Beware creative destruction

In the May issue of *Risk*, David Rowe discussed the importance of resisting unnecessary change. This month, he cautions against the tendency to avoid confronting fundamental threats to an organisation's established position

"This process of creative destruction is the essential fact about capitalism... Every piece of business strategy acquires its true significance only against the background of that process ... [and] cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull..." Joseph Schumpeter in Capitalism, Socialism and Democracy, 1942

While Joseph Schumpeter's predictions about the future course of capitalism have proven to be flawed, his diagnosis of its essential features is more compelling today than when it was written over 60 years ago. Nevertheless, many organisations devote massive attention and resources to assessing and managing short-term risks, while ignoring fundamental challenges to their very existence.

There is an abiding tendency to be astonished by the scope of past technological changes while behaving as if the pace of such advancement cannot continue. To a degree, this is because the past is known in specific detail, while the future can be imagined only in vague outline. Nevertheless, the most plausible scenario today is one in which the pace of technological change not only continues but accelerates.

That being said, there is always an extended lag between proven technological feasibility and widespread commercial impact. Sometimes, it is a question of improving the initial breakthrough to achieve an acceptable level of quality. Other times, it is a matter of resolving engineering challenges to the transition from a controlled laboratory experiment to commercialscale production at acceptable cost. There may also be economic and social obstacles that slow the pace of adoption.

Sometimes, as in the nineteenth century spread of railway transit fuelled by steam locomotion, there are huge timeconsuming capital investments required. In other instances, as in the case of both ground-line telephony and mobile phone technology, network effects are important (a phone isn't very useful unless many other people already have one). Needless to say, these are not mutually exclusive effects. Successful exploitation of many technological innovations must



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overcome several of these obstacles.

These barriers to exploiting technological breakthroughs can provide valuable reaction time for threatened companies. Unfortunately, an instinctive organisational response is often to deny the threat until it is too late. Partly, this is the proverbial tendency for the urgent to crowd out the important. The very fact that a fundamental threat to a company's current strengths will unfold slowly makes it easy to defer a meaningful response. Sometimes it is the understandable fear of cannibalising one's own established market that constrains action. Often the magnitude of the required response, such as new skills to be acquired and rewarded or the overhaul of deeply ingrained organisational characteristics, makes action difficult in the absence of an immediate crisis. This is especially true if the pathology of denial is widespread in the organisation.

Historical examples abound and, in all fairness, are easier to identify with the benefit of hindsight than to counter in advance. In the 1980s, mainframe computer manufacturers were very reluctant to visualise a world in which the PC would be the dominant source of computing power. Photographic film manufacturers resisted the idea that digital photography would largely displace traditional cameras. Traditional phone companies currently resist the idea that internet telephony will come to dominate global voice communications, despite rapidly emerging evidence to the contrary.¹

Imagining tomorrow

A key senior management challenge for the foreseeable future will be to anticipate how emerging technologies can threaten the very existence of a firm. In this exercise, it is worth remembering what Peter de Jager considers an often ignored implication of Moore's Law, namely: "The advance of technology collapses the constraints which define how we do business."2 In evaluating the potential impact of a known technology, don't think in terms of today's constraints on cost, quality, speed, size, ease of use and availability. Think of the impact on your business if the cost was lower by a factor of 1,000 or even 10,000, if quality and speed of performance were comparably improved and if usability problems were greatly reduced, opening the new technology to a mass market. Now consider how this could threaten existing products and services and, more importantly, what new opportunities it would create.

Actively engaging in such 'blue sky' thinking is not always comfortable for practical business people accustomed to hardnosed assessment of empirical evidence. Nevertheless, few things are more empirically obvious than the continuing rapid expansion of what is both technologically possible and commercially feasible. As I pointed out in May's column, pursuing change for its own sake can be both wasteful and self-defeating. Nevertheless, scientific advances can make extensive and often painful changes essential. Avoiding the challenge of anticipating both the threats and opportunities presented by rapid technological advance represents a management failing of the first order. \blacksquare

¹ The Bell Tolls for Telecom, Peter de Jager, available at:

http://www.technobility.com/docs//article009.htm. ² Where do we go tomorrow?, Peter de Jager; available at:

http://www.technobility.com/docs/article033.htm.