



Creative destruction and deconstruction

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..... Hang out with the chattering philosophers and pundits of high tech and inevitably someone will mention the phrase *creative destruction*. People apply this phrase, coined by Joseph Schumpeter in 1942, to a broad range of contemporary topics.

Schumpeter's framework continues to stand as one of the most insightful philosophical tracts written about technical change in 20th century market economies. With good reason, the discussion about creative destruction has displayed an impressive longevity. Schumpeter understood the factors behind competitive behavior in his own time so well that he anticipated patterns of economic activity that emerged decades later.

Creative destruction has become a catchphrase for more than philosophers. It provides intellectual foundation and gravitas to a venture capitalist with a new ambitious business, as well as for a paranoid CEO looking to fire up the troops in the face of prospective entry. Journalists and consultants have referred to it.

Common use of the phrase has also gone well beyond Schumpeter's original intent. At its worst, Schumpeterian economics resembles a reading of Nostrodamus, as if between the lines Schumpeter forecast the rise of Intel, the decline of GM, the tactics in the browser wars, and other specific events. This stuff is just baloney.

If one looks closely, however, Schumpeter had something insightful to say

about a few common situations, such as when entrenched incumbents and insightful entrants fight for dominance in innovative markets. These insights are worth knowing about.

Origins of the idea

Schumpeter sought to argue against the prevailing wisdom of his time, that large monopolies excessively controlled concentrated markets, resulting in unhealthy amounts of economic power remaining in the hands of a few. The charges were broad and did not come just from extremists.

Critics had leveled such arguments most effectively at the high-tech firms of Schumpeter's day, particularly those which had bureaucratized R&D activities. These included automobile firms (such as Ford and GM), electrical equipment firms (such as General Electric and Westinghouse), and chemical firms (such as DuPont). It followed in a long tradition in US and European thinking, echoing similar charges against the high-tech companies of an earlier era, namely those associated with railroads, oil, and steel.

Schumpeter argued that it was shortsighted to focus exclusively on the state of monopolies at any point in time. The phrase *creative destruction* encapsulates the reasoning. It is the title of a chapter in Schumpeter's ambitious tome, *Capitalism, Socialism, and Democracy*. Here is the most oft-quoted sentence from that chapter:

Capitalism, then, is by nature a form or method of economic change and not only never is, but never can be stationary ... The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates ... This process of Creative Destruction is the essential fact about capitalism.

Schumpeter goes on to argue that dominance is valuable but not necessarily permanent in market economies. The market value of dominance will motivate new firms to try to reach a similar position, principally through innovating. This would also motivate incumbent firms to fend off such entrants, also by innovating. Altogether, the tournament to become a dominant monopolist leads to lots of innovation.

It was quite a radical thesis in its own day, and it is still quite a provocative one today.

That said, in its contemporary form, the framework for creative destruction has morphed into two distinct strands, one focused on the causes of incumbent failures and the other on patterns in market dynamics. The strand of thinking about incumbent failures is much longer (by a long shot), so let's start there.

Incumbent failure

Exceeded in number only by CEO ghostwritten autobiographies, many business books are about how to avoid becoming a pathological company. Schumpeterian analysis can play a useful and legitimate role in this style of work. Ironically, the best of the latter style of books usually begins by diminishing or discrediting the cult of CEOs offered by idolizing executive biographies.

Schumpeterian analysis' starting premise is sympathetic to the processes that keep a dominant firm operating: The organization got that way through doing many things right, such as adopting effective routines, operations, and incentive systems. Hence, most successful firms do not abandon everything they know in the face of challenges. Most will try to use existing capabilities, only mildly altering what worked in earlier crises. Moreover, the usual routine works just fine most of the time.

And sometimes the routine does not work. Why? Two types of crises can arise: One is an inappropriate conceptualization, the other an ineffective investment.

The trouble at Encyclopedia Britannica (EB) provides a useful illustration of both types of crises. Though many observers know about EB's troubles adapting to the Internet, fewer know that the trouble started earlier, with the emergence of CDs in the early 1990s.

Obviously, the CDs allowed someone to put an encyclopedia on a disk, offering a close substitute for EB's core product. In the face of this situation, EB made two errors.

The first error was conceptual. Correctly, EB executives saw a brandless technology with no prototype or distribution channel. Correctly, they reasoned that more competitive alternatives always look like bad news to an incumbent. Correctly, they said EB faced many substitutes in the past, but the strong brand and distribution had fought them off. Incorrectly, they concluded the CDs could not serve as the basis for a major threat to EB's revenue stream.

