Marketplace Disruption: The Myth of Perpetuity and Lifecycle Realities

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Does anyone really believe his or her business will last indefinitely? If not, why do we act like it will? What is the reality of business lifecycles, and how do lifecycle myths help us fulfill Schumpeter's predictions?

The "S" Curve Theory of Business Lifecycle

Anyone who has ever read about business growth has read about "S" curves. "S" curves are very popular, in part, because they do a great job of describing many biological systems. Business theories that reflect what we see around us in everyday life are easy to accept and need only have a few good analogies to be wholeheartedly believed. However, businesses are not biological systems, and they are not required to behave like them.

Most of the pioneering work on "S" curves was done by biologists who were describing the behavior of viruses. Even Jonas Salk, inventor of the Salk vaccine for polio, wrote extensively on "S" curves as a descriptor for how viruses compete and mutate to propagate and succeed. This laid the groundwork for business academics and professionals to use "S" curves as tools for describing business behavior. After all, businesses compete and desire to propagate, which is similar to viruses, so shouldn't the analogy hold true?

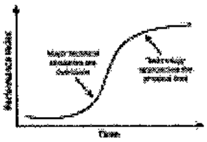

Figure 1.1 Traditional "S" curve

According to the "S" curve theory, businesses start with a very slow growth rate, taking substantial time to demonstrate business efficacy. Early on, growth is challenged by the need to find a customer or two willing to consider the new business. Eventually, growth explodes as customers find the solution more valuable than other solutions. In a relatively short time, revenue begins to exceed expectations. However, this rapid growth does not last forever because new competitors enter, making what once was valuable less so.

So what should a business do once the "S" curve starts to become level? Introduce something new, of course! A new product or a new version of an existing product creates a new curve. This new curve, built on the first-generation solution, means revenue doesn't start at zero. Instead it continues to grow.

According to the "S" curve theory, as shown in Figure 1.2, no business need ever decline. By maintaining a constant stream of replacement products, businesses can generate continuous growth. Multiple curves can blend into a nice northeasterly line of increasing revenue. A business could live into perpetuity this way!

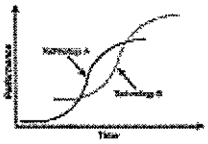

Figure 1.2 Jumping the curve

Over the last 30 years, there have been many articles and books that offer management guidelines for utilizing "S" curves. They present a number of multiple theories and often include case studies that describe how the researchers applied the "S" curve concept. Each theorist claims that using multiple curves allows for "jumping the curve," which means to jump out of curve A and into curve B before the business starts to observe a revenue decline.

The Myth of Perpetuity

The "S" curve concept for business growth has been around so long that it is now accepted as dogma. It's not whether a business *can* jump the curve, but *how* it is going to happen. The fact that there are few examples of actually building a business this way, especially in the last 20 years, is conveniently ignored. After all, the concept itself has been demonstrated in the physical, biological world. And it does seem to make sense. This logic allows leaders to take the "S" curve concept to its limit and expect their businesses to go on forever.

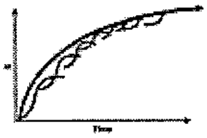

Figure 1.3 The Myth of Perpetuity

According to the "S" curve lifecycle theory, in its early days, a business should introduce new variations, products, and technologies quickly, resulting in more curves per time period with faster growth. These build upon each other to maintain a high growth rate. Later, the number of variations decline as there is less need for and less capability to produce meaningful enhancements. It is accepted that the technology will start reaching its limits, customers will achieve high levels of satisfaction with fewer products, and the number of competitors will decline. This leads to fewer curves with less growth in each. Eventually a market "shake out" occurs as competition turns from new products to cost management. Scale advantages should lead to fewer, larger competitors that operate at lower cost and offer a lower price yet maintain an acceptable margin.

As the lifecycle curve flattens, however, results do not worsen. According to the theory, fewer competitors, and each of those being larger, grants much more market stability. Competitors learn to protect their positions, and there is less competitive intrusion as competitors protect their market shares and rates of return. It takes much greater investment for a new competitor to enter the marketplace, and this higher investment rate makes it practically impossible for newcomers to achieve an acceptable return. Existing large competitors have so much volume that their costs are far lower than anything achievable by a new entrant.

