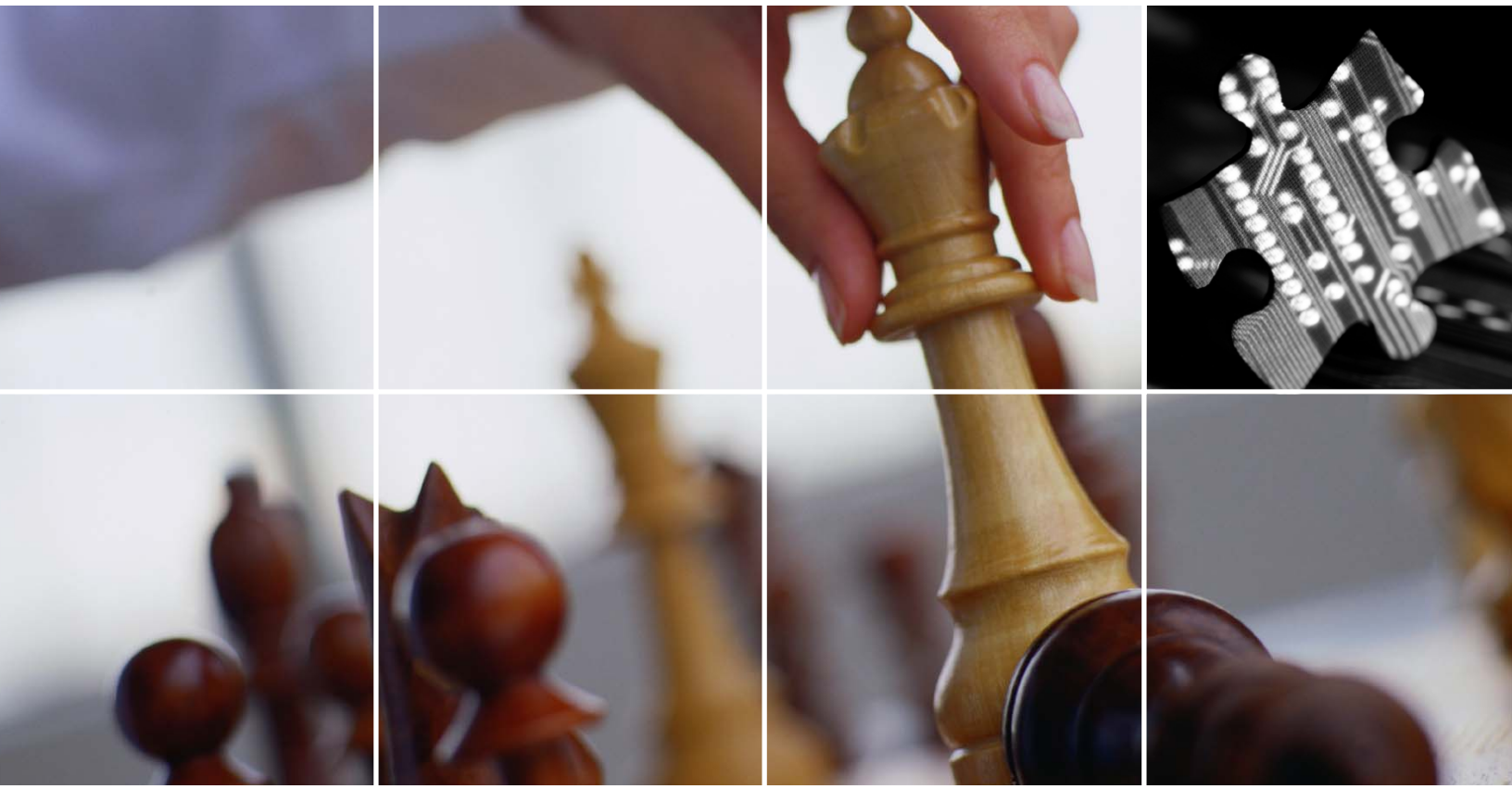
IBM Business Consulting Services

Eliminating the strategic blind spot

Technology-driven business strategy spurs innovation and growth



An IBM Institute for Business Value executive brief

IBM Business Consulting Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior business executives around critical industry-specific and cross-industry issues. This executive brief is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Business Consulting Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to iibv@us.ibm.com for more information.

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Introduction

With growth rapidly moving past cost-cutting as the top corporate objective, executives are actively rethinking their business strategies, searching for innovative ways to spur sustainable growth. Despite all the consternation around finding the ideal strategy, perhaps the answer lies not in the strategy itself, but rather in *how it is developed*.

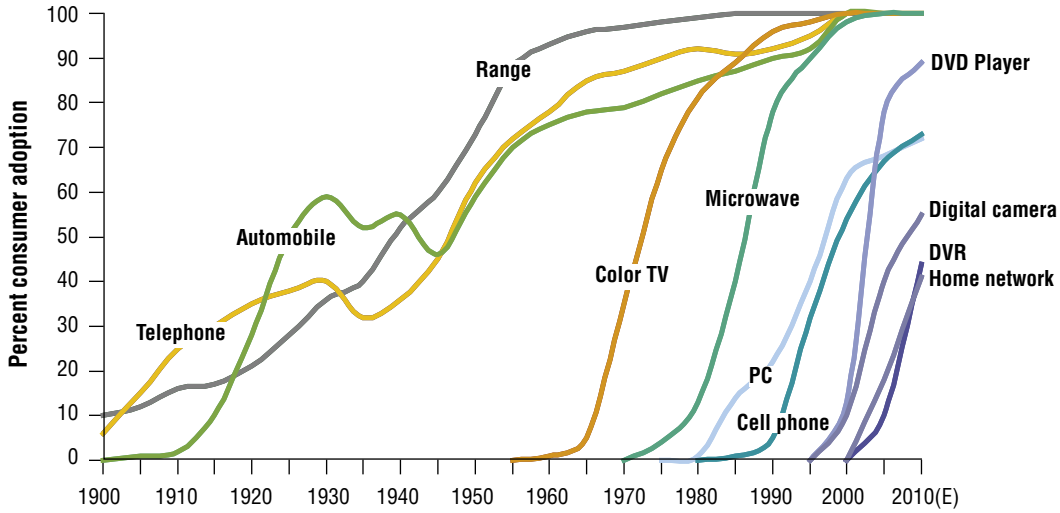
Guided by classic approaches, companies today generate volumes of data to analyze customer segments, relative market share, and current and potential competitive threats as they formulate their business strategies. They research ways current products and services can be enhanced and modified to deliver incremental value to current customers. But are these classic inputs – sometimes distilled into the "five forces" – enough? Do they sufficiently address the context in which companies must today formulate business strategy?

