

Managing a Crisis: Leadership and Organizational Elements Essential for Success

by

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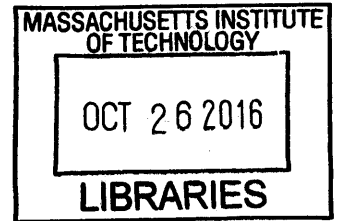
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ABSTRACT

Every organization will face a crisis at some point in its history. How well an organization handles the preparation, response and recovery from a crisis is highly dependent on the strength of its leadership and overall design. This thesis develops a framework of five leadership and seven organizational elements necessary for the evaluation of an organization's response during a crisis. Utilizing this framework, interviews were conducted with senior leaders of businesses that successfully navigated tremendous crisis situations. As a result of these interviews, I determined the leadership elements of a strong foundation of support, realistic analysis and a propensity to act had the greatest impact on the success or failure of a leader during a crisis. The organizational elements of leadership support, a strong shared vision, and the ability to think systemically were also determined essential to the effective handling of a crisis. Organizations should dedicate time and resources to cultivate the robust development of these elements as part of their crisis preparation.

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Chapter 1

Introduction

The adage, “It’s not a matter of if, but when,” should be the mantra of an organization as they consider the possibility of a crisis situation. How an organization reacts to and survives such crises is dependent on its leadership and organizational design. Good organizations successfully navigate a crisis situation by capitalizing on strong leadership performance and organizational strength. Great organizations are able to systemically interweave elements of strong leadership and organizational design to emerge from a crisis stronger and more robust.

This thesis aims to present a framework of five leadership elements and seven organizational elements that can be used to evaluate an organization’s performance in a crisis situation. This elemental framework is then used to evaluate the response of four organizations during crisis situations. Utilizing analysis from these case studies, I concentrated on seeking to answer the following questions:

1. What are the key leadership and organizational elements essential for an organization’s success during a crisis situation?
2. How are the leadership and organizational elements integrated?
3. How does the relative priority of the elements transform during the phases of a crisis?

1.1 – Thesis Organization

The remainder of the thesis is organized in the following manner.

- **Chapter 1** - Overview and introduction to the thesis and my individual motivation for conducting this research.
- **Chapter 2** - Explores the various definitions of a crisis situation and clarifies the crisis management focus for this thesis.
- **Chapter 3** - Reviews the essential traits of an effective leader during a crisis situation, focusing on both qualities developed during crisis preparation and those utilized during the crisis.
- **Chapter 4** - Reviews the organizational traits essential for survival of a crisis situation, specifically focusing on those of a learning organization.
- **Chapter 5** - Details the methodology of research and lays the framework to evaluate the case studies.
- **Chapter 6** - Presents four case studies of corporations in crisis situations.
- **Chapter 7** - Presents aggregated conclusions from the case study analysis and recommendations for further research.

1.2 – Motivation

At approximately 9 a.m. on Aug 27, 2007, 12 supposedly unarmed cruise missiles destined for a weapons graveyard were removed from an ammunition bunker at Minot AFB, ND and loaded onto a B-52 bomber destined for Barksdale AFB, LA. Despite the strict accountability procedures and safeguards in place, 6 of the 12 cruise missiles actually contained nuclear bombs with enough destructive power equivalent to that of 10 Hiroshima bombs. For 36 hours those nuclear missiles flew across the USA without anyone's knowledge until their eventual discovery by an unloading team at Barksdale AFB. The breakdown of responsibilities at a number of levels resulted in a "Bent Spear" event and the first known flight of nuclear weapons over the United States without high-level authorization in 40 years (Warrick and Pincus 2007).

The response to the crisis was rapid and fallout widespread. Lt Col Edward Thomas, an Air Force spokesman, said, "Clearly this incident was unacceptable on many levels. Our response has been swift and focused -- and it has really just begun. We will spend many months at the air staff and at our commands and bases ensuring that the root causes are addressed" (Warrick and Pincus 2007, A01). In response, the Department of Defense and USAF conducted initial investigations, resulting in four commanders being relieved of command and numerous other personnel being decertified from nuclear operations and/or disciplined ("Bent Spear: Minot Air Force Base" 2015).

Despite the intense level of focus on the USAF's nuclear program and the infusion of new commanders into the system, in 2008 five nuclear weapons units failed inspections because of issues surrounding the handling of nuclear missiles (Starr 2008). Because of the state of the USAF's nuclear program and the findings by U.S. Defense Science Board and a USAF "Blue Ribbon" panel, then Secretary of Defense Robert Gates asked for the resignations of Secretary of the Air Force Michael Wynne and Chief of Staff of the Air Force General T. Michael Moseley ("Bent Spear: Minot Air Force Base" 2015). In addition, based on the recommendations of the panel to streamline accountability, the USAF announced the creation of the Air Force Global Strike Command in order to control all USAF nuclear missiles, aircraft and personnel ("Bent Spear: Minot Air Force Base" 2015).

Less than a year later in 2009, two of the commanders hired to fix the problems as well as two additional commanders were fired for "loss of confidence in...ability to lead." Their superiors "lost faith in the ability to command" (Rolfson, 2009; Hale, 2009, under "That Makes Two"). Noted in their dismissals were the commanders' failures in inspections, accidents under their watch and incidents of misconduct. However, rationales for their dismissals ignored years of decay of nuclear weapons system, lack of focus on nuclear warfare during the years of fighting in Iraq and Afghanistan, and lack of funding for training (Hale 2009). Nate Hale, a military reporter, went as far as to predict that, "without more money and training... the string of recent failures is likely to continue" (Hale 2009, under "That Makes Two").

In 2013, that prediction unfortunately came true. The 91st Missile Wing from Minot AFB received a

“Marginal” rating, which is equivalent to a D or barely passing rating for tasks regarding launch operations (Clark 2013). As a result of this low rating, 17 officers received suspensions from their nuclear related duties (Yan and Karimi 2014). These moves led to speculation from defense analysts that, “the new Secretary of Defense is watching closely to see if he will need to make an example out of Air Force leadership yet again. So its leaders, both sitting and incoming, should be on full notice. They have very little time to show tangible change and progress across a variety of areas” (Clark 2013).

If the 2013 incident wasn’t enough, a cheating scandal in 2014 by officers at Maelstrom AFB revealed that the USAF’s nuclear program still had fundamental and unaddressed flaws. During an ongoing inspection, 90 officers were implicated in cheating during an examination of launch operations (Garamone 2014). Many of these officers were not cheating to pass the exam but felt compelled to cheat under pressure to receive a perfect score (Garamone 2014). As in 2009, the Air Force raised the following questions: Will these failures repeat themselves or has the USAF as an organization properly addressed the crisis and gone beyond the simple and quick fixes? Have they made the appropriate changes to address the underlying fundamental problems?

When hearing of the latest rounds of issues with the USAF’s nuclear program, I began to question the way the Air Force as an organization handles itself when faced with a crisis. How is it that the world’s most powerful and dominant air force can wage effective warfare at a moment’s notice but is incapable of facing and solving infrastructure and management crises? When reviewing the above situation, numerous questions came to mind.

- Why is a relieving commander of their command and disciplining the troops the first and apparently automatic response?
- If relieving commanders of their duties isn’t solving the problem, what more salient factors might the Air Force be overlooking?
- How often does bringing in new leadership solve the problem?
- Are the leaders being given the proper tools and resources to handle the situation?
- Are changes being made in the short-term that have long-term negative implications?
- Why does the USAF as an organization fail to learn from previous mistakes and prevent them from happening over and over again?
- What barriers or outside influences are preventing effective change, and are these barriers under USAF control?

When analyzing the nuclear crisis situation, these were just a few of the questions that came to mind. Over the past year and half in the System, Design and Management program at MIT, I have been challenged to look at management and leadership differently. Fundamentally, I have been challenged to evaluate problems with a systems-based approach. Through courses such as System Dynamics, Managing in Adversity, and Leadership Fundamentals I have been forced to explore situations beyond the obvious and easy solution, and to explore all stakeholders needs, second-order effects, and consider the system in which an organization is functioning. Even Secretary of Defense Hagel

hinted at the complexity of the U.S. military system and the need for such an approach by describing the combination of fundamental flaws within the system's structure as much more than periodic mistakes or accidents (Burns 2014). The problems and the capabilities of the USAF as an organization are much more fundamental than mere personnel or management issues. More relevant is the USAF's ability to properly train leaders prior to a crisis, support the leader during the crisis, foster a systems mindset to solving problems, and create a learning environment for individuals.

Such a shift in handling crisis situations would not be an easy task in an organization as large as the USAF. It takes time to develop and shift thinking. The Air Force is a world leader in combat planning and execution, but struggles with more fundamental structural and non-combat crisis situations, many of which have equivalents in the corporate sector. My motivation in this thesis was to explore how corporate organizations have not only weathered crisis situations successfully, but have emerged as stronger organizations on the other side. I investigated what traits corporate leaders and their organizations possess that allowed them to lead their organizations through the crises. Additionally, I explored characteristics that allowed organizations to effectively weather crises and how they improved as a result. Through case studies and interviews with CEOs that led organizations through crisis situations, I discovered and internalized what makes a leader and organization cope with crisis in a skillful manner.

Chapter 2

Crisis Definition

When consulting the Merriam Webster dictionary, the definition of a crisis is exceedingly broad and doesn't provide clarity. It defines a crisis as a "situation that has reached a critical phase" ("Crisis Definition" 2015). When defined in such a broad method, the word crisis or crisis planning has little value when applied to an organization. Almost any of the organization's daily activities could be classified as a crisis.

In their book on managing corporate crises, Mitroff, Pearson, and Harrington, attempted to refine a broad definition of a crisis to one that is more applicable to an organization. They acknowledge that there is not a general consensus on the definition, but define a crisis as an event that "can destroy or affect an entire organization" (Mitroff, Pearson, and Harrington 1996, 7). While this definition begins to capture the concept of a threat presence as a key element of a crisis, it still fails to fully provide a comprehensive definition.

Mitroff, Pearson, and Harrington's definition above is too broad. For example, if the government were to raise fuel mileage standards for new cars, according to the definition this could be considered a crisis for an automotive company. This piece of legislation affects the entire organization and in theory could destroy the company if the mileage standards were too extreme. However, this example fails to meet the level of crisis for two reasons. First, it is unlikely that changes to fuel mileage standards would have been unforeseen. Mileage standards have steadily increased since they were first implemented, and thus any automotive company should expect that these changes would occur and incorporate those modifications into their overall design process. Secondly, this fails to consider the time frame in which the automotive company has to implement such modifications. Fuel mileage standards are implemented over years, not overnight.

Charles Hermann in his 1963 article regarding crises in organizations moves closer to a more comprehensive and workable definition of a crisis by identifying three critical characteristics. He states that a crisis will be formulated along three independent, but linked dimensions. "An organizational crisis (1) threatens high-priority values of the organization, (2) presents a restricted amount of time in which a response can be made, and (3) is unexpected or unanticipated by the organization" (Hermann 1963, 64). By evaluating events with the added dimension of time and suddenness, Hermann moves beyond just analyzing the overall threat to an organization.

Using these three dimensions as foundations, Ulmer, Sellnow, and Seeger propose the following working definition of an organizational crisis.

“An organizational crisis is a specific, unexpected, and nonroutine event or series of events that create high levels of uncertainty and threaten or are perceived to threaten an organization’s high-priority goals” (Ulmer, Sellnow, and Seeger 2006, 7).

The above definition has further refined the crisis definition by adding elements of surprise and threat, but most importantly adding the concept that a crisis can’t be handled by routine procedures (Ulmer, Sellnow, and Seeger 2006). In the table below, the key terms can be further defined to provide a robust and comprehensive definition that will be used as the working definition in this thesis.

Table 1 - Key Components of a Working Definition of Organizational Crisis

Unexpected	An event comes as a surprise. This surprise may be something for which the organization could not have anticipated or planned. It could also result from conditions that exceed the event the most aggressive crisis management plans.
Nonroutine	Problems occur daily in nearly all organizations. To account for these problems, organizations engage in routine procedures. Crises are events that cannot be managed by routine procedures. Instead, crises require unique and often extreme measures.
Produces uncertainty	Because they are unexpected and beyond the routine actions of organizations, crises produce tremendous uncertainty. Organizations cannot be aware of all causes and ultimate effects of crises without some degree of investigation. Efforts to reduce uncertainty may continue for months or even years after a crisis.
Threatens high-priority goals	Crises introduce an intense level of threat to the organization and its affiliates. This threat has the capacity to cripple the organization’s attempts to meet its most important goals. Thus, crises have the potential to permanently destroy an organization.

Source: (Ulmer, Sellnow, and Seeger 2006)

2.1 – Types of Crises

By categorizing the types of crisis, we can gain insight into source, effects, and potential reactions to crises. Drawing similarities between crises through the use of categorization will allow organizations and leaders to better conduct crisis prevention, crisis response, and recovery operations.

Classification of crises into types can vary significantly based on an individual organizations' structure and business environment. Typically, the classification falls into three types: time/speed, source of instigation, or areas within the organization affected.

Time and speed as a method of classification is an effective means of classifying when the types of crisis an organization faces are homogenous, with the exception of the onset and terminate rates. It allows an organization or leader to quickly adapt a solution based on the speed that a crisis evolves or resolves. A simple example of a classification method is seen in the table below.

Table 2 - A Typology of Crisis Development and Termination Patterns

		<u>Speed of Development</u>	
		Fast: Instant	Slow: Creeping
<u>Speed of Termination</u>	Fast: Abrupt	Fast-Burning crisis	Cathartic crisis
	Slow: Gradual	Long-Shadow crisis	Slow-burning crisis

Source - (Rosenthal, Boin, and Comfort 2001)

By dividing crises into these four categories—fast burning, cathartic, long-shadow or slow-burning—a leader or manager can quickly identify the expected lifespan and then based on time, have a solid starting point for implementation of a solution. The disadvantage of using a classification technique such as this is that it fails to capture the potential scale and diversity of impact. For example, when considering a commercial airline, a collision between two of their large planes resulting in the loss of hundreds of lives would be grouped together with a computer outage of their reservation system. Both of these crises would be classified in this system, as fast-burning, but they have completely different scales of impact and response.

A second method of classification is based on the source of the crises. The detail and depth of these classifications is once again dependent on the diversity of the crises. For a particular organization, these classifications could be extremely detailed and help to plan for a quick response. When considering crises from a variety of industries, these classifications are more simplified and broad in nature. An example of this type of classification is seen in the table below. Here the crises are divided into two simple categories, whether the crisis emerged from an intentional or unintentional source.

Table 3 – Types of Intentional and Unintentional Crisis

Intentional Crises	Unintentional Crises
1. Terrorism	1. Natural Disasters
2. Sabotage	2. Disease Outbreaks
3. Workplace Violence	3. Unforeseeable Technical Interactions
4. Poor Employee Relationships	4. Product Failure
5. Poor Risk Management	5. Downturns in the Economy
6. Hostile Takeovers	
7. Unethical Leadership	

Source - (Ulmer, Sellnow, and Seeger 2006)

A third method of classification for crises is one based on the impacted area within an organization. Sometimes a crisis can be diverse enough to impact the entire organization at all levels, but these are typically rare. Though the entire organization can be impacted, usually a crisis primarily impacts a particular section, division, or level within an organization. Classification based on impact helps to triage the effects to the root cause and more efficiently anticipate possible ripple effects and overall outcomes.

Depending on the situation or nature of the crisis, a particular method of classification might be more beneficial than another based on the situation. Not every organization or crisis can be neatly categorized by a single method. Instead, it is beneficial to utilize these methods as lenses to view the crisis. By evaluating a crisis through these three methods of classification, leaders will be able to more quickly comprehend the magnitude, evaluate the damage, and develop schemes to prioritize the recovery.

2.2 – Phases of a Crisis

In addition to determining a classification, and in order to fully analyze and effectively respond to a crisis, the lifecycle of a crisis must also be known. By understanding the lifecycle, leaders and organizations will be able to develop more effective and timely responses. Researcher Robert Chandler presents a six-phase model to explain the lifecycle of a crisis. The six phases as seen in the diagram below are: warning, risk assessment, response, management, resolution and recovery (Chandler 2015).

