American Management Association

AGILITY and RESILIENCE in the Face of Continuous Change

A Global Study of Current Trends and Future Possibilities
2006-2016

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Foreword

John F. Kennedy said in a speech in 1963, "Change is the way of life. And those who look only to the past or present are certain to miss the future." Over four decades ago, some business people might have disagreed, but today no one would question this observation. We still have a problem with change, however, but it is more about our ability to remain in charge when responding to unexpected change and also to reap the benefits of change without too much organizational disruption.

While we talk about the need for organizations to be agile and resilient, it is easier said than done. The management of organizational change is a challenge, one that we must study continually if we are to identify the skill sets we need to cope with it at today's ever-accelerating pace. This is why American Management Association chose to commission the Human Resource Institute to conduct a global, in-depth study on strategic agility and resilience.

Over 1,400 executives and managers were queried to determine corporate response to external conditions and best practices at managing change at the individual, team and organizational levels. The study was designed to determine what is driving or hindering organizational change today and the elements of agile and resilient companies today, especially how higher-performing organizations view and manage change.

Over the last 12 months, AMA has commissioned four studies, each one on change—one on change in leadership development, another on its impact on the practice of ethics, still another on the current approach to innovation, and finally one on customer focus today. Here, we look at the organizational transformations that we need in order to meet the demands identified in these earlier studies, as well as the broader range of change-management competencies to boost adaptive capability.

Edward T. Reilly
President and Chief Executive Officer
American Management Association

Introduction

Few business topics have generated greater attention than the management of organizational change. The Human Resource Institute's series of *Major Issues* surveys shows that "managing change" was perennially ranked among the top workforce-management issues throughout the 1990s and into this decade. What's more, research conducted by The Conference Board (2005) found that CEOs around the globe identify "speed, flexibility, adaptability to change" as among their greatest concerns.

Why so much emphasis on change management? Business growth with sustained high performance requires relentless, well-executed change just to keep pace with new markets, technologies, and competitors. The alternative is underperformance, even business failure. Countless business stories have revealed poorly executed mergers, downsizings, or strategy shifts that did not deliver promised results. In other words, organizations must "adapt or die."

To learn more about this subject, American Management Association (AMA) commissioned the Human Resource Institute (HRI) to conduct a global survey focusing on organizational agility and resilience. In this survey, the AMA/HRI team focused on the changing *external* conditions experienced by organizations as well as what companies are doing *internally* at the individual, team, and organizational levels to manage or even induce change. In addition, we looked at the role of industry structure in helping or hindering change efforts.

Specifically, we wanted to know if there are unique differences in how higher-performing organizations view change and manage it. Therefore, we made an effort to identify the most profitable, competitive, and dominant organizations in their markets as well as the practices, competencies, and other assets they use to manage change. Although it is impossible to attribute causality in any survey, we believe that the patterns revealed are highly suggestive. Below is a quick review of the some of the main findings:

- The vast majority of respondents (82%) report that the pace of change experienced by their organizations has increased compared with five years ago.

- A majority (69%) say that their organizations had experienced disruptive change—that is, severe surprises or unanticipated shocks—over the previous 12 months.
- There are meaningful differences among surveyed organizations in the highest- and lowest-performing categories. Compared with their lower-performing counterparts, higher performers were more likely to:
  - View themselves as agile and resilient.
  - See "change as an opportunity."
  - Say that the pace of change has gotten faster but remains predictable.
  - View themselves as having better change capacities at the individual, team, and organizational levels.
  - Engage in strategies such as training to improve managers' change-management skills.

There are many drivers of change, of course. The survey found that the most important ones are related to the expectations of customers and vendors, new products and services, and technological and process changes. Aside from these, however, the survey also found that a significant portion of higher-performing companies (about 20%) say that they "induce change and force others to react." This suggests to us that, all other things being equal, the pace of change is unlikely to slow in the near future. There are simply too many organizations that see change as a competitive advantage. These organizations will continue to push the envelope in terms of faster speed to market, more innovation, better customer service, and the quicker adoption of new technologies.

We believe that companies of the future will benefit by finding good ways of measuring their capacity to manage change; that is, their "adaptive capacity." These organizations will be able to gauge their current agility and resilience and then determine additional needs. In this way, they'll be able to reduce the risks of being "overexposed" to changes in their business environment.

When gauging their adaptive capacity, organizations will look at four different levels: the individual employee, team, organization, and industry. By developing strategies for each of these levels—and by maintaining a balance between agility and resilience—corporations will be able to boost their capacity for change. This will be an ongoing and very dynamic process of adaptation.

Literature Review on Building Organizational Agility and Resilience

Since the seminal work of Kurt Lewin in the 1940s and 1950s, the search has been on for the knowledge and skills leaders need to guide organizational growth and transformation. Change agents over the years have implicitly or explicitly followed his three-stage model of change—unfreezing, changing, refreezing—in their change initiatives.

Whether it is change in an organization's design, processes, culture, or strategy, underlying Lewin's model is an important assumption that a significant period of change is something separate from the "normal" state of affairs. A change program begins when that normal state is unfrozen and ends when the normal system resumes normal functioning. This has been called *episodic change* (Kerber & Buono, 2005; McCann, 2004; Weick & Quinn, 1999).

Many practitioners are now questioning whether this mental model of episodic change still makes sense. Essentially, they are asking whether the very nature of change is changing. This question actually goes back several decades and has immense practical implications.

Several 1960s-era academics and writers examined the consequences of the escalating impacts of technology and interdependence on society (Emery & Trist, 1965; Naisbitt & Aberdene, 1990; Toffler, 1970). Those thinkers noted that not only everything in society was changing, but also the very pace of change appeared to be escalating. No organization, institution, industry, or part of the world was immune. Fred Emery and Eric Trist coined the term "turbulent environment" in 1965 to describe what was already becoming a faster and more complex period of change in which "the ground is in motion."

Turbulence means more than "a lot of change" or the usual operational and competitive uncertainties faced by all organizations. In a turbulent environment, the generally accepted rules and norms that govern business conduct become uncertain and volatile. Turbulence is inherently unstable, diffused in its sources and effects, and difficult to measure. Nonetheless, managers do perceive it; they sense that environments are becoming more dynamic as levels of complexity and change accelerate. Yet managers and academics vary greatly in opinion about whether and what kinds of new organizational forms, strategies, and capabilities are required in response (Castrogiovanni, 2002; Huy & Mintzberg, 2003; Mintzberg, 1994; Selsky et al., 2006; Stacey, 1999).

Much of the early change-management theory and practice assumed a reactive, not proactive, posture by the organization toward its environment. The organization was expected to keep up with an increasingly uncomfortable pace of change as well as it could.

More recently, a much more assertive and proactive posture has been advocated, where the organization is seen as the catalyst for industry-level change (Brown & Eisenhardt, 1998; D'Aveni, 1994, 1999; Iansiti & Levien, 2004; Normann & Ramirez, 1993; Peters, 1987; Porter, 1985). The idea is that organizations can achieve competitive advantage by inducing rapid change and forcing others to react, by anticipating change and acting before anyone else, or by observing others' practices and executing change better. Speedier product and service roll-outs in "high velocity" and "flattened" industries (Brown & Eisenhardt, 1997; Friedman, 2005) beset with "hypercompetition" or "chaos" (Brown & Eisenhardt, 1998; D'Aveni, 1994) are increasingly the global norm.

This is called *continuous change*—change that is unceasing, relentless, and not punctuated by periods of stability (Brown & Eisenhardt, 1997; Kerber & Buono, *Managers can be surprised by events that "come in from left field," but it is beginning to be recognized that disruption can also be self-induced.*

2005; McCann, 2004; Weick & Quinn, 1999). The net result of ever-faster new product and service introductions and extensions has been even faster rates of change for everyone. The confluence of such changes can, however, create unintended consequences that no one seems able to manage (Emery & Trist, 1965; Selsky et al., 2006). This is what escalating turbulence is about—self-induced and externally induced change that reinforces itself to the point where it exceeds the adaptive capacities of organizations and sometimes even industries. The personal computer market and airline industries are notorious instances in which competitors that are unable to keep pace are shaken out.

Such volatility, coupled with a new set of experiences, is leading researchers to believe that an even newer model for describing change is now needed. Although organizational change is increasingly considered continuous, the emerging challenge for management is its *dis*continuity—periods of sharp, unexpected disruptions in the form of disasters, crises and catastrophes, whether natural or man-made (Beck, 2002; Mitroff & Alpaslan, 2003; Nathan & Kovoor-Misra, 2002). In other words, the texture of this continuous change seems to be characterized by more surprises and shocks, leading to more and more disruptiveness.

Studies began in the 1980s of external events that create disasters and catastrophes, such as Meyer's (1982) study of how healthcare organizations responded to temporary, destabilizing regulatory "jolts." McCann and Selsky (1984) coined the term "hyperturbulence" to describe organizational environments that were so challenging in terms of the scarcity of resources that they threatened to destroy the organizations inhabiting them. A decade later, Meyer, Goes, and Brooks (1993) examined the U.S. healthcare industry, concluded that it had some important features of a hyperturbulent environment, and identified typical responses to such conditions by organizations.

Managers can be surprised by events that "come in from left field," but it is beginning to be recognized that disruption can also be self-induced. One example is an important study by Perrow (1984) in the aftermath of the Three-Mile Island nuclear accident. He examined how complexly connected technologies can produce "normal accidents" that can severely disrupt entire societies. Another example is the idea of "hypercompetition" (D'Aveni, 1994, 1999). This suggests that firms can prosper by continually disrupting the bases of competition in their industries. Some big players, such as Intel's former CEO Andy Grove, relish disrupting their industries by creating "technological discontinuities" that they can both control and withstand better than others. However, the excitement among academics and consultants over the strategy of hypercompetition had to be tempered when it was discovered that many big players had little interest in fomenting disruption. In fact, such players were more inclined to suppress disruption because they "make hay" from the status quo (D'Aveni, 2002).

The big turning point for the study of disruptive change in the management literature was marked by the terrorist attacks that have become known as 9/11. The events of that day focused the attention of many researchers on environmental disruptions and inadequate adaptive capacity that could cause entire industries to financially collapse (Bernstein, 2006; Burke, 2005a; Kennedy, Perrottet & Thomas, 2003).

This trend may well have now reached a point where those interdependencies, coupled with the continuing escalation of complexity and change, have created a condition that Terry Retter, director of the Strategic Technology Services Group at PricewaterhouseCoopers, has called "hyperconnectivity." This occurs where relationship management and information overload begin to overwhelm the cognitive and operating capacities of individuals and organizations.

Building Adaptive Capacity for Change

How have organizations and industries adapted to this evolution in the nature of change? One organizational approach is to make large investments in people, processes, systems, and new organizational designs. The fields of organizational development and industrial psychology have long focused on building an openness toward change, overcoming resistance to change, and fostering creative problem solving and teamwork. In those fields, skill development has been directed at the individual and group. This focus persists in many forms, such as the current strong interest in the coaching and mentoring of individual managers and personal behavior management (Covey, 1989; Senge, 1990), team-based designs (Mohrman, Cohen & Mohrman, 1995), and high-commitment work settings and "organizational citizenship behaviors."

Another approach can be found in the fields of organizational design and strategy, which has been driven by the work of experts such as Clayton Christensen (Christensen & Overdorf, 2000), Jay Galbraith (1995), David Nadler (Nadler & Tushman, 1988), and Michael Porter (1985). The focus in these fields is on the entire organization and the industry. How the organization's vision, mission, strategy, and design elements are aligned with its larger market and environment are of intense interest in these literatures. The capabilities that organizations need in order to thrive in a fast-changing industry need to be dynamic and multifunctional (Eisenhardt and Martin, 2000; Teece et al., 1997). The study of culture change that arose in the 1980s became especially important because managers and consultants saw they could use it to bridge interventions at the organizational level with interventions at the individual and group level (Beer & Nohria, 2000; Gilmore, Shea & Useem, 1997; Molinsky, 1999).

These approaches have, of course, evolved over time. In less turbulent conditions where episodic change prevailed, companies responded through thoughtfully planned and executed change programs (Kerber & Buono, 2005). They used strategic planning to enhance their performance and contingency planning to anticipate and prepare for external changes that escaped the strategic plans. This enabled them to be flexible in the face of change while maintaining routine operational efficiencies. Now this is not enough. In more turbulent conditions, where change is both continuous and disruptive, it is increasingly recognized that businesses need to be not only more agile but also more resilient (McCann, 2004; McCann & Selsky, 2003).

On Being Agile

For a business to be agile means that it can move quickly, decisively, and effectively in anticipating, initiating, and taking advantage of change. Over the past decade, the intense interest in organizational agility has come from the assumption that the best-performing organization is one that moves the fastest and most effectively in identifying opportunities and avoiding major collisions in an increasingly fast-paced environment. The skills associated with agility have a long and detailed pedigree in management studies. Change-management practices designed to promote agility have concentrated on creating an openness to change, destroying barriers of all kinds that impede the flow of work, people, resources, and information, and assuring swift execution of strategy on a global scale (Brown and Eisenhardt, 1997; Doz and Baburoglu, 2000; Dyer and Singh, 1998; Goldman, Nagel & Preiss, 1995; Nadler & Tushman, 1988). This has meant shedding businesses and functions not central to the core business, using alliances and joint ventures, outsourcing and offshoring extensively, and creating global supply chains (Columbo, 1998; Friedman, 2005; Gomes-Casseres, 1996). New external relationships get created that were previously internalized, such as a customer-service function that gets outsourced to an Indian contractor. These relationships tend to get pushed to another part of the organization to manage with a different set of skills and practices (Galbraith, 1995; Ghoshal & Gratton, 2002; McCann & Ferry, 1979).

On Being Resilient

Resilience is a newer concept in the management literature, barely a decade old. The roots of this term can be found in the fields of psychotherapy and social psychology (Hind, Frost & Rowley, 1996; Ruttner, 1990), material science (Sheffi, 2005), and ecology. In all of these areas, resilience focuses on how well an organism or ecosystem resists disturbances and how quickly it “bounces back” to a state of equilibrium after a disturbance. In short, resilience is about the “robustness” of systems (Beinhocker, 1999; Deevy, 1995).

For a business, resilience means being able first to absorb the impact of, and then effectively react to, severely disruptive change. In some cases, when businesses cannot or should not revive a business model that has failed, they must be able to reinvent themselves and find an entirely new model or ways of operating that preserve their core identity in the face of change (Coutu, 2002; Hamel & Valikangas, 2003; Pearson & Mitroff, 1993).