For more than a century, business leaders have viewed technology as a means to *execute* their business strategies. Strategy came first, and technology was simply a means to *implement* it. Unfortunately, given today's technology context, this mindset leaves a large and expanding blind spot when it comes to strategy development.

Some executives confine their view of "technology" to information technology (IT). They tend to segregate firms into two categories – those that deal primarily with information and those that work with physical goods and services. For the "bit handlers" – the Ciscos, Motorolas and IBMs of the world – most would agree that technology should be a factor in setting corporate strategy. But for the "atom" companies, many still view technology as an efficiency play or an after-the-fact enabler – a way to implement or optimize an already defined business strategy, not as a mechanism to determine what opportunities exist and what is strategically possible.

But technology is much more than IT. Technology in its broadest sense is defined as the means with which firms transform labor, land and capital into goods and services.[1] With this perspective, technological advances are everywhere. Even more importantly, companies are facing a proliferating set of technologies that stand to directly impact or potentially disrupt their markets. Many of these technologies cross into the world of atoms in the form of digital technologies. Further, changes in the technology context are coming much faster. Lag periods – the time between changes in technology context – are continually shrinking. Across virtually every industry, technology adoption curves are getting steeper (see Figure 1).

Figure 1. Adoption rates for new technology-based consumer products within the U.S.



Sources: Federal Reserve Bank of Dallas. "Time well spent: The declining real cost of living in America." 1997 Annual Report; "Benchmark 2004 Data Overview." Forrester Research, Inc., June 2004; IBM Business Consulting Services analysis.

To innovate and grow in this type of world, where rapid-fire technological advances constantly upset the status quo, leaders must acknowledge that technology itself shapes, alters and increasingly defines the very nature of the businesses in which they compete. Technology can no longer be left as an implementation issue – it must be at the heart of strategy formulation.

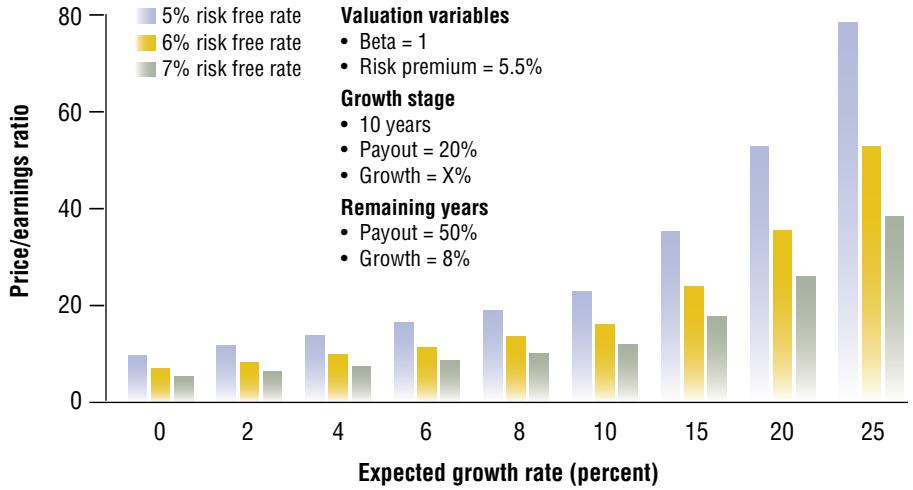
Some successful companies have already caught on – their innovations sit at the intersection of market insight and technological know-how. As part of a recent study, the IBM Institute for Business Value examined ten of these companies to identify what they all have in common. Its research suggests that successful companies are eliminating traditional strategic blinds spots that have plagued industry peers by taking a fundamentally different approach to strategy development – one that IBM calls technology-driven business strategy.

Innovation – Path to growth

Worldwide, CEOs are turning their attention to growth. Out of the 456 CEOs interviewed as part of the 2004 IBM Global CEO Study, a full 80 percent cited revenue growth as their top focus area for strengthening financial performance over the next three years.[2]

That intense focus is not surprising, given that today's stock prices often reflect a significant growth expectation. Executives must drive material growth simply to maintain market value (see Figure 2); to raise shareholder returns, leaders must somehow find even more sources of growth.

Figure 2. Expected growth rates based on current stock valuation.



Source: IBM Business Consulting Services analysis.

This growth expectation is not readily met through classic management levers such as targeting current customers with enhancements, derivatives or extensions; increasing prices (even when competitively feasible); and capturing relative share of market growth within current markets. Acquisition might satisfy such growth expectations, but at what cost premium? And at what realization risk? Yet, there is one additional source of growth. We define this source as innovation-based growth.

Innovation-based growth has the potential to provide companies with the sustainable growth they seek. By definition, innovation-based growth is not incremental in nature, but seeks to deliver fundamental new value to current customers and markets or create entirely new market opportunities. Such strategies are difficult for competitors to replicate, providing a more sustainable source of growth than the routine extensions of current products and services can offer.