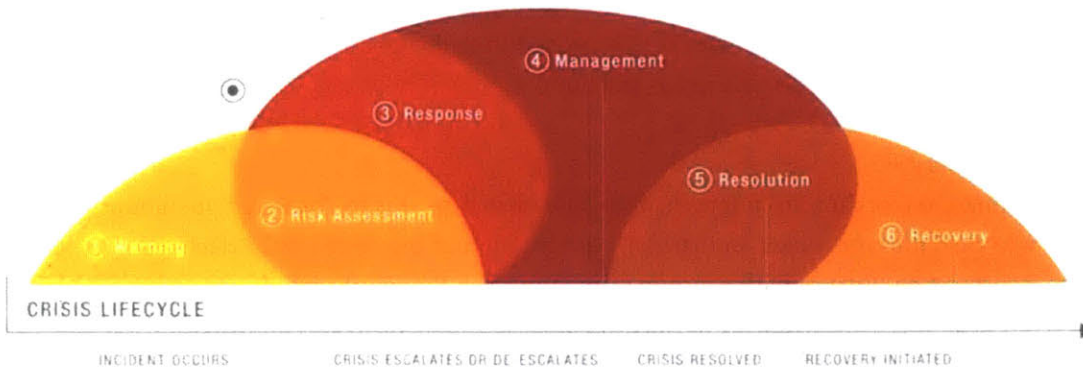


Figure 1 – Lifecycle of a Crisis

Source: (Chandler 2015)

James and Wooten present a similar model with five separate phases: signal detection, preparation/prevention, containment/damage control, business recovery, and learning (James and Wooten 2005). The key difference in the James and Wooten model is an expansion of the lifecycle timeline. They capture preparation for a crisis as well as organizational learning at the conclusion of the crisis. While this model does a better job of capturing a broader lifecycle, it could be argued that the placement of signal detection prior to preparation is out of logical sequence. Despite the sequencing, this model provides a robust explanation of the lifecycle.

Signal Detection –

The signals of an impending crisis are evident during this phase of a crisis. How quickly these are detected depend both on the speed at which the crisis develops and how receptive an organization is to detecting the signal (James and Wooten 2005). A crisis such as a natural disaster might have an easily detectable signal as well as a fast development time, which will lead to a very quick passage through this phase. When the signal is masked or organizations have a predisposition to ignore the signal, this phase could be protracted while the crisis eventually grows to a point at which it no longer can be ignored.

Preparation / Prevention –

While not every crisis can be prevented, a proper crisis response planning and training plan will help to mitigate the impacts and expedite the response (James and Wooten 2005). Organizations with highly developed and comprehensive crisis preparation and prevention plans enable their members to deal with a crisis in a more orderly and timely fashion.

Containment / Damage Control –

Firefighting occurs in this phase of a crisis and occupies much of the overall time of the lifecycle of a crisis. Organizations and leaders that effectively navigate this phase are those that can execute a

strategy and bring the situation to a close (James and Wooten 2005). The extent of damage suffered during this phase is dependent proportionally on the magnitude of the crisis and how effective the organization is in implementing a solution. The goal during this phase is to extinguish the fire and return to “normal” operations as quickly as possible.

Business Recovery –

During this phase the organization repairs, reorganizes, and returns to “normal” operations. There is a tendency to rush into this phase so that the worst portion of the crisis can be declared over and recovery efforts begin. Just as with a strong hurricane, even though the winds and rain have gone, that doesn’t mean that regular day-to-day life has returned. The recovery can be a long and difficult process for an organization to go through. What differentiates an organization’s success during this phase is the “ability to consider both short and long-term recovery efforts and to think beyond the business-as-usual paradigm to a business-anew paradigm” (James and Wooten 2005, 144).

Learning –

The learning phase is the most important phase of a crisis for an organization. Without it, mistakes that led to the crisis development or in the handling of the crisis are bound to repeat themselves. Organizations need to resist the temptation to move on and not fully develop and capture the lessons learned from the crisis. They also must be willing to look beyond the obvious mistakes or missteps that occurred during the crisis response. This final phase is a time for an organization to understand the factors that caused the crisis and leverage them to enact fundamental change within the organization (James and Wooten 2005).

Chapter 3

Leadership Elements

“Faced with crisis, the man of character falls back on himself. He imposes his own stamp of action, takes responsibility for it, makes it his own.”
Charles de Gaulle

3.1 – Introduction

On 15 April 2012 at approximately 2:49 pm two homemade bombs, hidden inside of a backpack, exploded within seconds of each other near the finish line of the Boston Marathon. Three individuals died and over 260 people were injured (“Boston Marathon Bombings” 2015). In the chaotic aftermath, Boston Police commissioner, Ed Davis, took a call; “Boss, I don't know what happened, we had two explosions.”¹

Commissioner Davis' leadership in the following days not only solidified his legacy as a leader but also defined the reputation of the entire Boston Police organization. While the world watched, Commissioner Davis led the Boston Police and the Boston community through some of the most difficult days in its recent history.

Leaders play critical and significant roles in how an organization responds to a crisis (“Boston Marathon Bombings” 2015). More than any other factor, the leader has the most impact on how an organization will handle a crisis. Without strong leadership guiding an organization through the adversity of a crisis, the chances of a successful navigation are greatly diminished.

A leader's success during a crisis doesn't happen by chance or fate; it is, in fact, quite the opposite. Preparation and development many times years or months prior to the crisis, has brought the leader to a point at which he or she has the tools to handle the challenge of leading the organization through adversity. Even though preparation is essential, the success or failure depends on the actions of a leader in those critical hours, days and months following the crisis.

A significant amount of research has been conducted on the essential components of successful leadership during and following a crisis. For example, James and Wooten, crisis researchers from the business schools at the University of Virginia and Michigan, highlight six key competencies for

¹ Personal Interview with Mr. Ed Davis on 13 August 2015.

building a foundation of trust: creating a new corporate mindset, identifying the (not so) obvious firm vulnerabilities, making wise and rapid decisions, taking courageous action, and learning from crisis to effect change (James and Wooten 2005). Other researchers take a slightly different perspective. Jaques expanded previous research by proposing the competencies of:

- (1) “Encourage a proactive crisis culture.
- (2) Establish and enforce standards and processes.
- (3) Prioritize and set an example.
- (4) Properly assess the full range of risks.
- (5) Promote open upward communication.
- (6) Build relationships before the crisis.
- (7) Be ready to deal with the news media.
- (8) Encourage a learning environment and share experience” (Jaques 2012, 368)

Despite differences in systematics or level of detail, for the purpose of this research, these lists are aggregated into the following six encompassing categories – Development of a strong foundation, realistic problem analysis, ability to collaborate, viable solution production, and a propensity to take decisive action. These six categories are used to evaluate leaders’ responses in the crisis case studies throughout this thesis.

3.2 – Strong Foundation

The degree of preparation for a crisis is the greatest determinate for the ability of an organization to weather the crisis. Scudder, an international crisis media trainer, argues that managing a crisis is 60% about preparation and only 40% about the actual execution during the crisis (Scudder 2012). Before this preparation can occur effectively, a leader must foster a strong foundation, as well as a developed network of external stakeholders and resources.

Keen leaders recognize the importance of an organization working in harmony during a crisis and work to foster an atmosphere of trust and support well before the beginning of the crisis. This preparation begins with the leader developing trust between the organization and him or herself and between groups within the organization (James and Wooten 2005). Through active involvement in crisis preparation, activities, and exercises, leaders will build trust and build a rapport with their subordinates. By designing measures, with cross-functional lines within an organization, a leader can create an environment of cooperation and shared vision, which will strengthen teamwork and effectiveness throughout the entire institution during the crisis.

Preparation for a crisis is much more complicated than just focusing on the internal organization. Leaders must shift their focus from inside their organization to seeing and understanding the impacts outside the organization. They must comprehend their organization’s place in the larger overall system and engage with all potential stakeholders prior to the crisis occurring. As Commissioner

Davis remarked following the Boston marathon bombing, “you can’t make a relationship in a crisis.”² These external stakeholder relationships take time to develop and must be actively cultivated prior to the start of a crisis.

Once a culture of internal trust and the network of external stakeholders have been developed, leaders have the resources to build and strengthen their personal foundation in preparation for a crisis. The elite leaders will then utilize this foundation as a platform to prepare an organization for difficult times, handle crises, and to ultimately leverage the crisis situation as means of building a better and stronger organization (James and Wooten 2005).

3.3 – Realistic Analysis

No matter the level of preparation, the true test of a leader’s effectiveness comes when the crisis situation plays out. It is at this time that a leader must fully utilize the foundation that has been developed in order to quickly analyze and address the situation. First, leaders must have the ability to produce a realistic analysis of the situation through demonstrated situational awareness. A competent leader seeks out and understands the clear picture of what the crisis situation entails, grasps the significance of the crisis, and understands its potential impact to the organization and all stakeholders involved (Garcia 2006).

Having the ability to develop a realistic analysis of the crisis situation is reliant not only on the leader’s ability to be situationally aware, but also depends greatly on how he or she processes the information. A strong leader must possess the “intellectual integrity” to be able to evaluate a situation without prejudice or without being biased by possible negative consequences (Rowe 2008). At this point early in a crisis, an effective leader needs to be focused on information gathering and processing regardless of the potential outcomes. He or she must resist the tendency to jump to action and make the crisis simply disappear. Acting prior to gaining an understanding of the situation or attempts to cover-up negative information will lead to a flawed analysis. Any solutions developed from this hurried analysis will be suboptimal and will ultimately limit how quickly an organization can address the root of the crisis, implement solutions, and recover from the crisis. (James and Wooten 2005)

3.4 – Communication

In today’s media-driven environment, leaders are expected to take a leading role in communication to the public during a crisis. The first key component is a well-developed public relations campaign grounded in strong communication principals. Adrian Dearnell, co-founder and CEO of Euro Business Media, says this public relationship campaign is built on four major pillars: honesty, transparency, consistency, and accountability (Karabell 2014). Without any of these four pillars, the

² Personal Interview with Mr. Ed Davis on 13 August 2015.

reputation of a leader and the overall organization will suffer and the trust between the stakeholders will be limited.

While a leader's ability to effectively manage the public relations machine is important to the overall success, public relation activities alone are not sufficient to lead an organization through a crisis (James and Wooten 2005). More important than the communication with the external stakeholders is the communication a leader must foster inside of an organization. This internal communication is composed of two channels. First, the leaders must possess ability to communicate the magnitude of the crisis and actionable solutions downward to the organization's members. Secondly is an upward channel for members to communicate and give honest, realistic feedback to the leader.

A leader's first responsibility during a sustained crisis is to recognize the crisis and articulate this to the rest of the organization. Only after the problem is fully known by all stakeholders within the organization can solutions be considered and developed (Weiss 2002). Communication in these initial stages from the organization's leader should be factual and informative. A leader must have the ability to frequently communicate the status of the crisis to all relevant stakeholders. Without these communications, individuals will have the tendency to make their own evaluation of the situation, which could lead to very diverse and potentially counter-productive responses to the situation. This communication by the leader must not end with the analysis of the situation, but must continue into the solutions phase. It is the leader's responsibility to communicate the resolution to all members involved. One's ability to quickly and clearly communicate these actions has a direct impact on how the organization handles the crisis. The more often and clearly leaders articulate a solution or response, the greater the chances of an organization responding as a cohesive group versus many individual well-intentioned efforts.

For the second communication channel to be effective, a leader must foster open and honest feedback from the organization's members. How a leader responds to negative news during a crisis will determine the quality of information presented by an organization's member during the crisis situation. A leader must cultivate an environment in which members can communicate negative information and resist the urge to bury any negative news. Encouraging disclosure, without consequences to the reporting party will allow a leader to gain deeper comprehension of the full magnitude of the crisis. When a leader not only encourages disclosure by policy but in actions as well, he or she actually has a better chance of exposing potential pitfalls and has an opportunity to manage them (Jaques 2012). It is important for a leader to understand that this form of open two-way communication can't be developed at the start of a crisis. Rather, a leader must actively cultivate an environment as part of their daily actions and policies prior to any crisis.

3.5 – Production of Viable Options

In order to adequately handle a crisis situation, a leader must have the ability to frame the problem and then produce viable solutions for implementation. Without the ability to define a good plan, the leader's effectiveness in leading the organization through the crisis will be limited. The ideal plan will be built on the results of the realistic analysis and information the leader receives as a result of his or

her communication channels. This plan should consist of clear goals, actionable items to attain the goals, timeline for implementation, well-defined responsibilities, and a plan for completion of the actions (Garcia 2006). While the criteria of such a plan might be clear, the challenge for a leader is to develop this plan from its beginnings in the initial chaos of a crisis to one that is comprehensive and actionable.

In the development of viable solutions, a leader first must be willing to take ownership of the crisis and carry the burden of seeing the organization through the crisis. By taking ownership, the leader signals to all members that he or she is fully committed to finding and developing solutions to the crisis situation. Without the leader's commitment, members in the organization will be reluctant to follow and implement any proposed solutions.

Taking ownership of the crisis and committing to find solutions should not be interpreted to mean the leader should develop solutions solely on his or her own accords. In fact, an effective leader will do quite the opposite. A leader must realize limitations in his or her abilities and proactively seek a collaborative environment to develop the best solution available. They understand that an effective long-term solution requires buy-in and development from all involved stakeholders. They work with these stakeholders to develop a solution that most support and accept (Rowe 2008). To effectively accomplish this, a leader must engage with all stakeholders to solicit and gather ideas, constantly engage with stakeholders during solution development, and then proactively sell the solution to stakeholders once a solution has been developed.

By engaging all stakeholders in the development of a solution, it will help a leader to avoid the "rigidity" trap. This trap occurs when a leader becomes rigid in ways of thinking and responding to a crisis, thus leading to a response merely based on actions that were used in the past even if those are not appropriate for the current situation (Grant and Mack 2004). Joseph Grant and David Mack (2004, 413), organizational design specialists, develop this concept further by stating, "When this happens, they fail to properly evaluate the current situation. This usually results in a restriction of information processing, a narrowing of the field of attention, and a reduction in the number of sources utilized to help address the threat." Solutions become limited and ineffective because of the leader's inability to break out of the mental models and solutions used previously.

3.6 – Propensity to Act

Traditional decision-making under optimal conditions assumes access to unlimited information gathering, time to generate options, and the tools and resources to evaluate decisions prior to making a decision, none of which are usually available during a crisis situation (James and Wooten 2005). During a crisis leaders are forced to make tough and sometimes irreversible decisions with the best information available at the time. Failure to act could have worse consequences than not acting at all. Above all, a leader must be decisive. A leader must balance the information available versus continued information gathering, make a timely decision, and move the organization forward to face the challenge directly. Inaction by a leader is not a viable option. Jim Rohn, a motivational

leadership specialist, continues further by stating, “it doesn’t matter which side of the fence you get off on sometimes. What matters most is getting off. You cannot make progress without making decisions” (Philosiblog 2011).

A good leader learns to handle the dynamic situation a crisis presents. A strong leader must balance the importance of the decision, timeline for action, and finality before moving forward with a decision. The more the relative importance of a decision, the longer a leader should take to gather information and evaluate options before proceeding. Sometimes there are critical decisions made in the first hours or days of a crisis that have impacts for years to come. Leaders need to make sure that as much information is gathered and downstream impacts are considered and understood before making decisions at this level.

In a crisis, time is rarely on the side of a leader. In most situations, leaders face positions where time is the enemy. Sometimes decisions have to be made immediately in order for the organization to survive. Most decisions will be presented as time critical; it is up to a leader to wade through the actions and determine which ones are truly time-critical and ones that can be postponed.

Finally, a leader must consider the finality of a decision before moving on. Decisions by a leader set an organization on a course. Sometimes this course can be reversed or altered; other times there is no turning back. In a crisis, a leader must have the insight to see what type of decision he or she is making. Is the decision they are about to make one that is easily adjusted if wrong or is this a permanent choice? If it is the latter, a leader must be able to give more time and attention to the decision prior to implementation; otherwise, the potential consequences could be grave.

Decision-making during a crisis is a balancing act between competing forces. At the same time a leader is being pressured to make timely and proactive decisions, competing pressures are forcing a leader to be more deliberate about decisions. Handling decisions under these pressures is truly an art and not a precise science. If this art is not mastered, a leader could suffer from indecision, which is unacceptable in a crisis. The fact is that at some point the analysis and search for alternatives must stop and a decision must be made (Walumbwa, Maidique, and Atamanik 2014). A good leader instinctively knows where this point lies in time and will combine the real-time data with the wisdom developed over years of leadership and their instinct to make the best decision currently possible (Rowe 2008).

3.7 – Conclusion

Leadership in a crisis, even for the most skillful leaders, is challenging. Every crisis is unique and surrounded by a complex and dynamic environment. Considering the five leadership elements developed within this chapter will help evaluate a leader’s response in such an environment. These characteristics are used to evaluate leader’s responses throughout this thesis.