The conceptual error is understandable—as well as a bit maddening—if you

remember what this firm used to be like. EB was extraordinarily successful at door-to-door commissioned sales. The encyclopedia on a CD differed from anything EB sold. More to the point, it differed in how it would be sold. Every proposal for the CD anticipated selling something for \$49.95 through a third-party retailer. Nobody at EB had any real experience from which to predict the type of future the CD would introduce.

The second error was more subtle, and, in this case, resulted from the first. It involved misdirected investment in capabilities. To be clear, misdirected investment can happen even without conceptual error; but together the two are deadly.

As illustration, the CD used text, to be sure, but also sound, movies, deep linking, and an entirely different way of laying out information. In retrospect, it is clear that EB had some of these talents in house and could have developed appropriate capabilities had it directed its employees to invest in learning about them. Instead, executives did not invest in anything.

Famously, it was surreal to talk to employees at EB throughout the early- to mid-1990s. They were extremely enthusiastic about their product's value and remarkably unaware that their future was toast.

Although this example is extreme, it is an illustration of the general difficulties incumbent firms face when trying to abandon old processes or mindsets, especially instantly. More generally, dominant firms are most vulnerable to entry when the business behind a new technical opportunity uses new capabilities and these require further investment and learning well in advance.

Market dynamics

The second type of Schumpeterian analysis is common in Wall Street reports examining entire markets at a time. It focuses on the inherent incentives associated with market leadership, irrespective of who happens to be the leader. At its most provocative, this type of analysis argues that leadership, by itself, contains the seeds for its own demise.

The most familiar form of this analysis focuses on the behavior of an entrenched monopolist with little threat from competition. An entrenched firm does not want to cannibalize its own product line without good reason, while a firm in a competitive setting will do what competition forces on it. Ergo, any new entrant will act more aggressively than any entrenched firm.

The broadband market of the late 1990s offers a good illustration. Local telephone companies rolled out digital subscriber line (DSL) slowly and could not help themselves in their unaggressive investment behavior. Wall Street analysts did not really blame any of the telephone CEOs for trying to save money and conserve effort, since this was in a stockholder's interest.

Then a new entrant appeared and it came as a surprise. When faced with aggressive competitors, such as cable companies, the executives at formerly entrenched telephone firms did not really know what to do, losing the majority of competitive battles during the earliest years of this rollout.

A related form of this analysis of creative destruction focuses on whether the market leader has a forward-looking attitude. It goes like this: If a leading firm plans ahead for worse-case scenarios, then its own behavior might prevent it from ever facing the worse situation. These firms tend to survive, while those that are less forward looking do not.

Andy Grove, Intel chairman, popularized this type of view with the Darwinian analysis of high-tech markets. At its base was a very Schumpeterian view of a dominant firm's position. Even if the firm did not appear to be under siege, Grove argued that it should act like it because market value can change suddenly and dramatically. He argued that leading firms that failed to do this would eventually die, coining the slogan, "Only the paranoid survive."

In Grove's managerial philosophy, managers assume that market events are almost entirely out of their control. Dominant firms must try to monitor events, ever on the lookout, even if they experience prosperity today. If they monitor

diligently, then they can take action in enough time.

A third variant on this view of creative destruction highlights the presence of "stealth" strategies, in other words, near-invisible competitive approaches. In this outlook, small young firms find niches or new customers to serve when they are young, largely avoiding competition with incumbents. Only after they grow more experienced do they move assets into direct competition with established firms, threatening their existence in surprising ways.

This third version has many illustrative examples from history. The usual illustration is DEC's growth from a factory floor computer firm to a general-purpose mini-computer company in competition with IBM. Similar types of analysis apply to HP's transformation from medical equipment supplier into a world-class computer and peripheral manufacturer. More recently, Google's noted reticence to explain itself in the IPO prospectus appears to be an outgrowth of stealth strategy, as it tries to transform itself from search engine component for others into something bigger.

The framework is also useful for explaining firms that hurt their prospects because they failed to be stealthy. The best example is Netscape; its managers could not resist making in-your-face statements about Microsoft to reporters during the browser wars. Many later accounts of Microsoft's internal organization highlighted how these particular jabs helped end the remarkably widespread complacency found in many corners of Microsoft. Everyone knows how that turned out.

Opportunity and incumbency

Two strands of creative-destruction analysis continue today. Both have something useful to say. Hence, for my money, the two types of analysis need to have a dialogue.

Creative destruction arises from the interplay between incumbent failure and market circumstances. Dominant firms face threats only when the new market opportunity invites serious entry, and only

from a firm that has flown below the incumbent's radar screen, and because the dominant firm's most senior managers misdiagnose the circumstances and/or the appropriate response. I conclude that most successful firms got that way by avoiding that combination of circumstances.

To be sure, this combination of events is so arresting. Ironically, however, it also seems as if this combination is as infrequent as it is threatening.

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