The Benefits of Safe Mistakes

TIM HARFORD

ADAPT

In 1450, a German goldsmith published a poem. If he had merely been the poet, the act would have been forgotten long ago. But Johannes Gutenberg wasn't the poet. He was the printer. The poem itself seems to have been the first work ever to emerge from a moveable-type printing press.

By inventing the printing press, Gutenberg paved the way for the modern world to emerge. It was one of the most important innovations of all time: by making it possible to mass-produce books and newspapers, Gutenberg's idea changed society in the most profound way.

But here's the strange thing about Gutenberg: five years later, he was bankrupt. Not only was he bankrupt, but he had been bankrupted by his most famous publication, the 42-line Bible. The beautiful bible, which is the most prized edition of any book in western civilisation, was an aesthetic success built on a technological triumph. But it was a commercial failure.

Naturally, failure is always possible in business. But let's go further. It's not just possible. It's ubiquitous. Not even the most brilliant visionaries are immune from it.

Not only is failure commonplace, but the other side of the coin is that success in business emerges (far more often than we might wish to admit) from an experimental process of trial and error.

Gutenberg's immediate successors certainly went through such a process. It wasn't enough simply to take the moveable-type press and put it to work. The right business model for using the press was far from clear. Gutenberg himself competed with the calligraphy and illumination of hand-made Bibles. It might have seemed obvious that since the Bible was, literally, "the book," printing Bibles was the road to business success. Not at all. The early printers who followed

Gutenberg made similar errors. Venice soon became the centre of the printing business, but—according to Paul Ormerod, author of *Why Most Things Fail*—most Venetian printers had a life span of less than three years.

Eventually, the youthful printing industry fumbled its way to the answer. The profitable products were not books or newspapers—they were religious "indulgences," a kind of pre-packaged relief from divine punishment. Instead of printing beautiful books, printers made money by churning out leaflets for the church. Gutenberg's revolutionary technology wasn't enough to guarantee profits; success only came at the end of a process of experimentation.

Naturally, failure is always possible in business. But let's go further. It's not just possible. It's ubiquitous.

We cling on to the idea that successful business people are talented leaders running objectively brilliant corporations. But the world is far too complex and changes far too rapidly for us to have any confidence that this fondly-held idea is true.

It's easy to list corporations which have enjoyed periods of great success, only to stumble and fail to adapt: think of US Steel and Cudahy Packing a hundred years ago, Atari and Pan Am in the 1970s, and General Motors and MySpace more recently. Or think of eBay, McDonald's, and the Nobel-prize winning Grameen Bank, which have suddenly sprung from nowhere, almost by accident, because somebody happened upon a brilliant idea.

So, does economic success happen despite business failure? I'd go further than that. Economic success happens because of business failure. It's the failure of once-dominant companies that makes space for new business ideas.

To put it another way: it's possible to keep failure rates low, but the economic cost will be grievous. All you need is a set of dominant companies with access to government favors, or shielded by customer inertia, and they will be able to keep out young competitors with better products. In such cases, the corporate failure rate will be low, but such stagnation is bad news for any economy.

Kathy Fogel, Randall Morck and Bernard Yeung compiled lists of the ten largest employers in each of 44 countries across the world, in a recent study published in the Journal of Financial Economics. Fogel and her colleagues discovered that countries with rapid churn into and out of this elite group had faster growing economies. This relationship even seems to be causal, because high turnover in one year is correlated with fast economic growth over the subsequent decade. It also holds up after statistically controlling for other factors. Fogel, Morck and Yeung also argue that the key factor is not "rising stars" but "disappearing behemoths". Failure, then, is ubiquitous, survivable, and even useful.

I'm struck by the fact that in Silicon Valley the talk is all of "fail faster" and "double your failure rate," while over on Wall Street the phrase is "too big too fail." Which of these two economic sectors has added more value to the US economy in the past couple of decades?

More than five hundred years after Gutenberg's bankruptcy, two management consultants, Tom Peters and Robert Waterman, published *In Search of Excellence*, a genre-defining business book. The book enjoyed far greater financial success than Gutenberg's Bible, and Tom Peters went on to carve out a career as a larger-than-life management guru.

