SHAKEOUTS IN DIGITAL MARKETS

By

George S. Day and Adam J. Fein*

Shakeouts loom large in the landscape of all fast-growing markets. During the boom period an unsustainable glut of competitors is attracted by forecasts of high growth and promises of exceptional returns. Even when the market is already crowded more entrants keep arriving. These followers are often naïve about the barriers to entry and don't realize how many others are also poised to enter at the same time. Reality intrudes with a bust that precipitates the exit of more than 80 percent of the players through failure or acquisition. This shakeout is triggered by some combination of disappointing growth, pricing pressures that degrade profit prospects, or shortages of crucial people and financial resources.[1]

Only the strongest and most resilient firms can survive a shakeout. This is a pattern that was played out as long ago as the genesis of the railroad, telephone and automobile industries and as recently as software and personal computers. Consider that fifteen years ago there were 832 PC makers; now there are arguably eight to ten viable survivors. That history is now being repeated in virtually every Internet market.

Collapsing equity prices and catchy headlines, such as "The Dot-coms are Falling to Earth," "Is that E-Commerce Road kill I See," and "The Last e-Store on the Block" confirm the onset of a bust. As pure play start-ups and incumbents in markets being

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* George S. Day is the Geoffrey T. Boisi Professor at the Wharton School of the University of Pennsylvania and Adam J. Fein is President of Pembroke Consulting, Inc.

transformed by the Internet try to navigate this turbulence, the first question is whether this "new economy" shakeout will be like those in the past or make new rules. We believe that while the pace is unlike anything we have seen before, much can be learned from the past.

The first lesson to be drawn from history is that pure play dot.coms will survive and prosper only in *breakthrough* markets. These on-line markets are the handful of applications that could only have been realized with the Internet. A corollary is that established firms will have the upper hand in markets that have been *re-formed* by the Internet. In these applications, network technologies help to squeeze out costs and facilitate interactions, but don't change the basic structure and functioning of the market.

In retrospect the vast majority of applications of the Internet were to re-form markets, so it follows that the prospects for most pure play start-ups were delusional in the past and bleak in the future. The vast majority will exit their markets; but in contrast with past shakeouts where most exits were by merger, we expect a much higher proportion will simply close their doors.

A further lesson is that both the pure plays that survive and the incumbents that gain an advantage from this disruptive innovation will have all the attributes of adaptive survivors of precursor shakeouts.[2] The companies that remain standing will be a resilient synthesis of old and new.

What's New in the New Economy?

Shakeouts in the old economy took years to unfold. In the relatively fast-paced market for hard-disk drives for PC's ten years passed between the entry of the first firm in 1979 and the onset of the shakeout. In the new economy hot house, thousands of

Internet players were spawned between 1998 and 2000. Truly there was a glut of entrants when at least 150 on-line brokerages, 1000 travel-related sites, 40 on-line commercial printers, and 30 health and beauty sites were vying for attention and advantage.

Few e-commerce arenas have been more contested than on-line Business-to-Business (B2B) exchanges;[3] 280 were visible at the end of 1999, and a year later, a peak of 1500 was reached. Most entrants were pure-plays such as Metal Site, Chemdex, and Neoforma, attracted by the opportunity to help buyers and sellers efficiently connect with each other in large markets. The possibilities that these hubs and exchanges might control trade across an industry soon energized the incumbents. Some responded by launching their own sites to streamline the purchasing process. Many also joined their rivals in consortia such as Enerva in chemicals and e2open in electronics. This proliferation of ownership arrangements, with conflicting vertical and horizontal business models has set the stage for a shakeout that was well underway[4] by April 2000.

[Insert Figure here]

If so, the boom and bust cycle will span a mere five years, clocking a pace that is five to ten times as fast as in the old economy. The average length of the shakeout period was over ten years during the first half of the 20th century. Typical shakeouts began 20 to 30 years after the first company entered the new market.[5]

Some of the most vulnerable e-retailing arenas such as toys and pet foods are imploding even faster. The overshooting of the eventual carrying capacity of most e-commerce markets and the rapid rush for the exit were aggravated by widespread delusions that the Internet would rewrite the old rules of competition and create breakthrough applications in every market. In retrospect, there were only a handful of

these breakthroughs; the rest re-formed existing markets to squeeze out costs and facilitate interactions.

UNDERSTANDING ON-LINE MARKETS

Advances in technology have historically created two kinds of market opportunities; some are real breakthroughs that were not previously possible, but most are re-formulations of existing ideas. Most new economy start-ups thought they had a once-in-a-lifetime breakthrough, when the reality was more modest.

Breakthrough applications re-write the rules by creating new products or services that would not have been possible without the new technology – and which simultaneously enable an entirely new market to emerge.

Consider the television industry. Standards for black and white transmissions were only established in 1941, yet there were 90 manufacturers operating by 1951.[6] When this breakthrough application was identified, many firms entered the market with experimental versions of the product. Uncertainty was very high because true customer demands were not yet known. Each product variant represented some combination of the possible product attributes and performance characteristics. At this early stage of market evolution, these different versions were essentially experiments and variations on what ultimately developed to be a television. The shakeout ultimately reduced the number of competitors by 80% as product characteristics were defined, distribution channels established, and content was broadcast.

