Putting Organizational Resilience to Work[1]

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I. Executive Summary

So, you want your organization to be resilient? Resilience is more than a fancy word for adapting your organization to its environment. For your organization to be resilient, it needs people who can respond quickly and effectively to change while enduring minimal stress. More and more, these positive adaptive capabilities are what differentiate the competition. Advice on organizational resilience has been slight, but child psychologists and crisis management specialists have been working on these concepts for years. Management implications and principles for improving organizational resilience are offered based on this review of resilience research and practice.

II. Resilience in Organizations

Workers today constantly face change—in the work they do, how they perform the work, where the work is performed, and with whom they work. These internal changes represent only part of the challenge—external changes are increasingly felt by employees who now have more responsibilities dealing directly with outside suppliers and the customer.

As workers become more empowered, more decisions are often made without immediate approval and under time pressure. Meeting customer needs on the spot is essential in today's service economy. This, too, creates more pressure on the worker to quickly assess the situation, decide what can be offered to the customer, be able to defend what he or she has done, and quickly move on to the next situation. Often, workers are placed in these situations without adequate training, preparation, or resources. The worker needs to learn how to be resilient, that is, how to quickly design and implement positive adaptive behaviors matched to the immediate situation, all the while enduring minimal stress. These resilient behaviors help workers meet customer needs on the spot, capture opportunities that may otherwise be lost, and avert catastrophes by acting quickly and effectively in crisis situations.

The resilient organization designs and implements effective actions to advance the organization, thereby increasing the probability of its own survival. Quoting, Charles Darwin, "It's not the strongest species that survive, nor the most intelligent, but the most responsive to change." Additionally, members of the resilient organization share decision making power leading to more timely and effective responses. Daryl Conner speaks of resilient individuals as opportunity-driven rather than danger-driven. Resilient employees expend less effort in assimilating organizational change and therefore have greater potential to improve productivity and quality.

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III. Some Background on Organizational Resilience

Organizational and engineering management literature classically has addressed the need for individuals and organizations that can manage environmental demands effectively. Lawrence and Lorsch's classic work managing the boundaries between the organization and its environment is a prime example. Most of these writings and studies focused on the organization and how it can survive these external environmental threats. At the engineering manager's level, a more actionable approach would focus less on boundary spanning and environmental assessments and more on developing resilient organizations and individuals.

A brief background of key resilience work to date follows. This feeds the development of resilience principles and implications for implementing these principles to build a resilient organization.

Organic and mechanistic forms of organization were identified in the 1960s by Tavistock researchers Burns and Stalker. The mechanistic form is like a machine—efficient, programmed, with low levels of uncertainty in a closed system design. The organic form is like an organism—complex responses, flexible and higher levels of uncertainty in an open system design. The resilient organization seeks to employ better processes for dealing with uncertainty and novel situations.

Dramatic episodes of resilient behavior occur when faced with a crisis. Natural disasters throughout the world provide newscasts with stories about how a person risked his or her life to save another, ran back into a burning house to save an elderly person or a child, or fashioned an escape from enemy territory. Weick's analysis of the Mann Gulch disaster identified bricolage as a source of resilience. Bricolage concerns creating solutions out of whatever is available. Crisis management strategies illustrate how an individual reacts in an extreme situation. Most events that employees respond to are not crises, but these events often require similar forms of response. Resilience encompasses many of the more day-to-day coping strategies.

Coping refers to our efforts to change behavior and attitudes to match taxing internal or external demands. For example, we can cope with the departure of a key co-worker by many methods, including: lamenting the loss of that person, trying to fill the vacated position with a similar person, rationalizing that he or she wasn't that helpful, taking on more responsibility, going on vacation, or leaving the company.

As the above example shows, a person's coping strategy may be either positive or negative. A resilient individual uses positive coping strategies. Coping seeks to prevent or reduce the negative effects of stress; resilience seeks to produce eustress (or positive stress) in situations. Charles Carver and his colleagues identified potential coping strategies ranging from taking immediate action to substance abuse. In resilient organizations, we want individuals to use positive coping strategies.