Generally, innovation can be classified into three categories:

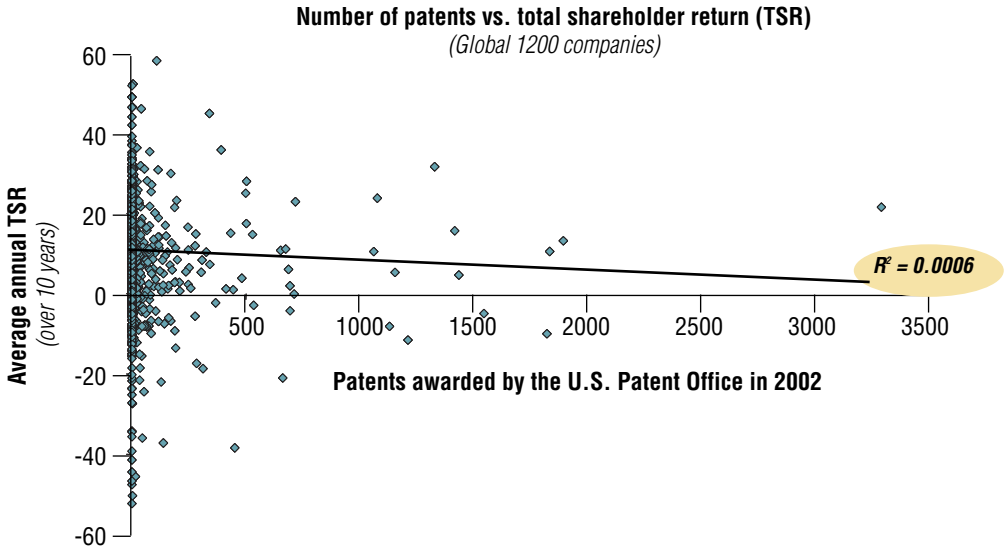
- Product or service – the traditional area associated with innovation whereby new products or services that deliver increased value to customers are brought to market
- Operational capability – innovation that emerges in the way companies acquire and organize resources, and ultimately deliver value to their customers
- Business model – innovation that is grounded in a new integrated value proposition, operating processes and profit mechanism that deviate significantly from an industry's current business model.

Invention is not innovation

In hopes of driving innovation-based growth, companies often invest heavily in R&D. Overall, the U.S. spends 2.7 percent of its gross domestic product on R&D. From 1994 to 2000, total R&D expenditures jumped from US$169.2 billion to US$265 billion, the largest increase for any six-year period in the nation's history.[3] With so much invested, one would expect a corresponding increase in market value.

Because they are tangible and easy to measure, patents can be construed as an indicator of successful innovation. Unfortunately, by this measure, invention does not guarantee revenue growth or shareholder value creation (see Figure 3). In fact, among the 10 organizations that were granted the most U.S. patents between 1993 and 2003, 4 out of the 5 publicly traded companies returned less to their shareholders than the S&P 500 over that same time period.[4, 5]

Figure 3. Across the S&P Global 1200, the number of patents awarded has no correlation with shareholder returns.



Note: n = 1111.
Source: IBM Business Consulting Services analysis; U.S. Patent Office; Compustat.

"I needed employees to start thinking about their jobs as innovating, not just researching and developing. R&D means improvements to existing products, quality assurance, line extensions. Innovation is something truly different in the market that makes your customers' lives better."

– Herb Baum, Retired CEO of Dial[6]

Although invention is part of the mix, innovation is clearly something bigger. IBM – based on its experience working with clients in various industries around the world – thinks of innovation differently. IBM believes that innovation emerges *where market insight and technological know-how intersect*, when businesses match what the market needs with what technology makes possible.

This definition of innovation has several important implications. First, technology matters when it comes to driving growth and, thus, to the formulation of business strategies. Second, when factoring in technology, know-how, as opposed to invention, is sufficient. In fact, many innovation-based strategies are based on the unique market application of an existing integrated set of technologies rather than a new technological "invention." Third, innovation occurs at the *intersection.* In an entrepreneurial venture, this intersection is inherent and often manifests itself initially in a single person – the visionary entrepreneur. In established companies, the intersection is not inherent. Although it may have both components, a company's processes, planning approach and organizational norms can prevent the natural blending of market insight and technological know-how. Finally, given today's rapidly changing technological context, know-how can be fleeting, requiring companies to maintain pace with this changing context or risk being exploited by it.

Technology-driven roller coaster

Although technology has always had an impact on markets and competition, its influence has increased significantly over the prior two decades – driven by two trends described earlier: the proliferation of current and potential technologies that could impact a company, and the pace of change in the technology context for a given market or industry.

Historically, companies needed to manage only a limited number of technologies, and the associated technological know-how may have provided a source of competitive advantage. Now, many companies are faced with an expanded and potentially splintered set of technologies. The "legacy" technologies may become pedestrian in nature and no longer offer a competitive advantage. The new technologies may represent a source of competitive advantage within the current competitive context, or, as documented in recent literature, may even disrupt a market.[7,8] Companies cannot easily cover all potential outcomes, since capital and resource constraints typically do not allow a company to directly invest in every technology. Thus, leaders must make critical, strategic decisions on where to invest, partner or procure. For example, pervasive and wireless technologies have entered, either implicitly or explicitly, many firms' technology portfolios – in industries ranging from medical equipment to media content distribution to insurance underwriting.