The "S" curve lifecycle theory then states that as growth slows, investment rates also slow. So return on assets and equity remains acceptable. The market is at this point considered "mature." Employees and executives begin focusing on market share maintenance and cost control. And the business can begin paying out increasing dividends to shareholders or repurchase shares to drive up investor value. Late in the cycle, the big payoff happens. New products are far less necessary, given that the technology is more mature and market shares are more stable and defended by high-volume large investments. It's time to pay back investors for riding the curve. And there is no discernable end to how long this should continue. Thus, very mature companies should be great places to work and to invest in because they have become predictable and produce lots of cash.

There has been a great deal of work done by academics and consultants to support this theory. The Boston Consulting Group became famous for its pioneering work on experience curves where volume from market share leaders created long-lived cost advantages. Experience curves led to the growth/share matrix, which defined high market share companies in low growth markets as "cash cows."

Great examples of companies that followed this theory to powerful success in the 1940s to the 1970s were General Motors, AT&T, Polaroid, and DuPont, to name just a few. All these companies achieved market domination. When looking at the pattern of the era, it appeared that the largest companies were those that followed this lifecycle plan.

It's too bad that most of these example companies later got into trouble. They took advantage of the unique post-WWII U.S. economy to grow rapidly in an industrial era with huge demand. But once markets shifted to greater competitiveness, more differentiation, and higher information content, these companies found themselves unable to use "S" curves to find perpetual success.

In reality, few businesses "jump the curve." The vast majority of businesses follow the pattern in Figure 1.4. On the lifecycle river, after initial growth, they simply decline and fail. Their time spent in maturity is surprisingly short—and getting shorter in today's competitive environment. Even for the largest companies, much more time is spent in decline and failure than in any other part of the lifecycle.

Figure 1.4 Business lifecycle reality

The Wellspring—Find Something that Floats

Businesses are started in the Wellspring of ideas. For entrepreneurs, the goal is to find initial customers and figure out how to make a profit. Though much has been written on the Wellspring, there is no predictability as to how long a business will spend here, nor whether it will ever emerge into the next phase. Venture capitalists often say that only one in ten businesses ever really break out, and they invest broadly to distribute risk and create more predictable returns.

Wellspring behavior is largely exploratory. The focus is finding a customer. In the Wellspring, discussions are not about developing a marketplace or competing for share. They are about finding one customer who will buy the product and then finding a second. It's about proving the product, service, or business idea is viable and then figuring out how to make a profit at the price initial customers will pay.

The Rapids—Paddle Fast and Stay Afloat

Companies that emerge from the Wellspring enter the Rapids of high growth. The business has found a way to add value to customers, and there are a lot of customers looking for that value. The high growth rate covers a multitude of sins, as revenue expansion either produces great positive cash flow or there are investors more than ready to throw money at the business. The business uses this cash to further define and refine its products and services to continue meeting customer needs.

Most businesses thrive in the Rapids. New products are generated quickly and expedited to market. New services are launched. To keep the growth rate high, lots of customer analysis is undertaken to determine the most critical needs. Simultaneously, the technology and offerings are focused on the customer value proposition. The organization keeps looking for ways to ride the market growth and extend their position. Mostly, amidst the chaos of white water in a fast growing market, it's about staying alive by growing faster than everyone else.

The business press and gurus love to talk about businesses in the Rapids. Ford in the 1920s, Woolworth's in the 1930s, General Motors in the 1940s, Coca Cola in the 1950s and '60s, Polaroid in the 1960s and '70s, KMart in the 1970s, Apple Computer in the early 1980s, Cisco Systems and Dell in the 1990s, and Google today represent companies loved while in the Rapids. AM was in the Rapids during the 1940s through 1960s as businesses exploited the small offset lithographic printing presses and low-cost printing supplies made and sold by AM. In the Rapids, life is good. Even when things go wrong, such as bad product launches or lousy acquisitions, growth allows the business to prosper.

The Flats—Don't Run Aground

Eventually the Rapids slow, and usually much earlier than management predicts. The market growth rate is *perceived* to slow—frequently significantly. Maturing is a wonderfully pleasant euphemism for what is actually an unpleasant growth slowdown.