An excellent example of a psychological approach to organizational resilience is the study by Freeman and colleagues (2004) of how Sandler-O’Neill LLC, a company located in the World Trade Center, recovered from the crisis of 9/11. The authors found that moral purpose was the key to Sandler-O'Neill's successful recovery, complemented by the repair and deepening of relationships that helped to provide much-needed resources in the aftermath of the tragedy. This idea was amplified in a study by Alpaslan and Mitroff (2004). They found that a principle-centered ethical orientation was associated with a proactive response to crisis, whereas a consequence or cost-benefit ethical orientation was associated with a reactive response to crisis. Very recently, researchers have begun to identify differences among cognitive, behavioral, and contextual forms of resilience (Lengnick-Hall & Beck, 2005).

At an organizational level, the literature on crisis and disaster management is growing (see, for example, Alpaslan & Mitroff, 2004; Rudolph & Repenning, 2002). In addition, if resilience means being able to sustain performance over time as the competitive environment changes, then an important study by former Shell senior planner Arie de Geus on "long-lived" companies is relevant. De Geus (1997) identified four characteristics of companies that have persisted for over 100 years despite dramatic fluctuations in their business surroundings: they are conservative in their financing, sensitive to the world around them, aware of their identity, and tolerant of new ideas.

Globalized supply chains are another important locus of disruption and hence a target for building resilience, according to logistics expert Yossi Sheffi. "Resilience is not a company issue; it's a supply chain issue…because a company can get disrupted not only if one of its plants is hit but also if the capacity of a crucial supplier is disrupted, or if a big customer is disrupted," notes Sheffi (Bernstein 2006, p. 94).

The Performance Connection

So far, the literature has not strongly established a connection between performance and the qualities of agility or resilience. Part of the problem is that some authors use agility and resilience interchangeably. This means a lack of clarity about the functional knowledge and skills needed to help make individuals, teams, and organizations more agile or more resilient (Beinhocker, 1999; Morello, 2002).

We strongly believe, however, that superior change-management practices that build an organization's adaptive capacity will support sustained high performance. We also believe that agility and resilience must be present at multiple levels— for a business to be successful over the long term. The agility and resilience of the larger industry is also likely to influence an organization's success. Our analysis of the data from the *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* sheds some light on the possible relationships among agility, resilience and performance as well as on the business practices that are likely to be useful in enhancing change management.

What's Driving or Hindering Organizational Change?

So what drives change—and therefore the need for agility and resilience—in today's companies? *This section highlights the primary factors that drive organizational change and, so, the need to develop greater agility and resilience. It also explores barriers that keep organizations from managing change well. The analysis is based on the* AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006 *as well as on a comprehensive scan of the literature.*

To shed light on the question of what drives agility, the AMA/HRI survey asked respondents about the factors that their organizations "most often consider when thinking about change." The table below illustrates their answers.

What Does Your Organization Most Often Consider When Thinking About Change?

Factors	Percent of Respondents*
Expectations of customers and vendors	62%
The number of new product or service changes in your markets	41
Changes in your core technologies or processes	37
Regulations that "change the rules" for doing business	33
Economic conditions (inflation, energy prices, etc.)	25
The number of competitors entering or exiting	22
Cost of materials and inputs	19
Frequency of changes in your business strategy	18
Major restructurings (downsizings, etc.)	14
Turnover/reshuffling in your leadership team	11
Local or international political conditions	11
Other	3
Possibility of harm to employees or facilities due to terrorism or pandemics	1

* *Respondents were asked to check their top three answers to this question, so the percentages do not add up to 100.*

In addition, the AMA/HRI scan of the business literature pointed to other important factors that influence organizations' ability to adapt to change, including the accelerated pace of change, the qualitative nature of today's changes, globalization, demographic shifts, and a variety of internal obstacles to organizational agility and resilience.

Expectations of Customers and Vendors

"Expectations of customers and vendors" was at the top of the list of factors that organizations consider when thinking about change. Indeed, it was the only factor that was cited by over half (62%) of the respondents to this question. This supports the findings of several previous AMA/HRI surveys, which showed the crucial impact of customers on a range of business issues, including leadership, ethics, and innovation.

The bottom line is that most companies want their organizational changes to accommodate or anticipate customer needs, and those needs often shift at an alarming rate, according to the *AMA/HRI Magnifying Customer Focus* study. It found that customers increasingly "want it all," from high quality and excellent service to reasonable prices.

Even the most responsive companies—the ones that quickly adjust to customers' evolving needs—find that their very responsiveness only results in escalating expectations. Therefore, there's a continuing cycle in which expectations rise and products and services change. "Call it the performance paradox," Jena McGregor wrote in an April 2005 issue of *Fast Company*. "If you deliver, you only qualify to deliver more."

Although this paradox isn't new, new technologies and work processes have managed to boost the speed with which the expectation/delivery cycle recurs. McGregor notes that today's companies experience the best outcomes when they are able to move beyond merely providing quality products or services to helping positively transform customers' lives. This requires organizations to develop a superior understanding of customers and their needs (McGregor, 2005).

Similarly, a keen understanding of an organization's vendors is vital to ensuring an uninterrupted supply chain, thereby avoiding disruptions in operations in the event unexpected conditions occur. MIT's Yossi Sheffi has written extensively on supply chain management, pointing out that excellence in maintaining uninterrupted flows of supplies from vendors can enable an organization to gain a significant advantage in situations where competitors have failed to make themselves similarly agile. Real supply chain flexibility, says Sheffi, "means that suppliers, customers, the trucking companies they use, the forwarders they use, the custom brokers and every vendor to every part of the business is being fully integrated with the enterprise and able to respond fast to changes." (Bernstein, 2006; Sheffi, 2005).

Product and Service Changes

Second on the list of factors that organizations consider when thinking about change is "the number of new product or service changes in your markets," cited by 41% of respondents. This makes a good deal of sense in light of recent product development trends. The design and marketing cycle—from product idea to invention to innovation to imitation—once took 30 to 40 years but is now said to be closer to 30 to 40 weeks. Technical advances such as computer-aided design and the ability to share ideas in real time are allowing companies to step up the time it takes to introduce new products to the market. Speed-to-market is projected to become an increasingly important factor in helping companies differentiate themselves in a competitive marketplace (Cetron & Davies, 2005).

Of course, this emphasis on products and services is also tied to the need for organizational creativity. In fact, authors Patrick Reinmoeller and Nicole van Baardwijk, who have written extensively on agility and resilience, say that organizations that can be characterized as resilient also are likely to embrace innovation.

They observe that resilient firms tend to take a disciplined approach to innovation activities. Such companies tend to create a dynamic balance of innovation-enhancing strategies such as knowledge management, the investigation of new ideas, cross-boundary cooperation, and the encouragement of entrepreneurial behavior ("The Link," 2006).

Technology and Process Changes

Of the AMA/HRI respondents, 37% said that technological and process changes were among the top factors considered when thinking about change. And a review of the literature indeed indicates that technology changes—and the process changes that often go with them—are a double-edged sword.

On the positive side, businesses can adjust to change via new technologies or even gain a competitive advantage through technological innovations. "The great thing about [technological] advancements," says Towers Perrin chairman and CEO Mark Mactas, "is that they make the world smaller and make the organization more efficient." Experts suggest that technological advances will help accelerate the global reach of companies and the management of the international workforce ("Meeting the Global," 2005, pp. 106, 107). Likewise, companies can sometimes gain great advantages by making internal process more efficient and effective, with or without the use of new technologies.

On the negative side, changes to "core technologies or processes" can result in a massive headache for businesses. Existing products, core skills, and current infrastructure are just some of the factors that can become outmoded as core technologies change. Adding to the problem, new technologies such as information systems can open new vulnerabilities for businesses. Senior leaders of the 1,000 largest U.S. companies identified breaches of information system security as their companies' top internal risk. More than a third of the 76 Fortune 1000 senior leaders surveyed by the risk management consulting firm Protiviti Inc. for its 2005 *U.S. Risk Barometer* report said that such internal threats posed their firms' greatest risks (Protiviti Inc., 2005).

Similarly, new work processes—while intended to improve operations—can often create security, productivity, or other problems over the short term as the workforce struggles to learn those processes. It takes time for people to adapt to even the best-intentioned changes.

Regulatory and Sociopolitical Changes

The *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* found that the fourth most widely cited factor that organizations consider when thinking about change is "regulations that 'change the rules' for doing business." A third of respondents cited such regulations.

The importance of regulatory changes is echoed in a 2006 PricewaterhouseCoopers poll of 1,400 international CEOs. It found that nearly two-thirds of senior leaders in international businesses call shifting regulatory environments the biggest obstacle they face in guiding their organizations to global success (Scalfane, 2006).

Such regulatory changes can be viewed as part of a larger sociopolitical environment. "Social and political forces…can alter an industry's strategic landscape fundamentally," warn Sheila Bonini, Lenny Mendonca, and Jeremy Oppenheim (2006), of the international management consulting firm McKinsey & Co. The trio points out that, compared to the recent past, today's sociopolitical forces tend to be more complex, be more visible, and develop faster. They note that "the challenge is to find a way for companies to incorporate an awareness of sociopolitical issues more systematically into their core strategic decision-making processes."

Research by Aon Corporation (2006) for its "2006 Political & Economic Risk Map"—which is a ranking of countries based on factors such as politics, civil unrest, terrorism, regulatory issues, and other matters—also supports the importance of sociopolitical factors. It rated political instability as the leading risk threatening global businesses. Legal and regulatory issues were ranked in second place, and government defaults on payments to businesses constituted the number-three risk.

Economic Conditions

A quarter of respondents cited "economic conditions (inflation, energy prices, etc.)" as a major factor that organizations consider when thinking about change. In certain industries, even relatively modest changes in interest rates, the price of raw materials or labor costs can mean the difference between profit and loss. When serious economic downturns occur, marginal companies can be driven out of business even while successful companies gain market share.

To survive over time, companies must be agile and resilient enough to cope with—or even take advantage of—economic ups and downs. That is, they must be agile enough to move quickly and decisively when they see a market advantage, and they must be resilient enough to take an economic blow and yet remain standing.

Related to this is the finding that about a fifth (19%) of AMA/HRI respondents cited "cost of materials and inputs" as a factor that influences their thoughts about change. Economic conditions often influence costs, and costs have a major impact on profit margins. Major changes in organizations—including downsizings—are often focused on cost reductions.

Cost reductions are also a leading motivator of a particular type of serious change that has affected large numbers of companies worldwide: offshoring. Specifically, lower labor costs were most often cited as the primary reason for offshoring in a 2005 Society for Human Resource Management survey, with 79% of the nearly 400 HR professionals who responded indicating that saving money was the chief driver of the decision (Esen, 2005).

The Competitive Environment

About a fifth (22%) of the AMA/HRI survey respondents chose "the number of competitors entering or exiting" when asked about the top factors their organization considers when thinking about change. But it should be noted that other survey items—especially the number of new product or service changes in the market—also relate to what could be termed the "competitive market environment."

Looked at from this perspective, the competitive market environment represents a major driver of change in organizations.

The crucial role of competition is seen in other studies as well. Forty-two percent of Fortune 1000 senior leaders who responded to the Protiviti Inc. survey of risk profiles named competition as their most daunting external threat (Protiviti Inc., 2005). And 71% of multinational companies based in the U.S. told PricewaterhouseCoopers in 2006 that market competition was a leading driver of change in their organizations. Other top change motivators were the need for growth (cited by 88% of the respondents), cost reductions (cited by 76%), technology implementation (74%), and quality improvement initiatives (69%) (PricewaterhouseCoopers, 2006).

Profitability is, of course, also a requirement for any business that wishes to survive, much less stay competitive. At least one study suggests there's a correlation between profitability and resilience: more than half of international organizations characterized as resilient demonstrated greater profitability than average for their industries, noted researchers for the consulting firm Booz Allen Hamilton. The organization surveyed 30,000 individuals in workplaces worldwide between 2003 and 2005. Respondents, who represented 23 industries and 100 countries, reported that organizations described as healthy (determined by key elements such as decision-making, motivation, structure, and information) generated 48% greater profitability (in excess of industry average), while only 27% of firms that were found to demonstrate unhealthy characteristics managed to exceed average profitability for their industries. Just 6% of resilient firms—those flexible enough to change with market conditions while maintaining focus on business strategy—were found to be less profitable than average for their industries (Aguirre et al., 2005).

The Pace and Nature of Change

Faster

Among the most intriguing findings of the AMA/HRI survey is that the business literature rhetoric about an "accelerating pace of change" is borne out by respondents' opinions. When asked about the pace of change experienced by their organizations over the past five years, 82% of survey respondents stated that changes were coming their way more rapidly.

Compared to the past 5 years, which statement best describes the pace of change your organization now experiences?

Responses	Overall Results (in percent)*
The pace is actually slower—briefer periods of significant change	4%
The pace is about the same and still predictable	14
The pace is faster but still predictable	39
The pace is very much faster and increasingly unpredictable	39
The pace is extremely fast—it is impossible to predict what will happen next	4

** This indicates respondents who answered all the performance-related questions as well as the question about the pace of change.*

Those findings were even more emphatic than the 56% of U.S. multinational firms that reported high levels of change within their organizations during the past several years when queried by PricewaterhouseCoopers for a 2006 survey. A third of the 133 senior leaders of U.S.-based multinational firms polled said that they expected more of the same in the near future (PricewaterhouseCoopers, 2006).

More evidence on the rapid pace of change comes from a Leadership Pulse study of almost 400 business leaders worldwide. Researchers led by the University of Michigan's Theresa Welbourne found nearly eight out of 10 (79%) global executives reported high levels of change in their organizations (University of Michigan, 2005). In 2005, UK managers confirmed similar experiences there, with researchers documenting that more than nine out of 10 leaders had seen their organizations undergo change in the preceding two years ("Poorly-Managed," 2005).

More Disruptive

The *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* found that change isn't just accelerating but is more disruptive as well. Over two-thirds (69%) of respondents acknowledged that their organizations had encountered a disruptive change—defined as a "severe surprise or unanticipated shock"—during the preceding year. Although 29% said it amounted to only minor disruption and organizational impact, about 40% characterized the disruption(s) as affecting core operations, necessitating a major shift in strategy, challenging the overall vision and mission, or even threatening long-term viability and existence.

In the past 12 months, has your organization experienced disruptive change—a severe surprise or unanticipated shock?