In contrast, *re-formed applications* of a new technology do not change the basic structure, functioning and purpose of the market. Instead, these markets form around technologies that enable cost reductions or improvements to existing ways of doing

business. Success is based on innovative strategies for competing within an existing industry network rather than a complete redefinition of industry boundaries and norms. Technology has its biggest impact here by improving selected elements of an existing business model.

The case of biotechnology provides an illuminating example for dot-com executives. More than 800 biotechnology-based companies were founded between 1979 and 1989. Like the e-commerce companies of recent history, venture capitalists willingly funded small start-ups with limited revenues and enormous "burn rates" so long as suitable scientific talent was present. A healthy IPO market ensured a steady stream of new companies. Established chemical and pharmaceutical companies lacked the scientific know-how about the science of biotechnology and could not easily attract leading scientists away from the lure of start-up riches. Many industry analysts believed that these small start-ups would one day replace the leading pharmaceutical companies.

With hindsight, it is now clear that breakthroughs in biotechnology did not correspond to breakthroughs in the health care and pharmaceuticals markets. Biotechnology is a classic re-formed market in that the technology enabled improvements to the drug discovery process rather than a wholesale redefinition of all aspects of the pharmaceutical "business model." The start-ups lacked access to valuable complementary resources required for success, including sales and marketing know-how, knowledge of the regulatory process, established distribution channels, and experienced management. Only a handful of the start-ups have survived as independent companies. The rest have partnered with larger incumbents, been acquired, or simply shut down.

The Case of the Construction Industry. The $200 billion construction industry is fraught with inefficiencies. Architects, builders, engineers and general contractors spend sizable amounts of time handling and shipping drawings and other items related to a project. Project design teams can be widely geographically dispersed. Once a project design is completed, it rarely remains intact during the course of construction. Problems arise with material supply, building codes, and misspecification. Sometimes, architects and owners simply change their minds. Changes to any part of a building tend to ripple through an entire design, requiring that all participants know of all changes.

The prospect of a breakthrough improvement in workflow coordination has attracted at least 80 dot-coms to this market. And indeed, the web has completely transformed all aspects of construction project management by quickly and efficiently coordinating the efforts of multiple firms in different locations.

Contrast the workflow coordination activities with materials procurement, where the intense fragmentation of the contractor industry has been a major barrier to change. With few exceptions, contractors in the construction industry are small businesses with a regional focus. Purchasing is more typically handled by the business owner or by project managers in the field rather than an actual purchasing department.

Over 20,000 distributors currently provide materials to customers at a local level. Currently, a quick phone call from a cell phone will provide same-day, or next morning, delivery of necessary items directly to a job site. The alternative of placing computers and cellular modems on the job site would not increase efficiency, would require significant training, and is not yet technologically feasible. On-line resellers of

construction materials are quickly finding out that contractors see limited value in using the Internet for purchasing.

The Digital Market Continuum

While the distinction between breakthrough and re-formed markets is a useful starting point, most markets shaped by the Internet have elements of both. Instead of dichotomy there is a continuum of markets with a few breakthroughs such as portals and auctions close to one end and most applications bunched at the re-formed end.

In the middle of this continuum we enter a long-running debate about what is a new product, and what are the boundaries that define an industry. The Internet raises the stakes in this debate by blurring traditional boundaries. Indeed, the concept of "marketspace" captures the ambiguity of markets where competitors are also collaborators, firms reorganize around customer-facing or supplier-facing applications of the Internet enabled by customer relationship management (CRM) or supply-chain management (SCM), and every product connected to the net can become a source of service revenues.[7]

The location of a firm on the continuum of on-line markets requires difficult judgments about the market being served. The debate is especially intense when the strategy is in flux. Pure plays like Amazon are widening their scope to encompass other activities besides those conducted over the Internet and developing additional capabilities and assets.[8] Established firms are also deploying the Internet to augment their strategies and reinforce their competitive positions. The debate is better informed when the digital market is dissected according to the dimensions shown on the attached figure:

Customer behavior. Many e-commerce start-ups believed that Internet-enabled services would have such superior benefits that customers would rapidly alter their behavior. But another reality of re-formed markets is that customers are reluctant to disrupt systems that work, even if those systems are partially uneconomic or somewhat inefficient.

This is particularly true when the stakes are high, such as business customers that must procure supplies to keep factories and offices running without disruption or downtime. The digital market looked promising because customers in most business-to-business channels face enormous organizational costs for procurement, purchasing and inventory maintenance. On-line systems that could reduce these costs and improve efficiencies held great promise.

But B2B hubs appear to have misdiagnosed their relative advantage. During the past ten years, industrial customers have been focusing on improving efficiencies in their supply chain by consolidating supply contracts and reducing the number of suppliers. A supplier that can lower a customer's total cost of acquisition is preferred over one that simply offers a lower price.

Many B2B auction sites go against these fundamental trends by emphasizing the lowest price instead of lowest total procurement cost. One venture capitalist behind a failed industrial supplies start-up reluctantly conceded: “We thought buyers would want to surf the Web for industrial supplies, but they had other priorities.” Translation: Business customers care more about getting the right product at the right time than about saving a few incremental percentage points on price by perusing an on-line site that lacks access to their preferred brands.