In the Flats, it's common for businesses to hire new managers who are more "experienced" and considered more "professional" to replace early management from the Wellspring. The mindset of business leaders changes dramatically, as the focus shifts from high growth to greater predictability and the focus on revenue shifts to costs. P&L management receives a lot more attention as new leaders begin jettisoning activities that are deemed unable to generate sufficient profitability.

By saying that *market* growth has slowed, business leadership is able to deflect the most critical problem in the business—its own slower revenue growth. Because investors and employees are conditioned to view maturation as acceptable, and even desirable, any overwhelming worry about future business viability is swept away. Believing in the Myth of Perpetuity, it is accepted that in maturity costs will decline and the business will turn toward producing more security for investors and employees. All that's needed is a different perspective on the part of management—less focus on revenue and more on profits.

Sheer size is seen as the greatest protection for the business. By being large, leaders believe the business can protect itself from competitors. Even though growth is slowing, competition is intensifying, and results are not as good as before, an enormous amount of faith is placed on size as protection, which is exactly what management is led to believe by the "S" curve lifecycle theory. This is despite the fact that a brief look at history shows many failed businesses were once extremely large. Size, at one time, did offer various protections, but in today's Internet-enabled world, size can be as much a negative as a positive.

Believing maturity is good, or even acceptable, is a deadly assumption that sets the stage for failure. By assuming that lower growth can be compensated for with better cost management, the entire business is thrown into jeopardy. As leadership turns to cutting costs, the word "focus" takes on much greater importance. The business starts spending much more time on larger customers and dropping smaller ones as it reduces headcount. It is deemed acceptable to lop off entire product lines—sometimes in profitable niches—if they don't meet criteria for size and sales to large customers. To generate a more predictable and consistent profit stream, usually at a lower return on sales, serving existing customers becomes more important than finding new ones. And leveraging existing products becomes more important than new launches. Both of the former activities are much cheaper than the latter, and it is considered better to defend what the company has always done than seek out new opportunities.

For example, in the 1800s there was a thriving market for whale oil to fuel lamps. Returns were high for whalers and their crews. Then crude oil distillation created a competitive product called kerosene. Kerosene was much easier to make and considerably cheaper. The demand for lighting fuel grew exponentially. But not a single whaling company stayed in business, as they determined that the *market* for whale oil rapidly matured and declined. These companies all could have seen themselves as participating in the market for fuel, but instead they accepted the maturation of *their defined* market for whale oil.

Recalling AM, the market for printed pages exploded in the 1970s and continued to grow at double digit rates through the rest of the century—there was no maturing of demand for printing. By stating that the *market for lithography* had slowed and then undertaking a series of cost cutting actions to better manage the P&L, AM management drilled a series of holes in their boat. They were slow to evaluate new printing solutions, such as xerography, and even slower to make changes to market these solutions. Their first reaction was to manage for maturity, the Myth of Perpetuity, and accept lower revenue growth while reducing costs.

When a business enters the Flats, it begins creating a "Reinvention Gap." This is the gap between what the marketplace wants and what the business sells. The market continues to grow, sometimes even faster, but the business does not participate. Rather than quickly admit there is a new technology, a new product/service, or some type of solution that is replacing them in the marketplace, management starts looking for ways to capitalize on history. They stop looking to the future and begin trying to recapture the past. The longer management tries to Defend & Extend its old business, the larger the Reinvention Gap becomes. The larger the gap, the less likely a business will ever cross back over it.

For many business leaders and investors, the Flats are considered good—but this is a myth based on believing in the old lifecycle theory.

In believing the Myth of Perpetuity, leadership views its existing sales force, distribution, brand image, service expertise, manufacturing volumes, tightly knitted supply chain, or other capability as "entry barriers" which protect them from new competitors. Business decisions become oriented toward protecting these "entry barriers."

Entry barriers were an enormously valuable concept when introduced by Harvard's Michael Porter in his groundbreaking 1980 book *Competitive Strategy*. At the time, looking back at the industrial economy, large companies had often successfully created and defended entry barriers. But in the information economy, entry barriers are proving far more difficult to not only erect, but to defend. Using widely available and very cheap computing resources, along with the Internet, entry barriers are increasingly easy to overcome.