Self-efficacy basically means a person has confidence in their ability to perform a specific task in a particular situation. This is the cognitive side of resilience; in resilience we are concerned not only in a person's confidence and belief in their abilities, but in their actual execution of those

abilities directed toward a specific problem. Hellreigel and colleagues identified three characteristics of high self-efficacy employees: 1) having the ability needed, 2) being capable of the effort required, and 3) no outside events will deter them from performing at a high level. A person with high self-efficacy will exert greater effort toward his or her goals and will be persistent in staying with a complex task.

Self-efficacy influences problem-solving behavior. One of the pioneers of self-efficacy research, Albert Bandura, stated "People who believe strongly in their problem-solving capabilities remain highly efficient in their analytic thinking in complex decision making situations, whereas those who are plagued by self-doubts are erratic in their analytic thinking." Taking a positive approach toward solving problems and not focusing on failure have been cited as characteristics of a resilience in situations involving children with difficult home lives and legendary tightrope walker Karl Wallenda. In their classic work on leadership, Warren Bennis and Burt Nanus point to Wallenda's focus on avoiding failure as a key contributor to his fatal fall off a highwire in Puerto Rico.

This concept shows resilience existing opposite vulnerability. Emmy Werner's studies of children on Hawaii's island of Kauai resulted in the identification of four central characteristics of resilient children—those children who could effectively cope with poverty, abuse, disease, alcoholic parents, and/or divorce. Those characteristics are: 1) an active approach toward solving life's problems, 2) a tendency to perceive their experiences constructively, 3) an ability to gain others' positive attention, and 4) an ability to use faith to maintain a positive vision of a meaningful life.

The resilience-vulnerability axis shows that a resilient child has positive coping strategies (such as problem solving or dialogue or "adopting an adult") while the vulnerable child either has no coping strategies or those strategies are negative (such as avoidance or denial). The implication here is to take an active approach to solving life problems (i.e., be resilient), rather than remain passive and allow events to occur (i.e., be vulnerable).

The five concepts highlight several implications for building a resilient organization. By learning from the many research streams on resilience, we can derive principles and implications for managing resilient behavior in organizations.

IV. Resilience Principles

The review of resilience concepts leads to the development of principles for implementing resilience in organizations. These principles and advice on putting the principles to work (see Table 1) should help organizations take tangible steps toward becoming more resilient.

Principle	Putting the Principle to Work
Perceive experiences constructively	Even if the experience causes pain, find the positive angle and move forward.
Perform positive adaptive behaviors	Perceive change as opportunity, not danger. Allow responses to adapt to the needs of the situation, rather than execute ineffective "programmed" responses.
Ensure adequate external resources	Ensure access to adequate resources to allow positive adaptive response to approach a wide variety of possible events.
Expand decision making boundaries	Provide greater decision making authority to support positive adaptive response and the use of resources to achieve the objective.
Practice bricolage	Develop the ability to create solutions on the spot using materials on hand.
Develop tolerance for uncertainty	Develop the ability to make decisions with less than the desired amount of information.
Build virtual role systems	In a team, individuals have a shared understanding of the team's mission and can fill in wherever needed to ensure smooth functioning of the team.

Table 1. Summary of Resilience Principles

A. Perceive experiences constructively

Emmy Werner's studies of children on Hawaii's island of Kauai resulted in the identification of four central characteristics of resilient children—those children who could effectively cope with poverty, abuse, disease, alcoholic parents, and/or divorce. One of these characteristics was the tendency to perceive experiences positively, even if those experiences caused pain.

In organizations, we feel stressed or "pained" when circumstances become so overwhelming that we cannot envision a solution. Additionally, certain individuals inside or outside the organization may create negative experiences through their words and/or actions. What people say and do and how they say or do it has tremendous impact for how others perceive the words or action.

Positive perception of experiences is essential to the resilient individual. By forming a positive and constructive perception of the problem, the individual is more likely to be able to solve the problem. Complaining, escaping, and other similar responses work against the resolution of the problem and are considered negative coping strategies.