The plight of Internet banks tells a similar story for household consumers. So far, Internet banking has proved to be simply too inconvenient compared to existing methods. Consumers were asked to send checking deposits by mail, generating fears of missed deposits and lost checks. There was no access to the fee-free ATM networks that most people rely on for withdrawals. Older consumers, who hold a disproportionate amount of deposited assets, have been reluctant to trust "branch-less" banking.

Startups bet their futures – and the money of venture capitalists – on rapid customer acceptance of new ways to interact with their financial institutions. But behavior is difficult to change, implying adoption rates that are much slower than many start-ups initially expected. In this era of Internet speed, it is ironic that time may prove to be the greatest enemy of these companies.

Leveragability of incumbent advantages. The litmus test of whether an on-line market is break-through or re-formed is the leverage of the resources and advantages of the established firms. In re-formed markets the incumbents have built-in advantages with their trusted brand names, customer relationships, systems that are readily convertible to the Internet, and financial depth. This is why Office Depot, which sells everything from paper clips to computers, has become the second largest on-line retailer in the world (behind Amazon.com). Their on-line success stems from the large catalog operation, which had the right kind of fulfillment systems and capabilities in place long before the Internet was a viable channel.

All the reasons that established firms prevail in re-formed markets have little leverage in breakthrough markets. Indeed, their resources, strategies, structures, and mind-set put them at an initial disadvantage because they could not envision the

transformative possibilities. This gave Yahoo, eBay, and AOL time to get firmly established.

The composite markets in the middle of the continuum are the home of on-line sites that can leverage some strengths on incumbent but usually benefit from a separate identity. Thus, reflect.com can leverage Procter & Gamble's product innovations, deep market knowledge and financial resources to create different but not entirely novel value propositions. On this site, visitors can custom design their own cosmetics and create something that would otherwise have required a cosmetician.

Ability to capture value from Internet technologies: In re-formed markets, incumbents control the capabilities or assets that are required to apply Internet technologies to existing relationships. For example, B2B exchanges promised increased efficiencies in procurement by restructuring existing processes. But generating sustainable value from any innovation requires deep knowledge of customers and their purchasing preferences. Most of the start-ups lacked this knowledge as well as long-standing relationships with these customers.

Furthermore, the start-ups found it difficult to protect any proprietary knowledge advantage without access to complementary assets.[9] They found themselves operating in an environment characterized by extensive knowledge spillovers. In the Internet economy, the widespread use of external "e-consultants" ensured that knowledge diffused rapidly to any firm that was willing to pay.

Start-ups tried to accelerate information spillover by hiring employees of incumbents—"clicks recruiting from bricks." Many B2B hubs were really just intermediaries between buyers and sellers, whether as virtual wholesalers, exchanges or

suction sites. They often raided executives from wholesaler-distributors because these companies had domain expertise in a vertical value chain plus experience in the economics of an intermediary business.

Constraints and Inhibitors. Many market challengers have been disabled by unexpected barriers that incumbents had long learned to live with. These constraints serve as isolating mechanisms that impede competitive moves. Protected niches within a market—stemming from long-standing relationships or regulations designed to protect some players in a value chain—are among the signals of these killer constraints. These signals were frequently downplayed by e-commerce challengers during the optimism of the boom period.

?? The on-line auto infomediaries like Autobytel, Auto Web, and Cars.com, face restrictive state-level regulations that bar anyone from clinching the sale. Some states go further to require a new car buyer to pick-up their car at a dealership. Without the ability to make a sale the online buying services are left with only the revenues from lead generation for dealers.

?? Most Internet postage sites such as eStamp, Neopost, and Stamps.com encountered heavy regulation by a US Postal Service concerned about fraudulent postage. This impediment plus unexpectedly high costs of $500 or more to acquire each customer dimmed their prospects of survival.

?? While the concept of Brandwise.com, a comparison-shopping website for appliances was appealing it was unable to overcome two killer constraints. Up to 80 percent of sales to consumers of appliances are immediate replacements of broken units, leaving no time or inclination for careful comparison-shopping. Another impediment was the inability of geographically dispersed and incompatible retail systems to communicate inventory status or fulfill orders. The existing system had long adapted to these rigidities and had little incentive to change.

?? Pure play online pharmacies' were hobbled by the relationship of pharmaceutical benefit managers (PBMs) and pharmacies with major employers and health plans. These were never opened up. Further constraints were the unwillingness of consumers to wait for their prescription to be delivered so they could begin treatment, and hesitations about credit card security and sharing of their personal information.

The nature of on-line interactions imposes further constraints. Many products are unsuitable because their quality or reliability cannot be readily described or communicated in digital terms.[10] There are inherent delays in navigating sites, finding information and making choices that are exacerbated by the volume of information and plethora of options. The lack of human contact eliminates opportunities for clarification, problem solving, reassurance and negotiation. These limitations don't negate the Internet, but often relegate it to a supportive and subordinate role in a market.