Chapter 4

Organizational Elements

*“Bad companies are destroyed by crisis, Good companies survive them,
Great companies are improved by them.”*
Andy Grove -- President, CEO, and chairman of the board of Intel Corporation

4.1 – Introduction

On August 12, 2011, David Roth, CEO and Co-Founder of AppFirst, was awakened at 2 a.m. facing a crisis that threatened the very foundation of his organization. AppFirst provides data to IT professionals on how their systems, applications, and infrastructure are performing. Their business model relied heavily on customers sampling their free level of SaaS (software-as-a-service) and then eventually upgrading to their pay-for-service model. On that 2 a.m. phone call, Roth was informed that all the SaaS accounts had been unintentionally deleted. In order to see their data and continue usage of the software, all customers would be required to re-register (Agnes 2014).

Over the next tremulous four days, Roth implemented a plan to openly publish details on the mistake, email affected customers, and personally call each customer to explain the situation and steps taken to prevent reoccurrence. Roth feared great public backlash on social media, but instead he was shocked at the response to AppFirst’s efforts. The buzz on social media was extremely positive, representing disbelief that a company CEO would admit a mistake so rapidly, proactively engage with customers and implement solutions right away. Not a single negative comment was posted on social media. Instead of crippling the company, AppFirst ultimately strengthened its level of trust with customers through a campaign of transparency (Agnes 2014).

When reflecting on why AppFirst handled the crisis so successfully, Roth credited the structure and culture within the company; within AppFirst, there was a culture of transparency. The individual responsible for the crisis quickly brought the problem forward, which allowed the company to expeditiously handle the situation. This honest and quick response is because in the AppFirst culture, “a mistake is not seen as a failure but rather an opportunity for acknowledgement and *learning*. ... Mistakes are going to happen, it’s really important to have the right attitude about them, as well as a willingness to accept that they’ll happen, and *empower* people to learn from and work through them” (Agnes 2014, under advice to executives question).

As seen during the AppFirst crisis, in order to successfully navigate through a crisis an organization must have more than just a strong leader. The structure, organizational design and culture of the organization play complementary roles. Organizations containing strong structure of empowerment and learning elements are better prepared to respond and recover during a crisis situation. In this chapter elements of empowerment and learning are discussed as they relate to crisis management and recovery. Seven key elements are defined and analyzed below providing the basis by which organizational structures are evaluated during the remainder of this thesis.

4.2 – Structural Empowerment

“Under conditions of uncertainty and information asymmetry ... contingencies will arise that cannot be fully anticipated and effectively controlled by traditional methods of hierarchical supervision and surveillance. For this reason we argue that the empowerment of participants is a more effective way to facilitate stable exchanges and to sustain relational agreements” (Mills and Ungson 2003, 143). While many organizations claim to have a large amount of empowerment, their concept of empowerment has a high degree of variability. Therefore, it is critical to first distinguish empowerment from participation and delegation, which is readily mistaken for empowerment. Participation is a process to garner feedback from individuals and then use this feedback in the decision-making process, whereas delegation is discretionary control usually limited through a formal mandate (Mills and Ungson 2003). Structural empowerment in contrast is “the enabling condition under which stable and continuous exchanges in information and resources among organizational participants are facilitated and sustained” (Mills and Ungson 2003, 144). In essence, structural empowerment is creating an environment with a supportive workplace, open communication, and a decentralize structure that allows employees to become self-directed while providing opportunities for development and learning (Schrauben 2011). Particularly in times of crisis, the value of this empowerment can easily be seen. Empowerment allows access to time-sensitive, critical information and allows individuals the ability to act in the best interest of the organization (Schrauben 2011).

4.2.1 – Supporting Structure

True empowerment doesn't come without the accompanying supporting structure. As Rosabeth Kanter, Harvard Business School Professor, theorized with her theory of management, the major elements of an empowering structure are:

1. *The organization system must allow for the exchange and development of both formal and informal power* (Flinsch-Rodriguez 2011).

Inside an organization, there exists both a formal and informal power structure. It is not enough to address one segment of the power structure. Both of these structures must be enabled in order to effectively empower individuals throughout the organization.

Empowerment through the formal power structure requires the decentralization and flattening of an organization. This is further refined by Kanter's theory that any organizational change

that increases employees discretion and latitude while reducing the veto barriers, in general is a methodology for empowerment through the formal system (Kanter 1993). The empowerment through this system relies on the formal passing of power in terms of authority and accountability to the lowest level possible within the organization.

Establishing a structure for informal power to thrive is much more challenging and difficult. Informal power relies on the exchange of information between different areas of the organization. Jay Galbraith, a leading expert of global organization design, proposes a method to support this power exchange through creation of lateral relationships (Schrauben 2011). These lateral relationships cut across the lines of authority that facilitates the moving of the decision-making process down to the levels where the information exists (Galbraith 1974). The creation of these lateral relationships allows for the empowerment by recognizing and utilizing the decision making resources and large amounts of expert knowledge that exist throughout the entire organization (Schrauben 2011).

2. *Employees must be provided access to the resources to accomplish the organization's goals (Flinsch-Rodriguez 2011).*

Providing the power and authority without any resources to utilize that power has the same net effect of not providing any power at all. In order to effectively accomplish the organization's goals, individuals must be provided with monetary, communication, and supporting staff resources. By providing employees with the necessary resources, the structure is favoring empowerment and a proactive approach. Employees are no longer tied to higher levels in order to request the appropriate resources, they have more freedom to explore alternative ideas and solutions and spend less time vying for resource procurement. The difficult task of a manager is aligning the supportive structure with the accountability level required. The better an organization is to tip the scale providing more resources and support for lower levels, the more empowering their structure will become.

3. *A system that increases staff knowledge and education through training opportunities will have a more productive and empowered staff (Flinsch-Rodriguez 2011).*

Ask any CEO what the most important part of his or her organization is and likely the reply will be, 'it's my people.' If employees are the most important part of an organization, it makes sense to invest in those individuals through education and training opportunities. Helping people acquire more skills and competence promote better enthusiasm, problem solving ability, and remove many barriers to innovation or growth (Kanter 1993). High trained employees contribute to better quality products allowing for a higher level of empowerment and trust. These factors significantly impact morale, which leads to higher employee retention and overall job satisfaction.

4.2.2 – Open Communication

Two types of primary communication can exist inside of an organization, one-way and two-way communication (Andersson and Zbirenko 2014). While one-way communication has its place during times when speed and accuracy is needed, over the long-term and when trying to gather or disseminate information during a crisis, two-way communication is preferred (Andersson and Zbirenko 2014). Two-way communication allows for information to rise from the bottom upward, allowing leaders to have the proper information in which to make decisions. Also, two-way communication allows for implementation of the feedback cycle. The more efficient the communication structure is within an organization, the quicker feedback on implemented solutions will be realized. Organizations that have focused on developing an efficient feedback cycle and open communication cycle will be better prepared to handle the initial chaotic environment and recovery period experienced during a crisis.

4.2.3 – Leadership Support

As with any structural architecture or policy program within an organization, leadership's total support is essential for survival and success. This is even more necessary when implementing structural empowerment within an organization. Without complete buy-in from the leadership, power and resources will not be pushed to lower levels within the organization. Additionally, with the leadership support, communication will be hoarded at the leadership level and will fail to be passed through the organization. In both these situations, failure of constant and active leadership support will undermine the foundation of structural empowerment. Quickly employees will realize empowerment is nothing more than a façade. Leadership support is the crucial underpinning on which empowerment and trust is built. Without the established framework of empowerment and a high-level of trust built prior to the crisis situation, it will be difficult to build an empowered structure during the crisis. Leaders must decide to model their organization in this manner prior to a crisis.

4.3 – Learning Organization

Conflicting definitions and concepts exist for the description of a learning organization. Concepts range from an organization that provides training opportunities for its employees to an organization that learns from its mistakes and puts policies in place to prevent their reoccurrence. While these might be individual elements of a learning organization, the degree to which an organization is classified as learning has much more to do with the learning style and culture present within the given organization. Peter Senge, an MIT business professor and author of the *Fifth Discipline*, defines a learning organization as an “organization where people continually develop their capacity to achieve results desired, whereby new patterns of thinking are nurtured, collective aspirations are freed and people learn to learn together” (Hussein et al. 2014, 299). Becoming a learning organization requires a deep commitment to a culture receptive to transformative learning, openness, and most importantly systemic thinking. These qualities inside an organization provide value in helping an

organization to survive the initial response phase, adapt solutions during the management phases, and most importantly implement procedures to prevent reoccurrence during the recovery phase. In this section, basic learning types are defined, double-loop learning is explored, and these concepts are translated into four parameters, which are utilized to measure the degree of learning within an organization during a crisis.

4.3.1 – Types of Learning

In the broad terms, learning can be defined as the activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something (Merriam-Webster 2015). If further refined by how the learning occurs, there are two major categories of learning, informative and transformative (Kegan 2000).

Informative learning is characterized by learning more amounts about items that already fit our current mental models (Heorhiadi, Venture, and Conbere 2014). In other words, expanding the capacity of current state without fundamentally changing the way one perceives or sees the world. During a minor crisis or situation, which organizations have experienced before, this type of learning might be enough to successfully sustain an organization.

In contrast, transformative learning is modifying ones mental models, perceptions or basis of thoughts (O’Sullivan 2003). Transformative learning happens over time and in four key stages: rejection, understanding, using, and integration (Heorhiadi, Venture, and Conbere 2014). During the stage of rejection, an individual will reject or dismiss information because it fails to conform to their mental model or preconceived ideas. Over time complete rejection is overcome and begins to accept the possibility that other ideas or concepts do exist, but the individual doesn’t accept them for their own use. Heorhiadi refers to this as the “we agree to disagree” stage (Heorhiadi, Venture, and Conbere 2014, 6). In the third stage, using, individuals begin to use and experiment with concepts that are different from their own, either by choice or necessity to survive. In the final stage, integration, the individual’s mental model is redefined. The individual incorporates those items that are appropriate and rejects those that are not need to construct a new mental model or governing belief (Heorhiadi, Venture, and Conbere 2014). It is these new mental models or beliefs that allow an organization to present successful solutions to a crisis situation and to adjust methods to prevent crisis reoccurrence.

4.3.2 – Single-Loop Versus Double-Loop Learning

In order for transformative learning to become an integral part of an organization, a change of mindset must occur within the organization. The organization and its members must incorporate a systematic method of thinking and analysis. This systematic thinking begins at the fundamental level of considering single-loop versus double-loop learning processes.

In a single-loop, learning is centered on solving problems in a reactionary manner without considering the surrounding behaviors (McGill, Slocum, and Lei 1992). Single loop learning occurs when a mismatch in behavior and desired intentions is corrected by changing actions without changing fundamental beliefs or assumptions (Argyris and Schön, 1996).

Conversely, double-loop learning considers the governing variables influencing and controlling the actions to discover the origination of the problem. With double-loop learning individuals have to reflect on the situation and challenge the underlying assumptions that were not previously considered or unexposed (Heorhiadi, Venture, and Conbere 2014). The difference between single-loop and double-loop learning are illustrated in the diagram below.

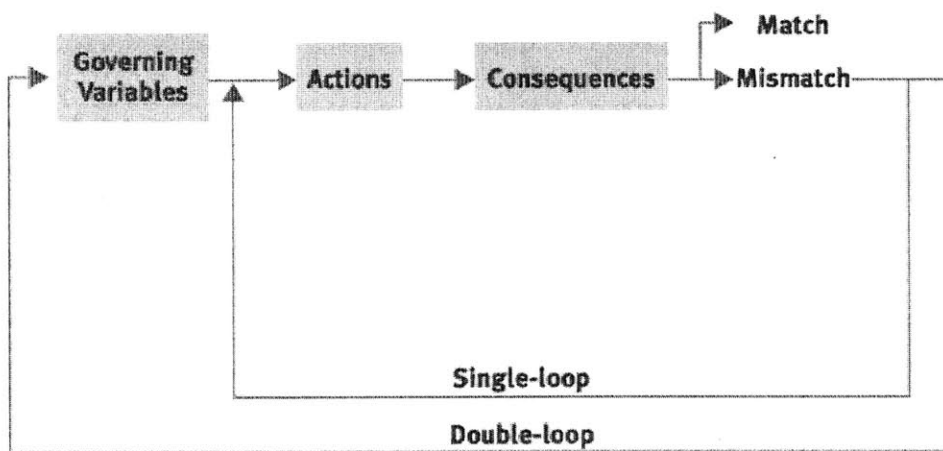


Figure 2 – Single-Loop and Double-Loop Learning

Source: (Heorhiadi, Venture, and Conbere 2014)

Double-loop learning is the ability to view and adapt to the world not as a linear cause and effect but through a reality of circles where causal factors and actions are intertwined. By understanding this relationship, a leader can understand points or leverage and dynamic complexity required to make decisions in the best short and long-term interest of an organization (Senge 2006). In a crisis situation, organizations that are able to make complex decisions while considering both the short and long-term consequences are better suited to successful recovery than those who only incorporate one or the other in the decision making process.

4.3.3 – Measures of a Learning Organization

While the theory of a learning organization can easily be explained, measuring the degree of learning within an organization is more complex. To further refine the characteristics, Peter Senge sets forth five disciplines of a learning organization: systems thinking, personal mastery, mental models, building a shared vision and team learning (Senge 2006). In a similar manner, McGill, Slocum, and

Lei (1992) define a learning organization by looking at the management practices through the lenses of openness, systemic thinking, creativity, a sense of efficacy, and empathy. Both methods provide a valid framework in which to evaluate a learning organization because they contain multiple intertwined concepts. In order to ease the evaluation of an organization during a crisis situation, for this thesis these concepts are combined into the characteristics of shared vision development, team learning, personal efficacy, and systemic thinking. These four characteristics are used during the case research evaluate the learning process in an organization during a crisis.

4.3.3.1 – Shared Vision Development

For an organization to facilitate growth or recover from adversity, there must be an objective that gives purpose to the organization. As Senge (2006, 192) states, a vision answers the question, “What do we want to create?” A vision has to be more than just one person’s idea imposed on an organization, it has to be one that is shared and felt by the entire organization (Senge 2006). By creating a vision that is shared collectively, an organization will be bound by a common purpose and goal. Everyone inside the organization will be internally motivated to move in synchronization towards the common goals that have been internalized. Without this internalization, individuals will not put in the effort to accomplish the vision (Senge 2006). Individuals that embody the shared vision do what is necessary for their organization to succeed even with little guidance from superiors. They have a clear focus of where the organization is moving and will act to move it in that direction. Learning organizations must be built on this foundation of a shared vision so individuals have the empowerment and courage to take risks for the betterment of the organization (Senge 2006).

During a crisis, a shared vision’s importance is seen in two key areas. First, during the initial response phase, the organizational vision sets the priorities on which employees base their actions. For example, if an organization has a vision of superior customer service, during the initial phases of a crisis, employees will prioritize service to customers in their initial response actions. Secondly, and more importantly, the shared vision is seen during the management, resolution, and recovery phases. During these phases, leadership must develop a vision and obtain employee internationalization of that vision to create a roadmap for recovery from the crisis. Without this internalization or shared vision, members will not fully commit to the recovery process or even worse, pursue actions contrary to the overall vision.

4.3.3.2 – Team Learning

Visions of groupthink sessions or offsite learning events are the common images associated with team learning. Team learning is quite the opposite than a one-time learning event. Team learning begins with the fundamental concept of dialogue and discussion (Senge 2006). Organizations must commit to a balance between these two fundamentally different modes of operation. Discussion can be described as a Ping-Pong game where ideas are passed back and forth and defended with the ultimate goal of winning (2006). Dialogue on the other hand is where individuals are trying to collectively learn from one another and as Senge (2006) says, “gain insights that simply could not be

achieved individually.” The ultimate goal is not for an individual to win, but for the group as a collective whole to improve.

In order to develop an environment in which dialogue can thrive, there are some crucial elements that need to be present. First, there must be a large degree of openness inside the organization. Information must not be held inside individual stovepipes or hidden for personal gain. Instead, information both positive and negative must flow freely through the organization. Only when accurate and complete information is available to the entire team will they have the ability to engage in fruitful dialogue and team learning.

Secondly, the willingness to conduct constant dialogue must stem from the top. If the leadership of an organization fails to fully embrace dialogue and fails to conduct team learning themselves, the remainder of the organization will also fail because of a disconnect in actions. Leaders must commit themselves to engaging in dialogue first before dictating terms.