B. Perform positive adaptive behaviors

The ability to respond in a positive and adaptive fashion to a wide range of events is a defining characteristic of the resilient individual. A resilient individual takes an active approach toward solving problems in the workplace. A resilient individual needs to perform positive adaptive behaviors. Conner identified "type-o" and "type-d" individuals who view change as opportunity or danger, respectively. Responses to stressful situations in the workplace can result in a variety of behaviors, many of them negative. Also, responses tend to be "programmed" as Nobel Laureate Herbert Simon referred to them, meaning a defined action is expected to be performed when in a specific situation. Taking proactive steps to avert a crisis, or at least to reduce it, is an example of a positive adaptive response. When early warning signs surface, we often don't have a programmed response so we rely on resilient individuals to construct an effective and positive adaptive response.

This resilience principle focuses on adaptive as opposed to programmed responses. Adaptive responses require decision making judgment and latitude, represented by another principle. Because adaptive responses can be viewed as either positive or negative, resilience emphasizes the positive aspects of behavior. For example, a programmed response to a customer complaining about a late shipment is to say you'll check into and see what went wrong and get back to the customer. A negative adaptive response could be telling the customer that he or she could deal with another company if this late shipment bothers them. A positive adaptive response would be for the worker to find a creative way of getting the customer what he or she needs quickly. This could entail many different options, including a special production run, collecting stored parts from a variety of locations, or having a competitor provide the shipment with your organization's cooperation.

C. Ensure adequate external resources

Resilience requires an individual to access resources other than those typically used in the course of one's job. This principle—adequacy of external resources—works in concert with expanded decision making boundaries to maximize the potential for positive adaptive responses. External resource adequacy encompasses resources of advice, information, finances, emotional support, and practical help. According to Lazarus and Launier, if external resources are required in a problem situation, the adequacy and availability of those resources not only influences primary and secondary appraisal (perceiving a threat and bringing to mind a potential response to the threat), but also influences coping behavior.

The classic example of this resilience principle in action is Ritz-Carlton Hotels. Each employee, from housekeeping staff to CEO, has the discretion to spend up to $2,000 (each time) to ensure the guest has a quality stay at their hotel. This can mean bringing tea to a guest with a cold or sending a tie left behind to the guest's next destination, all without seeking approval. In the restaurant industry, McGuffy's Restaurants found that opening up the supply closet greatly reduced stress among servers who needed to replace broken glassware to retrieve other items for their job. Additionally, McGuffy's experienced half as much "shrink" compared to the old way of locking up the supplies.

A resilient individual needs access to appropriate resources anticipated to be needed in the conduct of his or her job. The individual also needs to be shown examples of how to access these resources and that this is expected and not just management-speak. Often, organizations state an aggressive policy that runs counter to the organization's culture and employees are scared to implement the policy for fear of reprisal. When employees see that the additional risks taken under an expanded resource access policy are rewarded or recognized by management, their behavior will be reinforced and others will be more likely to take similar actions in the future.

D. Expand decision making boundaries

Often considered a critical element of empowerment, expanded decision making boundaries is a key resilience principle. This principle works hand-in-hand with *ensure adequate external resources*. Resilient individuals need the ability and authority to make decisions on the spot in a variety of situations. Certainly, employees cannot be given *carte blanche* to decisions of strategic importance; however, many decisions referred up the management chain merely serve to reduce service to the customer, frustrate employees, and needlessly occupy management time that could be spent on issues more relevant to their level of responsibility.

Lean production implements expanded decision making boundaries, for example, by giving employees the responsibility to shut down a production line when it's not producing quality products. This stems the flow of defective product throughout the system and "nips it in the bud." However, many production-oriented supervisors find this practice conflicts with the way they are measured—usually, on-time deliveries to the customer. Certainly, a cultural change must occur to accommodate the shift to a quality-centered world from the old production-centered world.

E. Practice bricolage

Bricolage is a term first traced to anthropologist Claude Levi-Strauss in his work "The Savage Mind." Bricolage refers to the practice of creating order out of whatever materials were available at the time. Karl Weick builds on this bricolage concept: "Bricoleurs [those who practice bricolage] remain creative under pressure, precisely because they routinely act in chaotic conditions and pull order out of them. Thus, when situations unravel, this is simply normal natural trouble for bricoleurs and they proceed with whatever materials are on hand."