Responses	Overall Results*
No	31%
Yes – a major business strategy shift was required	17
Yes – core operations were impacted	17
Yes – only minor disruption and operational impact	29
Yes – long-term viability and existence was/is threatened	3
Yes – overall mission and vision was challenged	3

* *This indicates respondents who answered all the performance-related questions as well as the question about the pace of change.*

When asked to compare disruptiveness in their organizations today with disruptiveness over the previous five years, about 37% said that their organizations had experienced more shocks and surprises, compared with only 19% who said there were fewer and less-frequent shocks and surprises. The rest of respondents reported about the same number and frequency of shocks and surprises.

Volatility and Risk

In their book *It's Alive: The Coming Convergence of Information, Biology and Business*, Christopher Meyer and Stan Davis argue that business volatility is growing. Examples include a decrease in CEO tenure at Fortune 300 firms in recent years, a rise in business failure rates, and stock market fluctuations. "Through the decades of the 1950s, 1960s, and 1970s," they write, "days on which the market fluctuated by three percent or more were rare—it happened less than twice a year." During 2000 and 2001, however, such fluctuations occurred nearly twice a month (Meyer & Davis, 2003; Meyer & Davis, 2004).

Greater volatility can lead to higher levels of risk. In fact, changes in the overall business environment have brought an escalation in the levels of risk that companies face, according to 51% of the Fortune 1000 executives who responded to Protiviti's 2005 survey. Nearly the same proportion said that risk within their industries had risen during that time (Protiviti Inc., 2005).

Potential threats posed by terrorism and by technology system breaches were the two areas of risk deemed most likely to help propel risk managers into strategic positions within their organizations, according to the Risk & Insurance Management Society Inc. (RIMS) and Marsh Inc. of Atlanta. When the nonprofit professional organization and the insurance firm teamed for their annual poll of nearly 900 RIMS members, they found that respondents also ranked the threat of a pandemic among the top influences on their profession (Lenckus, 2006).

Natural occurrences and disasters are also major drivers of risk. Although weather disasters "have produced twenty-six of the thirty most expensive insurance losses on record," routine natural occurrences, such as floods or periods of drought, cause the majority of weather-related economic losses around the world, according to Nathan Hultman and Alexander Bozmoski (2006) of Georgetown University. The two caution that risk management must, therefore, go beyond efforts to gauge potential large-scale disasters. They argue that nations and organizations should integrate "normal disaster into investment and policy decisions." Hultman and Bozmoski also point out that, in part because of globalization, weather-related problems extend beyond the areas in which they occur, affecting nations' economies and the movement of people and goods. Planning and collaboration is essential, they posit, to marshal the resources and commitment necessary to build resilience among countries and organizations, thereby affording them the agility they need to recover from weather-related adverse events.

The National Oceanic and Atmospheric Administration (NOAA) estimates that a third of the gross domestic product of the U.S. is affected by weather. The agency's figures put total damages from the 2004 hurricane season in the U.S. at $56 billion, while the cost of a 2003 heat wave that affected Europe has been placed at about $20 billion. NOAA reports that a cycle of adverse weather conditions affecting the Atlantic Ocean is projected to last as long as another three decades, forcing businesses to turn to technological tools and consulting companies to help them plan for and mitigate the risks that weather poses to their firms (Lustgarten, 2005).

Globalization

Globalization is, of course, related to both risk and change. International trade issues are among the top influences capable of propelling risk managers into more strategic roles within their organizations, according to a 2006 poll by the Risk & Insurance Management Society Inc. and Marsh Inc. (Lenckus, 2006). And globalization is a leading motivator of the kind of organizational change that requires resilience, according to the UK's Chartered Institute of Personnel and Development (2005).

A July 2005 HRI/AMA survey of senior HR professionals and other business leaders found that increased global competition was the top driver of change that impacts leadership challenges. This idea is supported by a *Leaders* magazine interview with Mark Mactas of Towers Perrin, who included globalization among forces he says are creating a "perfect storm" of challenges that present business leaders with both opportunities and risks. As globalization accelerates, competition for labor also is likely to accelerate, Mactas predicts ("Turning Risk," 2006, p. 130).

Demographic and Labor Market Shifts

Globalization has had a major influence on the labor force. The global labor pool has, for all intents and purposes, doubled since the early 1990s, when China, India, and Russia became part of the worldwide network of production and consumerism. From 1980 to 2000, the labor pool grew to 1.46 billion workers, 960 million of whom came from advanced countries, much of Latin America and some parts of Africa. The rest sprang from poorer nations. However, by 2000 the gradual entrance of China, India, and Russia into the global system over the course of the 1990s channeled another 1.47 billion workers into the world's workforce (Freeman, 2005). Such changes have a huge impact on everything from labor costs to offshoring decisions to the need to manage a much more diverse workforce.

Even if we confine ourselves to the U.S. labor force, however, demographic shifts will require businesses to adjust to new realities. An aging workforce tops the list of demographic concerns, according to the Society for Human Resource Management's (SHRM) *2004-2005 Workplace Forecast: A Strategic Outlook*. The SHRM report also points to a rise in the number of workers shouldering eldercare and/or childcare responsibilities as well as to changes in family patterns, concerns about generational differences, growth in the number of Hispanic residents, and increasing numbers of unskilled laborers entering the workforce (Schramm & Burke, 2004).

In conjunction with those shifts, the U.S. civilian labor force is projected to number 162.1 million people by 2014, according to the December 2005 issue of *Staffing Industry Report* that quotes figures from the U.S. Bureau of Labor Statistics. Despite the anticipated increases, the projected total represents a slowdown from 12.5% labor force growth between 1994 and 2004 to 10% growth from 2004 to 2014 ("18 Million New Jobs," 2005). Finding and keeping talent will likely become more important as jobs grow. By 2014, the U.S. employment market is expected to see 18 million more jobs become available, an increase of 13% for the decade ending that year, says *Staffing Industry Report*. The publication, reporting figures from the U.S. Bureau of Labor Statistics, notes that the greatest growth is projected for service industries, particularly education, healthcare, and social services. Growth also is expected in business and professional service fields ("18 Million New Jobs," 2005).

Factors That Hinder Organizational Agility and Resilience

Organizations can face various obstacles in their quest to develop greater agility and resilience. Among them are change-averse cultures, poor leadership, and inadequate planning and risk management.

Cultures That Can't Adapt

Most HRI/AMA survey respondents characterized their organizations as having at least some degree of agility and resilience. For example, when asked about how resilient their organizations are, 6% of respondents said "completely," 37% said "very much," and 42% said "somewhat."

Those responses proved more optimistic than ones reported by the consulting firm Booz Allen Hamilton, following its 2005 online survey of more than 30,000 individuals across a variety of industries. The poll found that only 17% of organizations could be deemed "resilient" (i.e., "highly adaptable to external market shifts, yet focused on and aligned behind a coherent business strategy") and another 10% could be described as "just-in-time" (i.e., "inconsistently prepared for change but can rise to an unanticipated challenge without losing the big picture").

It appears that some types of organizational culture are more likely to be resilient than others. For instance, the Booz Allen Hamilton study found that many companies suffer from unhealthy cultures that struggle to implement agreed-on plans because lines of responsibility and authority are ambiguous, are paralyzed by multiple layers of management, or are too complex to be effectively managed by a small team that refuses to delegate decision-making responsibilities (Neilson, Pasternack & Van Nuys, 2005).

Overemphasis on the traditional aspects of a business is another characteristic that can hamper agility and resilience. A this-is-the-way-we've-always-done-it perspective leaves companies reticent to incorporate new technologies or work processes that could be vital steps in maintaining competitive capability. Even in industries (e.g., crafts such as woodworking) that tend to be thought of as traditional, the use of new tools and approaches can fuel ongoing success without significantly altering the character and appeal of products. Creating a corporate culture that is open to change positions a business to capitalize on emerging technologies and work methods (Venetis, 2005).

Some experts say that there are specific indicators of an organization's inability to meet change constructively. Red flags include an organizational tendency to focus on constraining new opportunities to fit within established policies and procedures, leadership emphasis on documentation of departmental activity, stress on cost containment, and a lack of communication beyond work groups. Other signs of culturally based roadblocks to resilience and change are short-term focus, objectives that require little stretch to achieve, inhibited communication from senior leaders, and lack of alignment tying individual effort to overall goals ("Does Your Culture," 2005).

Poor Leadership

Poor leadership can undermine change efforts. *Training* magazine editor Jack Gordon notes that "humans have a knee-jerk tendency to fear and resist any kind of change"—even positive ones. A shift in thinking that supports resilience begins, Gordon suggests, with open communication between change leaders and the employees who will be implementing new work processes. Leaders who solicit and apply employee input into the design of new work processes are more likely to manage change well (Gordon, 2006, p. 5).

Managers who deliver feedback inappropriately may impede change initiatives by interfering, albeit unintentionally, with their employees' ability to gain the skills they need to support the change. Change consultant Roger Schwarz warns leaders to avoid the tendency to bookend negative feedback to employees between introductory and closing positive comments—a delivery style that he says can set up distrust (Schwarz, 2006). Some experts say that trying to make too many changes simultaneously and failing to coordinate them is another area in which leadership can undermine change (Anderson & Anderson, 2006).

Other poor leadership tendencies include concentrating exclusively on the final outcome, failing to set realistic short-term goals that can provide encouraging achievements during the change, assuming early successes signify overall success of the initiative, disregarding lessons learned from past failed initiatives, overlooking the vital role line managers play in communication, and failing to provide appropriate incentives for employees to change (Benson, 2005).

A Failure to Plan

Companies that fail to plan—especially for unexpected or catastrophic events—may not have the resilience they need to bounce back from disaster. A March 2006 article in *Computer Weekly* underscored that point, citing research by the UK's Henley School of Management that found 46% of small and medium-sized businesses in the UK had no contingency plans in place. It also noted studies on catastrophic data loss by the University of Texas, which found that 43% of businesses suffering such loss never resumed operations, while 51% closed within 24 months and just 6% were able to continue (Beckett, 2006).

The *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* found that a minuscule 1% of survey respondents cited the "possibility of harm to employees or facilities due to terrorism or pandemics" when asked what their organizations "most often consider when thinking about change." Of course, the size of this response may well be due to the phrasing of the questions—organizations may "most often" spend their efforts thinking about the more common types of change, which don't include disasters—but it may also be a signal that too few companies are planning for disasters that could put them out of business (see Table 16 in the Appendix).

Planning means much more than just disaster planning. A company may fail in its change initiatives simply because it doesn't take care of the basics, such as training. The Chartered Institute of Personnel and Development's *2006 Learning and Development Survey*, for example, found that 67% of its member organizations participating in the survey said that their training and development programs were not sufficient to support change. Fifty-six percent of respondents admitted that training required to support their change initiatives wasn't given adequate consideration, and only 27% of organizations indicated that they routinely involve training professionals in planning for proposed changes (Chartered Institute of Personnel and Development, 2006).

It's clear, then, that planning in all its various forms can help organizations adapt to change. But it's also clear that companies often fail in this area, whether this is in terms of taking care of the basics (such as training) or preparing for the worst (such as disasters).

The Agile and Resilient Organization

We believe that the best way of adapting to change is to develop organizations that are both agile and resilient. This section further defines the concepts of agility and resilience, depicts what we view as the elements of agile and resilient organizations, and outlines strategies for developing and maintaining such organizations.

Of course, this cannot be the final word in an area of business research that is evolving as quickly as agility and resilience, and not every strategy that's proposed here will work equally well for every company. But this section can help businesses glean ideas that might be worthwhile in their own organizations.

Creating Adaptive Capacity

To provide a clearer understanding of what makes an organization agile and resilient, we begin by defining our terms. The *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* explicitly defined *resilience* as "the ability to absorb, react to, and even reinvent who you are as a consequence of change" and *agility* as "the ability to move quickly, decisively, and effectively in anticipating, initiating, and taking advantage of change." We view agility and resilience as two sides of the same coin of adaptive capacity, or the capacity of organizations to manage change. This capacity can be built, sustained, and deployed to help organizations cope with both *rapid change* and *disruptive change.*

Agility seems best suited for managing *rapid change* by supporting early, fast, and effective recognition of opportunities and threats in the organization's environment. Agile organizations are good at inducing and taking advantage of opportunities through fast, flexible, and decisive action, but they are also extremely good at avoiding "collisions" with events. Agility can, for example, allow an organization to patch a weakened link in a global supply chain or exit a declining market quickly, either of which can occur in dynamic business environments (McCann, 2004).

It's tempting to suggest that resilient organizations are most effective in managing *disruptive change.* There's no question that resilience helps to assure stability in the face of sudden adversity, support an effective and timely response to disruptions, sustain the organization for prolonged periods of turbulent change, and even provide the foundation for the total renewal and transformation of the organization if required. In other words, resilience is what is needed when agility alone fails to protect the organization in a turbulent environment, as we discuss below.

In practice, however, there is no clean division of capabilities between agility and resilience. The two sets of capabilities are similar yet different, and in the best organizations these capacities work together.

Balancing Agility and Resilience

The theoretical distinction between agility and resilience is much less important than the fact that building and sustaining *both* is essential to survival in turbulent environments. Agility without resilience can create an overexposed organization that emphasizes leanness, boundary destruction, openness, and speed so much that severe shocks and disruptions can severely damage its performance, even threaten its survival. Such organizations can become "fragile" in the sense that they cannot absorb, respond, and adapt to disruptive change effectively because they were designed to respond agilely to rapid change. Such "lean" and "open" organizations have knocked down boundaries and barriers between levels and units to speed information flows and decision making, and they've eliminated so many slack resources and staff that they have insufficient resources and buffers to react to a severe and prolonged market disruption such as that which occurred after 9/11. Such systems are severely stressed—their people, teams, systems, and processes can't cope with the conditions they encounter.

On the other hand, managers can put too much emphasis on resilience by creating dysfunctional boundaries between the organization and its environment—including physical, legal, or psychological buffers. Cumbersome organizational designs or strong but insular cultures can produce systems with too many management levels, strong functional silos, excessive decision-making steps, and norms of conformity. These features tend to work against a strong action orientation. Organizations with such designs or cultures tend to avoid or resist change by restricting free flows of information, limiting access, preventing dynamic external alliances and partnerships, and creating other barriers to change, ultimately creating a slow-moving and reactive system that remains intact but crisis-prone.

Rigidity, not resilience, results when organizations, and entire industries, are overly bounded and buffered from change. They may be able to "take a hit" and survive a significant disruption in the short term because they have financial resources, but assuring superior long-term competitive performance could prove challenging. When agility and resilience are working together, they can prevent both "overexposure" and fragility or "underexposure" and rigidity.

Building Agility and Resilience at Multiple Levels

Businesses have discovered from many years of change-management practice that the individual employee is critical to change-management strategies. It is, after all, the employee's psychological, physical, and intellectual capacities—such as his or her openness to change and the ability to function in highly ambiguous situations—that will determine whether and how long a strategic change initiative can be sustained.