Technology can create radical change in routine products

Technology is providing the wherewithal to fundamentally alter the performance of everyday products like household appliances and vending machines. Italian electronics manufacturer Merloni has announced a line of innovative white goods that use RFID technology to change the capabilities of ordinary products. When loaded with RFID-tagged clothes, for instance, its washing machine can select the appropriate wash program and even warn consumers when incompatible fabrics are found in the same load. The refrigerator can propose nutritious meals and recipe instructions based on its RFID-tagged contents and notify consumers before foods expire.[9]

The function of vending machines is changing too – from what is dispensed to how efficiently the machines run to how consumers pay for merchandise. Known for their affinity for the convenience of vending machines, Japanese consumers are now using vending machines to download music and software games.[10] Businesses anxious to reduce the energy bills associated with their vending machines are using devices equipped with motion sensors that can turn the machines off when no one is around.[11] In many regions, payment is now possible with a swipe of a card or through a mobile phone – not just with cash.

Laundry rooms at apartment complexes and college dormitories are combining technology advances in both domains to change the typical laundry day. Users can check the status of washers and dryers remotely through a computer or mobile device and select appliance functions such as soap and fabric softener dispensing. When the load is done, they are notified by e-mail to their choice of device.[12]

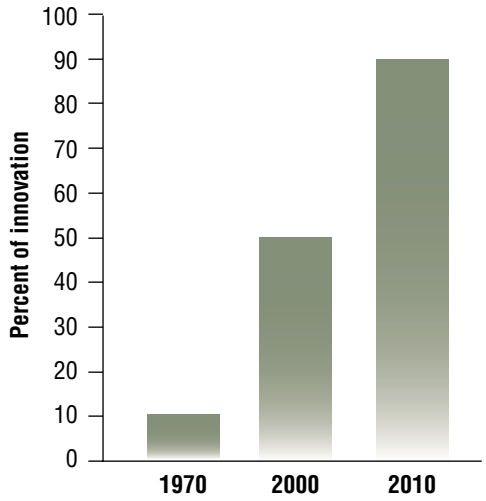
Each one of these applications stands at different points in market realization. What is important, however, is that to conceive of these opportunities, technology must be an input to the strategy formulation. In the absence of this input, missed market opportunities may arise or strategic blind spots can emerge. In addition, key strategic questions must be answered:

- What are the technologies that must be in the strategic technology portfolio?
- How is the portfolio changing? And what are the implications to the core capabilities and competitive advantage of the business?
- How do the current strategic planning processes ensure that market insight intersects with this technological know-how to avoid technology-push and ensure timely introduction of the innovation?
- How will the discrete technologies and associated capabilities be accessed and integrated? Will this be achieved via internal development, partnership or sourced?

Few companies are immune to this proliferation. Even product categories traditionally considered as low tech as toothpaste and mouthwash have seen rapid market expansion associated with new product categories (teeth-whitening products and breath strips) grounded in the application of technologies to create new markets.

This is not a transitory trend; one only needs to look at the automotive industry to see the steady progression that is remaking a historically mechanical product into a decidedly electronic one. By 2010, 90 percent of automotive innovation is expected to be electronics related (see Figure 4).

Figure 4. Automotive innovation is becoming predominantly electronics-related.

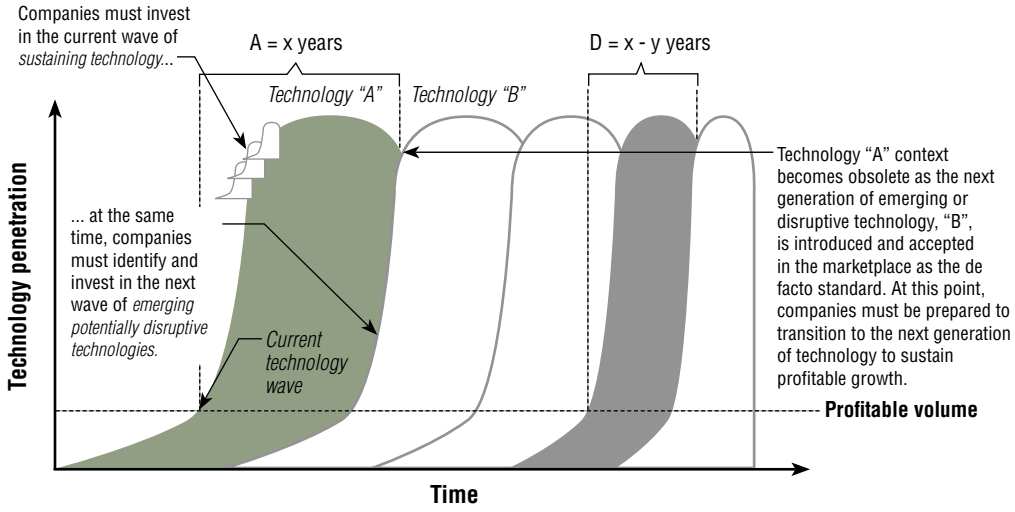


Sources: "Reuse of Software in Distributed Embedded Automotive Systems." Audi. 2004; Embedded Automotive Electronics Symposium, Peugeot, June 23, 2004; "Roland Berger Study Says Cost Pressure on Automotive R&D Will Increase." PRNewswire. July 21, 2004; IBM Institute for Business Value interviews and analysis.

Not only is technological change pushing into new frontiers, its pace is also accelerating. More specifically, there are more frequent changes in the technology context, whereby the period of relative stability between technological shifts is decreasing. In a period where there are long lags between changes in technology contexts, a company can assume away or treat technology as a constant. Business strategies would implicitly, and safely, assume the current technology context. However, for many companies, this reality is eroding. Making the assumption of a static technology context could prove strategically risky since, for most companies, the time period between context shifts is shrinking. Therefore, technology must be viewed as a critical business strategy input, and the frequency at which that input is evaluated must be increased.