In Search of Excellence studied the management practices of 43 excellent companies, but trouble was in store. In 1984, just two years after *In Search of Excellence* had been published, *BusinessWeek* ran a cover story that said it all: “Oops! Who’s excellent now?” Almost a third of the companies singled out for praise by Peters and Waterman had sunk quickly into serious financial trouble.

Peters and Waterman might have been a little unwise to create such hostages to fortune, but the problem was not in their selection of “excellent” companies, but in the ruthless churn of a competitive economy, which is far too complex to explore armed with some abstract quality of “excellence.” Rather, companies have specific projects and products, some of which match what the market wants and succeed, while others do not and fail. We cannot simply pick out brilliant leaders or excellent companies and assume they will continue to make the right decisions.

Business models come and go. That is an inevitable part of economic growth. The wise entrepreneur, then, will prepare for possible failure. She will make sure that a single failure is survivable. And she’ll watch closely for signs of incipient failure, making it possible to nip failing projects in the bud or change direction sharply. In short, “learn from your mistakes” and “if at first you don’t succeed, try again.” We all spout these clichés. If only we meant what we said. But the latest research in behavioural economics and in psychology strongly suggests that we have a dysfunctional relationship with failure. We struggle to learn from it, and we also struggle to respond constructively to the “error” part of trial and error.

Organisations dislike the honest mistakes and the promising near miss. As voters, we seem to be turned off by politicians who change direction or admit error. George Bush versus John Kerry is one election campaign that springs to mind; in the UK, the two most re-elected Prime Ministers in modern British history were Tony Blair (“I don’t have a reverse gear”) and Margaret Thatcher, (“The Lady’s not for turning”). We wouldn’t value these qualities in a car, but in a political leader inflexibility becomes a virtue.

But if learning from mistakes is hard in corporate hierarchies or politics, perhaps the trouble originates in our psychological make up. We rarely react well to the prospect of making our own mistakes, subconsciously deploying a well-documented range of psychological defence mechanisms, from timidity (refusal to take a small risk) to outright denial (the bad news never happened) to recklessness, as we try to overturn our failures with ever greater commitments, refusing to stop digging when we are in a hole.

Economic success happens because of business failure. It's the failure of once-dominant companies that makes space for new business ideas.

A tragicomic case study emerges from the TV game show *Deal or No Deal*. This show assigns contestants a random box, which contains anything from pennies to half a million dollars. Twenty or so other boxes contain all the other possible prizes. Slowly, contestants will pick these boxes, which will be opened and their contents discarded. Opening a box containing a few cents is good news, because it raises the likelihood that the contestant's own box will contain the jackpot. As this process of elimination continues, contestants slowly home in on a view of what their own box might contain, and from time to time, a mysterious "Banker" calls them and offers them money to quit the show.

Deal or No Deal was studied by a team of behavioural economists including Richard Thaler, famous as the co-author of Nudge. Thaler's team wanted to understand how willing contestants were to gamble when offered certain cash from the Banker relative to the unknown quantity of cash in their own box.

The behaviour of one contestant, Frank, is illustrative of what they found. Frank had a chance of winning a huge jackpot and because of this, the expected value of his own box was just over $100,000. The banker offered him $75,000 and Frank turned that offer down, showing an appetite for risk. Frank was then unlucky: his next choice for elimination turned out to be the box containing the half million euro jackpot, and Frank's expected winnings fell to a mere $2,508.

Now here's the strange thing: the Banker started making Frank offers that were much closer to the fair value of his winnings. The Banker's first offer was $2,400, 96 per cent of the expected value of playing on. The next offer was actually more than 100 percent of Frank's likely winnings. Finally Frank had two remaining possibilities in his mystery box, $10 or $10,000. The Banker offered $6,000 to walk away, a generous proposal by any standards. Frank turned down every deal. He ended up leaving the studio with just $10. Having been wounded by the loss of a certain $75,000, Frank began to take absurd gambles.

Frank's behaviour turns out to be typical: *Deal or No Deal* contestants are far more likely to reject the Banker having just made an unfortunate choice of box, despite the fact that objectively speaking the Banker treats them more kindly than other contestants. They prefer to keep gambling and give themselves some chance of redemption.