Although the organizational development literature has long recognized the importance of the work group or team in change management, the agility and resilience literatures have tended not to dwell so much on the critical role of teams. Yet, teams are the building blocks for getting work accomplished in highly complex and heavily matrixed global corporations. Teams are easily disrupted when leaders and members change, and each team member's individual needs can take precedence over his or her commitment to the team when severely stressed. It is, therefore, impossible to think about building adaptive capacity without targeting both individuals and teams.

But the adaptive capacity of an organization is more than the sum of its individual and team capacities. Capacity building must also target the organization as a whole, with managers influencing policies, processes, systems, technologies, structures, and culture to make them better able to cope with or even create change. The literature on agility and resilience details various factors and practices that are critical to effective change management. Indeed, we incorporated many of these factors and practices into the *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006*—categorizing them in terms of "Your People," "Your Teams," and "Your Organization"—in order to gain greater insight into the degree to which companies have adopted them. (For more information, see Tables 27, 28, and 29 in the Appendix.)

We believe, however, that focusing on these three levels alone is not sufficient. As Bower and Christensen (1995), Porter (1985), and D'Aveni (1994) have observed, industry structure has also become a critical point for intervention and capacity building. Industries that are prone to rapid change (such as the semiconductor industry) or severe disruptions (such as the airline industry) also should have agility and resilience built into them, when possible.

Individual organizations are, after all, deeply influenced by the adaptive capacity of the larger industry. An industry's successful management of sustained change sometimes seems to depend on the *collective* adaptive capacities of its members. Therefore, collaborative actions such as alliances and partnerships may be the only way for individual organizations to survive. Our understanding of how, when, and where to intervene to develop industry-level adaptive capacity is still at an early stage, however, and the AMA/HRI survey was a foray into the subject to help us gain a better understanding of industry-level factors.

Managing the Risks of Openness

To maximize their adaptive capacity, organizations need to find the right balance between openness and insulation. A company with exceptionally open boundaries faces substantial risks of being disrupted by outside events, but a company that suffers from highly closed boundaries cannot take advantage of the efficiencies and other benefits associated with factors such as outsourcing, global supply chains, and other strategies.

When we use the term "openness," we are referring to an organization's preference and ability to create beneficial relationships and interdependencies with others, and to do so much more quickly and flexibly than it otherwise could. Compared to more insulated organizations, an open organization adopts a more proactive and assertive posture toward change even while accepting the potential disruptiveness associated with those more complex external relationships.

How do these relationships actually work? A wide variety of organizations are, for example, getting very good at creating global supply chains. These supply chains can provide sourcing flexibility and operating efficiencies, thereby promoting organizational agility and competitiveness. However, the costs of managing those external relationships and the operational and strategic risks they pose for the organization can be sizable. Business leaders must appreciate the possible dangers as well as the benefits associated with global supply chains. The organization is, after all, now very exposed to the ups and downs of the global environment, whether due to currency fluctuations, host country disturbances or even high-seas piracy. Perhaps ironically, global supply chains—which were developed to improve input pricing and availability—can result in reduced management control due to unanticipated disruptions along the chain. When SARS broke out in Asia, for example, the global supply chains of many technology companies were disrupted even though the disease never penetrated the U.S. workforce.

The basic change-management challenge in such situations becomes making sure the organization has enough adaptive capacity to manage added exposure and risks. It has to evaluate the potential perils of external alliances and partnership relationships and then dedicate the resources, talent, and skills to reduce those perils and so more effectively manage risks.

Adaptive capacities vary significantly from organization to organization, so companies experience environmental turbulence differently. High-velocity, chaotic, and hypercompetitive environments can give the most adaptive organizations the best opportunities for innovation and growth. The trick is to find the right balance between too much and too little openness. We call this an "efficient frontier," the place where organizations maximize their adaptive capacity in terms of organizational openness. Figure 1 illustrates the trade-off between the benefits and costs associated with increasing exposure to the environment.

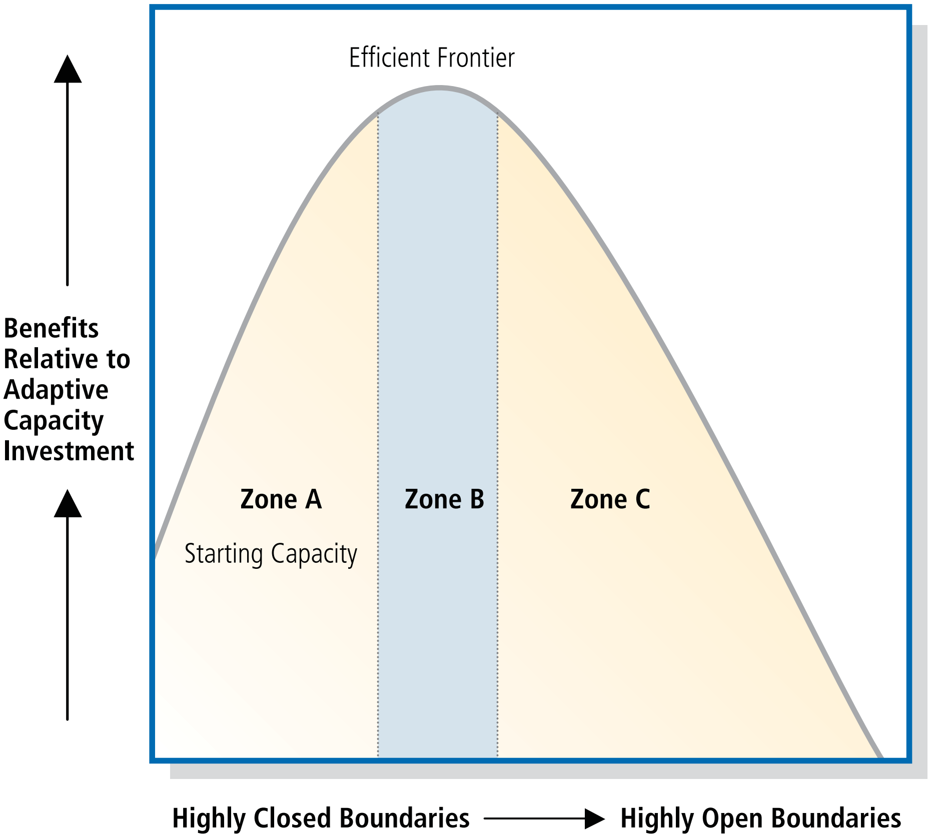

Figure 1. Benefits of Greater Openness to the Environment Relative to Investment in Adaptive Capacity (From McCann & Selsky, 2003)

The key point is that investments in adaptive capacity of all kinds have to keep pace with the increasing levels of openness of organizations. In Zone A, for example, the organization can benefit from even greater openness, and in Zone B those benefits are matched by the organization's investment in adaptive capacity—the most efficient and ideal operating zone.

In Zone C, however, the organization's investment in capacity building lags behind its exposure to risk. That is, it is undermanaging the complexity and level of interdependencies of its alliances, partnerships, and external relationships. The classic example of this condition is an organization that engages in so many mergers and acquisitions so quickly that it cannot create the management systems and shared organizational culture to effectively manage the complexity of the total system that results. In sum, a balanced and active strategy for capacity building becomes essential to keep up with today's competitive environments.

Learning from Higher Performers

The AMA/HRI team was especially interested in the perceptions and experiences of surveyed managers whose organizations seemed to be performing relatively well. To gain a better understanding of what was going on among organizations in the sample, two subsamples were formed on the basis of their reported performance in terms of their profitability, market share, and competitiveness. For our purposes, *higher-performing* organizations consisted of those reporting high performance in all three performance categories (i.e., answering 4 or 5) in the three performance questions, and *lower-performing* organizations consisted of those organizations reporting low performance in at least one of the three performance areas (i.e., answering 1 or 2). An analysis of the AMA/HRI survey results indicate higher-performing organizations tend to share some characteristics.

First, managers in the higher-performing organizations were more likely than lower-performing organizations to believe that the pace of change has gotten faster in recent years but that it's still predictable. Lower-performing organizations, on the other hand, were more likely to see the pace of change as either slow and stable or so much faster that it's increasingly hard, or even impossible, to predict (see Table 17 in the Appendix).

Higher-performing companies were also less likely to have experienced disruptive change, and they tended to manage the disruptions that they experienced substantially better than their lower-performing counterparts (see Table 20). This raises the possibility that they experienced less unpredictable and disruptive change because they're better at change management.

Second, the higher performers tended to take a more proactive and opportunistic approach toward change. In fact, they showed a stronger preference for inducing change and "shaking things up" (see Table 23). This suggests that some higher-performing organizations are gaining an advantage over competitors by driving change in ways that suit them. Such higher performers might be "in the driver's seat" when it comes to change in their industries.

Third, the higher performers viewed their organizations as more agile and resilient than lower-performing organizations in the sample (see Tables 24 and 25).

Fourth, higher-performers scored higher for the survey items geared toward "people," "teams," and "organization." That is, higher performance was conducive to the mindsets, practices and processes at individual, team, and organizational levels that are associated with effective change management (see Tables 27, 28, and 29).

However, higher performers did not differ notably from the lower performers in terms of the industry-level factors. It may be that most companies do not view industry-level factors as changeable or have not targeted them much, or at all, for capacity building (see Table 30).

Understanding the Competitive Environment

Overall, we are impressed by the strength of the patterns found in the survey results. These patterns, in conjunction with our ideas about adaptive capacity, suggest a model (see Figure 2) that might explain how change is operating in today's business environment. This model is partially predicated on the survey findings that the pace and disruptiveness of change are increasing for the survey sample as a whole and that a significant number of organizations are assertive and even aggressive at inducing change. The latter could well be leading to a continuing acceleration of the pace and disruptiveness of change.

The model is also based on the idea, as explained above, that organizations must continuously invest in the right kinds of adaptive capacity to deal with the change they are experiencing. Their capacities for change must keep pace with their strategic goals or they risk failure. Organizations that build the right kinds of change-management capacity will be best able to operate in a fast-paced and even turbulent business environment. They will, therefore, tend to outperform other organizations in terms of competitiveness, market share, and profitability. We see this as a virtuous cycle in which higher performance allows the organization to more competently embrace change, move assertively, and sustain its investments in adaptive capacity.

The basic relationships, which are generally supported by the AMA/HRI survey, can be visually portrayed in the model below:

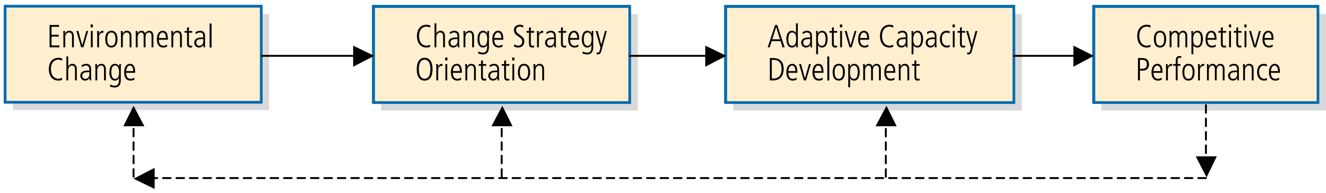

Figure 2. The Basic Environment Change-Management Model

Drawing Management Lessons

There are, however, various ways of interpreting data from the AMA/HRI survey. One possibility is that managers who see their organizations as having considerable agility and resilience might be more aggressive in regard to change. That is, they may be better than other companies (or, at least, *think* they're better) at managing their business environments, making those environments feel less disruptive to *them* even as they cause disruptions for their competitors. This enhances their organizations' ability to compete, gain or maintain market share, and improve profitability.

A second possibility is that higher performers are higher performers precisely *because* they operate in a less disruptive environment. And a third possibility is that the higher-performing organizations are best able to invest in their adaptive capacity at all three levels (individual, team, and organization), and that they are therefore better able to create relatively more benign operating environments for themselves.

Which of these possibilities is most likely? The last two are not as well borne out by the data, given the reported success of higher performers in managing the disruptions that they experience and the relatively comparable industry-level conditions reported. Nonetheless, these possibilities illustrate the challenges of interpreting data and drawing conclusions on relatively new concepts such as agility and resilience, about which researchers are still learning.

Strategic Insights

The AMA/HRI research and analysis suggests several strategic insights that may be valuable for practicing managers.

- First, we think it's important for executives to question their organization's basic orientation toward change. What is your organization's current adaptive capacity? How might this capacity be increased? Would it be wise—or even possible—to move more assertively in initiating the kind of change that disrupts the competitive balance in your industry? Can your workforce cope with the consequences of inducing such change?

  Inducing change becomes a fast and risky game. The organization needs to have enough agility—the capacity for moving fast, flexibly, and decisively—to gain a distinct advantage. If senior managers want to embrace such an assertive strategy and yet find their organization doesn't have sufficient capacity, then agility-building interventions are called for. For example, first-movers in a market must be able to gather accurate market data to judge trends, and this requires having competitive intelligence systems and people skilled in interpreting ambiguous market conditions. Agility means having an internal innovation process that translates such information from concept to finished product extremely fast and efficiently. But, if all the right systems and people are *not* in place, then inducing rapid change in a market can be suicidal.

  Managers might prefer taking a reactive or even inactive posture toward change, one that allows managers to observe how others respond and provides more opportunity to learn how to respond when ready. Of course, in today's dynamic competitive markets, a reactive strategy also carries many risks. If top management desires to take a more reactive posture, then resilience-building interventions become essential. Being able to absorb the loss of market share in response to a surprise new product entry by a competitor, for example, is an aspect of resilience. After all, it can take time to formulate an effective product response. But resilience is not just being able to absorb the market share hit; it's being able to execute an effective response that recovers lost market share or even gains a larger share. Therefore, reactive change strategies require considerable resilience.

- Our second strategic insight is that most organizations will benefit from the kind of creativity and innovative thinking that enables them to effectively react amid today's quickening pace of change. If we have really moved into the "innovation economy," as many authors have suggested, then the ability to think "outside the box" to "take a systems view" will be essential. These items ranked relatively low in the "Your People" and "Your Teams" survey categories. If there was ever an opportune moment for creativity and innovation, the pace and disruptiveness data suggests now is the time (see Tables 27 and 28).