These compounding trends are visually represented in Figure 5. Companies must make capital and resource allocation decisions on an increasing set of technologies relevant to today's context – typically referred to as *sustaining* technologies. This is a necessity to compete and win in today's market. A missed innovation cycle, for instance, could cause a loss in market share, competitive strength or pricing power. These activities are table-stakes to drive growth. To sustain growth, successful companies must also anticipate the shifting technology context – shifts which increasingly come much faster on the heels of their predecessors. These emerging – potentially disruptive – technologies, when invested in, appropriately nurtured and ultimately exploited by incumbents, allow companies to sustain growth over time. They often are the source of new markets and customers. Without managing both technology portfolios, firms risk *failing to compete* in the current context or *failing to maintain* their growth within a context shift.

Figure 5. Managing changes in technology context.



Source: IBM Business Consulting Services analysis.

With this need to manage dual portfolios and a shrinking time period between waves of change, companies can no longer afford to treat technology as a second-tier management issue. Ignoring the technology variable or assuming it away as a static variable in business strategy formulation can put business growth at risk – with lost revenue or forfeited market share when innovation cycles are missed or even industry irrelevance when business models suddenly become obsolete.

What makes innovators innovative?

To learn more about how successful businesses innovate and incorporate the technology variable into business strategy development, the IBM Institute for Business Value studied 10 companies that are known within their respective industries for strong innovation. These companies' innovations stood out because they accomplished one or more of the following:

- *Changed the basis of competition.* At a particular point in time, within any given industry, businesses typically compete on a specific subset of performance dimensions such as product features, price, customer service or breadth of offerings. Companies most often invest energy in beating the competition along these "accepted" performance dimensions. Innovative companies, on the other hand, shift the game. Instead of competing head-to-head with industry rivals on historical performance measures, they differentiate themselves through a new dimension that exploits an emerging or unarticulated market need. For instance, an industrial products company might shift the basis of competition from product features to rapid fulfillment, or a services company could change the focus from price to convenience. This type of innovation delivers new value to consumers, while creating competitive differentiation for the innovative company.[13]
- *Broke the rules of scale.* Within each industry, a certain set of implicit rules often exist around scale. For example, a new model of car must sell x units over the product's life to be profitable, or a new book must sell x copies in its first printing to break even. Behind these heuristics are certain assumptions about scale that guide capital investment decisions, allocation of resources and market selection and entry strategies. Most companies seek to optimize operations within these boundaries. Innovative companies, however, also look for ways to break these rules – often leveraging technology to deliver profit at a lower scale point or, conversely, achieve scale advantage where previously none existed. eBay is a prime example: it managed to create scale advantage in a market that was long considered regional and hyper-fragmented.
- *Introduced totally new business models.* In each industry, a dominant business model usually prevails. Using the standard business model (the operating model employed to deliver on its value proposition and generate profits), traditional competitors seek to drive greater efficiencies and increase revenues. Meanwhile, innovative companies are constantly seeking out alternative business models that have the ability to disrupt or undermine the incumbent industry business model. Here again, technology can play a pivotal role, allowing a business model to emerge that does not rely on the historical operating model or profit mechanisms, often shifting large amounts of market value to the innovative competitor. With its direct-to-consumer, build-to-order model, Dell turned its industry's traditional build-to-stock model on end – allowing the company to avoid high-cost channels and excess inventory that often plagued rivals.

The accomplishments of the companies studied also reinforce the IBM view of innovation; in every case, these companies combined market insight with technological know-how to break stride with their competitors (see Figure 6). Looking across the broad cross-section of businesses and industries analyzed, there were no revolutionary inventions that precipitated their innovations. Most of the technologies involved were not proprietary – and most had been available for quite some time. However, these companies' familiarity and knowledge of technology provided a new lens through which they could explore solutions to market needs and opportunities. And that timely combination led to innovation.

Figure 6. Where innovation happens.

	Market insight	Innovation	Technological know-how
Airbus *Designer and manufacturer of aircrafts*	Customers care about total cost to own and operate not just purchase price	Fly-by-wire technology reduces fuel consumption and enables efficiencies through common cockpit design	Fly-by-wire technology
Apollo Group *Provider of higher education programs*	Increasing number of adults wanted to further their education but didn't have the time	Introduced online learning and became the University with the most enrollees in the country	Distance learning technologies
Brother Industries *Maker of information and document equipment, home and industrial sewing machines and production machine tools*	Customers care about getting a job done, not about the specific technology	Successfully transitioned from sewing machines, to typewriters, to fax machine, to printers, and now software	Continuously evolving and expanding capabilities
Caterpillar *Manufacturer of construction and mining equipment, natural gas and diesel engines, and industrial gas turbines*	Customers care about total cost to own and operate not just purchase price	Introduced fleet mgmt. tools that monitor equipment performance and automate earth-moving tasks	Electronics, GPS, engineering software
Cemex *Supplier of cement, ready-mix concrete and aggregates*	Customers have expensive capital waiting idle while they are waiting for cement deliveries	Changed the nature of competition by reducing the delivery window from 3 hours to 20 minutes	Satellite tracking technology and advanced scheduling software
Charles Schwab *Provider of securities brokerage and related financial services*	Many investors wanted cheap transactions not expensive advice	Introduced the first discount brokerage after industry deregulation then disrupted old business with online business unit	Databases, call center, voice recognition technology, online trading
Dell *Seller of computer products and services for consumer and professional use*	Customers wanted price, quality, flexibility and convenience	Sells customized computers with standard parts at low prices	Supply chain integration, call centers, e-commerce
Frito-Lay *Maker of chips and snack foods*	Consumer demand and preferences vary from region to region, requiring local sales and marketing flexibility	Enables salesforce to manage price, inventory, and customer changes in realtime in the field	Hand-held devices, wireless communications, software
Hertz *Supplier of vehicle and equipment rentals*	Travelers are willing to pay premium prices for convenience	NeverLost on-board navigation system and #1 Club Gold expedited pick-ups and returns	Hand-held devices, navigation systems
Progressive Insurance *Provider of automobile insurance and related services*	Good drivers want and expect cheaper rates	Able to aggressively price policies for good drivers while increasing underwriting profit	Satellite tracking technology and advanced risk calculating methodologies

Source: IBM Business Consulting Services analysis.