Once an atmosphere of dialogue is established, the process of team learning will emerge. Issues will be openly evaluated on the merit of possible solutions instead of entrenched defensive positions. Teams will be able to think insightfully about complex issues and innovate through coordinated action (Senge 2006). In short, teams will produce results above the collective ability of the individuals and individuals will grow more rapidly as a result of the team learning than they could have otherwise (Senge 2006). In a crisis, this mode of operation is the most effective way to discover solutions that are most beneficial for the overall organization and its stakeholders.

4.3.3.3 – Personal Efficacy

The key to the success of any organization lies with the people inside that organization. This is especially true in a crisis situation. But just having the right people is not enough to ensure success. An organization must foster a culture that promotes and rewards personal efficacy. Employees with a high sense of personal efficacy will feel they can learn and experiment to change an organization for the better (McGill, Slocum, and Lei 1992). In order to have a high degree of personal efficacy within an organization, individuals must actively be encouraged to become self-aware and to be proactive problem solvers (McGill, Slocum, and Lei 1992).

Self-awareness begins with having a high degree of self-realization of one’s strengths and weaknesses, as well as their role within the organization. Self-awareness is not a static quality, but instead, dynamic. Self-awareness requires constant feedback adjustments so that perceptions accurately match reality. By actively encouraging a structure of feedback, an organization will promote continual self-awareness.

In order to have the second element of efficacy, proactive problem solvers, individuals in the organization must feel that “they think they can act and believe that they should” (McGill, Slocum, and Lei 1992, 15). Once individuals are empowered to address problems at the root level, long before senior management sees them, the degree and severity of most problems can be reduced

significantly. Empowerment has an additional effect of improving the overall quality of the workforce. Employees become more engaged with their work. They feel their actions have direct impact on the well being of the corporation. Engaged employees will have a higher willingness to learn and high level of work satisfaction. The synergies of all these factors contribute directly to the overall success of an organization facing a crisis.

4.2.3.4 – Systemic Thinking

“Systemic thinking is the ability to see connections between issues, events and data points – the whole rather than its parts” (McGill, Slocum, and Lei 1992, 12).

When a crisis occurs, there is a tendency for individuals to become very analytical in their response. Problems are broken down into their lowest forms and then analyzed for potential improvements. If this analysis is too fixated, the problems can be broken into such small analytical pieces that the interactions between the parts are lost (Bartlett 2001). Failure to address problems as a whole instead of by small isolated analytical pieces can lead individuals and organizations to address short-term or ‘Band-Aid’ approaches without addressing the root cause of the problems.

By contrast, systemic thinking builds on the analytical thinking with the addition of synthetical thinking (Bartlett 2001).

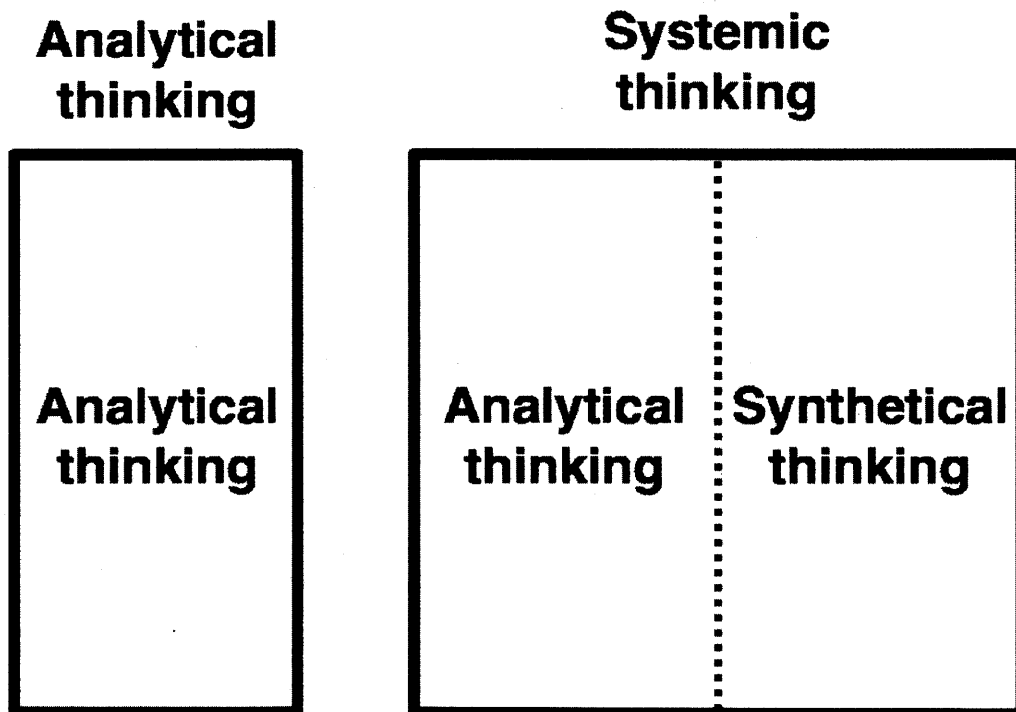


Figure 3 – Analytical versus Systemic Thinking

Source - (Bartlett 2001)

Synthetical thinking addresses how these analytical parts work in conjunction with the entire system (Bartlett 2001). By using systemic thinking, organizations possess the ability to look at the crisis problems within the larger context of the system. They can look for commonalities between elements, consider long-term versus short-term effects and shun the symptomatic solutions (Bartlett 2001). A systemic focus will not center exclusively on the place that the most improvement can be made, but on the place that benefits the entire situation the most (Bartlett 2001). Because of the over-arching nature of a systemic thinking approach, it is the glue that binds many parts of the solution together.

Chapter 5

Methodology

5.1 – Introduction

Evaluating a leader and organization during a crisis situation can be a difficult task to quantify. Because of this difficulty, a qualitative analysis was chosen as the primary means to evaluate a leader and organization’s response. Case studies were researched and chosen from organizations that have faced severe crisis situations and successfully emerged as not only survivors, but as stronger organizations. Semi-structured interviews were conducted with individuals in senior leadership positions essential to response during each of the crises. The response was evaluated against the framework of leadership and organizational design stemming from the concepts covered in Chapters 3 and 4 of this thesis. The qualitative results are then presented for each case study and aggregated in Chapter 7 to identify trends and critical factors. Using the aggregate scores, the framework is analyzed to determine the key elements of success for leaders and organizations during a crisis situation.

5.2 – Framework of Evaluation

The framework for evaluation was derived from the concepts presented in the previous chapters of Individual Leader and Organizational Elements. Using these concepts, Table 4 below lists five elements on which a leader’s response is evaluated and seven elements on which an organization is evaluated.

Table 4 – Elements of Evaluation

Individual Leader Elements	Organizational Elements
Strength of Foundation	Supporting/Empowering Structure
Realistic Analysis	Open Communication
Communication	Leadership Support
Production of Viable Options	Shared Vision
Propensity to Act	Team Learning
	Personal Efficacy
	Systemic Thinking

Each element is subjectively evaluated on a sliding scale of -2 to 5. Elements scoring a -2 reflect a strong negative impact on the outcome of the crisis. A score of 0 reflects a neutral or no impact on the overall outcome of the crisis situation. Scoring an element as a 5 reflects an extremely positive and key impact on the overall success to the crisis response. The results are displayed for each individual case study and then in aggregate during the conclusion.

5.3 – Interview Structure

Interviews were conducted in a semi-structure format either by phone or in-person with each of the leaders from the different organizations. Questioning was specifically tailored to each situation with the goal of obtaining a good understanding of the organizational structure and culture prior to the crisis, details surrounding the crisis, and how each of the elements of the framework of evaluation contributed to the organization's progress through each phase of the crisis.

5.4 – Subjects of Interviews

Organizations were first identified based on the crisis situation they had experienced. Individuals within these organizations, which were in key leadership and decision-making roles were identified and interviewed. Below is a list of the individuals that participated in the interviews for this thesis. Based on these interviews, four case studies were selected for further development and in-depth analysis.

Gordon Bethune – Former Continental Airlines CEO

Marshall Carter – Former State Bank CEO and Chairman of NYSE

Edward Davis – Former Commissioner of Boston Police

Steve Kaufmann – Former Arrow Electronics CEO

Betty Jane (BJ) Hess – Former Senior VP of Global Operations for Arrow Electronics

Shirley Singleton – Edgewater Technology CEO

Jim Taiclet – American Tower CEO

Bob Weiler – Former Phase Forward CEO

5.5 – Limitations of Methodology

Small Sample Size – Because of the choice to conduct in-depth interviews on a selected number of case studies, the sample size is too small for statistical relevance. While efforts have been made to incorporate a variety of organizations and different types of crisis events, the sample size should be considered before making definitive conclusions.

Individuals Interviewed – Only one individual in each organization was interviewed for this research. Information gained from these interviews could be biased towards the individual's

recollection of the situation. Attempts were made to verify all information independently, but the results of the interviews relied heavily on the individual's perception of the events.

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Chapter 6

Case Studies

6.1 – Edgewater Technology: Active Shooter Crisis

*“The caller said, ‘You need to come back – there’s been a problem.’ I said, ‘What kind of problem?’
‘There’s been a shooting.’ All I heard was ‘shooting.’”³*
Shirley Singleton, CEO Edgewater Technology

6.1.1 – Company Background

Shirley Singleton had a successful career as a physical education teacher in the Needham, Massachusetts’s school district. In fact, the *Boston Globe* named her the coach of the year in 1980. Because of Singleton’s coaching, Needham high school won six consecutive Class-A track championships. Teaching appeared to be her calling until the day that all teachers without tenure were laid off in 1981 because of voter Proposition 2 ½. In an attempt to find viable employment, Singleton turned to computer programming, where she quickly rose through the ranks to become a vice president and general manger of the Northeast Region of an IT company. During this period she met David Clancey, who was a systems architect and chief technology officer at the same company.

Clancey and Singleton saw an entrepreneurial opportunity in beta Windows NT operating systems and founded Edgewater Technology to try and capture this opportunity. They built their business around the practices of transparency, accurate estimates, and holistic solutions. As a result of their hard work and business practices, Edgewater Technology earned more than \$2 million in revenues during its first year.

Edgewater’s core business consisted of elements in both consulting and production sectors. As the company grew and because of their reluctance to take venture capital funding, consulting revenues were used to invest in and fund production. Eventually, this practice constrained growth

³ All material in this case study draws from an unrecorded interview with Ms. Shirley Singleton on 02 September 2015 and from an unpublished caselet produced by Ms. Singleton for MIT’s Managing in Adversity class.

opportunities in both sectors. The company was restructured by spinning off the production side of the business into its own company. The consulting side of the business continued to grow and eventually gained the interest of StaffMark, a large HR firm. StaffMark acquired Edgewater Technology in 1999 for negotiated money down and 18-month performance-based payout settlement. Because of early decisions by Edgewater to award options to individuals in the company, the buyout and performance incentives positively impacted the majority of the staff. Edgewater was able to maintain its independent structure and current employee structure following the buyout.

Because of the 'Internet Bubble,' StaffMark quickly found itself in tough financial times. All the smaller pieces were divested. Only Edgewater Technology and its e-commerce division were retained. These divisions became the single focus of StaffMark. The company officially consolidated and changed its name to Edgewater Technology in June 2000. Singleton accepted an offer to become the CEO effective January 2001. Morale was at an all-time high as the final buyout performance payment was scheduled for December 31, 2000.

6.1.2 - Organizational Structure

When asked to describe the culture of Edgewater Technology prior to the Wakefield Massacre, Singleton simply responds, "family." Singleton treated and continues to treat everyone in the company as she would her own family. Since the inception in 1992, the company has treated all employees that have joined Edgewater as family. To Singleton, that meant being honest, upfront, and constantly proving to the employees that she had their best interests at heart. During the sale of the company to StaffMark, she gave the employees a heads-up on the sale of Edgewater and ensured that they shared in the success of the sale. In short, she had earned the trust of her staff and successfully incorporated them into a large, but effective team.

When Edgewater Technology was started, the organization embraced a flat communication and organizational structure. In its early days, communication relied almost exclusively on personal and face-to-face communication. As the company size surpassed 50 employees, Edgewater informally adapted some classic communication structures, such as emails and defined routing structures. When the company grew to over 75 employees, Singleton recognized communication was beginning to suffer without a defined structure. In attempts to mitigate the problem, numerous regularly occurring meetings were scheduled. Productivity decreased as a result. By the time the Edgewater reached 100 employees, their communication structure was not sustainable and became one of the key reasons why Edgewater looked to leverage the experience of a larger company during a buyout.

Despite struggling to keep pace with the rapid expansion of Edgewater, the upward communication or feedback from its employees was robust. As a result of their consulting experience, Clancey and Singleton recognized many of the critical issues that manifest themselves just prior to a crisis actually stemmed from a failure of execution in the planning and development phase of a project. To make the situation even worse, most companies rewarded the last minute firefighters, which solved the ever-growing problems at the last minute. This process of operation required corrections to be made later in the process and failed to reward proactive behavior in the beginning stages of the project.

From the start, Edgewater implemented a system of “red and green teams” to minimize the last minute fires that most companies seemed to experience. The green team, the team in charge of the project, would present their plan to a red team, who played the role of customer. It was the job of the red team to discover weak areas in the plan, find possible problems and recommend possible improvements to the overall project. The atmosphere during one of these inspections was not one designed to embarrass or to foster competition, but instead one of joint learning and cooperation. This process was so ingrained in the corporate culture that new employees who came from competing units had a hard time adjusting to such a cooperative environment. Because of the successful implementation of such an extreme method, managers were rewarded with more trust and leeway. If the green team passed a red team inspection then the idea was considered strong and robust. Because of this verification system, unit leaders were authorized to make decisions for up to the amounts of \$2 million. Edgewater’s system promoted a culture of openness and frank upward feedback, where opinions were respected and valued. Everyone in the company was not afraid to ask for help and to provide honest feedback in order to make the company stronger.

6.1.3 – Michael McDermott

Michael McDermott was hired at Edgewater Technology in March 2000 through an employee referral. At the time, he was 42 years old with previous experience in the U.S. Navy nuclear submarine fleet and the public utilities sector. During the fall of 2000, McDermott encountered problems with the Internal Revenue Service (IRS) stemming from a previous employer that resulted in the garnishing of his wages. His supervisor was notified and offered to help McDermott by working with the IRS directly to work out a payment plan in order to reduce the monthly burden. The supervisor negotiated a nominal payment structure until the issue could be formally resolved, but McDermott ultimately rejected it because he felt as if “he doesn’t owe anyone.” Despite repeated efforts by the supervisor, McDermott continued to reject the IRS’s offer and asked to handle the situation on his own. Edgewater’s accounting controller delayed the garnishment start date until after the holidays to give McDermott more time to solve the issue and not impact his holiday season.

6.1.4 – The Shooting

In the weeks leading to Christmas, Michael McDermott, for unknown reasons, began to shift the blame for his IRS problems onto the individuals at Edgewater Technology who were helping him resolve the situation. He secretly began tracking their arrivals, departures, and movements at the workplace. On the night of Christmas 2000, McDermott went to the Edgewater Technology office and hid an AK-47 with a large capacity magazine, a .32-caliber semi-automatic pistol, 12-gauge shotgun and bolt-action rifle.

On the day after Christmas, he told the financial company trying to repossess his car to “come and get it.” Shortly after, he emerged from his cubicle with the AK-47 and shotgun and methodically shot and killed four women and three men, all of which were his coworkers. He focused on shooting individuals he worked closely with and also those who had tried to assist him with his

financial issues with the IRS. Just by chance or fate, Singleton had left the office 20 minutes earlier because of a last minute change to her schedule. She had lunch with an ailing friend.

6.1.5 – Leadership Response

As the initial shock of the incident set in, Singleton found herself numb to the situation. She quickly realized her first priority was to provide unique support to four main stakeholders: employees, families of the deceased, customers, and shareholders. Whether because it was ingrained in the corporate culture or her own personal DNA, Singleton recognized she needed help to manage this situation. After a quick interview with Larry Smith, Institute for Crisis Management Consultant in the church where the survivors sought refuge, she hired him to guide and assist her through the crisis.

Singleton's first priority was to take care of the employees and their families. She said she, "acted like their parent." Singleton did whatever was necessary to ensure they felt supported throughout the process, whether it was ensuring constant paychecks continued, employees had access to counseling, or training on how to handle the media; she made them her top priority. Singleton's approach was real and heartfelt, but also calm and collected. She was the bedrock that supported the employees through the entire ordeal.