Overcoming Entry Barriers

- Today, globally connected financial institutions provide access to large financial resources cheaply and extremely quickly.
- Access to financial resources means that "scale" manufacturing plants can be built in months, often in countries with lower cost labor or fewer regulatory requirements.
- Learning curve effects are captured in knowledge databases, which then become available to everyone almost instantly via the Internet. Competitors achieve learning benefits even at small volumes.
- Large sales and distribution organizations are circumvented by Web sites with volume pricing.
- Service organization knowledge is replaced by online service manuals and training available to small distributors and clients.

The Reinvention Gap is completely ignored by the business as it tries to improve its relative position with *existing* customers against *historical* competitors. Frequently, the most threatening *new* competitor is not even addressed. As the business increasingly talks only with historical, large customers, it loses any vision about where the market is still growing.

In the 1980s IBM pioneered the personal computer through a small development team in Florida. The PC became a wildly popular product, portrayed on *Time's* cover as the "Man of the Year" in 1982. Yet when IBM interviewed its primary computer customers, data center managers, IBM did not perceive a high demand for PCs. Data center managers were clamoring for better and cheaper hardware and software used on their IBM proprietary mainframe and mid-range computer systems. Many of these customers chastised IBM for bringing PCs to market because PCs disrupted Information Systems Directors' plans. Several of these customers were actively anti-PC. As a result, internally the PC was not seen as a threat to IBM's large and profitable computer business, and IBM downplayed the product. Before the end of the decade, IBM was one of the earliest companies to exit the PC business.

At AM, Xerox's early entry was ignored because AM was busy selling lithographic products to print shop managers in client basements. Copiers were being sold to office managers who controlled typewriters used on the office floor. AM did not even track Xerox sales because Xerox was not seen as a competitor in the print shop where AM dominated.

Because management is making forecasts using financial models from the Rapids, it does not recognize that most of its assumptions are wrong. Rather than having an easy time generating margins at lower growth, the business finds it is chronically struggling to maintain customers, price, and competitive costs. Lower volumes start to drive costs per unit up rather than down (despite focusing on procurement and supply chain expertise), and greater competition intensity among remaining rivals—as well as the new competitors—makes price maintenance impossible as per unit revenues decline. Missing forecasts becomes too common.

Given all the dangers of the Flats and all the problems that develop in this phase, it is startling that business leaders seek to operate here. According to The Conference Board, hitting a revenue stall is deadly. For publicly traded companies, after hitting the Flats, seven out of ten companies will lose more than half their market capitalization. Only 7 percent will ever again consistently grow at a mere 2 percent per year, and nearly 40 percent will have a future with virtually no growth. Even worse, 55 percent will have a *negative* revenue growth rate—a persistent decline!

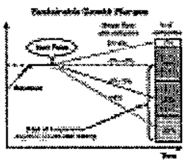

Figure 1.5 Business stalls are deadly

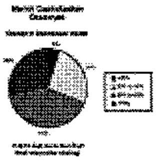

Figure 1.6 Destroying economics value

According to Foster & Kaplan in their book *Creative Destruction*, even for large companies the odds of maintaining a business are not good.

- Of the S&P 500 in 1957 (a big year for baby-boomer births), by 1998 only 74 still existed (15%).
    - Of these, only 12 gained in position (2.5%)
- Since 1962, of the 1,000 companies that were largest by size in the U.S., only 160 (16%) managed to stay in this group.
- Less than one-third of companies in the S&P 500 survive 25 years

The Flats is the riskiest position on the business lifecycle.

The Swamp—Trying to Get Unstuck (While Fighting Alligators and Mosquitoes)

When interviewing business leaders, the vast majority will describe their businesses as being in the Flats. They know they are not in the Rapids, and they don't want to think they are in the Swamp. But, truthfully, most are well into the Swamp.

The Swamp is characterized by limited growth. No growth means no current to the water. Any forward movement has to come from paddling. Unfortunately, the Swamp is full of competitors that behave like alligators, constantly trying to eat you and your boat. At the same time, swarms of new competitors are buzzing around like mosquitoes looking to suck all the blood out of the business.

Modern business has a basket of tools to use for hiding low growth. One of the easiest for a public company is simply to start buying back shares. Management uses cash in the bank or money from issuing bonds (often low grade/junk) or from selling a division or other assets to buy back shares. Management starts focusing on earnings per share (EPS). EPS goes up not because earnings rise, but because the number of shares goes down, and position in the Swamp is hidden.