Technology helps Progressive pioneer

With more than 12 million customers, Progressive is the third largest auto insurer in the U.S.[14] During the last decade, Progressive has certainly lived up to its name, launching a series of firsts in its industry:

- 1994 - Launched the industry's first toll-free, 24-hour auto insurance comparison rating service
- 1996 - Followed with the first online auto insurance comparisons
- 1997 - Gave consumers their first opportunity to buy an auto insurance policy online in realtime
- 2000 - Became the first auto insurance company where customers could locate an agent using Web-enabled phones
- 2000 - Accepted the auto insurance industry's first wireless payments.[15]

Over the years, Progressive has become adept at blending market insights with technological know-how to produce innovations that differentiate it from its peers. For example, Progressive knew that, after an accident, waiting only produced apprehension and frustration in its customers. Because of its working knowledge of satellite communications, the company recognized that claims agents did not have to be seated at their desks to serve customers. Taken together, this knowledge prompted Progressive to introduce 2,600 Immediate Response Vehicles in 1994, revolutionizing the way insurance companies handled claims. The lynchpin of the program was a fleet of specially equipped automobiles linked to global positioning satellites and outfitted with laptops, printers, mobile phones and, more recently, Internet connections. Using these Immediate Response Vehicles, trained adjusters could travel quickly to wherever customers were and provide on-the-spot estimates and settlement checks.[16]

Since the industry's inception, auto insurance companies have strived to better understand risks so that they could appropriately price their products. For years, that calculation rested largely on demographic norms and (after insured) an individual's accident history. As Progressive's knowledge of GPS and cellular technologies grew, the company realized that it could get a much more accurate view of risk depending on how an automobile is actually used. Based on its understanding of the market, Progressive believed that consumers would be willing to share private information (when and where they drove) in exchange for lower premiums. To quickly understand the value of the opportunity, Progressive's approach was to create learning opportunities and evaluate the technical feasibility by introducing a usage-based pilot driven by this blend of market insight and technological know-how. The Houston, Texas-based pilot effort was the first auto insurance program to give consumers direct control over how much they pay. The pilot program collected information on mileage and driving patterns and combined that with risk data to more precisely price premiums for its insured population.[17]

A steady stream of innovation has contributed to superior financial results at Progressive. In 2003 alone, the company's net income increased 88 percent.[18] Since 2001, Progressive's stock has consistently outperformed both the Dow Jones Property and Casualty Insurance Index and the S&P 500.[19]

The common threads

What do these innovators have in common? Based on our research and experience working with clients, we have identified some common themes in how innovative companies approach business strategy development. We observed six strategic tenets that help companies create a business environment that is more conducive to innovation and promotes technology-driven business strategies:

- *Consider technology a core input.* Instead of viewing technology only as enabler of their business strategies, businesses should consider it a primary input to strategy formulation – on par with other necessary variables such as customers, markets and competitors. At Boston Coach, business strategies have to balance various (sometimes competing) objectives: customer satisfaction, operational efficiency and revenue growth. As dispatching, its core business process, became increasingly complex, it seemed unlikely that the company could simultaneously address their business objectives with a single strategy – until they decided to factor technology into their business strategy development process. The company hired a research team to identify applicable technological innovations and assess potential business implications. Based on its findings, the firm decided to create a proprietary scheduling algorithm and optimization engine capable of refining complex dispatch schedules in realtime. These innovations have become the foundation for a new operating model which has the capacity to support up to a 10 percent increase in sales without additional vehicles, drivers or dispatchers, while simultaneously increasing productivity by 10 to 20 percent.[20] By factoring technological possibilities into its core business strategy, Boston Coach was able to break the rules of scale that had been implicitly governing its approaches up to that point. With its innovation, the company redefined the "norms" for revenue capacity per vehicle and the cost of a near-perfect on-time pickup rate – and set a new competitive benchmark.
- *Revisit strategy and technology context regularly.* For many industries, the technology context has the potential to change more rapidly than the historical three- to five-year strategic planning cycle. Thus, companies need to continuously manage and revise strategy to *proactively* take advantage of the evolving technological environment rather than *reacting* to technology-induced changes to their markets and businesses. Hertz, for instance, has continually leveraged wireless and satellite technologies to create new operational capabilities and customer solutions that deliver value to the customer and differentiate it in a market susceptible to commoditization.

- *Uniquely manage emerging businesses opportunities.* Companies need separate organizational procedures, structures and policies to manage emerging business opportunities differently than their core businesses, allowing market insight and technological know-how to intersect and innovations to take root. When Norwich Union embarked on its ground-breaking innovation for usage-based auto insurance policies, it shielded the emerging opportunity by setting apart a separate team dedicated to this particular project. This small team could experiment, refine their approach and make decisions much faster.[21]
- *Plan for disruptions.* By understanding the power of technology to change long-held business assumptions, companies can better anticipate market changes and actively plan out how to disrupt businesses, sometimes even their own. Both Norwich Union and Progressive have incorporated new technologies that make a usage-based insurance model real, creating the opportunity to unseat the historical underwriting, pricing, product and customer service models.
- *Manage for today's and tomorrow's context.* Knowing the rapid rate of technological change, businesses should manage a diversified portfolio of capabilities – comprised of both *sustaining* technologies (used to keep pace with the innovation cycles in their existing businesses) and *emerging* technologies (technologies that can create new markets or potentially disrupt current markets). Clearly, Charles Schwab has remained at the forefront of the technological advances that are pertinent to its existing business, winning recognitions such as Gomez's number one Internet Broker, Forbes Favorite brokerage Web site and one of *CIO Magazine's* top 100 companies. But, at the same time, the company continues to anticipate shifts and invest in emerging technologies such as grid computing. The company began to look at this emerging technology back in 2001 as a potential means to provide the computing power needed for intense advice computations like what-if simulations and Monte Carlo routines. Schwab was anxious to tap its own unused cycles and use that latent computing power to significantly enhance and scale its advice capabilities. In 2002, it ran a Grid pilot centered on providing custom portfolio recommendations for each customer. The results were impressive. By breaking down the application into manageable pieces that could be distributed to multiple processors and then reaggregated after computation, the grid-enabled system reduced processing time from an average of 8 to 10 minutes to just 15 seconds. With this newfound capability, Schwab could now dramatically change its relationship with customers. Instead of sending an investor home to wait for recommendations by e-mail, fax or mail, an advisor can provide recommendations in near-realtime while sitting and discussing options with the customer, thereby creating new market opportunity potential.[22]