While taking great care of the on-site employees came naturally to Singleton, she readily admitted she failed to take into account the impact on remote employees. She assumed these employees were not impacted because they were not physically at the location of the shooting. Edgewater was a relatively small company with a team atmosphere. Just because some employees were physically separated, didn't mean they didn't feel the impact of lost colleagues or the weight on the company as a whole. Singleton didn't focus on these remote employees in her initial plan of support. Individuals didn't get the support they needed which delayed the healing process and hindered the overall company's recovery. When Singleton realized this oversight, she had to work hard to undo the damage that had been done and to fully incorporate them into the overall healing process.

Even though she focused on the employees, Singleton realized she had to attend to the health of the company if it was going to survive in the long run. During the revitalization process of the company she was driven more by rage than the fear of failure. She focused on moving people towards a common goal. She effectively painted Edgewater as the victim and used this status to rally individuals to help in the rebuilding process. By rallying the employees, giving them a common purpose, and providing work to accomplish, she allowed them to move forward from the incident. Even when business work temporarily fell-off following the shooting, she sought out non-profit volunteer work to keep the employees focused and busy. By rallying around the company with a common purpose and dedication to work, the health of the company began to increase.

As part of the healing process, Singleton was faced with tough decisions on how to handle the long-term reputation of the company: Should the name of the company change? Should they change buildings? How should the company deal with the negative press surrounding the company? The

answers were not clear. Singleton made the decision to preserve the reputation of the company for the long-term. To her that meant that they were not going to be defeated by this event, but come back stronger. Singleton decided to keep the name of the company and stay at the same location. She refused to engage with the press who was attempting to bait her into stating controversial comments. Singleton looked over the horizon and tried to foresee the image of what the reputation should look like in a few years and drove the company there.

In addition to dealing with the employee and company health concerns, the needs of the customers also needed to be addressed. Edgewater's customer base was primarily composed of longtime customers familiar with Edgewater's reputation for high quality, on budget projects. In fact 90% of the customers on new projects were repeat customers. Singleton reached out to these customers to reassure them that Edgewater was in stable condition and had a bright future for the long-term. Some of their projects in the short-term might have been impacted, but Singleton assured them that the projects would quickly return to normal operations soon. These longtime customers responded with great empathy and reassured her that they wouldn't search for new suppliers. The harder sell was with the new customers. Immediately following the incident and for years afterwards, new customers would ask about the future of the company and the impacts of the shooting on the quality and timeliness of the projects. Only through repeated assurances and quantifiable actions, was Edgewater able to allay the fears and build trust with new customers.

6.1.6 – Corporation Recovery

Following the tragedy in 2000, Edgewater hit rough times again with the bursting of the tech bubble in 2001. Net sales fell from \$31.8 million in 2000 to a low of \$18.6 million in 2002 (Lewis 2004). In 2003, Edgewater turned the corner with the recovery and net sales increased to \$25 million (Lewis 2004). Though they appeared to have some initial difficulties because of the combination of the tragedy and the tech bubble, organizational and financial analysts saw a fundamental strength in the company. Christine Ferrusi Ross, a principal analyst at Forrester Research, said Edgewater has "kept rolling. In a lot of ways the tragedy does not seem to have affected them at all from a corporate standpoint. In the grander scheme of things, it almost appears as if the impact was limited. They did not have a mass exodus of employees, and they have not moved" (Lewis 2004). The shooting became a defining moment for Edgewater; a moment where Singleton and her employees made the choice to recover and not to let the actions on that fateful day determine the future of Edgewater.

6.1.7 – Leadership Analysis

Using the framework for evaluation described earlier, Singleton's performance as a leader during this tragedy was tremendous. Particularly key to the company's success was the relationship that she had built with her customer base prior to this incident. Singleton had insisted on providing customers with fair and honest value. As mentioned previously, this led to extremely satisfied customers and 90% of new projects coming from repeat customers. This strong foundation developed over time allowed Singleton and Edgewater space to recover from the tragedy while still maintaining their customer base. Singleton talked directly to the customers to explain the situation and request

temporary leniency. If the foundation had been weak, customers might have perceived the shooting as a catalyst to change providers. A significant loss of the customer base would have created extreme financial difficulties, which could have threatened the future of Edgewater.

Singleton quickly realized she needed help to get through this situation. Within hours she had assessed the situation and requested on-scene help from a crisis manager specialist. This realistic analysis was key to the quick recovery of the company. If Singleton had an unrealistic analysis of the situation and would have continued without assistance, she might have quickly gotten in over her head and damage might have been done to the long-term prospects of the company. Instead, the crisis manager helped her protect the reputation of Edgewater with the media and gave her a roadmap to assist the employees in need. Her analysis, which led her to seek help, gave her and Edgewater the resources to put a recovery plan in place immediately instead of wasting value time floundering or even moving in the wrong direction.

During this tragedy, Singleton was able to effectively communicate with all the stakeholders involved. She crafted a vision of recovery and communicated that to employees with remarkable clarity. She communicated struggles and plans with customers to ensure continued support. Her communication with the media was superbly crafted and highly effective. Though all of these outward communications were handled well, Singleton's strongest strength was the manner in which she completed the feedback loop with employees. She allowed them to share feelings, emotions and ideas on ways to move forward. Her ability to listen in an effective manner, allowed the employees the support structure to heal and quickly resume work.

While Singleton's support of a family culture at Edgewater was beneficial in ensuring the lines of communication remained open, this atmosphere, at least temporarily, hindered her ability to act in a decisive manner. Singleton brought key decisions, such as whether to relocate or to change the name of the company, to a democratic vote with employees. Instead of seeking input and then making the decision as the leader, she took issues to a vote by the employees. She struggled to make the "right" decision when her workforce was spilt over several key issues. Soon, Singleton realized she must be the one to make the final decisions and it had to be her decisions to own. After she came to this realization, her propensity to act increased dramatically. While she took the time to seek input, she also realized Edgewater needed her step forward and become a decisive owner of the decisions.

Because of her in depth knowledge of the IT industry, Clancey's operational knowledge, and Smith's crisis management knowledge, Singleton was able to effectively generate strong courses of action during the crisis. She assembled a diverse team that had the ability to look at situations from a variety of perspectives and offer advice on how to proceed. Singleton not only saw the value in their perspectives, but also translated those perspectives into action. The strength of the options generated for action was not due entirely to Singleton's knowledge, but more importantly to her ability to accept input and advice from her diverse team.

Singleton proved herself to be a great crisis leader by leading Edgewater to a successful recovery following the Wakefield Massacre. Her performance even led Larry Smith to issue a standing offer

to join his crisis management company as a consultant to help other companies through the crisis process. Prior to the crisis, her preparation and foundation was particularly strong with customer relations. These relations allow Edgewater breathing room to handle the crisis without the fear of losing customers. Though her foundation was essential, her analytical ability to recognize the complexity of the situation probably saved the company. She immediately recognized she and the company needed assistance. By hiring and listening to Larry Smith, she brought in resources to help handle the crisis and implement a path to recovery. The only critique of Singleton’s leadership would be her delayed action at several points during the recovery. She was partially blinded by her desire for a more democratic approach to decision making. Table 5 and Figure 4 represent a subjective scoring of the five key leadership elements for Singleton’s leadership during the Wakefield Massacre.

Table 5 – Edgewater Technology Leadership Elements Evaluation

Individual Leader Elements	Relative Scoring
Strength of Foundation	4
Realistic Analysis	5
Communication	4
Production of Viable Options	3
Propensity to Act	-1

EdgeWater Technology Leadership Analysis

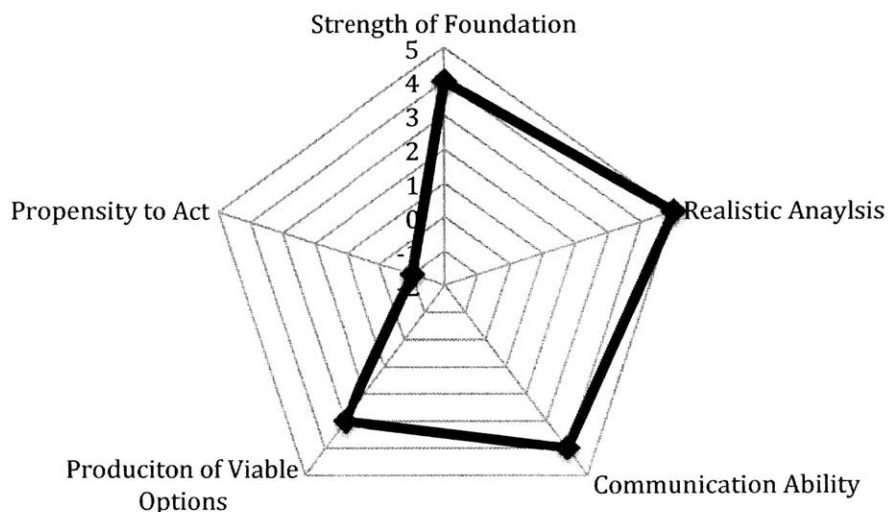


Figure 4 – Edgewater Technology Leadership's Radar Graph

6.1.8 – Organization Analysis

Edgewater's organizational emphasis on a supporting structure, open communication, and strong leadership support had the largest impact on its successful navigation of the Wakefield Massacre. Because a supporting structure was already embedded in Edgewater's DNA, it was easy to give the employees the resources they needed to effectively process the situation and the tools to move forward. Employees were given counseling, support to deal with the media, and the tools to continue work when they felt ready. Additionally, employees were encouraged to reach out and seek personal and professional help from different areas within the organization. This supportive structure was a natural fit for the existing support and empowering structure developed within Edgewater. Employees felt comfortable and empowered to make the right choice for their situation, allowing for quicker healing and thus quicker recovery for the company.

As seen earlier in the leadership analysis, Singleton's strong leadership skills and open communication policy help Edgewater regain footing quickly. She worked for years to gain the trust of her employees and because of that trust, they truly felt she had their best interest at heart during the crisis situation. They were willing to follow her almost unconditionally. That, combined with the open communication atmosphere, in which individuals felt comfortable voicing individual problems or overall concerns, allowed for issues to be brought to light very quickly. Thus these issues did not fester and were dealt with in an expeditious manner.

While the overall vision of Edgewater did not necessarily change during the crisis, Singleton was able to rally the company around a modified vision. She effectively used the company's portrayal as victim to motivate a unified response to not only recover from the crisis, but to grow stronger. The recovery became more than just their personal recovery. The employees were willing to fight for the future of Edgewater in order to "not allow the shooter to win." Singleton was effective in maintaining momentum with this vision even during the lull in work at the company. By getting Edgewater involved in nonprofit work to fill the gap she sustained the vision. Adherence to this shared vision improved morale and gave employees purpose.

When juggling the needs of shareholders, customers, employees, and the media, it would have been easy to focus on only a few and let the other's drop. When Singleton and Clancey originally formed Edgewater, the goals were never focused on the short-term, but what was best for the company over the long-term. This spirit was evident in the decision-making process on how to handle stakeholder needs following the shooting. Leadership focused on all of the key stakeholders at the appropriate time. At first, time and resources were spent on ensuring the employees long-term recovery. Even though it would have been easy to respond to media attacks, the company maintained a long-term reputation preservation strategy.

Edgewater's organizational design prior to the crisis isolated key HR and financial information within stovepipes. Adding to the difficulty of the situation, several key HR and finance employees perished during the attack. This created large gaps in knowledge and information in several areas of the company during the management and recovery phases. Because of this structure, the remaining employees didn't immediately have the knowledge or skills to takeover where others had left off. Singleton hired an HR manager that struggled with the implementation of new policies and was eventually let go. As a whole, Edgewater struggled with the learning cycle and efficacy inside the areas most heavily affected by the crisis. However, changes were made to the overall structure to allow for recovery and prevent this situation from occurring again. In the time it took to implement the changes, valuable recovery time was lost.

Edgewater Technology was organizationally strong prior to the shooting crisis and thus helped to promote a rapid recovery. Edgewater's elements of a supporting structure, open two-way communication and leadership support were particularly strong. The ability of the leadership to think systemically ensured not only a short-term recovery, but also success in the long-term. Edgewater faced difficulties in the HR and financial areas due to the circumstances surrounding the crisis and struggled for a period of time to learn from and permanently correct those mistakes. As a whole, Edgewater was a strong organization prior to the crisis and has emerged even stronger than before. Table 6 and Figure 5 represent a subjective scoring of the seven key organizational elements for Edgewater Technology.

Table 6 – Edgewater Technology Organizational Elements Evaluation

Organizational Elements	Relative Scoring
Supporting/Empowering Structure	5
Open Communication	5
Leadership Support	5
Shared Vision	4
Team Learning	2
Personal Efficacy	2
Systemic Thinking	4

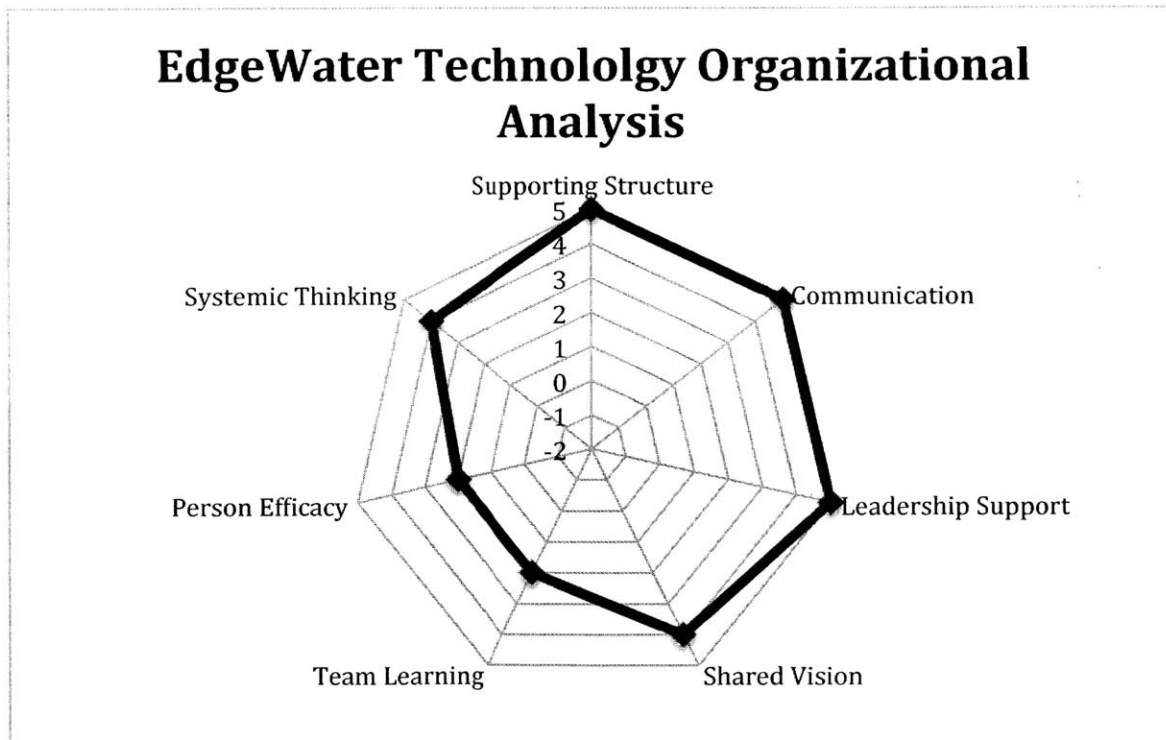


Figure 5 – Edgewater Technology Organization Radar Graph

6.1.9 – Key Observations and Conclusions

- Develop strong relationships with customers; these relationships will sustain a company in a crisis situation.
- Recognize your need for help early in a crisis and don't be afraid to ask for assistance.
- Open communication with all stakeholders during a crisis situation is essential.
- A strong vision and meaningful work can provide means for a healthy recovery for company employees.
- The first priority is to care for company employees. These are the individuals that will lead the recovery for the entire organization.

6.2 – American Tower: 9/11 Crisis

6.2.1 – Company Background

American Tower owns and operates wireless and broadcast communication real estate on a global basis through a real estate investment trust (REIT). The current global portfolio includes 97,000 owned or managed sites for the deployment of wireless and broadcast networks (“Company - American Tower” 2015). American Tower provides customized collocation solutions to customers through their towers, rooftop, in-building networks and other services, which speed network deployment (“Company - American Tower” 2015).