  Indeed, the literature indicates that organizations characterized as resilient also are likely to embrace innovation. In *MIT Sloan Management Review,* Patrick Reinmoeller and Nicole van Baardwijk observe that resilient firms tend to take a disciplined approach to innovation. They further point out that resilient organizations achieve a fluid balance of innovation strategies that revolve around knowledge management, investigation of new ideas, cross-boundary cooperation, and encouragement of entrepreneurial behavior ("The Link," 2006).
- Our third strategic insight is that organizations should seriously examine the growing risks of disruptive change in today's business environment. Many corporations need to develop more sophisticated ways of identifying, anticipating and preparing for risks to their operations. For example, they already may keep abreast of the latest technologies in data security, firewalls, encryption, and so on. We would add that they must also develop their scenario-planning and crisis management skills to explore the "what-ifs" and "what-would-we-dos"—all essential exercises that can stimulate creative thinking and potentially improve response times to unexpected disruptions.
- Our fourth insight is that excellent workforce management is key to building adaptive capacity. It's clear that companies need employees with good change-management skills, and they should nurture a corporate culture that reinforces behaviors that build agility and resilience. Compared to their lower-performing counterparts, the higher-performing organizations in this study have tended to make greater investments in individuals and teams as well as in the organization as a whole. Knocking down boundaries between operating units and management levels will not assure agility unless the individuals and teams associated with those changes are equipped with the right skills and resources to manage drastically different expectations and working conditions. There are too many stories of leaders redesigning the organization for speed and flexibility and not investing adequately in the people and team skills and processes to support those changes.

Management Practices

Of course, turning such strategic insights into business advantages requires companies to effectively implement good management practices. The *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* asked respondents about their change-management strategies.

What strategies is your organization implementing or planning to implement to improve your response to change?

Strategies (by percent)*	All Responses[1]	All Performers[2]	High Performers	Low Performers
Training to improve managers' change-management skills	48%	41%	47%	34%
Improved communication of organizational values/mission/vision	45	39	43	34
Establishment/development of talent pool	41	35	39	32
Use of benchmarking to predict change needs	37	32	33	34
Training to improve employees' perception and handling of change	35	30	33	29
Assessment/revision of policies and procedures to improve response capability	31	27	29	28
Evaluation/realignment of resources to facilitate response to unexpected change	26	22	22	26
Cultural change to support agility and resilience	25	22	25	19
Involvement of HR to facilitate staff role transitions	24	20	24	15
Senior leadership's modeling of receptivity to change	23	20	22	17
Processes to assess and establish or maintain external relationships	22	19	19	19
Establishment/expansion of mentoring and/or coaching programs	21	35	39	32

** Respondents checked all that applied, so percentages do not add up to 100.*

[1] These include all respondents who answered this survey question.

[2] These include all respondents who answered this survey question and also answered the questions about company performance in terms of market share, profitability, and competitiveness.

Based on these and other survey responses, we believe the following management practices are among the most important for organizations that wish to build their change-management capacities. Of particular interest are the strategies in which there are significant differences between the usage rates among the higher-performing and the lower-performing organizations.

Developing Change-Management Talent

"Training to improve managers' change-management skills" was the most widely cited strategy for implementing responses to change, chosen by nearly half (48%) of all the AMA/HRI respondents. If we combine this with the fact that 41% also cited "establishment/development of talent pool," which was the third most cited strategy, we get a clear idea of how important talent development is to change management. Not only do organizations need to develop leaders so they have good change-management skills, they need to have a talent pool that's fully capable of adapting to, taking advantage of, or even driving change.

Developing this talent pool requires excellent execution, from the leaders who set strategy to the trainers who create effective programs, to the recruiters who bring in personnel that's comfortable with change.

The importance of management training supports other research carried out by PricewaterhouseCoopers (2006). It found that training for leaders led the list of change-management strategies. Seventy-seven percent of senior leaders from 133 U.S. multinationals said that they responded to change challenges by training their company leaders (PricewaterhouseCoopers, 2006).

Training can also be key to overcoming managers' resistance to change. As the AMA/HRI survey shows, higher-performing companies are considerably more likely than lower performers to stress having senior leaders model a receptivity to change. Leaders who always seem to squelch change in their organizations can be a major impediment.

Various experts also recommend extending change-related training to employees. Indeed, over a third (35%) of AMA/HRI respondents cited "training to improve employees' perception and handling of change." Such training can consist of, among other things, workshops on problem solving and resilience building (Siebert, 2005).

Multinational insurance firm Allianz Cornhill is an example of an organization that leveraged training to create a company environment in which managers learned to view change as a routine part of daily business operations. Intensive training of managers working in its 70-country locations enabled them to cultivate skills in change management, organizational culture influence, project management, personal effectiveness, and leadership. Learning was tailored so that managers could apply new concepts to their daily jobs. It also transformed the way in which managers viewed change, empowering them to approach initiatives with confidence and proven skills (Kirby, 2005).

Communicating Change

"Improved communication of organizational values/mission/vision" was the second most highly chosen strategy, cited by 45% of AMA/HRI respondents. Higher performers are much more likely than lower performers to use this strategy.

Not only can communication be important to telling employees how the organization is changing, it's also crucial to helping them understand what is *not* going to change. Change can be made easier if people feel anchored by some unchanging value or mission. For example, a company may create a new product line but reaffirm its mission to provide customers only high-quality merchandise.

Communications can, of course, also help organizations combat negativity and resistance to change. Organizations should, for example, make sure they are the originators of messages about change. Experts recommend a regular program of communication with messages that are easy for employees to understand and consistent in content. Success can be enhanced if managers play an active role in both planning and delivering messages about change initiatives, but managers probably require specific training to become truly effective change communicators (Kress, 2005).

Internal communications can also play a pivotal role in transforming a corporate culture into an environment that embraces change. The AMA/HRI survey shows, in fact, a significant difference between higher performers and lower performers in terms of their use of (or planned use of) "cultural change to support agility and resilience."

Gap Inc. demonstrated the importance of communication and culture when it leveraged the skills of its internal communications team to shift the company's focus from brand-centric (Gap, Banana Republic, Old Navy, and Forth & Towne) to a one-team framework. Gap's communications team defined the company's new purpose, values and behaviors and trained senior leaders in their content and application through a series of interactive summit meetings. Leaders of each brand then took the new message to their teams through presentations in regular staff meetings. Those live cascading communications were supported by the addition of an interactive two-way communication function to the corporate intranet (Nash, 2005).

Benchmarking and Beyond

Some might be surprised that so many companies (37%) use "benchmarking to predict change needs." After all, benchmarking tends to be a reactive rather than proactive strategy. That is, it's usually a way of gauging whether a company is "up to snuff" in some area rather than a way of getting far enough ahead of competitors to take advantage of changes in the marketplace.

It turns out, however, that the AMA/HRI survey findings are not unique. Benchmarking was the tool of choice for predicting needed change in organizations, according to an online American Productivity & Quality Center (2005) hot topic survey in 2004. A quarter of the more than 100 respondents said their organizations used benchmarking as a change-prediction tool. Leaders planning changes use benchmarking to help develop the strategic perspective necessary to identify what needs to be modified and to help establish a vision for an organization's post-change incarnation.

Benchmarking can also be used as a way of finding how well an organization stacks up to others in terms of qualities such as resilience. In 2006, the Resilience Model Project teamed top U.S. banks, technology companies, and the Financial Services Technology Consortium, a New York-based trade group, to develop benchmarks against which financial institutions can gauge their resilience. Project director

As customer demographics become more diverse in terms of age, ethnicity, nationality, income levels, and attitudes, companies must stay very close to customers to spot emerging trends.

Charles Wallen called the model project "a pioneering effort to get banks on the same page in understanding what constitutes resilience," noting that the project "will be listing … capabilities organizations should have to be resilient" (Bruno-Britz, 2006).

We believe, however, that companies should beware of overemphasizing benchmarking as a part of a change-management program. The AMA/HRI survey indicates that lower-performing companies are just as likely as higher performers to use benchmarking to predict change needs, suggesting that this strategy may not provide a true competitive advantage. To manage change well, it helps to be innovative and visionary, seeing advantages that competitors don't yet envision. This means developing "next practices," not just adopting "best practices."

Focusing on Customers

Respondents to the *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* cited customer focus as the leading driver of change in their organizations, so it isn't surprising to note that managing relationships with customers was the number two change-management strategy favored by 71% of U.S.-based multinational organizational leaders interviewed by PricewaterhouseCoopers (2006). Customer input as a predictor of change also showed up in survey results documented by the American Productivity & Quality Center. Their online survey of more than 100 respondents found 23% citing customer opinion as a change prediction tool for their organizations (American Productivity & Quality Center, 2005).

As customer demographics become more diverse in terms of age, ethnicity, nationality, income levels, and attitudes, companies must stay very close to customers to spot emerging trends. Of course, this means surveying customers, conducting focus groups, and engaging in other traditional customer relation activities. But it also increasingly means including customers in the innovation process, allowing them to customize some services and products on their own, integrating a customer focus into all parts of the business operation, and looking for new ways of staying on the cutting edge of customers' needs and desires.

Staying Abreast of the Competition

Competition in the marketplace is among the primary drivers of change. Therefore, a company must stay aware of competitors' actions and strategies. An interesting twist on the use of competitive intelligence to fuel change was demonstrated by the manufacturing firm Rubbermaid. To provide opportunities for its employees to personally experience the need for change, the company hosted a hands-on show of competitors' products, enabling its workers to see firsthand the items' quality and pricing.

Dr. Carol Kinsey Goman, author of the book *This Isn't the Company I Joined: How to Lead in a Business Turned Upside Down,* notes that some other successful strategies companies use to "set the stage" for change. Companies can, for example, invite outside experts to come in and give employees insights into their industry, helping workers see their organization in context. Other firms, she says, encourage employees to constantly question the status quo by keeping them informed of customer feedback, competitor activity, and financial considerations (Goman, 2005).

Agility and Resilience in the Future

The AMA/HRI project team arrived at five broad assumptions about the future. These assumptions contain factors that are likely to influence the agility and resilience of organizations in the future. The team used these assumptions when considering how agility and resilience might evolve over the next decade or more.

Assumptions for the Future

A Fast-Changing Competitive Landscape

Earlier in this paper we noted that respondents to the *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey* considered the competitive market environment among the primary drivers of change, and we said that the pace of change had increased and become more disruptive in recent years. We think it's likely that these trends will continue into the near future. As economies of China, India, and other developing nations grow, more market competition will come from those areas of the world. In some cases, these competitors are already emerging to become powerful global players.

As *BusinessWeek* (Engardio, 2006) recently reported, "A new breed of ambitious multinational is rising on the world scene, presenting both challenges and opportunities for established global players. These new contenders hail from seemingly unlikely places, developing nations such as Brazil, China, India, Russia, and even Egypt and South Africa. They are shaking up entire industries." Greater competition will almost certainly bring more innovation and larger assortments of products and services. In short, the business environment will become more competitive and may well change at an even faster rate than it does today, though this will, of course, vary by industry.

Another possibility, however, is that the rate of some types of change, such as innovation and product development, could slow down if disruptions become more and more intense. That is, business resources might need to be diverted to coping with disruptions and away from the process and product improvements associated with innovation. For example, an avian flu pandemic could cause a severe economic downturn or even wreak havoc on the labor force. Terrorist bombings could disrupt major ports and therefore supply chains. If such problems become endemic on a global scale, they could act as a drag on business growth, investment dollars, and all the change that comes with a healthy socioeconomic system.

Barring such disruptions, however, a fast pace of change will force most companies to keep close track of their customers' desires and needs, and those qualities will shift quickly, making it important for organizations to maintain agility in this area. Companies will also be obligated to keep a close eye on the competition, maintaining good business intelligence not only about direct competitors but also about potential competitors in other industries. Businesses need to be agile enough to move quickly in a fast-paced world, and they'll need to be resilient enough to absorb and survive the rude shocks that tend to occur in a competitive and potentially unstable global economy.

The Power of New Technologies

Because specific outcomes of technological advances are impossible to foresee, they result in an unpredictable business environment. No one knows exactly which technologies will have the greatest impact over the next 10 to 20 years, but among the best prospects are radio frequency identification inventory control, *New technologies and new applications of existing technologies also allow innovative organizations to enter and succeed in areas outside their own industries.*

Internet telephony, voice recognition, robotics, biotechnology, artificial intelligence, nanotechnology, and materials sciences. These may cause major business and social disruptions. Internet and wireless technologies could, for example, allow developing nations to catch up to and possibly even leapfrog over developed nations in terms of communication infrastructures. The vast majority (96% or more) of China's territory, for instance, already has cellular phone coverage (Sylvers, 2006). This can make a huge difference in economic growth. A London Business School study notes that a rise of 10 mobile phones per 100 people increases GDP growth by 0.6 percentage points in the average developing country ("Calling," 2005).

New technologies and new applications of existing technologies also allow innovative organizations to enter and succeed in areas outside their own industries. In recent years, for example, we've seen a computer company (Apple Corp.) transform major portions of the music industry via new products and services (the iPod and iTunes). We've also seen Web-intensive companies such as Amazon.com contribute to changing the face of retailing, and Web portals such as Yahoo and Google transform advertising. Today, Google is investing in new technologies that could enable it to compete in the lucrative office software business in the not-so-distant future.

But information technology is just part of the equation. New biotechnologies may well revolutionize the healthcare system in coming years, and a combination of new technologies could even change manufacturing as we know it. "Teams at Cornell University, MIT, and the University of California at Berkeley have been quietly developing processes that adapt ink-jet printing technology to build ready-to-use products, complete with working circuitry, switches, and movable parts," reports *Business 2.0* (Maier, 2004). If such "3-D printers" get to the point where they're creating real products and not just prototypes, then more consumer goods could be produced and customized in local businesses or even in homes, radically changing today's factory-driven production models.

Meanwhile, continuing progress in the areas of microprocessor speeds and miniaturization is almost certain to make computers ever more powerful and mobile. Today's slickest and slimmest cell phone may look clunky and underpowered compared to products 10 years from now. It's hard to predict how this will change individual and organizational lives, but we think it's safe to say that agility and resilience will be a great advantage amid what could be radical changes.

Adaptable Organizational Structures

The future challenge for companies will be to develop an "agile mindset" that allows them to quickly respond to changes in the marketplace, new technologies, geopolitics, and other factors. Organizational pyramids and vertical hierarchies will not disappear, having proven surprisingly durable as an organizational form in recent decades. But, because knowledge workers represent a growing proportion of the labor force, there will be a greater focus on new ways to organize and coordinate work ("New," 2006). We believe organizations will seek and experiment with new structures for the new century.

