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Innovate to Beat the Odds: An Interview With Paul Ormerod



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Paul Ormerod's latest book, *Why Most Things Fail* (Pantheon, 2006), is the antidote to the business bestseller. The title isn't an exaggeration. Ormerod looked at the fact that most things — most of the plants and animals that have ever existed as well as most of the companies that have ever been in business — no longer exist, and saw an Iron Law of Failure.

That may not be the kind of book most people would expect from a free-market economist who's also a management consultant. But he has already taken a whack at his own discipline in an earlier book, *The Death of Economics*, and now he has turned his attention to business.

He noticed a spooky similarity between the pattern of company failures and the pattern of biological extinctions. Although the time scales are dramatically different, both show long periods of stability broken at irregular intervals by spikes of extinctions or failures. This was a puzzle. Human beings learn, think, and plan, which should give them a huge advantage over plants and animals. Yet the extinction rate of companies and business plans looks a lot like that of microbes and dodo birds.

"It's possible to tell a story about why a company failed and even to identify the precise sequence of events. ... But anticipating those events is inherently a very difficult problem."

This is not the world of conventional economics, which assumes markets that are in equilibrium. It is also not the world of the business bestseller, where following a few simple rules guarantees success. If it's ever occurred to you that the insights offered by management gurus are little more than gussied up restatements of "buy low, sell high," you'll find plenty in Ormerod's book to back you up.

None of this makes Ormerod gloomy, though. Learning, thinking, and planning may not have prevented most companies from going out of business, but the innovations they came up with have helped the economy as a whole. And sometimes, with a bit of luck, they have been the making of very prosperous enterprises.

CSC World: Let's get right to the heart of the matter. Why do most companies fail?

Ormerod: Because they operate in extremely complex environments. Understanding the potential threats that companies face is just too great a problem to be analyzed systematically.

Look back a few years in the world of computing. IBM nearly went under because it failed to anticipate the impact of the PC. It couldn't see that the weirdos building machines in their garages in California were a threat. It's possible to tell a story about why a company failed and even to identify the precise sequence of events, although that can be hard sometimes. But anticipating those events is inherently a very difficult problem.

Small, startup companies may fail for obvious reasons, like not getting the cash flow right. But once a company has survived for two or three years, then failure is caused by completely unanticipated events.

CSC World: So there's no such thing as five steps to business success?

Ormerod: The idea that you can be successful by following

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a few simple rules is very alluring. But almost by definition it can't be true. If it were true, then everyone would do it.

There are a few simple mistakes to avoid. Startup companies often fail for very well-known reasons. A little bit of information would reduce the failure rate of startups quite dramatically. But once you get beyond that, it becomes much harder to avoid failure.

CSC World: In your book, you compare business to playing chess.

Ormerod: Yes, chess is a good example because it's much simpler than the real world. It's a closed system with a fixed set of rules, and a fixed definition of success. You win by capturing your opponent's king. It's a dramatic simplification of reality. And there are lots of championship matches you can study to see what the best moves were.

But experts evaluating famous chess matches can't agree on whether any particular move was the best one. They're even unclear in their evaluations of championship matches from 50 or 100 years ago. The experts might be able to identify two or three good moves in any situation, but they can't identify the best one.

That's the problem companies face. Chess has a few simple rules, but it still leads to behavior that is more complex than we can understand. It's possible that, at some point, computer power will be so great that we might possibly understand chess completely, know the best moves. But that will require a stupendous expansion of computer power.

"Common sense says that big events have to have big causes, and sometimes that's true. But when we're dealing with complex systems, even very small events can trigger very substantial movements."

CSC World: So there are no surefire rules for success even in chess?

Ormerod: There are some sensible rules which will avoid obvious loss. It's important not to do things which are known to be wrong or to have a high probability of failure. But once you get beyond that, it's much harder to say how you're going to succeed.

You can teach beginning chess players some simple rules to prevent them from losing very quickly. You can also teach an entrepreneur some simple rules to stop the company from folding rapidly. But running a company is much more complicated. It's as if the rules of chess could change in unanticipated ways with every move.

CSC World: In your book, you said what got you thinking about this was the striking similarity between the pattern of biological extinctions and the pattern of company failures.

Ormerod: Yes, that sounds unusual when you hear it for the first time. But our understanding of economic and social systems is much closer to the biological example than it is to the abstract world of standard economic theory.

Take the standard economics assumptions about how people behave, that they can gather all relevant information and then make the optimal decision. That's positing very strong cognition by decision makers. Now go to the other extreme, zero cognition. That's the way evolution takes place.

Genes don't act with intent. People and companies do act with intent, but it is as if they were making decisions at random. We're always gathering information and processing it and trying all the time to make decisions that are in our self-interest. So humans operate differently from genes, but the outcome is very similar because of the complexity of the environment humans face.

CSC World: The phrase, "intent is not the same as outcome" occurs two or three times in your book.

Ormerod: Yes. Just because some companies have survived for long periods of time doesn't mean they've found their way around the problems that cause other companies to fail.

What's interesting about the research in industrial economics is that once a company gets past the first two or three years, the probability of failure doesn't seem to alter very much. A company that's 80 years old is as likely to fail as one that's only 10 years old.

"We understand only a tiny part of the environment in which we operate, but the returns from even a partial insight into the future can be very large. Keep innovating."

Look at General Motors. If you had said, not very many years

ago, that GM could be in serious difficulty, people would have said it couldn't possibly be true. But now, for all intents and purposes, it's bankrupt. It's essentially running on its finance part, not its car business. So what was initially a sideline to its main business is now what's keeping the whole thing afloat.

CSC World: Can you look back at failures and see where things went wrong?

Ormerod: Sometimes, but that can be hard, too. Look at the US power grid. Given the complex nature of the connections in the grid — which nobody understands completely — you don't need a large incident to get a very large outage.

Common sense says that big events have to have big causes, and sometimes that's true. But when we're dealing with complex systems, even very small events can trigger very substantial movements.

The classic example is the stock market crash of 1987, when the share prices of major companies dropped more than 10 percent in a single day. But nothing had happened. War hadn't been declared, interest rates didn't go up, inflation didn't go up. Nobody can pinpoint why the crash happened. That's quite disturbing in terms of the common-sense link we all make between the size of an event and its consequences.

CSC World: It sounds like, in addition to planning and experimenting, we need a little bit of luck.

Ormerod: Luck is a very important component of success. Look at Windows. Bill Gates and his colleagues had the insight that PCs would be important, which IBM didn't have. But the way they delivered that insight was pure luck. They were going to abandon Windows and go with OS/2. But Windows was the one that took off.

Experimenting is a very important component of success, too. Even very successful companies try out different things because you never know what's going to succeed. As long as you don't incur too many losses along the way, you'll do well.

CSC World: So your advice would be to keep experimenting?

Ormerod: Yes. Keep doing what you're doing. Gather information, think about it, and be willing to experiment. We understand only a tiny part of the environment in which we operate, but the returns from even a partial insight into the future can be very large. Keep innovating. Every so often you'll get a positive cascade that works spectacularly well.