon their model gets it right nine times out of ten. In many ways, however, predicting losers is more useful than backing winners. With typically 20 times more failures than successes, that is where the real cost of innovation lies. Weeding out the likely losers early in the innovation chain before development costs escalate would free up untold resources to apply either to widening the search for new ideas, or concentrating all efforts on the surviving few.

At the Innovation Summit in San Francisco, we plan to split the day into two halves, examining first the technological push from within companies, and second the commercial pull from the marketplace. In that way, we hope to cover the main drivers (the "idea factors" so to speak) that bring innovations to commercial fruition. Above all, the aim will be to see how to deploy innovation as a way of re-inventing the company. With the pace of innovation hotting up, any enterprise that fails to replace 10% of its revenue stream annually is likely to be out of business within five years.

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* "Why Innovation Fails", by Carl Franklin, Spiro Press, 17-19 Rochester Row, London SW1P1LA, £16.99/\$24.95.

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