McKinsey consultants Lowell Bryan and Claudia Joyce (2005) write, "Today's big companies do very little to enhance the productivity of their professionals. In fact, their vertically oriented organizational structures, retrofitted with ad hoc and matrix overlays, nearly always make professional work more complex and inefficient. These vertical structures—relics of the industrial age—are singularly ill suited to the professional work process." Bryan and Joyce argue in favor of streamlining line-management structures, "dynamically managing" small groups of focused professionals, and developing "organizational overlays" such as networks and knowledge marketplaces that "make it easier for [professionals] to exchange knowledge, to find and collaborate with other professionals, and to develop communities that create intangible assets."

Other experts agree that changes are needed in the conventional work arrangements. "There is a mass of evidence to suggest that, in the 21st century, the time is ripe for sustainable change in the ways organizations use to get things done," writes Gerard Fairtlough, former CEO of Shell Chemicals and author of *The Three Ways of Getting Things Done*. He points, for example, to "heterarchy" as one way to organize work. The *Financial Times* describes this as "divided, supported or dispersed rule where control shifts around depending on the project and the personality, skills, experience, and enthusiasm of those who can make things happen." Fairtlough also identifies a concept known as "responsible autonomy," in which teams of employees decide what to do but remain accountable for the results.

In an age of knowledge workers, a growing number of organizations will likely be characterized by integrated and yet dispersed sets of mobile, project-based teams with multifunctional expertise. Business and professional networks that exist both within and among organizations will also play a growing role. These networks and teams will still, at times, be accountable to hierarchies, which can add strength, structure, and resilience to organizations. But companies will also seek to minimize the inefficiencies and bureaucracies associated with 20th-century corporate hierarchies.

We think the trend toward more outsourcing, strategic alliances, and business collaborations will continue. Interorganizational structures may well become more formalized, making the boundaries of organizations "fuzzier" and more ambiguous. As we noted in the previous section, however, companies face risks if they go too far in opening up the boundaries of their enterprises via these strategies. Organizations will put much emphasis on how to manage and facilitate collaborations well. Companies will need to find ways to orchestrate this interdependence even

Scientific studies and media reports about global warming, for example, seem to become more prevalent every year, keeping the subject front and center for policymakers.

while ensuring they're resilient enough to survive the potential loss of major customers, suppliers, vendors, or partners. This could be a difficult balance to strike, one that requires excellence management and innovative business models.

Global Uncertainties

We think the world will remain an uncertain place for at least the next decade, one where conflicts and catastrophes can erupt with little warning. A region or nation that holds great economic promise today may look very different tomorrow. There will continue to be social conflicts among different cultural and religious factions. Terrorism will be just one manifestation of social strains, albeit an important one that drives foreign policies for years to come. There also will be boycotts, protests, guerrilla actions, civil wars, and other problems. Shifts in geopolitical power from the West to the East, for example, may well complicate attempts to quell global problems.

There will likely be increasing cultural and economic diversity among employees as well as customers. Managers will have to be prepared for failures as they struggle to cope with a growing assortment of fast-changing consumer tastes. They'll also need to recognize that circumstances could change quickly in nations once known for having large numbers of skilled, low-wage workers. As economies heat up, wage scales can rise quickly even as pools of skilled labor start to dry up.

Global climate issues might also drive change. Scientific studies and media reports about global warming, for example, seem to become more prevalent every year, keeping the subject front and center for policymakers. If some experts are correct, global warming will result in less predictable and sometimes more disruptive weather patterns, from longer-lasting droughts to more destructive floods and more intense storm systems. As we recently saw with the havoc wrought by Hurricane Katrina, natural calamities—whether they're related to global warming or not—can cause severe disruptions to businesses as well as to governments and civil society.

Even leaving aside the politically contentious issue of global warming, there's likely to be a plethora of environmental issues that arise as a result of the fast-growing economies of the world's most populous nations: China and India. China already uses more natural resources than the U.S. in various areas. For example, it burns 960 million tons of coal per year (compared with 560 million in the U.S.) and consumes 258 million tons of steel (compared with 104 million in the U.S.) (Brown, 2006). As market demand increases in China and India, the world can expect to see added stresses on forests, fisheries, energy stocks, and various other natural resources. The extent of this stress will likely depend on the degree to which more environmentally efficient technologies are widely adopted. No one can confidently foresee how these trends will play out over the next decade or two, but it's likely that businesses will come under growing pressure to produce "greener" products and services, even while operating their businesses in more environmentally friendly ways.

Then there are uncertainties related to issues such as pandemics. The AIDS/HIV pandemic has already wrought much human suffering and socioeconomic devastation in parts of the world, and the possibility of an avian influenza pandemic has gained the attention of international policymakers. *BusinessWeek* magazine reports, "[T]he impact of a flu crisis could be comparable, at least in the short term, to the Great Depression, cautions Sherry Cooper, chief economist in investment firm BMO Nesbitt Burns."

In an uncertain world, organizations will need to put greater emphasis on the sustainability of their operations as well as the sustainability of the larger social, economic, and environmental milieus that help support those operations. Unless they have the capacity to successfully adapt to uncertain turns of events, future organizations could find themselves in dangerously untenable positions.

The Paradoxes of Government

As the world changes, so must laws and regulations. In some cases, governments will regulate and legislate in an attempt to shelter their societies from a wide range of perceived threats. Actions could include bans on genetically modified foods, interference with cross-border mergers, barriers to keep out growing numbers of global migrants, or prohibitions on new kinds of lethal weaponry. No doubt, these laws will adversely affect some businesses while protecting others, as they have throughout history. In other cases, governments will deregulate, placing businesses in a newly competitive environment that is rife with turbulence.

Much will depend on the issues of security and trust, suggests the *Shell Global Scenarios to 2025* (Shell International, 2005). Governments must act to ensure that people trust the marketplace, especially in light of the high-profile U.S. business scandals that eroded public confidence several years ago. Government must also try to guarantee national security. If governments feel their national security is increasingly threatened by the free movement of information, goods, services, and labor, then companies may have to do business in a more constrained—and potentially even fractured—global marketplace. If, on the other hand, governments and corporations are able to develop innovative processes and products that provide "built-in" solutions to security problems (e.g., solutions that make the shipping of hidden weapons much less plausible), then a relatively open marketplace becomes more probable. In short, much will depend on how governments—in partnership with businesses—resolve the tension between the need for national security and the desire for global openness and trust.

We predict that, overall, pressures for global and regional trade agreements will continue to lead governments to reduce embargoes, tariffs, and other trade barriers. But we also think there will be backlashes to this trend, ones that play

The lobbying efforts of businesses may grow even more intense than they are today as corporations try to influence public policy.

out differently in different nations. Pressures toward boundary-creation also exist. Some nations will become more protectionist as they suffer the social dislocations that often go with globalization. Others will simply try to cushion the blow of such dislocations with social safety nets, training and education programs, minimum-wage regulations, and the like. Therefore, future organizations must prepare both for greater market competition and for governmental attempts to ameliorate the effects of such competition. The lobbying efforts of businesses may grow even more intense than they are today as corporations try to influence public policy.

It's also likely that, in order to address social challenges, companies will become increasingly involved in partnership with government (and other sectors, such as nonprofits) to an even greater extent than they are today (Selsky & Parker, 2005). In recent years, stakeholders have been pressuring companies to become more "socially responsible," and this is a trend that will probably continue into the near future.

There is also a good possibility of strengthened international institutions. International institutions such as the World Trade Organization, International Organization for Standardization, and even the United Nations may become more powerful as the world tries to cope with complex problems and seeks counterweights to transnational corporations. Along with increasingly muscular international nongovernmental organizations, these institutions could challenge the traditional hegemony of the nation-state and so introduce more uncertainty for global businesses. On the other hand, they might provide more standards and certainty in an unruly world. Indeed, this could help stabilize the pace and disruptiveness of change.

Theoretical Future Inc. in 2016

In this section we have created a fictional organization called Theoretical Future Inc., a large, global organization that has a reputation for both agility and resilience in the year 2016. This is, of course, a hypothetical future with a fictional CEO. We can't be sure what state-of-the-art programs will look like in 10 years, so these are only educated guesses. Moreover, circumstances vary by company and industry, so not every feature of this fictional firm will be applicable to every company. Still, we believe that this section provides some thought-provoking notions about how organizations might handle change in the future.

Interview with CEO Casey Zamora

Reporter: I'm speaking with Casey Zamora, CEO of Theoretical Future Inc. Thank you for agreeing to this interview. TFI has become widely recognized for its ability to succeed in today's uncertain business environment. To what do you attribute this success?

Zamora: Over a decade ago, we concluded from the business research as well as our own experience that a lot of successful organizations were taking aggressive, proactive postures toward change. In order to keep from falling behind, the board and senior leadership decided our corporation had to become much more resilient and agile to take the lead in our industry.

Boosting Agility and Resilience

Reporter: Let's start with agility. What did you do differently to become more agile?

Zamora: One of our first steps was to determine how to "open ourselves up" via more business alliances, partnerships, and outsourcing and supply chain arrangements. We calculated that this would give us opportunities to really leverage the expertise and cost-efficiencies of outside organizations even while we focused on—to use the rhetoric of the day—our core competencies.

Internally, we increased our investments in change-management skill development at both the individual and team levels. This pleased our investors and other partners, which looked particularly hard at our human capital investments. We asked HR tough questions about whether our training and development programs were targeted specifically at building agility and resilience and with what effect. Our HR function had never before tried to link training programs to agility and resilience metrics, but we got there eventually and think it's paid off for us.

Reporter: What did you do to boost resilience?

Zamora: First, we recognized that we had to *balance* agility with resilience. Even while saving money and enhancing quality through greater openness, we knew we were also putting ourselves at greater risk in some ways. After all, we couldn't guarantee the stability of all of the nations in which some of our suppliers were located, so we tried to manage our risk wisely. For example, we used suppliers in different regions of the world to ensure that a disruption in one location wouldn't cause a major business disruption for us. This kind of planning has cost us a bit more in terms of supplier arrangements, but we consider it an investment in our future viability.

Staying Tough

Reporter: Indeed, the world has seen a lot of shocks and surprises in recent years. How well have you come through those?

Zamora: So far, I guess we've done fairly well, which is why we're having this conversation. We've taken some hard knocks, but, unlike many other companies, we haven't yet been forced into a lot of "triage" situations where we've had to abandon a lot of our facilities, withdraw from markets, or curtail services.

Still, that doesn't mean we don't have detailed plans in case we're caught up in a major disaster. We've done our share of scenario and "what-if" planning, and we've taken a hard look at matters such as speed-and-ease-of-exit. We're well aware that a lot of experts believe we're in a period of coinciding and prolonged disruptions. We factor all this into our strategic planning and decision-making processes.

Reporter: If you had to pick, which would you say is most important these days, agility or resilience?

Zamora: There has to be a balance. I think we focused more on agility than resilience when we first set off on this path over a decade ago. Today, I'd say there's greater emphasis on resilience. We've gotten quite speedy and flexible over the years, but to tell you the truth, so have many of our competitors. The name of the game now as we see it is recognizing that sometimes you're just going to take a hit. When that happens, you'd better be tough enough to take it. We think we are tough and that we're pretty good at getting a leg up on our competition because one of our big competitive advantages is our resilience.

Reporter: What do you mean by "tough"?

Zamora: You could also call it durability. It's just one of the features of resilience, I think. There are various ways to achieve it. Culture and psychology can be important. For example, the literature on resilience tells us that a strong sense of self is a key factor in making it through adversity. So, we think it's essential to reinforce the core values and beliefs of the company, giving everyone a strong sense of who are as an organization and letting them know we are committed to them as well. Solid management processes are also necessary. We do things such as reinforce leadership and team skills to assure continuity in a crisis.

Of course, we're also big believers in speed but not at all costs. In today's world, speed is not a useful quality if you're also so flimsy and fragile that you fall apart when you hit some kind of barrier. Paying attention to our organizational boundaries is one way to make sure we don't fall apart.

Increasing Strategic Boundary Management

Reporter: Could you elaborate on what you mean you mean by organizational boundaries?

Zamora: One of our goals is "strategic boundary management" (McCann & Selsky, 2003). By that, we mean the creation and defense of the boundaries that help us define ourselves and separate us from the larger environment.

Reporter: What do these boundaries look like and how do you influence them?

Zamora: They come in many forms. There are spatial boundaries, which are things like the wall of a building with the company's logo on it or a perimeter fence around a manufacturing facility. There are membership boundaries, which tell us who "belongs" and who doesn't. These boundaries have both legal and cultural qualities. Then there are things such as identity and normative boundaries, which tell about the extent to which an individual or group personally identifies with the values and beliefs of other members within the organization. There are also psychological and emotional boundaries (Hirschhorn & Gilmore, 1992).

The point is that we increasingly recognize the types and conditions of the boundaries that TFI builds, maintains, and destroys, either intentionally or unintentionally. Most companies are aware of the need to secure their facilities and information networks, which is a kind of boundary management. But organizations aren't always aware, for example, that they can manage boundaries by building strong team relationships, or giving certain kinds of training to employees, or implementing excellent internal knowledge-management networks. These things can help companies withstand threats or even disasters.

Reporter: Isn't there a danger that you'll build up boundaries too much, insulating yourself from today's networked world?

Zamora: Absolutely! We talk about this a lot. That's why we've tried to become masters of strategic risk assessments. We perform a total cost/benefit analysis on all major external relationships and decide how to manage the risks associated with those relationships. We prioritize and evaluate our collective set of relationships. In some cases, for example, the risk of continuing a relationship with a certain vendor is too high and so we discontinue that relationship. In other cases, it's clearly riskier to close ourselves off from a vendor even if there's a potential for a disruption down the road. Playing it too safe can kill you just as dead as taking risks. It's all about making the best decisions you can given the information at your disposal. What we're shooting for is building up a relatively stable and sustainable business ecosystem made up of high-value networks of suppliers and customers.

Building Industry-wide Adaptive Capacity

Reporter: Your organization is in what's historically been a fairly turbulent industry that some analysts have recently been calling hyperturbulent—out of the control of most of the competitors in it. You've been known to say that the industry as a whole should be looking for better ways to become agile and resilient. How is this possible from an industry level?

Zamora: Actually, we're already involved in efforts in this area. We've long been a member of several industry associations. We also participate in regional trans-industry trade groups, several R&D consortia, and other networks. We were also a member of the UN's Global Compact before it got taken over by the WTO's Office of Corporate Social Responsibility Compliance in 2012. In those groups, we actively promote our collective interests.

These efforts have paid off in various ways. For example, through communication and education programs, we've made progress increasing the amount of skilled labor in our industry. We and other companies have also worked with non-governmental organizations to develop more environmentally sound business practices. We've also been working with government experts in a number of countries we operate in to boost the security of our operations. And we're closer now as a group in agreeing on product standards, which helps not only manage our costs, but provides real benefits to customers.