Anyone hoping that this behaviour strictly applies to game show contestants will be disappointed: stock market investors do much the same thing, clinging desperately to sinking shares (those Lehman Brothers shares are due to bounce back any time!) as do poker players, who are always at risk of "going on tilt." All of us have seen the same thing in business: the chief executive who just won't let go of a failing cause; the manager who keeps throwing good money after bad; the entrepreneur who wants to play double-or-nothing with his life savings.

This is a pity. We desperately need a safer way to make mistakes. Peter Sims, author of *Little Bets*, describes the stand-up comic Chris Rock trying out new material in a local comedy club. Those irst gigs will be absolutely agonising. Rock finds it impossible to create great routines sitting at his desk: he has to try, and fail, in a public way, up to 40 or 50 times, before finally taking his material on tour. That's a gruelling process but it's hard to argue with the results. Part of Chris Rock's successful formula is finding that out-of-the-way space in which a failure is not a tragedy. But part of it is simply having the mental toughness to fail in public.

If our aim is to experiment constructively, the individual and the organisation need to meet each other half way. Few companies will tolerate 50 failures, even if there's a clear learning curve going on, and that is a problem.

Failure … is ubiquitous, survivable, and even useful.

There are some heartening examples of failure-friendly corporate cultures. India's Tata Group has a "Dare to Try" award, celebrating creative near misses, such as the idea of putting plastic doors on the Tata Nano car. Alina Tugend, author of *Better by Mistake*, approvingly cites the "Golden Egg" award handed out by a business association in Michigan. It's given to "a member who got egg on his face trying something new." But such awards are rare.

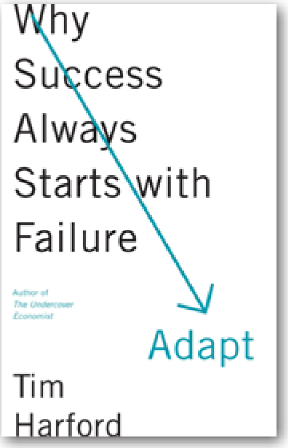
Small wonder, then, that the process of economic change often consists not of companies reinventing themselves, but of companies being supplanted by young, innovative rivals. It's all too easy for an organisation to get into the habit of covering up failures, or blaming others. But eventually change will come from external competitors.

This may help to explain the incredible rates of economic churn unwittingly revealed by Peters and Waterman. One would expect that long-standing "excellent" firms should easily overshadow upstart competitors. The truth is that established firms often have every advantage except the one that really counts: the collective willingness to try something new and daring.

If failure is likely, and a business also regards failure as shameful and unacceptable, it seems to me that there are two likely results. One is that failing projects will be concealed for as long as possible—and this often means nurturing and funding them long after they should have been canned. The second is an organisation that slowly auto-asphyxiates because nobody ever tries anything new. Success and failure become indistinguishable: one long, vague slump into mediocrity.

We all recognise those symptoms: they are classic frustrations of office life. **Yet somehow, we must find a way to respond more constructively to the risk of failure. If Johannes Gutenburg had been afraid of failure, where would we all be now?**

info



BUY THE BOOK

Get more details or buy a copy of Tim Harford's Adapt.

ABOUT THE AUTHOR

Tim Harford is a columnist for the *Financial Times*, and the author of *The Undercover Economist* and *The Logic of Life*. His new book, *Adapt: Why Success Always Starts with Failure*, has just been published by Little, Brown.

SEND THIS

Pass along a copy of this manifesto to others.

SUBSCRIBE

Sign up for our free e-newsletter to learn about our latest manifestos as soon as they are available.

BORN ON DATE

This document was created on August 3, 2011 and is based on the best information available at that time.

ABOUT CHANGETHIS

ChangeThis is a vehicle, not a publisher. We make it easy for big ideas to spread. While the authors we work with are responsible for their own work, they don't necessarily agree with everything available in ChangeThis format. But you knew that already.

ChangeThis is supported by the love and tender care of 800-CEO-READ. Visit us at 800-CEO-READ or at our daily blog.

Cover image from Stauber Design Studio.