- *Focus technology on the customers' priorities.* Rather than focusing exclusively on technology-enabled internal efficiencies, companies must also concentrate on problems *their customers* are trying to solve and identify technologies and new business models that can impact those particular issues. As part of its ongoing evaluation of products and markets, Siemens Medical Solutions makes a concerted effort to consider the entire business process, not just how a particular medical device is used. This holistic perspective has led the medical device manufacturer to focus on integration capabilities among devices as well as higher-value managed service offerings. For example, the company not only considers how to improve its medical imaging product, but also how to make imaging information available to clinicians when and where needed, even in the operating room. The Siemens' syngo platform provides speech recognition features and online, realtime discussion capabilities to support surgeons' needs, and automates routine workflow activities such as automatically notifying the intensive care unit about the patient's impending arrival.[23]

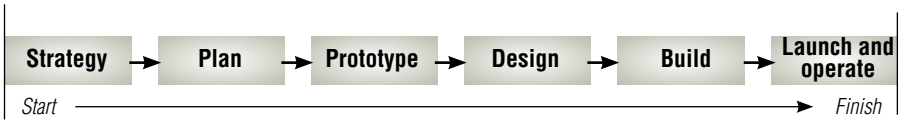
Bye, bye blind spot – Technology-driven business strategy

Collectively, these fundamental principles turn the typical strategy development approach on end (see Figure 7). Instead of being an implementation issue or a static assumption, technology becomes a catalyst at the very initial stages of strategic planning, merging with market insights to produce truly innovative ideas.

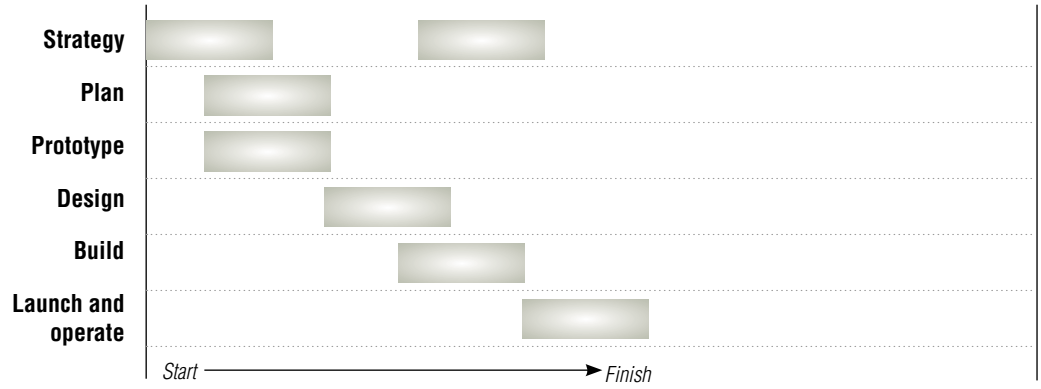
IBM calls this approach *technology-driven business strategy*.

Figure 7. Technology-driven business strategy replaces the sequential nature of traditional strategy development with a parallel approach.

Traditional approach to strategy development



Technology-driven business strategy approach

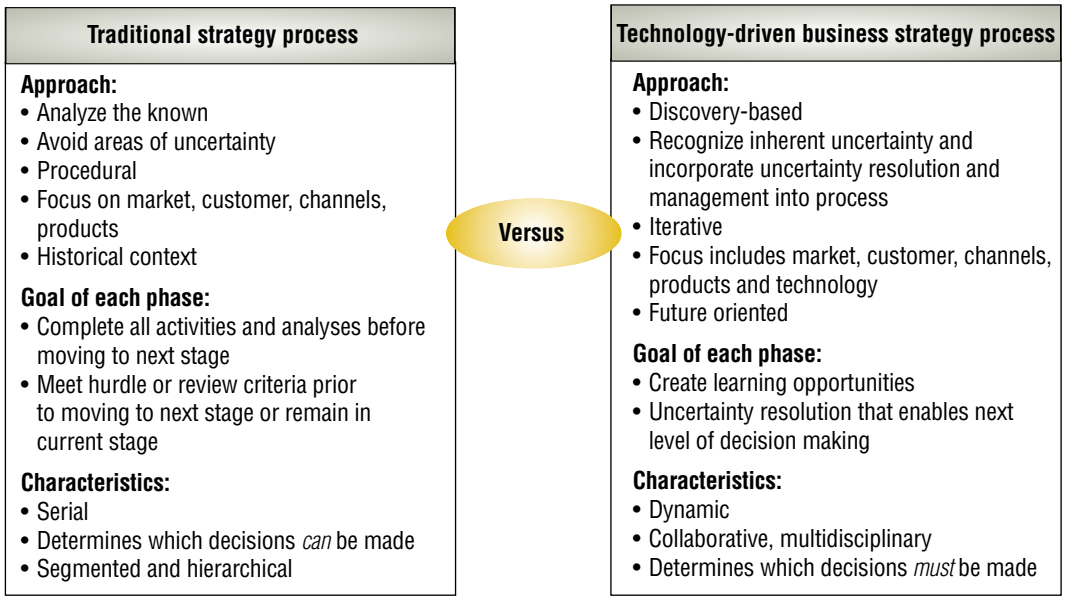


Source: IBM Business Consulting Services analysis.