But that's not to say we want to get rid of all the turbulence in our industry. I don't want anyone to think that we're somehow colluding with our competitors to form some kind of anti-competitive cartel. Far from it. Our company is known to be exceptionally innovative. We like to drive change in our market when possible because we believe that this puts our competition in a position where they have to catch up to us. We also think we're better than most of our competitors at "surfing" waves of change.

Using Metrics and Dashboards

Reporter: Do you use some kind of metrics to gauge how well you're positioned to deal with change?

Zamora: Indeed we do. We measure what we call our corporate adaptive capacity, or AC. We've worked with various researchers and consultants so build a way of monitoring and assessing our corporation's adaptive capacity at three levels—individual, team and organizational—along the lines of the old balanced scorecard idea. We've termed this our "AC dashboard."

In addition, we do an annual assessment of our industry's adaptive capacity. We especially want to get an idea of what might happen in the event of various types of major disruptions. This particular assessment is a work in progress. We're still working on this industry-wide AC dashboard in partnership with the U.S. government, the EU, the ASEAN Regional Forum, and a UN directorate. We've found that, as a matter of national security, governments also want to gain a more precise idea of how corporations can and will endure in a crisis situation.

Engaging New Technologies

Reporter: What role does technology play in helping you maintain your adaptive capacity?

Zamora: How much time do you have? The short answer is that technology both forces us to change and helps us to adapt to change. We're always seeking innovations and a lot of them are based on new technologies. The search for faster and more flexible ways for moving innovations from concept to shelf space never seems to slacken.

We also track just about everything these days. The trick is to turn all this information into knowledge. That's part of what drives our AC dashboard. New data mining and artificial intelligence applications, derived from software originally created to find patterns in overwhelming amounts of scientific data, help us to make sense of all the information flowing through our organization. This allows us to better respond to trends faster than most of our competitors, adding to our agility.

Technology also helps us build resilience. For example, we try hard to maintain top-notch security systems. In areas where security is essential, we're using an assortment of identification and encryption techniques. This is part of what I was calling "strategic boundary management," which sometimes means that we try to build smart walls where we need them.

Reporter: Smart walls?

Zamora: Smart walls is our shorthand for intelligently built firewalls. We want to let in the information we need without letting in hackers, viruses, corporate spies, and even worse. In a way, it's a metaphor for the sometimes frightening and yet exciting new age we're in. Smart walls let us do the business we want while giving us the security we need.

Of course, even smart walls fail sometimes. All businesses are going to take a hit sometimes. The trick is to stay agile enough to minimize the hits and tough to enough to survive them. Such has been the secret of our success. I only hope it continues into the future.

Reporter: Thanks very much for your time.

Conclusion

The study of organizational agility and resilience is still a relatively new field. There remains much to learn, but we hope this study has been a significant step forward. To our knowledge, the AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006 *is unique in its attempt to gauge such a broad range of change-management strategies and practices in relation to organizational performance, even while dealing with larger environmental and industry conditions.*

From the results of the survey, we can definitely state that a majority of respondents believe the pace of change has increased in recent years, that over a third (37%) say they experienced more disruptiveness than they used to (whereas just 19% experienced less), and that organizations reporting themselves as higher performers also see themselves as relatively more agile and resilient. We believe that organizations tend to view agility and resilience as critical dimensions for dealing with a fast-changing, increasingly disruptive business environment. We also suspect, based on the survey evidence, that higher-performing organizations invest in and sustain higher levels of agility and resilience through various change-management practices at individual, team, and organizational levels. Such organizations are more likely to take an assertive posture toward change, and this may provide them with a competitive advantage as long as they have the adaptive capacity to go along with such assertiveness.

Many questions remain unanswered. Do higher-performing organizations—with relatively stronger (i.e., higher mean) scores on most of the individual, team, and organization-level items—actually experience more predictable and less-disruptive change in their environments? Or, because of their relatively greater adaptive capacity, do they simply feel more confident and competent in facing what would still be very challenging conditions for any organization? If so, then this would support the notion that perceived environmental turbulence is a relative experience that varies from organization to organization based on differences in adaptive capacity. We would also like to know if an objective analysis of the financial and market performance of higher-performing organizations would corroborate their self-reported status and if the correlations we've found in this survey would remain intact. We hope that these and other matters will become areas of focus for future research.

What final suggestions do we have for organizations trying to boost their adaptive capacity? First, we stress a balanced approach to agility and resilience, seeing them as two sides of the same coin of adaptive capacity. We recognize, however, that organizations tend to know more about boosting agility than resilience after so many years of practice driven by management research and rhetoric about the virtues of openness and speed. Resilience has become a priority more recently, having gained currency since the tragic events of September 11, 2001, which shook to the core the confidence of managers in many industries. The world is still learning what resilience means from an operational point of view.

We think the AMA/HRI survey has helped clarify the concept and establish its importance in the business community. We send our deep appreciation to those who responded to the survey, thereby making an important contribution to this endeavor.

Second, we think organizations should take a strategic approach to building adaptive capacity. One approach is to inventory investments in adaptive capacity, question how well those investments are paying off, and determine if there are significant gaps in any areas. We believe that gaps are likely to be present among organizations that are encountering particularly turbulent and challenging business conditions. If there is a strong relationship between performance and adaptive capacity, as this study suggests, then challenged organizations might well be able to boost performance by developing more effective change-management strategies.

The AMA/HRI survey indicates that many organizations are indeed investing in their agility and resilience, but it's not clear that those investments are always targeted to the right set of skills and capabilities. For example, investing in creative problem-solving and systems thinking might be more useful than focusing too much on best practices. We think that building adaptive capacity requires solid investments in change-management training and development, in appropriate systems and processes, and in metrics that will enable organizations to ascertain their adaptive capacity at a given point in time.

Third, companies should look ahead, creating multiple scenarios about how their organizations, industries, and societies could change. The hypothetical company and CEO interview in this study was just one attempt to project into the future. It assumes that the future will look a lot like today's world but much more intensely so—more technology, more crises, more limited and expensive natural resources, more competition within and between industries, and more unheard-of new industries disrupting the bases of traditional competition. Of course, other scenarios are possible. For example, world-changing catastrophic incidents such as a world war, a nuclear incident, or an intractable pandemic are conceivable. Such events might devastate even the most change-capable organizations.

Yet, we believe that if companies continue to enhance their skills for building adaptive capacity and begin paying more attention to creating collective and constructive strategies at an industry level, then the chances of avoiding the most disruptive collisions or even surviving them are much increased. And, assuming only an intensification of current trends, we are optimistic about the overall ability of organizations in the business sector to weather such forces, given the high levels of capacity we saw among many organizations responding to the AMA/HRI survey.

Managing change will always be challenging and sometimes discouraging, even frightening. This is the reality for many businesses today. If, however, they work diligently and intelligently at building their adaptive capacity, many of today's organizations are likely to survive and thrive well into the 21st century.

Epilogue

Bob Dylan sang in 1964, "The Times, They Are A-Changin'." That is truer today than it was when first heard. Actually, every day, we can expect some form of change, big or small, in our organizations. The *AMA/HRI Study on Agility and Resilience in the Face of Continuous Change Survey 2006* suggests that our corporate adaptive capacity has grown over the years and that it can be measured and monitored and improved. However, it also suggests that an intensification of the current pace of change will demand a concurrent development in change management capacity.

The good news is that we can improve our ability to cope with and even create change. Study findings show that the actions of corporate leaders and managers can raise or lower the level of corporate agility and resilience. Functional silos, excessive decision-making steps, norms of conformity, restricted flow of information, cumbersome infrastructures, and deafness to any ideas but our own—these are some of the ways that an organization's management team creates a sluggish company unable to work with change. While strategic agility and resilience are very much a function of an organization as a whole, they are also the sum of its processes, policies, systems, technologies, structures and culture and of those who create them.

The study also suggested a clear reason why we need to build both agility and resilience within our companies. We are told that we need to master this or that or die time and time again—until such point that the warning, however true, loses its effectiveness. On the other hand, the AMA/HRI study showed a clear correlation between change capacity and corporate performance—higher-performing organizations have a greater ability to cope with change. So, not only is ability to manage change a matter of corporate survival, it is a matter of corporate profitability by enabling an organization to stay ahead of the competition.

We at AMA know that there are tools and techniques that we can offer you that will enable you to position yourself to weather the next wave of change in your industry. We also are undertaking our own change initiative to develop new programs that reflect study findings, helping you to have an organization built for change—for, as Dylan sang, "The Times, They Are A-Changin'."

Appendix

About This Survey

Target Survey Population

The target survey population of the *AMA/HRI Agility and Resilience in the Face of Continuous Change Survey 2006* consisted of the HRI e-mail list of primarily high-level human resources professionals and the AMA international e-mail list of individual contributors, supervisors, managers, and executives across a wide range of functions (e.g., general management, finance, operations, human resources). In total, 1,472 usable surveys were submitted, although the total responses to some questions were fewer. Most responding companies have some international exposure, with 42% describing themselves as global and 28% as multinational. About a third of respondents were located in the U.S., another third in Europe, 16% in Canada, and the rest primarily in Asia and Latin America.

Survey Instrument

In this survey, there were 30 questions, 11 geared toward the demographics of the respondents. Multiple questions used the well-accepted 1-5 Likert-type scale, with a 1 rating generally designated as “very little” and a 5 rating as “completely.”

This survey is based on multiple conference and HR professional presentations over three years and an extensive review of the change-management literature. The AMA/HRI survey team is particularly grateful to those who heard and helped test ideas in this survey, including many participants at conferences and presentations associated with HRI, the Human Resource Planning Society, the Academy of Management, the Oxford Futures Forum at Templeton College, the Canadian HR Society in Toronto, and the Forum for Organization Effectiveness in Philadelphia.

Analysis

In the analysis of the survey findings, the AMA/HRI team distinguished between “higher performers” and “lower performers” based on three performance-related questions. There were 1,393 total respondents who answered those three questions. The AMA/HRI team looked at two subgroups, 494 companies deemed higher performers and 326 deemed lower performers. Higher performers scored at least a 4 or a 5 on Market Share AND Profitability AND Competitiveness. Lower performers indicated a 1 or a 2 on Market Share OR Profitability OR Competitiveness.

Procedure

A link to an online survey was e-mailed to the target population by region during June and July of 2006.

Performance Questions and Results

Table One

In terms of your competitive market share, you are:	
Responses	**Percent**
Not in the top 50% of competitors	4.8%
In the top 50%	6.4
Among the top 25% of competitors	16.3
Among the top three or four firms	43.0
The dominant firm in your major markets	29.5

Table Two

Compared to the past five years, your profitability is:	
Responses	**Percent**
At an all-time low level	1.4%
Significantly worse	6.1
About the same	31.0
Significantly better	38.7
At an all-time high level	22.8

Table Three

In terms of your overall competitiveness, you have been:	
Responses	**Percent**
Rapidly losing ground against your major competitors	0.8%
Slowly losing ground	10.6
Holding steady — neither gaining nor losing	26.2
Slowly gaining ground	41.5
Rapidly gaining ground against your major competitors	20.9

Demographic Questions and Results

Table Four

In what function do you currently work? (by percent)			
Responses	**Overall Results**	**Higher Performers**	**Lower Performers**
Finance	7.1%	7.1%	7.7%
General management	23.5	24.7	27.9
HR or administrative	25.1	22.9	21.5
Marketing	10.3	12.2	10.4
Operations	12.2	11.6	10.1
Research and development	7.4	6.7	9.2
Sales	8.4	9.5	7.7
Systems/IT	6.0	5.3	5.5

Table Five

What is your current title? (by percent)			
Responses	**Overall Results**	**Higher Performers**	**Lower Performers**
CEO/President/Chairman	4.9%	3.0%	9.8%
Director	21.1	20.5	25.2
EVP/SVP	2.9	3.1	1.2
Manager	42.7	48.6	33.4
Other	16.6	14.0	15.0
Supervisor	5.3	4.9	7.1
Vice President	6.5	5.9	8.3

Table Six

What is your level of responsibility? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
Corporate	33.8%	31.2%	37.1%
Division	22.5	25.9	22.4
Office	16.4	13.3	16.8
Plant	7.9	7.7	7.4
Region	19.4	21.9	16.3

Table Seven

What is your gender? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
Female	40.3%	36.4%	42.6%
Male	59.7	63.6	57.4

Table Eight

What is your age? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
24 or younger	0.6%	1.0%	0.3%
25-30	6.1	7.1	4.3
31-35	14.0	14.6	12.0
36-40	18.5	20.7	15.0
41-45	17.7	16.6	18.7
46-50	16.7	15.1	19.0
51-55	14.6	14.8	17.5
56-60	7.7	7.3	9.2
61-65	2.9	2.2	1.5
66-plus	1.2	0.6	2.5

Table Nine

What is the size of your organization's entire workforce in the world? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
100-499	14.9%	11.1%	17.5%
500-999	8.2	8.3	9.2
1,000-3,499	14.5	13.8	13.5
3,500-4,999	6.5	7.1	8.0
5,000-9,999	8.8	8.1	4.3
10,000 or more	47.1	51.6	47.5

Table Ten

What is the total revenue (in USD) of your entire worldwide organization? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
Less than $50 million	19.4%	13.0%	31.0%
$50 to $249 million	15.4	14.4	13.5
$250 to $499 million	6.4	5.7	7.1
$500 to $999 million	8.8	9.7	9.5
$1 B to $2.99 B	13.3	14.4	12.0
$3 B to $9.9 B	14.4	16.3	12.2
$10 B plus	22.3	26.5	14.7

Table Eleven

Please identify your organization by type of operation: (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
Global (high level of global integration)	41.6%	51.4%	33.1%
Multinational (national/regional operations act independently)	27.9	28.1	28.5
National (operations in one country only)	30.5	20.5	38.4

Table Twelve

In which region(s) are you located? (by percent)	Overall Results	Higher Performers	Lower Performers
Africa	0.9%	1.4%	0.3%
Canada	15.9	11.9	21.2
Caribbean	0.3	0.6	0.3
Central America	0.1	0.2	0.0
China	0.9	1.2	0.9
Eastern Europe	6.5	8.5	5.8
France	2.5	2.2	2.5
Germany	2.9	2.4	3.4
India	0.3	0.4	0.0
Japan	3.1	2.0	4.0
Korea	0.1	0.0	0.0
Mexico	6.3	6.7	6.8
Middle East	3.6	5.8	2.5
Oceania	0.1	0.0	0.3
Other Asia	1.3	1.9	0.0
Other Western Europe	16.8	19.8	15.0
Scandinavia	2.9	3.4	2.7
South America	0.3	0.4	0.3
United Kingdom	1.4	1.6	0.6
USA	33.8	29.6	33.4