Another good Swamp-hiding management technique involves acquisitions. Company A agrees to buy some or part of Company B. Prior to acquisition, the revenue of A is $5 million and the revenue of B is $4 million. A year later, Company A announces it has revenue of $7.5 million and declares a 50% revenue increase!

This technique is extremely beneficial for leaders that believe in the Myth of the Perpetuity because it reinforces the assumption that troubled businesses will benefit from competitor consolidation to drive down costs. It's also a nice way to hide declining growth.

There are a myriad of opportunities to use Generally Accepted Accounting Principles (often times referred to as GAAP Accounting) to modify published financial results. In any given year, a company can simply shift the handling of how taxes are booked, changing expenses this year, last, or next. Or by altering accounting for pensions, an extremely complex issue that is handled deep in the footnotes and is not even a line item on the P&L, earnings are adjusted. By simply underfunding the pension plan or even raiding it for resources, a business can look better purely at the expense of the company pension fund.

Other financial machinations used in the Swamp include reclassifying expenses into capital items to improve short-term profitability or changing the focus of management reports to analysts from net profit to a higher margin line in the P&L and then shifting cost problems down into "non-recurring expenses." These are supposedly one-time events but often seem to never let the business return to old net profitability levels. When discussing weakness in current results, management frequently turns to discussing "pro forma" (or future prediction) numbers where they discuss "synergies" intended to improve revenue and lower costs. This is despite the fact that there is no way to track such synergies by outsiders, and most academic literature says these synergies are rarely found.

Of course, all these manipulations must be spelled out in the footnotes of the financial statements. But footnotes are not where emphasis is placed when evaluating management. Analysts and investors, customers, vendors, and employees focus on the P&L itself. Even with pages of footnotes, including supporting schedules, financial machinations get little attention. For people who believe in the Myth of Perpetuity, such actions are often viewed as good management decisions being implemented by smart executives who are utilizing all available tools to increase the apparent strength of the company!

One favorite tool of businesses deep in the Swamp is bankruptcy. Leaders will declare that there is really nothing wrong with the business, but due to some sort of unexpected circumstances (of course they were unexpected—if they were expected, we are to presume management would have dealt with them!), the company is unable to meet its obligations. As a result, the business is in a "technical" default.

For example, after the year 2000, several of America's largest airlines, including United, declared default due to union contracts and particular clauses in their financing instruments. Leaders did not describe their problems as a bad business model, unlikely to ever make money and unable to deal with almost any competitive shock, nor did management admit it was unable to price its product appropriately to cover its costs or that it had made assumptions when signing labor contracts which proved overly optimistic, running the business utilizing those assumptions until bankruptcy loomed. The problem creating bankruptcy was described as a "technical problem" with union contracts and financial agreements that had to be resolved by the unions and the banks.

And of course bankruptcy was a "strategic" move taken to protect the airline. By characterizing as strategic, this action was positioned as sensible for smart executives. How declaring financial failure is "strategic" is less than clear.

Amazingly, demand for air travel has continued growing year-over-year since deregulation, so it was not insufficient demand that plunged United and its counterparts into bankruptcy court. And somehow Southwest managed to avoid this problem altogether. Both facts imply that the problem causing bankruptcy is not an industry problem, but instead something directly related to the particular companies stuck in the Swamp.

Once bankruptcy is undertaken, management does not portray the action as a failure. The fact that debt holders are forced to take a loss, that suppliers are never repaid in full, or that employees see their pay or benefits reduced is just part of the "strategic" overhaul that management wanted to do for a long time but could not implement due to legal restrictions. Management will often blame investment bankers for loading the company with too much debt or too high an interest rate. Or state that the employees, through their union, simply are unrealistic in their demands for the business. Or claim that regulators made it impossible for the business to succeed.

In reality, bankruptcy is never a tool used by healthy, growing companies. Only companies that are in the Swamp and struggling to understand their growth problems find themselves in bankruptcy court.

True Stories: You Know You're in the Swamp When...