American Tower formed in 1995 as a subsidiary of American Radio and was spun off into an independent company in 1998 when its parent company was sold to CBS/Viacom (“History - American Tower” 2015). During the early period in the tech boom, American Tower aggressively pursued a growth strategy of tower portfolios, smaller third party companies, and related business services.⁴ The company also pursued opportunities in the satellite-based linkage for the Internet by creating Verestar, a small subsidiary. American Tower’s growth was large and by 2001 it obtained a market capitalization of over \$10 billion.

By 2001, the high degree of growth and acquisition had created numerous inefficiencies, which were beginning to impact the overall health of the company. Jim Taiclet was recruited to join American Tower as the COO with an expectation to succeed the CEO during a two-year transition plan. The goal with his hire was to transition the company from “deal” orientated to more “operational” oriented. Taiclet’s first day at the company was September 10, 2001.

6.2.2 – Organizational Structure

In the period immediately prior to the 9/11 crisis, American Tower was in a mild organizational crisis stemming from its acquisition growth strategy. Up until 2001, American Tower’s primary business model focused on growth through acquisition of smaller companies. As a result, the various portions of the company each had their unique processes and procedures leading to a disjointed alignment. Because of the varied backgrounds, each portion of the company had a different culture than that of the company headquarters.

As a result of the highly fragmented structure, there were a large number of inefficiencies and organizational complexities to overcome. American Tower was at a point that these differences needed to be addressed in order to continue to grow. The disjointed state is one of the primary reasons Taiclet was hired at American Tower. He had a mandate to improve the alignment and processes. Through the use of standardization and consolidation, he was to position the company for future growth.

⁴ All material in this case study draws from a personal interview with Mr. Jim Taiclet on 26 August 2015 and from an unpublished caselet produced by Mr. Taiclet for MIT’s Managing in Adversity class.

6.2.3 – 9/11 Crisis

Verestar, a subsidiary of American Tower, had an office on the upper floors of the World Trade Center. When a plane crashed into the tower on September 11, 2001, 13 employees or 40% of the workforce lost their lives (“Martek Global” 2015). The panic and fear created by the terrorist attack coupled with the loss of employees lives, sent shockwaves through not only Verestar, but through American Tower as well.

As the recession following 9/11 grew in magnitude, American Tower’s crisis became more complex. Not only did American Tower have to find a way to deal with the loss of human life, but also to find a way to survive in the failing economy. The telecom industry was particularly hard hit. American Tower had difficulty securing debt financing for any of its business needs and to refinance the \$200 million of convertible debt that was due within the next 12 months. Some of this convertible debt was to be repaid with stock, but now stock prices for the company had fallen from a high of \$55 per share to around \$1. This plan was no longer an option.

In addition to the difficulty in securing financing, American Tower’s customer base began to dry up and revenues decreased. Many wireless service providers were forced to bench or scale back any expansion plans. Some Internet companies, which were customers, had to file for bankruptcy. In all, American Tower saw a 50% reduction in revenue in the months following 9/11. The only bright spot was in the leasing business, which derived income from contracts in place prior to 9/11. Even estimates within this sector expected slow or little growth due to the recession.

6.2.4 – Leadership Response

Jim Taiclet had been brought in as the COO at American Tower to slowly restructure the organization into one with more operational focus. When accepting the job, the CEO and founder planned for a period of transition for Taiclet to get to know the people and business before making serious changes. Because of the 9/11 crisis, that plan disappeared. Changes had to be made to support the victims and to ensure the survival of the company as a whole. This responsibility fell squarely in the lap of Taiclet.

The crisis at American Tower was fundamentally different than some of the other case studies explored in this thesis. Taiclet was inheriting an organization that was in need of organization change and restructure at the same time the crisis occurred. He didn’t have the luxury to address these problems separate from the crisis situation. He had to tackle a restructuring process that was compounded by the financial situation and loss of human life brought on by 9/11.

Taiclet quickly realized someone had to rise to the occasion and take charge. This appeared to come naturally to Taiclet, due in part to his military background. He quickly divided problems into short-

term and long-term sectors. By triaging problems into short-term or long-term, it allowed him a format to focus his efforts.

On 9/11, Taiclet made an operational decision for all employees to leave work and go home. Because of American Tower's proximity to the John Hancock and Prudential buildings in Boston, he feared for the safety of his remaining employees. With the safety of the employees in Boston secured, Taiclet's attention quickly turned to supporting the Chief of Verestar and the families of the deceased employees. An executive and HR rep was assigned to each family of the victims to assist in any way possible. The company took a proactive stance and helped with insurance claims, benefits, and even scholarship funds for the families' children. Money wasn't an object at this point. It was more important for the remaining members of the American Tower community to fully support the victim's families and to know that American Tower would do the same for them if the situation would ever arise.

After the short-term needs were met, Taiclet turned to shoring his foundation and support prior to enacting changes. Due to his limited time at the company, Taiclet felt unsure of both his formal and informal authority within the company. He realized that without both aspects of authority, any plans he would implement would be destined for failure. He approached the CEO to ask for reassurances of authority. True to his word during the recruiting phase, the CEO pledged full support and authority to enact necessary changes. Taiclet confirmed there would be no back doors or undermining of his position between the CEO and other long-time employees of the company.

With the support structure in place, Taiclet organized an offsite for the executive team to develop a strategy for moving forward. During the offsite, scenarios were presented, debated, and individual inputs were solicited. A consensus was reached that the company was going to implode if action wasn't taken. As the offsite drew to a close, Taiclet developed a plan in which American Tower was to focus on its core capability of tower leasing; everything else had to be trimmed. Before the meeting ended, Taiclet made it clear to all participants that everyone was expected to be on board with the plan. If they weren't on board, he offered them a generous package to amicably leave the company.

Taiclet and his team crafted a structured communication plan to distribute a strategy and implementation process in a clear and concise manner. He recognized that employees were scared, so he tried to provide them with constant, up-front, and honest communication during every phase. Even though the news was rarely positive, it created a sense of transparency and trust during the entire situation.

In the months and years that followed, American Tower reduced their staffing level from 5000 to 1000 individuals. Staffing at the executive level was reduced from 13 individuals to 8 within four months. Eventually this number was further reduced to 5. Portions of the company not relating to the core capability were repackaged and sold to owners with similar interests. In all, Taiclet and his team were very methodical and precise in trimming the company to a functional level. For example, Taiclet created a defined skillset diagram based on the needs of the company. He would "fill those

seats on the bus” based on merit and skillsets the individual held. These staffing decisions were based on the needs of the company and not an individual’s connections within the company.

During a downsizing of such magnitude, it would have been easy for Taiclet to provide individuals with little or minimum levels of support. Instead, Taiclet chose to invest valuable resources into ensuring that individuals leaving the company were treated in the most respectful manner possible. He recognized that the morale and sense of wellbeing of the remaining employees was contingent on how he treated their colleagues as they were let go. While everyone understood cuts had to be made, it was still a difficult situation and the positive treatment of these individuals greatly improved the morale of the remaining employees. Secondly, Taiclet realized the telecommunications industry was relatively small. The employees he was forced to let go would eventually be his competitors or he would eventually look to hire them back. Taiclet didn’t want to burn any bridges, so in order not to do that he offered employees severance packages and support above the industry standard at the time. Even more telling of his commitment to support employees leaving was how Taiclet handled the sections of the company that were being sold. He worked tirelessly to find suitable buyers for those sections. Taiclet was more concerned about the fit and long-term plans for each section than profits from the sale. During the sale, he successfully incorporated an employment guarantee for his employees. All American Tower employees were guaranteed a job for at least one year. These terms cost American Tower financially during the sales transaction, but preserved the jobs and goodwill of over 3000 employees that otherwise might have been without a job.

The final stakeholder Taiclet had to address was the investors and their investment concerns. Without investor support, American Tower could not have operated and restructured their debt. Taiclet began an aggressive, transparent communication plan. He maintained continual contact with investors and was transparent on his restructuring plans. This constant flow of honest communication on current actions and challenges helped him raise the comfort levels and trust of the investors. By addressing the investor’s concerns early, Taiclet was able to gain valuable time and breathing room in order to save the company.

6.2.5 – Corporation Recovery

From the day Taiclet joined American Tower until October 2002, the stock price tumbled from \$11.45 to \$0.71 per share (Wallack 2007). Over the next five years, Taiclet led American Tower through an astonishing recovery. The stock price rose to \$41 in 2007 and American Tower achieved a \$17 billion market value, which placed it as one of the largest corporations in Massachusetts (Wallack 2007). After trimming the company from a peak of 5000 to 1000 employees following the crisis, American Tower has grown back to approximately 3500 employees. But the recovery was much more than just the numbers, the organization of American Tower significantly changed. American Tower focused on strengthening its core business and developing organizational efficiencies throughout the recovery process. As a result, American Tower recovered as a stronger, more streamlined company than it was prior to the crisis. The changes made following the crisis, laid the foundation for the success American Tower experiences even today.

6.2.6 – Leadership Analysis

Because the 9/11 crisis was of such large scale and impacted American Tower on multiple fronts, the situation called for strong leadership. Though new to the company, Taiclet rose to meet the challenges and save American Tower from collapse. Taiclet's performance as a leader exhibited strengths in the elements of realistic analysis, production of viable options and propensity to act. His accomplishments in these three areas ensured the successful survival and rebirth of American Tower.

Taiclet's propensity to act was seen in the first hours following 9/11. He sent the employees home and quickly established protocols to assist the victim's families. He didn't delay or seek permission, he did what he felt was right at that time. Secondly, he wasn't afraid to act aggressively on a plan to save the company. Taiclet "cut to the bone" quickly. He didn't allow the company to languish in a downward spiral, barely holding on for years. He wasn't afraid to make the hard calls in order to get the company back to a steady state as soon as possible.

When Taiclet organized an executive offsite to develop and confirm a viable strategy, he effectively garnered other's perspectives. These perspectives enabled a path to produce realistic analysis and viable options despite his inexperience in the company. Out of this meeting emerged a robust and realistic plan to save the company. Taiclet took steps to ensure success beyond the planning phase by requiring complete commitment to the plan. By offering a choice commitment or a way to leave the company, Taiclet ensured all members would fully work to execute the plan, take ownership responsibility, and minimized the possibility of being undermined at a later stage.

Taiclet performed well when communicating his survival plan to employees and to investors. Because of his straightforward and structured communication plan, he was able to maintain trust and transparency with his employees. He continued this philosophy with crucial investors, which once again allowed him to gain valuable time to save American Tower. Though he excelled with downward communication, completing the communication loop with upward feedback was somewhat lacking. Taiclet solicited feedback from his executive staff constantly, but struggled to fully incorporate a system that bubbles up feedback and ideas from the lowest levels. While difficult to perform in such a dynamic environment, soliciting ideas and harnessing potential solutions from the lowest levels might have provided some unique and favorable solutions that Taiclet would not have been able to envision based on his position and experience with American Tower.

Not many leaders unknowingly face a crisis of this magnitude on their second day with a company. Because of his relative inexperience with American Tower, it could have been easy for Taiclet's support to erode as he faced difficult and unpopular choices. Since the founder was still involved in the operation of the company, it was extremely smart for Taiclet to seek assurances of support prior to engaging with the executive staff. By ensuring both formal and informal support, he solidified his foundation and backing, allowing him the authority to effectively and efficiently make the required changes without dissent from the executive team.

Taiclet's strength as a leader is evident. Very few leaders have the ability to take an organizationally dysfunctional company and guide it successfully through a difficult crisis. Taiclet's leadership performance was particularly strong in the areas of propensity to act and strength of foundation, especially considering his short time at the company. Though of relatively minor concern, Taiclet's communication tended to be one-way with most of the company outside his close executive leadership. Table 7 and Figure 6 represent a subjective scoring of the five key leadership elements for American Tower's 9/11 crisis.

Table 7 - American Tower Leadership Elements Analysis

Individual Leader Elements	Relative Scoring
Strength of Foundation	4
Realistic Analysis	4
Communication	3
Production of Viable Options	4
Propensity to Act	5

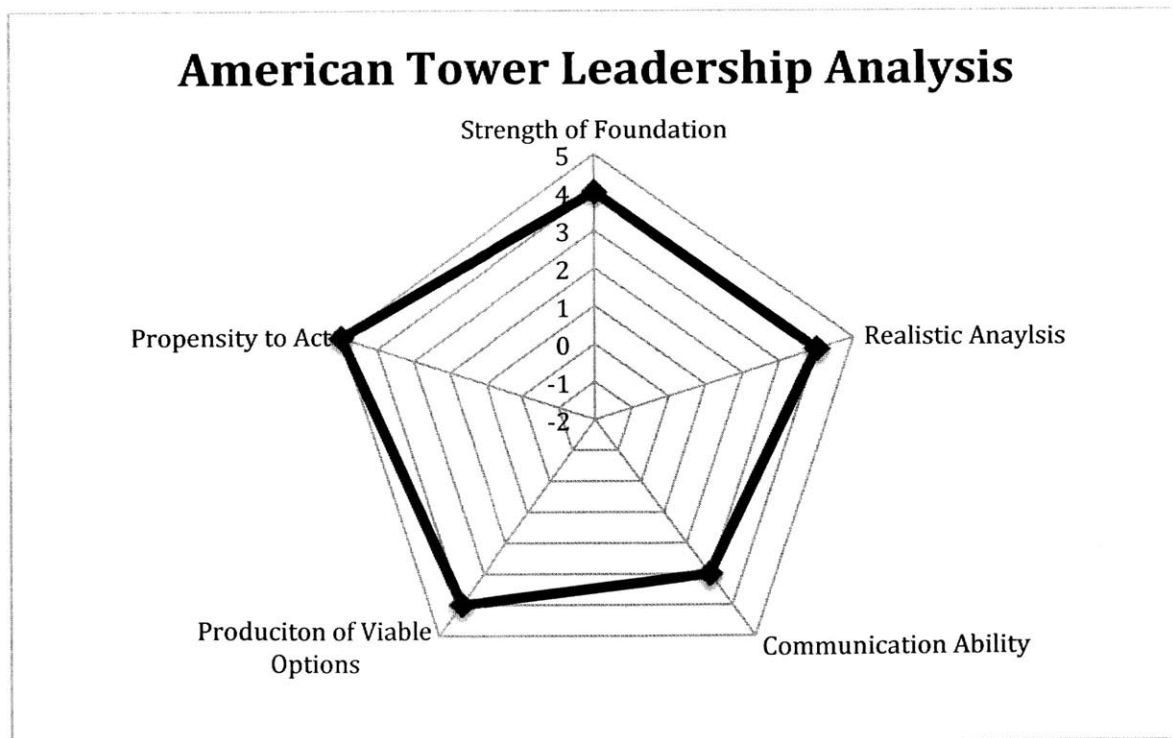


Figure 6 - American Tower Leadership Radar Graph

6.2.7 - Organizational Analysis

Since American Tower's organizational structure was primed for restructuring prior to the 9/11 crisis, during the crisis recovery process and resulting downsizing, the overall structure changed multiple times due to the original deficiencies as well as the issues introduced by the crisis. Because of the constantly changing structure, strict analysis of the overall system during the entire crisis is challenging. Despite the difficulties, there are general trends and elements of the framework seen throughout the organizational changes. Particularly strong were the elements of leadership support, shared vision, and systemic thinking within American Tower. The elements of open communication, team learning, and personal efficacy were weaker or didn't have a large influence in the successful recovery of American Tower.

From the beginning, leadership support within American Tower was extremely evident. This began with the CEO/Founder delegating authority, ensuring support, and providing resources for Taiclet as the crisis recovery began. Taiclet felt he had the ability to act in the best interest of the company without fear of being undermined personally. Taiclet, in turn passed this element throughout the organization. Individuals felt empowerment from the leadership to take the necessary steps to survive. This strong leadership support created an environment in which individuals weren't paralyzed by fear, but felt emboldened to help the company.

The executive offsite on the weekend following 9/11 was key to developing a vision that was central to the ultimate survival of the company. Because American Tower's survival depended on this vision, it rallied the employees to commit to its implementation. This implementation began at the highest levels with the senior leaders during that weekend. They embraced this vision and understood its purpose. During the recovery years, this vision drove the necessary reform and was key to the overall success.