First mover advantages. A key tenet of the new economy was that first movers would dominate.[11] By gaining an early lead, a new economy was assumed to set off a virtuous cycle of increasing return was assumed in which this early lead created a "winner take all" market. Other pioneering advantages include first choice of market segments and the ability to preempt scarce resources, even minor ones such as Internet domain names. Indeed, the historical evidence suggests that the shakeout survivors in breakthrough industries have been the companies with the largest market shares before the shakeout began.[12]

But the situation is reversed in a re-formed market because success depends on stealing away repeat purchase or replacement demand from current competitors. New economy start-ups sabotaged their chances of success of pursuing pioneer strategies designed for breakthrough markets.

Consider the over 1500 business-to-business (B2B) hubs that have emerged to facilitate the meeting of buyers and sellers (matchmaking). B2B hubs have discovered that their greatest competition is not other B2B hubs, but rather the existing ways of doing business. A "first mover advantage" versus another hub is relatively meaningless

compared with hurdle of competing against an in-place system of buyers, distributors, brokers, and other suppliers. The biggest challenge is convincing customers to switch their behavior, not simply beating a rival exchange to market.

Acceptance of non-traditional pricing structures. The Internet has made radically new pricing schemes possible. Many on-line companies adopted pricing structures that departed greatly from traditional industry practice. The most famous example is the Priceline reverse auction model, which many people believed would become the dominant model for pricing.

Despite the theoretical appeal, most consumers still perceive a system of prices posted by sellers to be more convenient and fair. The belief that "everything is different" encouraged innovative trials – yet ignored the reality that re-formed markets have built-in expectations and well-established reference prices.

A similar phenomenon is occurring with B2B exchanges. These marketplaces do not take on the logistic and physical distribution functions of the supply chain. Instead, they attempted to insert themselves in the channel at the strategic point when customers decide who to buy from, how much to buy, and how much they will spend. As payment for matching buyers and sellers through electronic networks, on-line exchanges are attempting to charge fees to sellers ranging from two to five percent of gross sales.

Yet the vast majority of industrial suppliers are still independent distributors and dealers who continue to thrive due to their great skill at maintaining high levels of locally delivered customer service and support. Even the largest Fortune 500 customers continue to patronize mostly private, family-owned distributors. Although the fees the exchanges wanted to charge appeared low, they were more than 50% of a typical distributor's net

margin. Competition is quickly lowering these transaction fees to marginal cost – or lower. Some exchanges are seeing transaction fees drop to as low as one-quarter of one percent, which is not enough to cover operating and capital expenses.

STRATEGIES FOR WINNERS

Even after the field of PC makers had shrunk in half between 1985 and 1990, there was no way to know that Dell, Gateway, and Hewlett-Packard would be among the winners a decade later. Apple Computer is the only company founded during the earliest stages of the PC boom that survives today. Any forecast of the names of the eventual on-line winners and losers is even more perilous and presumptuous.

Nonetheless, our research—building on the lessons of the past—strongly suggests that the prospective winners will be found in two camps. They will either be pure play start-ups that capitalized on their early mover advantages in breakthrough markets, or incumbents that successfully embraced the Internet in re-formed markets. Both types of winners will be like the adaptive survivors of earlier shakeouts.

Pure-Play Winners

Yahoo and eBay are reasonable nominees for this category. Both were quick to exploit the breakthrough possibilities of the Internet with business models that did not exist previously. Thus there were no incumbents to challenge them. Both have exhibited the ability to continuously adapt, while resisting the impulse to grow as quickly as possible and diffusing their energy, or participating in alliances that might restrict later

moves. This takes vision and discipline. The rewards were early profitability, large market capitalization and strong brand equity.

Why is Yahoo likely to prevail? First, they realized very early that being a portal was more than providing a search engine. By adding content and features such as news headlines, e-mail boxes, auctions, chat rooms, and on-line gaming, they became a full-service infomediary. Second, they have consistently offered a clear customer value proposition as a "cool," simple guide to the Internet, which they supported with heavy, brand-building expenditures. With sticky services such as e-mail they have been able to keep their users from switching to other portals. As rivals Lycos, Excite, and Infoseek kept shifting their focus and priorities, Yahoo was refining its position as the premier point-of-access to the web.

eBay shares many of Yahoo's survivorship traits. They have become the predominant person-to-person trading community with an auction format that could not have existed without the Internet. They have built this position by keeping a single-minded focus on customer auctions. Their long-term marketing agreement with AOL helped give them a critical mass of buyers, sellers, and items listed for sale. Buyers are attracted to eBay by lots of sellers and vice versa in a reinforcing cycle that overwhelmed competitive sites.

eBay and Yahoo are strikingly similar in ways that enhanced their ability to prevail in high turbulence. Their early profitability and successful IPOs eliminated financial constraints and gave them the nutrients for continuing growth. The equity markets awarded both firms high valuations because they had many options to pursue to maintain growth, while not being overly encumbered by contractual obligations and

restrictive alliances. Most importantly they were guided by clear, customer-centered visions and robust, differentiated business models that engendered strong customer loyalty.