Table Thirteen

Summary: In which region(s) are you located? (by percent)	Overall Results	Higher Performers	Lower Performers
Asia	9.3%	11.1%	7.7%
Canada	15.9	11.9	21.2
Europe	33.1	38.1	30.1
Latin America	7.0	7.9	7.3
Middle East/Africa	0.9	1.4	0.3
USA	33.8	29.6	33.4

Table Fourteen

Within which sector does your organization primarily work? (by percent)

Responses	Overall Results	Higher Performers	Lower Performers
Consumer goods	6.0%	8.0%	4.2%
Chemicals	7.0	9.1	7.0
Education	3.8	1.8	4.8
Energy/Utilities	4.7	5.2	2.8
Financial services/Banking	8.3	9.1	9.8
Food products	2.2	2.3	3.8
Government	4.4	2.3	3.8
Hi-tech/Telecom	7.7	7.5	7.7
Hospital/Healthcare/Insurance	4.1	3.6	4.2
Manufacturing	16.5	15.6	18.5
Mining or Agriculture	0.8	1.1	1.4
Nonprofit	3.7	3.9	2.4
Pharma/Biotech/Medical device	12.9	14.8	12.2
Retail	2.0	2.1	3.8
Other	15.9	13.6	13.6

Table Fifteen

How would you describe your organization's life cycle stage? (by percent)			
Responses	**Overall Results**	**Higher Performers**	**Lower Performers**
Established firm with strong structure and systems as well as known products/services	18.5%	18.2%	14.7%
Firm focused on increasing quality profitability and continuing improvement in operations	25.1	25.7	19.9
Firm repositioning itself for the future; revitalization efforts are the focal point	16.4	10.7	29.8
Mature firm with brand-name recognition and with an established culture	27.5	30.8	19.6
Rapidly growing firm with increasing market share	9.1	13.2	7.1
Startup firm or a firm focusing on introducing new products/services	3.4	1.4	8.9

Agility and Resilience Questions and Results

Table Sixteen

What does your organization most often consider when thinking about change?
(check the top three items):

Responses	By Rank of Responses: Overall Results	Higher Performers	Lower Performers
Expectations of customers and vendors	1	1	1
The number of new product or service changes in your markets	2	2	2
Changes in your core technologies or processes	3	3	3
Regulations that "change the rules" for doing business	4	4	4
Economic conditions (inflation, energy prices, etc.)	5	5	6
The number of competitors entering or exiting	6	6	5
Frequency of changes in your business strategy	7	7	6
Major restructurings (downsizings, etc.)	8	9	8
Turnover/reshuffling in your leadership team	9	10	9
Local or international political conditions	10	8	10
Other	11	11	11
Possibility of harm to employees or facilities due to terrorism	12	12	12

Table Seventeen

Compared to the past 5 years, which statement best describes the pace of change your organization now experiences? **(by percent)**

Responses	Overall Results	Higher Performers	Lower Performers
The pace is actually slower — briefer periods of significant change	4.4%	3.6%	8.4%
The pace is about the same and still predictable	13.9	11.1	9.8
The pace is faster but still predictable	38.8	44.2	26.9
The pace is very much faster and increasingly unpredictable	38.5	37.5	47.2
The pace is extremely fast — it is impossible to predict what will happen next.	4.4	3.6	7.7

Table Eighteen

Compared to the past 5 years, which statement best describes the disruptiveness your organization now experiences? (by percent)

Responses	Overall Results	Higher Performers	Lower Performers
Fewer and less frequent shocks and surprises than before	18.8%	24.5%	12.2%
About the same number and frequency of shocks and surprises	44.2	43.6	34.6
More shocks and surprises	28.9	25.7	39.2
Many more shocks and surprises	6.8	5.2	11.2
Very many more shocks and surprises	1.3	0.9	2.8

Table Nineteen

In the past 12 months, has your organization experienced disruptive change— a severe surprise or unanticipated shock? (by percent)

Responses	Overall Results	Higher Performers	Lower Performers
No	31.1%	36.6%	24.8%
Yes – a major business strategy shift was required	16.6	13.7	24.2
Yes – core operations were impacted	17.7	15.8	17.8
Yes – only minor disruption and operational impact	28.5	29.5	19.9
Yes – long-term viability and existence was/is threatened	3.1	2.4	7.7
Yes – overall mission and vision was challenged	3.0	2.1	5.6

Table Twenty

If you responded "Yes," then, all things considered, how effectively has your organization managed this disruption? (by percent)

Responses	Overall Results	Higher Performers	Lower Performers
Not certain	4.0%	4.4%	4.1%
Not effectively at all	2.4	1.1	5.5
Very ineffectively	8.4	5.1	14.6
Somewhat effectively	49.6	42.0	57.1
Very effectively	30.8	38.7	16.0
Completely effectively	4.8	8.7	2.7

Table Twenty-One

Which now causes your organization the greatest concern? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
Both the pace and disruptiveness of change	28.3%	25.8%	38.6%
Neither the pace nor disruptiveness of change	18.8	21.1	18.2
The disruptiveness of change — the severity and magnitude	19.9	16.3	18.2
The pace of change — the number and frequency of changes	33.0	36.8	25.0

Table Twenty-Two

Which of the following statements is most descriptive of your organization? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
We are not fast or effective in reacting	13.0%	7.2%	23.3%
We first watch how others react, then react	15.9	13.2	22.1
We are the first to react once change occurs	15.5	13.3	16.4
We anticipate and plan for change before it happens	40.5	46.2	26.8
We induce change and force others to react	15.1	20.1	11.4

Table Twenty-Three

How does your organization generally view change? (by percent)			
Responses	Overall Results	Higher Performers	Lower Performers
As overwhelming — beyond our ability to manage	1.3%	0.2%	3.2%
As wearing us down — too much for too long	7.5	3.4	12.9
As a threat — destabilizes what we do	13.3	10.8	20.3
As normal — expected and manageable	53.4	53.4	45.0
As an opportunity — we like things shaken up	24.5	32.2	18.6

Table Twenty-Four

How *agile* is your organization—your structures, processes, operations and people act fast, are highly flexible and adaptive, and open to significant change?						
		Percentages				
	Means	Not at All	Very Little	Somewhat	Very Much	Completely
Overall	3.22	2.3%	16.1%	45.0%	31.1%	5.5%
Higher performers	3.44	1.0	10.1	41.3	39.4	8.2
Lower performers	2.99	5.4	22.1	46.4	20.7	5.4

Table Twenty-Five

How *resilient* is your organization—your structures, processes, operations and people are able to absorb, react, rebuild, even reinvent themselves in response to significant change?						
		Percentages				
	Means	Not at All	Very Little	Somewhat	Very Much	Completely
Overall	3.34	1.9%	12.1%	42.1%	37.6%	6.3%
Higher performers	3.46	1.0	8.4	40.1	44.2	6.3
Lower performers	3.19	4.4	16.1	44.0	27.1	8.4

Table Twenty-Six

How *fragile* is your organization—your structures, processes, operations and people tend to break down or fail in response to significant change?						
		Percentages				
	Means	Not at All	Very Little	Somewhat	Very Much	Completely
Overall	2.43	9.7	49.4	30.6	8.6	1.7
Higher performers	2.38	10.8	52.1	27.1	8.5	1.5
Lower performers	2.57	9.1	40.9	38.0	8.4	3.6

Table Twenty-Seven

	Means		
Your People…	**Overall**	**Higher Performers**	**Lower Performers**
…are open to change	3.33	3.48	3.21
…have a high tolerance for ambiguity and uncertainty	2.97	3.11	2.86
…can quickly change roles and responsibilities	3.23	3.38	3.12
…function well during pressure and stress	3.57	3.75	3.41
…are good at making sense of ambiguous, uncertain situations	3.17	3.34	3.03
…are good multi-taskers—able to do many things at once	3.70	3.87	3.59
…see the big picture—can take a systems view	3.18	3.39	3.03
…have great persistence—can demonstrate moral and physical courage	3.68	3.81	3.54
…are action-oriented—quickly take advantage of situations	3.44	3.61	3.27
…think outside the box—are inventive and creative	3.22	3.41	3.00
…are optimistic—have strong, positive self-concepts	3.49	3.65	3.29
…know and use technology effectively	3.68	3.85	3.46
…have access to the resources to act	3.43	3.63	3.19
…have adopted the organization's values and beliefs	3.68	3.83	3.49
…have deep experience—they've seen and done it all	3.49	3.52	3.42
…are good mentors and coaches	3.00	3.15	2.84
…are active learners—quickly acquire and apply new skills and knowledge	3.45	3.58	3.35

Table Twenty-Eight

	Means		
Your Teams…	**Overall**	**Higher Performers**	**Lower Performers**
…are open to change	3.46	3.61	3.30
…have a high tolerance for ambiguity and uncertainty	3.22	3.36	3.03
…are good at making sense out of ambiguous, uncertain situations	3.31	3.47	3.14
…can quickly change roles and responsibilities	3.40	3.52	3.31
…function well during pressure and stress	3.63	3.75	3.49
…are well integrated into key decision-making processes	3.19	3.37	3.01
…are good multi-taskers — can do many things at once	3.72	3.87	3.64
…see the big picture — can take a systems view	3.30	3.43	3.20
…have great persistence — can demonstrate moral and physical courage	3.72	3.82	3.60
…are active learners — quickly acquire and apply new skills and knowledge	3.65	3.79	3.47
…have well-developed group skills (e.g., problem-solving)	3.51	3.69	3.38
…have members who mentor, coach, and support each other	3.35	3.51	3.19
…are active learners — quickly acquire new skills and knowledge	3.59	3.73	3.45
…have access to the resources to act	3.35	3.52	3.16
…have deep experience — they've "seen and done" it all	3.43	3.51	3.37
…have adopted the organization's values and beliefs	3.65	3.77	3.48
…are action-oriented — quickly take advantage of situations	3.53	3.73	3.29
…can think outside the box — are inventive and creative	3.40	3.58	3.23

Table Twenty-Nine

	Means		
Your Organization…	**Overall**	**Higher Performers**	**Lower Performers**
…is open to change	3.56	3.76	3.36
…actively and widely scans for new information about what's going on	3.70	3.93	3.45
…is good at making sense of ambiguous, uncertain situations	3.29	3.47	3.05
…invests sufficient attention and resources to manage key external relationships (vendors, customers, etc.)	3.54	3.73	3.22
…takes advantage of opportunities quickly	3.23	3.51	2.90
…is good at quickly deploying and redeploying resources to support execution	3.25	3.47	2.96
…has a deep talent pool	3.30	3.45	3.07
…can absorb a severe surprise or shock without failing—not "fragile"	3.57	3.71	3.23
…reacts quickly and effectively after taking a big hit	3.50	3.68	3.25
…has a strong sense of identity and purpose that can survive anything	3.80	3.94	3.56
…has a strong support network of external alliances and partnerships	3.59	3.77	3.24
…is good at enterprise-wide risk assessment and management	3.35	3.58	3.04
…is expanding its external alliances and partnerships	3.55	3.82	3.19
…continuously breaks down boundaries and barriers	3.15	3.42	2.84
…has deep pockets—access to capital and resources to weather anything	3.28	3.52	2.88
…is actively reevaluating risky external alliances and partnerships	3.36	3.53	3.07
…has clearly defined and widely held values and beliefs	3.85	4.03	3.58

Table Thirty

Your Industry…	Means		
	Overall	Higher Performers	Lower Performers
…is characterized by high rates of change	3.57	3.68	3.68
…is known for rapid responses to change by major players	3.30	3.39	3.32
…is increasingly global in scale and scope	3.92	4.00	3.97
…has many healthy and growing competitors, customers and suppliers	3.63	3.68	3.71
…has high barriers to entry — many regulations and strong, dominant players	3.66	3.78	3.66
…is pretty immune to energy and materials cost swings	2.70	2.75	2.68
…has many active, strong networks and partnering relationships among its members	3.57	3.65	3.54
…is considered a vital industry — key policymakers will not let it fail	3.63	3.70	3.54
…has key players that collaborate and work well together	3.37	3.46	3.26
…has tightly linked supply chains for sourcing and delivering	3.41	3.54	3.35
…has tight margins — little room for error	3.36	3.32	3.50
…has access to lots of capital and resources to cope with change	3.26	3.41	3.13
…uses a single, widely adopted business model — everyone makes money the same way	2.94	2.96	2.88
…has been around for a very long time — highly developed processes, technologies	3.90	3.97	3.92

Table Thirty-One

What strategies is your organization implementing or planning to implement to improve your response to change? (by rank)		Ranks	
Responses	Overall	Higher Performers	Lower Performers
Training to improve managers' change-management skills	1	1	1
Improved communication of organizational values/mission/vision	2	2	2
Establishment/development of talent pool	3	3	4
Use of benchmarking to predict change needs	4	4	3
Training to improve employees' perception and handling of change	5	5	5
Assessment/revision of policies and procedures to improve responses	6	6	6
Evaluation/realignment of resources to facilitate response to unexpected change	7	10	7
Cultural change to support agility and resilience	8	7	9
Involvement of HR to facilitate staff role transitions	9	8	12
Senior leadership's modeling of receptivity to change	10	9	11
Processes to assess and establish or maintain external relations	11	12	8
Establishment/expansion of mentoring and/or coaching programs	12	11	10
Other	13	13	13

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For more than 30 years, the Human Resource Institute has been dedicated to providing world class research in people management issues, trends, and practices. HRI, a not-for-profit organization affiliated with the University of Tampa, is widely recognized as one of the top five institutes of its kind in the United States. HRI provides its more than 100 corporate members with accurate and timely research that helps facilitate a better understanding of all the people management issues that organizations face today as well as the trends that are shaping the future. Currently, HRI is following approximately 150 demographic, social, economic, technological, political, legal, and management trends. For more information, contact Jay J. Jamrog at jamrog@hrinstitute.info

About This Report

This report is based on a global survey that included 1,472 respondents, in-depth discussions among a team of knowledge experts and researchers, and an extensive review of the business literature. Commissioned by American Management Association and conducted by the Human Resource Institute, this report:

- » Takes an historical look at the literature on change management, agility, and resilience.
- » Discusses what's driving or hindering organizational change today.
- » Describes the elements of agile and resilient organizations today.
- » Forecasts what will drive organizational agility and resilience over the next 10 years.
- » Indicates what the best-in-class practices may look like in the year 2016.
- » Provides a detailed look at the results from the AMA/HRI Building Organizational Agility and Resilience Survey 2006.

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