Because technology competencies are engaged at the outset, planning and prototyping can occur earlier. Companies can engage in "strategy prototyping," testing a variety of potential strategies before a particular course is set.[24] With this iterative, learning-based approach, prototyping takes on a higher purpose – exploring a spectrum of strategic possibilities, not just validating a selected strategy's feasibility. Strategic planning is not anchored to a calendar, but is evaluated and revised to take advantage of insights gleaned from new learning and changes in the technology context.

At its core, the technology-driven business strategy approach is fundamentally different than traditional strategy development (see Figure 8). In most strategic planning efforts, the emphasis is on analyzing what is known about the competition, suppliers and targeted buyers. But, under a technology-driven approach, the focus shifts to include exploration of new, uncharted areas – products and services that have no precedents, emerging market segments that no one else sees, new operational capabilities that change the nature of competition – actions that all support innovation.

Figure 8. Technology-driven business strategy development is quite different.



Source: IBM Business Consulting Services analysis.

Because of its inherent parallelism and the focus on merging market insights with technological know-how, technology-driven business strategy can offer some distinct advantages. It:

- Speeds time-to-market and reduces risk of technology obsolescence
- Provides early warning of potential business disruption – and the means to intentionally disrupt competitors
- Mitigates the bureaucracy of strategic planning processes that too often thwart innovation, particularly at large companies
- Accommodates the increasing speed and complexity of business which can become unmanageable with a traditional annual planning cycle.

Where is your strategy development approach taking you?

Although their specific strategies change from time to time, many companies step through the same basic, calendar-driven strategy process year after year, without a second thought. And, correspondingly, many are disappointed with the degree of innovativeness their strategies exhibit – and the revenue growth they actually produce. If yours is one of those companies, it may be time to rethink your strategy development process.

Ten signs you may need to challenge your current business strategy development processes

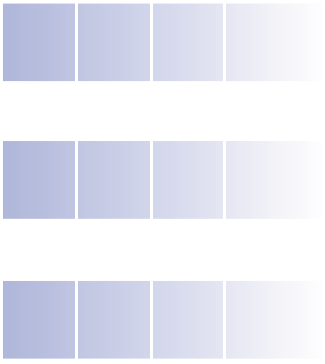
1. Shareholder growth expectations exceed what is possible with the current product and market scope of your business.
2. New product/service introductions are consistently late or sometimes technologically obsolete by the time they reach the market.
3. Products or services lack differentiation, which has led to declining margins and commoditization.
4. Emerging business opportunities that are abandoned by your company are readily exploited by new market entrants.
5. Competitors' new business models are challenging the industry's current revenue and profit mechanisms.
6. The market and technology environment constantly demands more flexibility and responsiveness from your business.
7. The majority of technology-related spend is devoted to efficiency programs and process areas that do not directly contribute to market-based competitive advantage.
8. These business-led productivity programs tend to produce transitory cost savings rather than long-term structural cost reduction rooted in transformed operational capabilities.
9. Technology implementation programs typically have whale-curve ROI profiles with "hard" investments chasing after "soft" returns in out years.
10. Technologies that could break current industry rules of scale or change the basis of competition are often left unexploited until it is too late.

Conclusion

As business executives formulate strategy, they must consider some important points:

- *Innovation is critical to sustained growth.* Growth has once again assumed a prominent position within the strategic agenda for executives, and significant growth expectations have been embedded in many companies' current valuations. Innovation-based growth allows companies to meet these expectations. Managing through changing technology contexts allows companies to sustain that growth.
- *Innovation happens at the intersection of market insight and technological know-how.* Invention is not the same as innovation. Technological capabilities are of little value without the market insight that determines their application. And market insights left unexploited by technology create vulnerabilities that can be attacked by opportunistic competitors or new entrants.
- *Companies must factor technology into business strategy development.* Technology's reach extends to virtually every product and industry. And the technology context in which businesses and industries operate is changing more rapidly than ever. Deferring technology to a final strategy implementation step or treating it as a constant that can be safely reassessed every few years precludes a host of potentially innovative business strategies that never surface for consideration. This sort of blind spot provides ample room for rivals to step in and out-innovate. To avoid gaps in business strategy, firms must consider technology – its shifts, possibilities and impacts – just as they do customers, channels, products and markets.
- *Technology-driven business strategy helps companies channel innovation.* Technology-driven business strategy can expand a company's purview by putting perennial industry challenges (and the latest marketplace developments) in a fresh context that stimulates innovation. With this approach, the important intersection between technological know-how and market insight is encouraged, not blocked. Technology is evaluated in concert with customers, channels, products and markets, serving as a catalyst to drive strategic innovation.

Although stumbling upon an innovative strategy might help a company meet growth expectations for the current year, adopting a business strategy development process that systematically spurs innovation can foster the type of sustainable growth necessary to maintain industry eminence.



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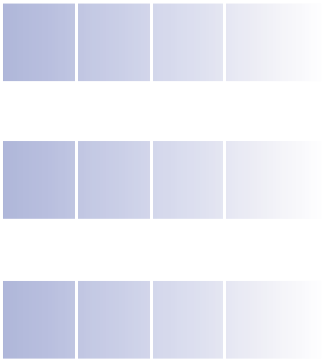

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