While the prospects for survival for both Yahoo and eBay are promising, they are far from assured. With sharply declining stock prices,[13] both have become more attractive take-over candidates. Yahoo is struggling to keep revenues from dropping sharply as traditional adventurers buy fewer banner ads because they are not as informative as print, as entertaining as TV, or as personal as direct mail, and won't pay as much for each ad. Meanwhile dot.com advertisers have cut their spending on Yahoo sharply because of the on-going shakeout and need to conserve cash. eBay is seeing the early signs of market saturation, as fewer new users sign up and the novelty wears off for existing users. Yet, their profits are growing, fueled by a 20 percent operating margin, and opportunities to expand into other markets. There are always technological changes and competitive attacks to cope with; indeed Yahoo is one of eBay's biggest threats, but experience shows that both firms will survive if they continue to behave adaptively.

Advantaged Incumbents

Prospective winners like Schwab, REI, Land's End, Staples, and Primavera have achieved a synthesis of their traditional scale, scope, and resource advantages with the re-forming potential of the Internet. All the reasons why these incumbents are prevailing over the dot-com upstarts that once challenged their businesses can be seen in the short and troubled history of e-retailing.

The boom in e-retailing start-ups was fed by the belief that their lower costs—no buildings! no sales clerks! one central inventory!—and personalized service, could not be

matched by the incumbents. In practice, costs on-line have been steeper and harder to cover than expected, and supposedly fixed costs such as warehousing kept growing so scale advantages have been hard to realize. A glut of look-alike entrants meant category revenues were divided too many ways, and price competition eroded prices to unsustainable levels.

Meanwhile, after a hesitant start, the incumbents were making their moves. By early 1999, hybrids like Recreational Equipment Inc. were demonstrating that several channels could co-exist.[14] This outdoor equipment retailer has fully integrated their catalog, on-line and physical retailing capabilities, along with in-store web kiosks that serve as information tools and can take orders. The value proposition for rei.com is to deliver any *product* (a much larger assortment than any store could possibly carry), at any *time*, to any *place*, and to answer any *question*. This web site helped them to overcome the inherent inability of their salespeople to master the gamut of products from hiking boots to kayaks and freeze-dried meals. Their earlier experience with catalogs helped them manage the inevitable conflicts between the three types of channels.

REI and The Gap have also exploited the advantages of being able to return goods purchased on-line to a physical store or physically demonstrate products shown on-line. Yet, these synergies are not the real reasons why the incumbents seem set to prevail in most retail categories. They have respected and visible brand names, an ability to spread advertising and marketing costs across both channels, and leverage with suppliers that add to an insurmountable advantage. Because their gross margins are higher, their break-even sales levels may be half of the pure play aspirants.

Adaptive Survivors

While the odds favor the leading incumbents in markets being re-formed by the Internet and the first-movers in breakthrough markets, their eventual success is far from certain. They will have to cope with high rates of company growth and absorb great uncertainty along many dimensions. In common with all bust periods the e-commerce market will keep growing, and there are big gains in market share to capture from the losers. Our studies of shakeouts in dozens of "old economy" markets reveal the predictable pitfalls that will have to be overcome.

Avoid Complacency. Andy Grove[15] had it right, "Only the paranoid survive." In earlier shakeouts the biggest threat to the disruptive innovation that created a new market was yet another innovation. Now the beneficiaries of the Internet disruption face a series of disruptive technologies that will keep firms off balance and create gateways for new entrants or rivals to exploit. Ubiquitous wireless means customers can literally be anywhere. With new information appliances, such as, pagers and PDAs, there are many more ways for these customers to interact over the net.

Incumbents will be understandably tempted to treat the demise of their dot.com challengers as an excuse to relax. This would be foolish for they then become vulnerable to traditional rivals who will attack with all the productivity, speed, and personalization advantages enabled by digital business designs. General Electric's competitors should be worried that Jack Welch has gone from viewing the Internet as a "destroy your business" challenge, to a "grow your business" opportunity, to the latest theme of "destroy their business."

Exercise Management Discipline. Fast growing businesses are often undone when they become much bigger without an aptitude for handling their new size. Managers, who were at home with the informality and cohesion of the early days, struggle with a stream of new faces that don't know each other, or share the original values. The informal style of decision-making becomes unwieldy, with increasing breakdowns in communication. A new working style with experienced managers from the outside is needed, even if it means passing over loyal managers who were with the business from the beginning but lack the necessary skills. When Dell Computers lost $36 million in 1993 after several ill advised and poorly executed growth initiatives, Michael Dell began recruiting a cadre of seasoned managers. Almost the entire top-management team was new, and their systematic, "by the numbers" approach, complemented the chief executives restless, innovative style.

By early 2001, Yahoo was facing many of the same challenges that Dell had overcome earlier. Their leadership style was unraveling in the face of a sharp drop in revenue and an even steeper drop in market capitalization.[16] A top-down approach, with a tight-knit coterie of six insiders involved in most deals and decisions, had worked well during the boom period. Rapid growth also led to a hiring binge that added more layers of new young employees and weakened the clubby culture; As pressure built to find new revenue sources and expand geographically, the management team found it difficult to delegate authority in the face of the downturn, which accelerated the exodus of executives.