- The CEO sends out an e-mail to all employees chastising them for using color printers in the office, due to the cost, and instructs them to switch all printing to black and white.
- The Division President e-mails the company that the business is having a tough quarter, so all use of overnight shipping is suspended.
- Employees receive a memo from the HR vice president that all business auto rentals are being downsized by one vehicle type.
- The business owner takes time at the all-employee meeting to tell everyone that he is appalled by the wastefulness of people, throwing away paper clips along with used paper. He then demonstrates the proper way to dispose of paper by removing the clip.
- The CEO describes a recent quarterly loss to employees as caused by a downturn in customer business, having nothing to do with company operations.
- Top management asks all management personnel to participate in two weekend days of inventory auditing without pay to complete the task at lower cost.
- A vice president lauds employees for coming into the office over the weekend and painting their offices themselves—the first time these offices had been painted in nearly 20 years, and he recommends all leaders have their employees do the same.
- Company travel is suspended to meet quarterly profit projections.
- The company installs a centralized headquarters system to control the heating and cooling of all facilities.
- The Vice President of Marketing tells analysts that a competitor growing at more than double his rate is unimportant because that company is so much smaller.

No business leader ever says, "Our company has misjudged the direction of the marketplace. We have missed what our customers want. We are in deep trouble, and we're getting so far behind new competitors that we will probably never compete effectively in our markets again." Management never admits they are in the Swamp. But they are.

The Whirlpool—Paddle Like Crazy

Eventually, competition simply becomes too intense. New solutions, born out of Wellsprings or competitive Rapids, overwhelm the company's attempts to stave off disaster. The company's product or service is so costly or competitively ineffective that it becomes impossible to maintain a profit. And the business spins into the Whirlpool from which it never returns.

Some companies simply disappear in a bankruptcy court, such as Polaroid, with all remaining assets sold in liquidation. But this is the rare dramatic case. Instead, businesses are more likely to begin a long but consistent route of selling off assets, such as Eastern Airlines, Montgomery Ward, or Wang. A slow liquidation occurs where each sale brings in a little more cash to keep the company alive a little longer until eventually there is simply nothing left, and the business disappears. Its brands, products, customers, technology, product designs, intellectual capital, and equipment find their way into a myriad of other companies through a series of small sales.

Some businesses are acquired. Another competitor, itself usually stuck in the Swamp, acquires the deeply troubled business in an effort to improve its own lot—such as when Compaq, struggling to compete in the PC market, acquired Digital Equipment. Often, within just a few months, the acquired company simply disappears.

A similar fate befalls some companies acquired by private equity or leveraged buyout firms. Here a private entity takes over the failing business, strips it of all possible costs, and sucks whatever cash it can out of the business to invest elsewhere. This is the direction KMart and Sears have taken the last few years under the control of Chairman and CEO Eddie Lampert.

We Keep Repeating the Same Cycle

The lifecycle river is very familiar to all businesspeople, largely because everyone can think of *so many* examples. Yet management keeps repeating it as if there is no other option to the cycle of breakout, then grow, then *decline and fail*. While management gurus and academics talk about "jumping the curve" from one "S" to another, it simply doesn't happen very often.

While businesses enjoy being in the Rapids, very few return to the Rapids after hitting the Flats. And practically none return to the Rapids from the Swamp. (When these do occur, such as the turnarounds at IBM and Apple Computer, they get an enormous amount of attention.) As a result, we become sanguine about Schumpeter's forecasts of business failure—as if it is simply destined to happen.

Most business leaders have the will to turn their companies around—they are globally savvy, hard working, and smart. They have enormous desire to leave a legacy of success, and they are willing to demonstrate their will and their sacrifice by undertaking painful management actions, such as employee lay-offs, reducing benefits and pay, cutting executive ranks and perquisites, slashing expense budgets, and enforcing draconian vendor cuts and under-funding employee pension plans. They take these actions because they truly believe it is the right thing to do, often telling everyone the businesses are accepting the pain for the long-term good of the enterprise.

Many of these leaders will turn to outsiders for help. They seek experts at law firms, accounting firms, investment banking, and management consultancies in downsizing, outsourcing, and strategy. Yet, the vast bulk never find the Rapids again. When they find themselves in the Flats, they remember the theories surrounding lifecycle management developed 50 years ago and take actions that yield more than a hundred Polaroids for every Apple.

It's time to understand why it is so hard for businesses to undertake a different set of recommendations. It's time to look at how we develop *Success Formulas.*

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