Probably the most interesting element seen in this case is the use of systemic thinking by American Tower's leadership during this crisis. One example that stands out is how American Tower treated the employees let go as a result of the downsizing. It would have been easy to look at the short-term view and minimize separation expenses. Instead American Tower decided to spend capital and decrease profits from the sale of portions of the company to protect its outgoing employees in the best manner possible. This decision had immediate impact on the morale and productivity of the remaining employees. As one might imagine, the remaining employees with the company were deeply concerned with their overall future at the company. Many didn't know if the next round of layoffs would personally affect them. This constant stress of unknown could have had devastating effects on their productivity at work. While American Tower's acts didn't completely alleviate the employees' concerns, by seeing how well their peers were treated when let go, it made them feel more comfortable with and less stressed about their future. They were psychologically freed to focus on their individual roles in helping the company survive.

The second advantage of the beneficial treatment of employees that were let go wasn't realized until years later. American Tower hoped and planned that this drawdown due to the 9/11 crisis would be

temporary. Since the telecommunications industry is very small, Taiclet knew he would encounter many former employees at other companies or would desire to hire many of them back at a later date. By not burning a bridge with these employees and by promoting goodwill, American Tower was able to later successfully hire many of these individuals again, allowing the company to regain high-quality resources lost during the initial downsizing.

American Tower promoted a culture of empowerment during the recovery period. In order to build this culture of empowerment, Taiclet started with empowering his immediate staff and developed incentives that encouraged the percolation throughout the company. He did this by consolidating power and authority with the key leaders. This gave them the resources and authority to make changes they felt were necessary. Along with the consolidation of power, he implemented guidelines to discourage micromanaging. These two policies empowered his employees, broadened their influence, and challenged them to act. Because of their sense of empowerment, employees took responsibility for issues and actively worked to discover solutions.

American Tower effectively communicated its strategy and updates down to the employees at all levels. Because of this communication, individuals were better able to align their individual actions to those of company. It also provided context and clarity on roles individual employees played in assisting in the recovery. While strong in one-way communication, the system failed to contain stout feedback systems. Mechanisms weren't present to solicit and ensure feedback from the lowest levels to the senior management. It wasn't until well after the recovery was underway, that these feedback loops were developed with any significant level of success. As a result of the poor feedback, the elements of team learning, personal efficacy and open communication all suffered.

American Tower significantly transformed as an organization following the 9/11 crisis. Key to this successful transformation was American Tower's propensity for systemic thinking, leadership support, a strong-shared vision, and empowering structure. These elements provided the foundation on which Taiclet and the leadership team restructured the company. Table 8 and Figure 7 represent a subjective scoring of the seven key organizational elements of American Tower during the 9/11 crisis.

Table 8 – American Tower Organizational Element Analysis

Organizational Elements	Relative Scoring
Supporting/Empowering Structure	4
Open Communication	2
Leadership Support	5
Shared Vision	5
Team Learning	2
Personal Efficacy	2
Systemic Thinking	5

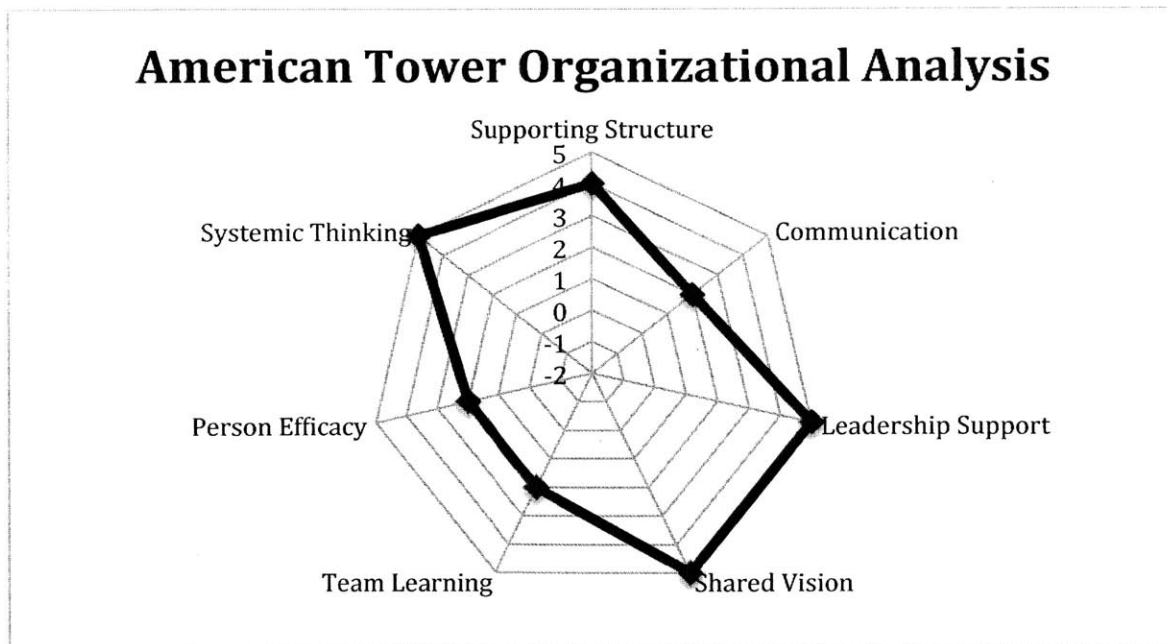


Figure 7 – American Tower Organizational Radar Graph

6.2.8 – Key Observations and Conclusions

- Leaders must be prepared to take charge from the first day.
- Take actions, such as layoffs, in the short-term in order to ensure the survival of the organization, but never fail to consider the long-term repercussions. Minimize those repercussions if at all possible.
- Solidify support from senior leadership and require their 'buy-in' prior to implementing large-scale changes.
- Communication during a crisis is essential. This communication is more than a one-way conversation.

6.3 – Arrow Electronics: The Beheading of a Company⁵

6.3.1 – Company Background

In 1935, Maurice Goldberg, on Cortlandt Street in Manhattan’s “Radio Row,” established Arrow Radio, a small retail store specializing in used radios and radio parts (“Arrow History” 2015). Over the next thirty years this small store grew into Arrow Electronics through expansion into franchised part distribution to both retail and industrial customers.⁶ In 1968 three Harvard Business School classmates, Duke Glenn Jr., Roger Green, and John Waddell assumed controlling interest in Arrow Electronics. In 1969, this partnership established a vision for Arrow Electronics based on industry consolidation through strong financing, inventory control, and product management.

Arrow Electronics was a distributor for parts from manufacturers of semiconductors, passives, electromechanical devices, and connectors. These parts were sold to approximately 20,000 small to medium sized manufactures of OEM electronics. In 1980, the total sales of Arrow Electronics were close to \$350 million and its stock price had just hit an all time high of \$52.75 on December 4 (Klienfield 1982). In fact that morning, John Waddell appeared on Wall Street to ring the morning bell in celebration of an impending stock split.

6.3.2 – Organizational Structure

Arrow Electronics was organized as a high-decentralized local value creation organization. Duke Glenn was the CEO and Chairman of the corporation and developed the culture into one characterized as a “family style” environment with little hierarchy and very little formal communication or processes. The headquarters consisted of 200-300 individuals and supported 40 branch offices in various industrial cities throughout the United States. Each branch office ran in a semi-independent manner with the authority to control inventory, franchise agreements and customer relations. Each branch conducted its own hiring and training programs based on its specific needs.

The communication structure was informal and relaxed. In the headquarters, communication was often done in-person and agreements or taskings occurred verbally. This informal structure continued with the branch offices as well, with minimal formal communication to the branches and no requirement for formal return or feedback from the branch offices. In fact, because of the dysfunctions in the formal system, an informal reporting system through the operations department provided a conduit of information that was critical to the overall survival of Arrow Electronics.

In the late 1970s Glenn recognized the need for Arrow Electronics to implement a more professional and formalized work environment in order to continue to grow the company. Within the branch offices, he had begun to explore plans to gain efficiencies through nationalizing franchise

⁵ Klienfield 1982

⁶ All material in this case study draws from a personal interview with Mr. Steve Kaufman and Ms. BJ Hess on 31 August 2015 and from an unpublished caselet produced by Mr. Kaufman for MIT’s Managing in Adversity class.

agreements and inventory controls. These changes were to be slowly implemented in the early 1980's.

Despite the challenges in communication and inefficiencies in structure, Arrow Electronics was extremely successful. Some of this success might be due in part to the electronics market at the time, but more importantly was the culture the three partners had created. Duke Glenn was the face and 'father' of the company as the CEO, Roger Green handled all the financials as the CFO, and John Waddell was more hands-off while handling the funding and Wall Street relationships. The company was always about "we" and not about "I." The culture of joint teamwork and family atmosphere, where employees cared for combined with Glenn's dynamic personality allowed for the success and growth in the early stages.

6.3.3 – Loss of Leadership Crisis

On December 4, 1980, spirits inside of Arrow Electronics were high. Sales and the stock price were at an all time high. The company had expanded to become the second largest radio parts distributor, only behind the electronic giant Hamilton-Avnet (Klienfield 1982). Waddell was at Wall Street for the opening bell to announce a split of Arrow Electronics' stock.

On that day, the senior leadership gathered to have an executive offsite meeting at the Stouffer's Inn in Harrison, NY. During the morning meeting, a flash fire began in the hallway outside the conference room where the executives were meeting (Klienfield 1982). The fire rapidly spread through the building with intense heat and ended the lives of 26 individuals (Klienfield 1982). Half of those killed in the fire were senior leaders from Arrow who had been trapped in the conference room during the fire. Within minutes, Arrow Electronics had lost 13 of its top executives within the company. The only leadership left was Waddell because he had not yet returned from his morning commitments at Wall Street.

6.3.4 – Leadership Response

The response of the leadership at Arrow Electronics is a two-part tale. As the sole-surviving leader, John Waddell lead the company through the initial steps of recovery, but it was not until Steve Kaufmann came on board did the company fully recover and move forward.

From the moment that Waddell received the phone call informing him about the horrific fire, he took the reigns at Arrow Electronics. He immediately transformed the way he interacted with the company. Before his focus was on company financials and Wall Street investor relations. He had little to do with the day-to-day operations of the company. From the outset of the crisis, it was clear that Waddell was in charge of Arrow Electronics and that he was not going anywhere. Employees described his immediate presence as, "calm, controlled, and confident." He was the clear leader and focused immediately on supporting his remaining employees and the families of the victims.

Waddell effectively balanced the need to be supportive to the employees dealing with the tragedy while making moves to ensure the future of the company. Arrow's highly decentralized structure allowed the branches to continue "business as usual" despite the void in headquarters leadership. The company during the first few weeks was simply on autopilot. Waddell made the decision to have the annual Christmas party despite the tragedy, because he felt the need for the company to slowly get "back to normal" and take the first steps to move forward. During the party he took a moment to recognize the tragedy and had a moment of silence for the victims and their families. This party represented the first step in moving forward.

Arrow Electronics already had a relationship with McKinsey and Company Consultants because of an inventory control system renovation project. Waddell asked McKinsey to come on board and help develop a survival plan. Waddell also moved immediately to shore up financing concerns by bringing Bob Greenhill, longtime friend of Duke Glenn, onboard. These two moves stabilized the pressure from Wall Street and protected Arrow Electronics from the possibility of a hostile takeover attempt from one of its competitors.

Within six weeks, Waddell identified Alan Stein, who had great experience inside the electronics industry, as the new CEO. Stein's role was to portray an image of stability, convince the industry that Arrow Electronics would be okay, and begin the rebuilding of the company in a thoughtful manner. In efforts to help with this rebuilding, McKinsey and Company sent consultants to assist with operations, Ernst and Whinney loaned an accountant to Arrow Electronics to act as CFO, and suppliers sent individuals to assist in the headquarters. A conscious decision was made by Waddell and Stein to proceed with this temporary plan instead of replacing all positions immediately. As a result, teams were formed to discuss situations and to make decisions for the betterment of the company.

Throughout the next year, Waddell was able to protect the company from potential threats and return the company to somewhat normal operations once again. In February of 2002, Alan Stein was let go and Waddell stepped in as CEO. He quickly brought Steve Kaufman on as president of the Electronics Distribution Division with the intent of him leading reform at Arrow Electronics.

Kaufman, with Waddell's support, immediately began to restructure and reform the culture and organization at Arrow Electronics. His initial methods could be best described as a stakeholder evaluation. He began with engaging with employees at headquarters, meeting with suppliers and customers, and visiting as many branch offices as possible. Within months, Kaufman had begun to develop a culture similar to the "family style" culture that previously existed, but with increased emphasis on efficiency gains and growth. He challenged employees with a clear vision through his "billion dollar" speech. During this speech he challenged them to look forward to a financial goal they never thought possible. He implemented structural changes to the reporting structure and changed the methods of communication. Kaufman expected to receive feedback and inputs from all levels of the company. He implemented personal standards of conduct and ethical codes to prevent improper arrangements with suppliers or customers. Kaufman worked on striking the right balance

throughout the company on delegation and micromanaging, while restructuring incentives to promote entrepreneurial behavior.

6.3.5 – Corporate Recovery

Loosing 13 of the top executives took its toll on Arrow Electronics. There was a constant struggle to preserve its reputation, prevent takeover attempts, replace the corporate knowledge lost, find new hires willing to take a risk on the company, and gain new customers. It took nearly ten years to return to profitability (“Stouffer’s Inn Fire” 2015). In the seventeen years with Kaufman at the helm, the company rapidly expanded globally through growth and acquisition. Arrow Electronics became the world’s largest distributor of electronic components with \$10 billion in annual sales and 10,000 employees (Carey and Von Weich 2003).

6.3.6 – Leadership Analysis

When most of a company’s senior leadership disappears in the span of one day, the challenges for whoever take the reigns are immense. There are issues and problems with all concerned stakeholders that the new leader must address. Considering the degree of devastation, Waddell and eventually Kaufman’s leadership through the crisis was extremely strong. When analyzing the leadership, the elements of realistic analysis, production of viable options, and propensity to act had the largest impact in the overall success of their leadership styles.

When Waddell first heard the news about the fire, the wave of emotion and feelings of burden must have been enormous. First and foremost he was mourning the loss of his classmates and colleagues. Secondly, he had to exhibit a face of “calm, cool, and collective” behavior for the support of the employees at the company. Finally, he had to be the one to develop a plan for the company’s survival. Waddell comprehended the severity of the situation and solicited help from outside sources such as McKinsey and Company, suppliers, and Wall Street contacts. By recognizing his shortfalls and reaching out to these sources early for assistance, Waddell was able to develop a sound strategy and secure resources to maintain Arrow Electronics in the short-term.

Waddell had no choice but to quickly implement this strategy. With all the leadership of the organization gone, the company demanded action in order to survive. In the initial months, Waddell showed no hesitation in his efforts to bolster the survivability of Arrow Electronics. He made quick selections of a CEO and CFO designed to give stability to the situation even though these individuals were not suited for the long-term recovery effort. Waddell didn’t let Arrow languish because of the lack of decisions from senior leadership. He implemented change at a rapid, but necessary pace.

When Kaufman was brought on board to tackle the long-term strategy, he took time and effort to gain a clear understanding of the company and associated stakeholders. Due to the state of the company, there was still pressure to act immediately to ‘fix’ the crisis but not at the same level Waddell experienced. Kaufman recognized the balance between developing a realistic analysis and

the need to act quickly at this stage of the crisis. Since the company had stabilized, he had the luxury to take additional time to make sure his analysis was correct before implementing changes. Even though he took more time and placed more efforts on the long-term analysis, Kaufman's decisions were still made in a timely and effective manner.

In an unusual way, Arrow Electronic leadership's strength of foundation contributed significantly to the company's recovery. The mental model used to evaluate strength of foundation tends to focus on one individual's foundation instead of the leadership's foundation as a whole. In this case, none of the individual leaders had a particularly strong foundation prior to the crisis. Despite the individual limitations, when synergistically combined, the combination of all those foundations provided great value to Arrow Electronics. With his family culture and supportive atmosphere, Duke Glenn had developed a strong rapport with the employees at Arrow Electronics. This dedication and rapport with Glenn ran deep. In fact, many of the employees cite their feelings of dedication to Glenn as the reason they eventually stayed with the company. Waddell had great relationships with Wall Street and through his connections and Glenn's friend, were able to hold off takeover attempts during the crisis. Kaufman brought a unique foundation of support and connects from his working in business consulting, which helped Arrow Electronics begin the growth process. Waddell and Kaufman had the ability to combine these foundations and effectively utilize them to support Arrow Electronics during all phases of the crisis.

Of all the five leadership elements analyzed, the communication of the leaders had the least impact on the success of the recovery. This is not necessarily a reflection of the communication ability of the leaders, but more a reflection of the communication system in place at the time. While Waddell did communicate a message of moving forward and of the company's stability, his communication was needed only for overarching strategies and reassurance. The company was on autopilot due to its decentralized nature. Constant communication was not necessary to sustain the business. Until Kaufman made changes in the communication structure the leadership communication didn't significantly impact the recovery of the company.