Especially in areas of customer service and satisfaction, bricolage can have a dramatic effect. When a problem occurs in the field, an employee who can troubleshoot the problem and implement a solution to get things going again will not only satisfy the customer, but will experience a higher level of intrinsic job satisfaction.

Bricolage is an essential element of resilience. The ability to fashion a solution on the spot differentiates organizations that are similar on price and quality parameters. Again, the worker needs expanded decision making authority and access to resources to assume the role of a "bricoleur."

F. Develop tolerance for uncertainty

Jay Galbraith's concept of uncertainty refers to situations where the amount of information you need is greater than the information you have. This represents a source of frustration for many people who would like to make good decisions concerning their work but they don't have the bigger picture or are missing some strategic information. The open-book management practice made popular a few years ago attempted to reduce this uncertainty by making financial and product information available to all employees. However, at the time of decision, no matter what type of intervention is employed, there is a fixed amount of information available. The resilient individual has the capacity to make good decisions under these conditions; he or she has a tolerance for uncertainty.

G. Build virtual role systems

The virtual role system (VRS) refers to an advanced form of work team relationships. Modeled after Weick's work in crisis management, a VRS provides a work environment where the team can continue in the absence of one or more members. This continuity comes from each person's ability to visualize the entire team functions, not just their particular role. Much like a holograph, where each smaller piece contains information to construct the whole, each person in a virtual role system can reconstitute the group in their mind and run a credible version of each role in that system. VRS includes how well team members understand their roles, the roles of others, their ability to take on others' roles, and how an overall vision provides role definition. A resilient individual can operate in a VRS environment; when many people in the organization are effective in virtual role systems, the organization becomes more resilient.

H. Summary discussion

These resilience principles have been derived from resilience concepts in several distinct disciplines. Based on these principles, the resilient organization will have individuals who perceive their experiences constructively, perform positive adaptive responses to situations they face, who have access to adequate external resources coupled with necessary decision making authority, who practice bricolage, have a high tolerance for uncertainty, and who operate within a virtual role system where each person knows not only each others' roles, but can visualize the larger purpose of the entire team.

V. Implications for Managers

The time has come for managers to obtain more sophisticated tools and models for managing workers and organizations. Customers, workers, competitors, collaborators, the general public, regulators—all have access to many sources of information concerning price, quality, performance, safety, and other characteristics. We increasingly rely on our workers to make effective decisions with less supervision and to make them quickly. With greater amounts of information available, workers should be technically capable of making good decisions that used to require several levels of approval, and therefore more time. Implementing the principles should be a first step in addressing the need for greater resilience in the organization. Here are several ways managers can begin to take action toward building a resilient organization.

1. Use positive reinforcement to increase the frequency and intensity of desired behaviors. "Pull" individuals toward desired behaviors through feedback, public recognition, reward systems, and encouragement/recognition by peers.

2. Provide constructive feedback when individuals fail so they can see what went wrong and walk away from the experience with a positive mental framework.

3. Gradually expand decision making boundaries, ensuring the individual has the necessary information to make good decisions, the corresponding authority to make those decisions, and that he or she has access to adequate resources to implement those decisions. As a manager, you should ask yourself, "Could somebody else in my group make this decision? Is it necessary for me to approve this form or action?"

4. Organizational structures often act as barriers against resilience. These structures were built when tight decision control was necessary, information was scarce, competition was domestic, and when workers had lower levels of education. Top management should think strategically, with input and participation from all levels of the organization, to design an organizational structure suited to the organization's strategy and operations.

5. Develop bricolage skills through survival training courses. By exaggerating and forcing the need to design and implement solutions on the fly in a "practice" environment, individuals learn and practice these skills while they or their teammates experience the consequences. Later, in an organizational context, individuals should feel more comfortable taking the necessary steps and calculated risks to solve problems and satisfy customers.

As research on organizational resilience progresses, more guidelines for managers will emerge. Knowledge of organizational resilience principles and theory should help managers and researchers gain a deeper understanding of how we can build resilient organizations composed of people who are indeed resilient. Implementation of those principles in a variety of conditions will provide feedback on the effectiveness of those principles and the development of new principles, all with the objective of improving the organizations and the work environment.

VI. For Further Reading

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