A sound control system is also crucial to the maintenance of discipline during the turbulence of a shakeout. This is when service problems emerge unexpectedly, logjams

in processes are likely, and there is a lack of timely information. The controls that were designed for a smaller, simpler operation are unable to shed light on such problems as ballooning costs, excessive inventories or failures to meet commitments to customers.

Become Market-Driven. In the cut-and-thrust of a shakeout, where the market is contested by fewer but larger competitors and customers seek to capture most of the value being created, businesses keep their footing by being market-driven.[17] Two aspects of this orientation are especially pertinent to success in e-commerce markets. Like all markets based on disruptive innovations the initial temptation is to exploit all the technological possibilities. Many B2B exchanges were launched because they were possible, not because there was a compelling customer problem they could solve. Thus, the first step is to shift the orientation to continuously learning about customers. It was once estimated that fewer than 15 percent of all web start-ups tested their sites with customers by living with them and observing their behavior. Winners will not make that mistake. Instead, they will experiment continually, learn from customer feedback and use external metrics to monitor performance.

The second shift is from the indiscriminate acquisition of customers to spread the fixed costs of site development and start-up over as many customers as possible, to the retention of the most valuable customers.[18] This re-orientation recognizes that it is not possible to be all things to all people, by accommodating all possible service requirements, and all level of technical expertise, and that profits depend on keeping customers for at least two or three years.

These two shifts in mind-set, values, and overall orientation require strong and sustained leadership. According to John Chambers, the CEO of Cisco Systems, the first

lesson on managing high growth is to "make your customer the center of your culture." Similarly, Jeff Bezos is piloting Amazon.com on a path to becoming a pure-play survivor with his vision that "we are the most customer-centric company…no other company on the Internet thinks about, talks about, and asks their customers as much as we do and tries to give them the best possible experience."

Maintain Resource Slack. An adaptive strategy won't succeed if financial restrictions hobble critical development programs, or the right people aren't in place when needed, or there is no way to get to the target market. It is also unhealthy to be so close to the edge that there is no slack available to pursue new opportunities. Successful e-commerce strategies have a well-defined thrust that defines how they deliver superior value to their customers, but enough flexibility to pursue unexpected variants and extension as they emerge.

New Imperatives in Digital Markets

Survival in a digital market shakeout takes all the resiliency of past adaptive survivors and more. We find that prospective survivors in e-commerce markets have two further attributes that have not been so evident in the past.

First, the survivors will be those with the most real options. These options create opportunities, but not obligations to make further commitments; in this way the business preserves the flexibility to change course as more is learned. Amazon, for example, has many real options because it can be and has been able to move relatively cheaply into a number of new businesses. These are all enabled by the close relations that millions of customers have with the most reliable and trustworthy Web site in the business.

Conversely, the dot-coms that are failing have few real options for growth because they lack strong relationships with a clearly defined group of customers.

The second imperative is the need to master an unprecedented array of technologies and specialized firm capabilities. In response a swarm of specialized firms has sprung up to provide call centers for service inquiries, hosting sites for servers, facilities to fill and deliver small orders, measurements of performance and provide virtually every other business activity. The ability to manage the ensuing web of alliances and partnerships is one of the most distinctive differences between the winners and losers.

Among the winners there is a strong "share to gain" mentality that is adept at forming and nurturing partnerships that serve the interests of both parties. Co-marketing agreements are one particularly intriguing type of linkage. For an established firm, these agreements maintain low-risk links to new technologies or markets, provide access to the benefits of the technological capabilities held within the new venture, and help to fully utilize marketing resources. For a new venture, these agreements offer access to the benefits of the marketing capabilities held within an established firm and cost-effective entry to multiple markets. These marketing alliances should involve valuable ancillary components as well, such as cash payments, equity ownership, or the transfer of technology know-how.

Strategies for Also-Rans

During the bust, most companies get squeezed out or have their aspirations sharply curtailed. These also-rans fit a familiar profile. Their scale is usually small relative to the leaders, and that means higher costs, lower visibility and much less control

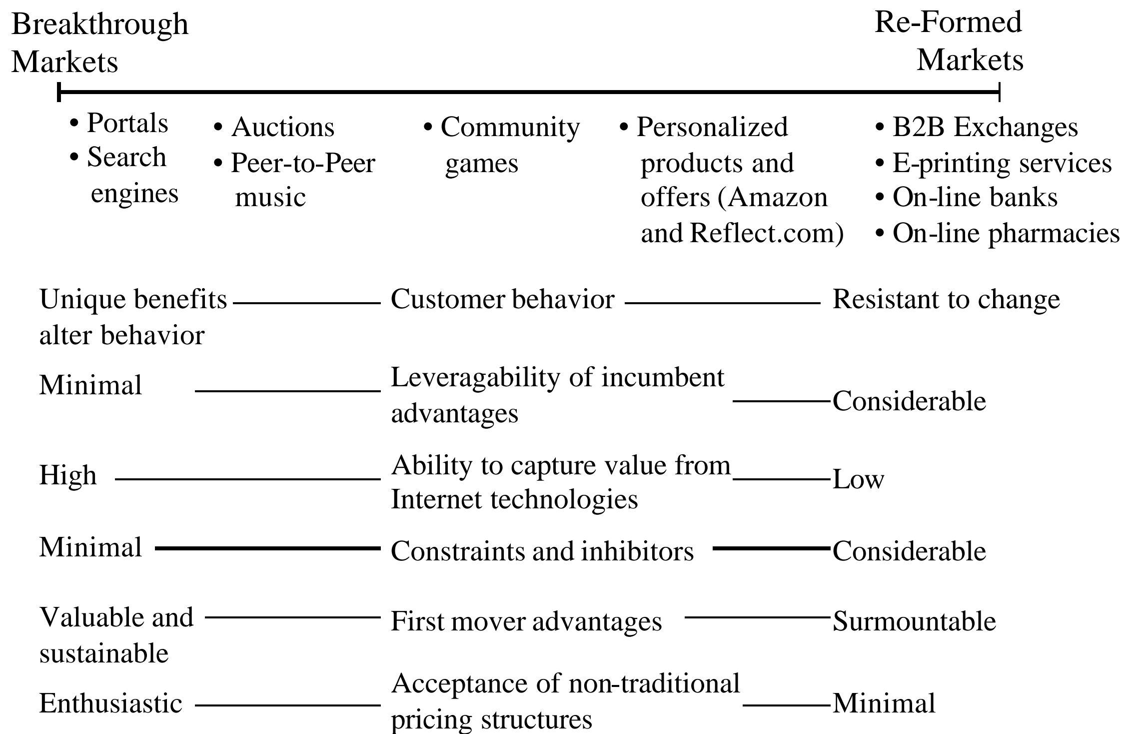
over their strategy. They lack the resources to pursue attractive options or keep up with the pace of innovation and morale slumps. They are thus all the more vulnerable when people, partners, or financial capital become scarce.

Although most pure-plays in re-formed markets are destined to be also-rans they often have better options than simply selling out to an incumbent or shutting down. But often these options are not contemplated until it is too late, because it is enormously difficult for people caught up in the start-up enthusiasm to accept the implications of also-ran status. But when the loser profile fits, it is better to choose a viable strategy than to let market forces drive your fate.

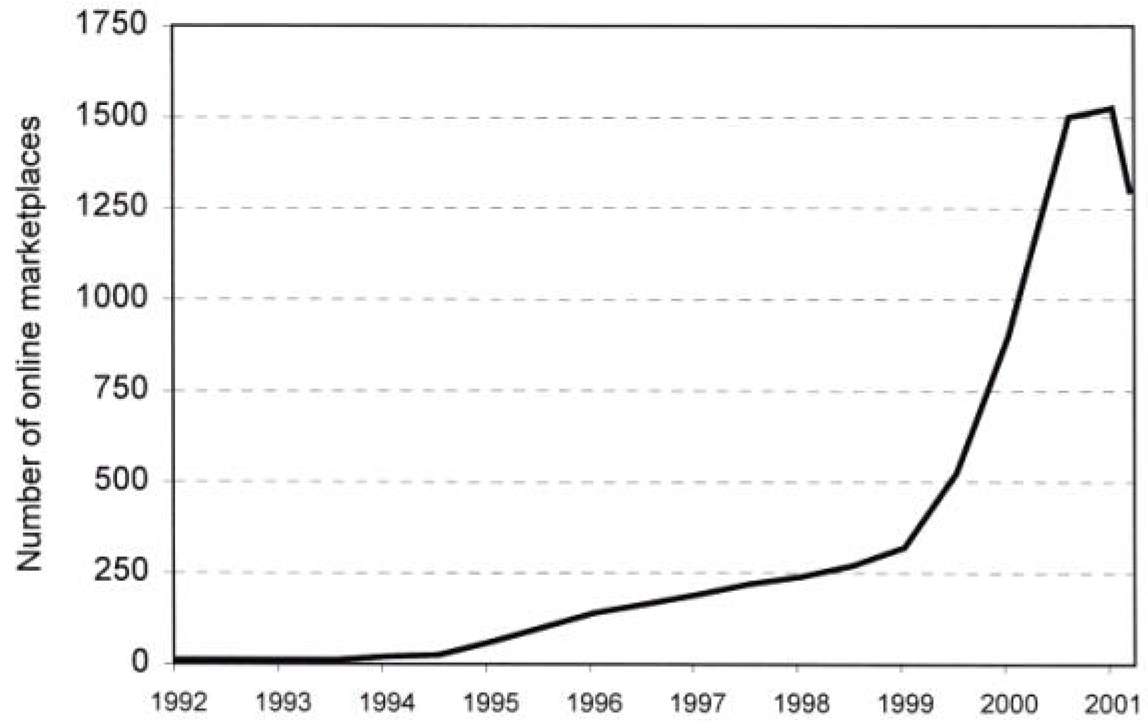
The best chance for survival is to find a market niche where competitive pressures are muted and growth prospects are satisfactory. Retreating to these positions does require a painful shrinking of aspirations and pruning of operations. It takes considerable discipline for a high-flying dot-com to abandon their excursions into adjacent markets.

This remedy applies to firms like Priceline whose once touted name-your-own-price model is now seen to be a variation on well-established pricing formulas. Their approach works well with airline tickets because accurate, timely information about the best prices is hard to get, and the seats must be sold before the fight. But customers must be willing to put up with the inconvenience of not being able to choose their airline or time of day they will fly. Within this narrow niche Priceline has a loyal and potentially profitable customer base. These conditions do not apply to the long-distance telephone, automobile, or mortgage markets where prices are more transparent. Priceline would enhance their survival prospects by exiting these businesses and taking the firm private to nurture their core business.

In the absence of a clear buffer strategy, dot-coms with shaky long-run prospects can still come out ahead if they have the courage to face the future honestly. Those with the best foresight will be able to garner the best sales opportunity, leaving the laggards little choice but to close the doors.



The Impending Shakeout in B2B Exchanges



FOOTNOTES

[1] These patterns of shakeout and consolidation have been extensively studied in the economics and strategy literature. See: M. Gort and S. Klepper, "Time Paths in the Diffusion of Product Innovations," *Economic Journal*, 92 (1982), 630-653; G. F. Willard and A. C. Cooper, "Survivors of Industry Shakeouts," *Strategic Management Journal*, 6 (1985), 299-318; J. M. Utterback and F. F. Suarez, "Innovation, Competition, and Industry Structure," *Research Policy*, 22 (1993), 1-21; A. J. Fein, "Understanding Evolutionary Processes in Non-Manufacturing Industries: Empirical Insights from the Shakeout in Pharmaceutical Wholesaling," *Journal of Evolutionary Economics*, (1998).
[2] G.S. Day, "Strategies for Surviving a Shakeout, " *Harvard Business Review*, (March-April 1997), 93-102.
[3] B2B Exchanges provide an Internet-based medium for buyers and sellers to find trading partners and arrange transactions. These exchanges are typically specialized to a single vertical industry, defined by either products or by customer type. See: S. Kaplan and M. Sawhney, "E-Hubs: The New B2B Marketplaces," *Harvard Business Review*, 78 (May-June 2000), 97-106, and A. J. Fein, M. J. Skinner, and J. Solodar, "The Promise and Perils of On-Line Exchanges," *Modern Distribution Management.* (1999).
[4] Forrester Research, *The Future of On-Line Exchanges* (2000), estimated there would be only 180 exchanges left by 2003, by assuming there would be only 2 or 3 open exchanges per market.
[5] S. Klepper and E. Graddy, "The Evolution of New Industries and the Determinants of Market Structure," *RAND Journal of Economics*, 21 (1990), 27-44; S. Klepper and J. Miller, "Entry, exit, and shakeouts in the United States in new manufactured products," *International Journal of Industrial Organization*, 13, (1995), 567-591.
[6] S. Klepper and K. Simons, "Technological Extinctions of Industrial Firms: An Inquiry into their Nature and Causes," *Industrial and Corporate Change* (1996) and J. M. Utterback, *Mastering the Dynamics of Innovation*, Harvard Business School Press: Boston, MA (1994).
[7] M. Sawhney and D. Parikh, "Break Your Boundaries," *Business 2.0*, (November 12, 2000), 198-207.
[8] M. E. Porter, " Strategy and the Internet," *Harvard Business Review*, 79 (March 2000), 62-78.
[9] D. J. Teece, "Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing, and Public Policy, " *Research Policy*, 15 (1986), 285-305, and R. C. Levin, A. K. Klevorick, R. R. Nelson, and S. G. Winter, "Appropriating the Returns from Industrial Research and Development," *Brookings Papers on Economic Activity* (1987), 783-831.
[10] J. M. Figueredo, "Finding Sustainable Profitability in Electronic Commerce," *Sloan Management Review*, 41 (Summer 2000), 41-52.
[11] Katrina Brooker, "Beautiful Dreams," *Fortune*, (December 18, 2000), 234-244, DESCRIBES HOW Jeff Bezos of Amazon proclaimed Amazon's initial strategy as GBF . . . Get Big Fast.
[12] M. B. Lieberman and D. B. Montgomery, "First-Mover Advantages," *Strategic Management Journal*, 9 (Summer 1988), and G. J. Tellis and P. N. Golder, " First to Market, First to Fail? Real Causes of Enduring Market Leadership," *Sloan Management Review*, (Winter 1996), 65-75. Porter *op. cit.*, also notes that first mover advantages on the Internet were not realized because switching costs were lower than expected and network effects were not proprietary to any one company because of the open architecture.
[13] Yahoo's stock price fell 96% from a peak of $234.00 at the end of 1999 to a low of $13.5 in March 2001, as revenues fell from $1.1 Billion in 2000 to an estimated $800 million for 2001.
[14] This description is drawn from L. M. Fisher, "REI Climbs Online," *Strategy & Business*, 1 (First Quarter 2000), 116-129.
[15] A. Grove, *Only the Paranoid Survive,* New York: Doubleday, 1996.
[16] M. Manglindian and S. L. Hwang, "Management Structure Helped Trip Up Yahoo," *Wall Street Journal,* XIX (March 9-10, 2001), 1 and 2.
[17] G. Day, *The Market Driven Organization*, New York: Free Press, 1999.
[18] F. Reichheld and P. Schefter, "E-loyalty: Your Secret Weapon on the Web," *Harvard Business Review*, (July-August 2000).