Prior to the crisis, Waddell was not the natural leader at Arrow Electronics. He played a more supporting role while his colleagues were the face of the leadership. Following the crisis, Waddell quickly adapted and transformed himself into the front man for his employees and the company as a whole. Waddell, and later Kaufman, successfully realized the state of affairs at Arrow Electronics and were not paralyzed to act, sought assistance that was needed, and then implemented a successful recovery plan. Table 9 and Figure 8 summarize the leadership impacts of Waddell and Kaufman at Arrow Electronics during the crisis.

Table 9 - Arrow Electronics Leadership Elements Analysis

Individual Leader Elements	Relative Scoring
Strength of Foundation	4
Realistic Analysis	5
Communication	1
Production of Viable Options	4
Propensity to Act	4

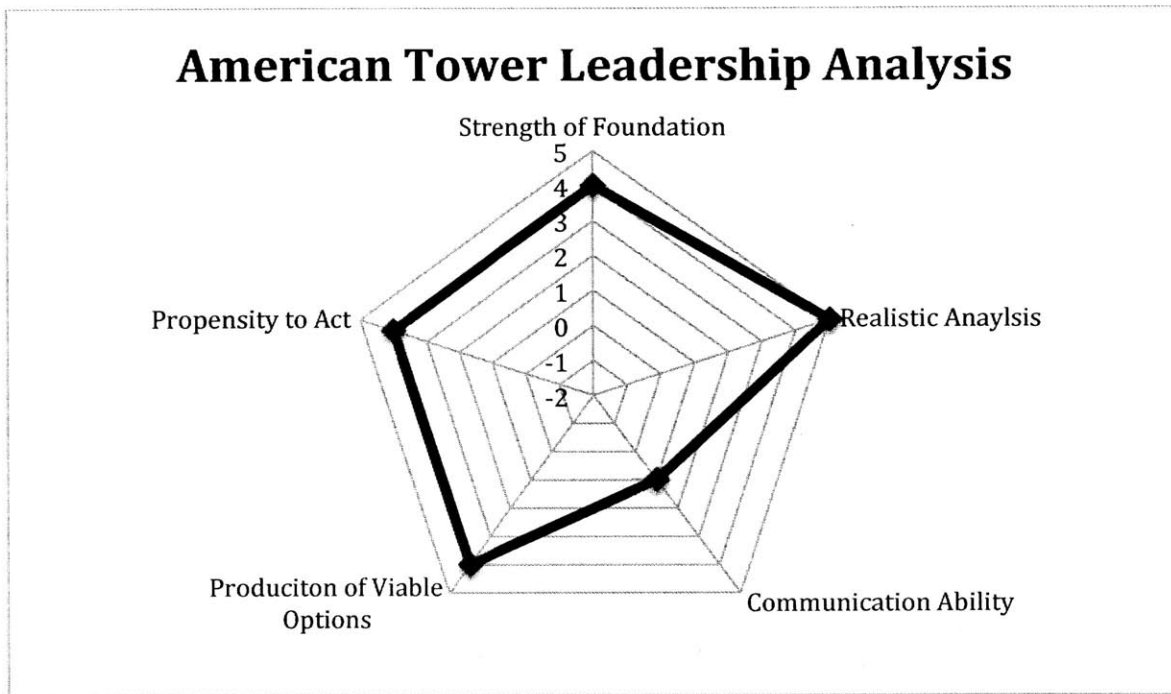


Figure 8 - American Tower Leadership Radar Graph

6.3.7 - Organizational Analysis

In the years following this crisis, Kaufman transformed Arrow Electronics into a more streamlined, efficient company with control consolidated at higher levels. When reflecting on the crisis, Kaufman admitted that the company probably wouldn't have survived if it had been structured like the current day Arrow Electronics. Arrow Electronics' decentralized structure, strong support from leadership, and a robust shared vision sustained the company throughout the crisis. As a downside, Arrow Electronics' decentralized structure also impacted communication. Its relational based structure

hindered the recovery in the long-term and required significant structural changes by Kaufman to ensure future success.

Arrow Electronics' decentralized organization at the time allowed the company to continue operating despite its "beheading" (Klienfield 1982, F1). The branch offices were empowered with the authority and resources to continue operations in the first month without need for larger amounts of support from headquarters. Because of the structure, Waddell was given a valuable block of time to restore senior leadership functions without having significant impacts on the day-to-day operations of the company.

Both Waddell and Kaufman were effective in creating a shared vision, communicating it to the organization, cultivating buy-in, and modifying the vision as necessary through the recovery process. This shared vision was integrated well with leadership support at all stages, which increased employee dedication to the vision. Early in the process, Waddell was focused solely on survival by redirecting the grief and anger experienced by individuals in a positive manner. As the recovery process continued, his focus changed as the circumstances changed. By the time Kaufman implemented many of the changes, he had rallied Arrow Electronics around building a better company than before the crisis. As part of his plan to build a stronger company, Kaufman challenged the company to reflect upon the resiliency they had during the recovery from this crisis. He utilized methods to learn from their experiences, capture those lessons, and to use the tragedy as motivation to continue forward to build a more robust company.

Instead of bringing in an entirely new set of managers at one time, Waddell chose to allow teams to run the core portions of business. By working in teams, individuals were able to gain a greater insight than any one individual in the group possessed. These teams also served to open communication and share experience across boundaries within the company. By having a system in place that supported this team learning, for a period of time, teams were able to effectively manage departments within the headquarters.

Arrow Electronics' decentralized structure helped with continuous operations, but the lack of effective communication proved to be a barrier to the recovery process. With the lack of an organized feedback structure, much of the communication was done on an informal basis. Communication was centered on relationships. When key players in the relationships were no longer there, it took time and effort to reestablish the communication. With the headquarters struggling, improved communication from the branch offices would have been extremely beneficial in developing and implementing plans. It wasn't until Kaufman implemented changes during his arrival, did this process and structure begin to slowly change.

In a similar manner to the analysis of the communication structure, based on some of the initial leadership decisions, it would have been easy to develop a negative impression of systemic thinking within Arrow Electronics. Within six weeks a new CEO was brought in to the company whose performance and overall benefit to the company was questionable. A topical analysis would assume that it would have been better for the long-term prospects of Arrow Electronics to wait and bring in

a CEO that could implement the proper changes. But as seen in this case, systemic thinking is not always looking at the ideal long-term solution. In order for the company to survive there had to be a new CEO. The company had to buy time and create an image of stability. Even though Stein was not an ideal solution, Waddell's plan to address immediate concerns and then follow up with a long-term reform using Kaufman showed a realistic systemic evaluation and plan of action.

Arrow Electronics' organizational structure wasn't ideal at the time of its leadership crisis. Despite its shortfalls, it contained many elements that contributed immensely to its survival and ultimate success. Many elements, that initially detracted from its recovery, were modified by Waddell and Kaufman and ultimately contributed in a positive manner to Arrow Electronics' ultimate success. Table 10 and Figure 9 represent a subjective evaluation of the seven key organizational elements of Arrow Electronics' structure during its loss of leadership crisis.

Table 10 – Arrow Electronic Organizational Element Analysis

Organizational Elements	Relative Scoring
Supporting/Empowering Structure	5
Open Communication	-1
Leadership Support	4
Shared Vision	4
Team Learning	5
Personal Efficacy	3
Systemic Thinking	3

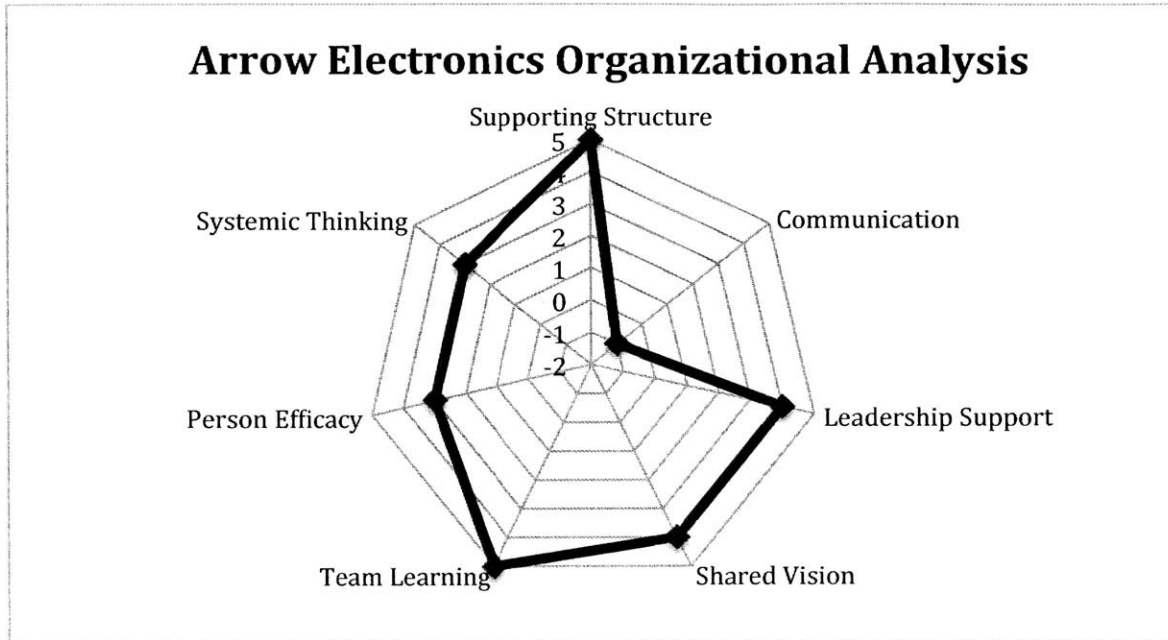


Figure 9 – Arrow Electronics Organizational Radar Graph

6.3.8 – Key Observations and Conclusions

- A company in crisis needs a visible leader who is “calm, cool, and collected.”
- Don’t be afraid to act. If the situation warrants immediate action to survive, take those steps without hesitation.
- Decentralized structures can be beneficial in times of a crisis with senior leadership. Leaders must balance these benefits with the inefficiencies created by such an organizational structure.
- Systemic thinking involves holistically analyzing the crisis situation. Sometimes short-term needs of survival outweigh negative impacts to the long-term goals of the company.
- Formalize a strong communication network ingrained into the organization. Don’t rely on a communication built solely reliant on relationships.

6.4 – Charles River Laboratory: “Thanksgiving Day Massacre”

6.4.1 – Company Background

In 1947, Dr. Henry Foster purchased thousands of rat cages and established a small laboratory on the Charles River in Boston to provide animal models to local researchers (“Who We Are” 2015). From these small beginnings, with the help of his younger brother, Dr. Foster grew Charles River Laboratories (CRL) into a market-leading producer of medical research models. (“Charles River Laboratories ” 2015) Because of its successful growth and stable profits, in 1984 Bausch & Lomb (B&L) acquired CRL.⁷ Though CRL was not in line with their core business, B&L acquired CRL to provide diversity and increased revenues in the company’s overall portfolio. Fifteen years later, CRL experienced a leverage-buyout by private investors when B&L returned its focus to their core industry. Because of a skilled transition, CRL was taken public with an IPO in June 2000. Since its IPO, CRL has continued to become a leading provider of products and services that support companies focused in drug discovery and early-stage development processes.

Since its beginnings, CRL has always been a “family.” In 1976, James ‘Jim’ Foster joined his father at CRL. Foster’s experience and responsibility grew along with the company. Since his start, he has held many positions within the company to include Vice President of Administration, General Counsel, and Executive Vice President. Foster was named the President in 1991, Chief Executive Officer in 1992, and Chairman in 2000. He currently maintains the role of CEO and Chairman for CRL.

CRL provides over 150 strains of research models, principally purpose-breed rats, mice, and other rodents for the drug development industry. These research models include standard strains, disease-specific models, and general disease models. In addition to small models, CRL also provides disease free large research models primarily for the biomedical industry. Furthermore, CRL provides research model services and preclinical services to a wide number of medical research clients.

CRL developed a reputation inside the industry of providing specific disease-free models. Customers paid a premium price for these mice and rats because of CRL’s ability to provide such high quality and because of little interruption in supply due to the large global infrastructure. In order to preserve this reputation, CRL spent millions of dollars in recycling room technology and rederivation procedures to prevent contamination occurrences.

6.4.2 – Organizational Structure

Foster described CRL as a family business run with a “progressive collaborative culture.” As the company grew, because of strong continuity at the leadership level, support and appreciation for employees at all levels was extremely high. Individuals were empowered and encouraged to collaborate with team members. Foster encouraged an environment where innovation could thrive.

⁷ All material in this case study draws from a personal interview with Mr. Jim Foster on 11 September 2015 and from an unpublished caselet produced by Mr. Foster for MIT’s Managing in Adversity class.

Promotions and growth were primarily from within the company and based on merit. As a whole, the organizational culture and structure was robust prior to the Rat Parvovirus (RPV) crisis.

6.4.3 – RPV Crisis

On the Wednesday before Thanksgiving in 1996, CRL's Senior Director, Professional Services, informed Foster that there was a serious contamination problem with one of their research models. The best selling model, the CD rat, had become contaminated with the RPV. This crisis affected every one of CRL's customers, impacted 20% of revenues, and resulted in 5 of 10 CD rat labs to be unusable. In addition to the RPV concerns, CRL was approaching its end of the fiscal year and was under intense pressure from B&L to record significant better earnings.

In order to prevent such a crisis, CRL routinely conducted serologic testing for known viruses such as RPV. The most recent of these tests, conducted on November 14, had come back negative. Any order fulfillment following this test had to be considered contaminated. Because of the importance customers placed on preventing the spread of RPV into their disease-free facilities, CRL's CD rats were shipped out with health certificates stating they were virus free. The legal implications of providing contaminated rats to customers and contaminating their disease-free facilities could be vast.

6.4.4 – Leadership Response

Sitting in his office on that Wednesday, Foster knew it was too early to know the magnitude and full implication of the entire crisis. Too much was still unknown. He knew that during the holiday weekend he and his management team needed to develop a strategy and action plan to implement no later than Monday morning. Though there were many concerns, two critical decisions, which would have lasting impacts, had to be addressed immediately. First, a decision had to be reached on who should manage the decision making process and secondly, how to handle disclosure to the customers.

B&L was the parent company and thus had a significant stake in how the situation was to be managed, but they lacked the scientific expertise and relationships necessary to handle such an investigation. CRL had the ability to handle the investigation, however if they were solely responsible for the investigation there might be increased opportunity for a conflict of interests and manpower demands to conduct the investigation that could have hampered the company's operations. On the other hand, a joint panel between B&L and CRL might have led to contradictory decisions and increased tensions between the two groups.

The second decision had even greater implications than the first. The degree of disclosure to customers and employees had impacts on both the current and long-term financials as well as overall morale at the company. Non-disclosure to any parties was the choice taken historically by CRL and its competitors. Typically, shipping would be stopped from the barrier rooms affected and deliveries to customers would be prioritized based on the size of the accounts without any mention of the

reason behind the shortage in production. If disclosures were to be made, it would have serious consequences to the reputation of CRL's brand and would have opened CRL up to possible lawsuits.

Foster said he knew the right decision to make. He and CRL had to take ownership of the situation. He felt it was CRL's responsibility. They were the only ones that had the resources necessary to discover the problem and implement a solution. Over that Thanksgiving weekend Foster setup teams exclusively comprised of CRL members to handle the fallout from the crisis.

A scientific team was developed to investigate the cause of the outbreak, implement resolutions and develop procedures to prevent its reoccurrence. The initial investigation specifically focused on uncovering information to find a solution to the crisis, not to place blame on a particular individual or group. This team met continuously during the first weekend and then daily to review findings. In the weeks following, it became clear to the scientific team that there were two fundamental issues. First, despite rigid protocol, foreign matter was inadvertently introduced into the barrier rooms due to neglect of procedural standards. Secondly, the sample size used to test for disease had been too small and the RPV had escaped notice until the disease had spread to a large percentage of the population. Foster readily admitted this decrease in size of the testing population was an error on his and the senior leadership's part. Sample sizes were reduced due in part to pressure from B&L to reduce overhead costs. This scientific team continued to meet on a regular basis for two years following the incident to ensure procedures and training were in place to prevent such a reoccurrence.

The second team focused on customer relations. On the Monday following Thanksgiving, CRL was expected to continue shipment of these research models. CRL's reputation had been built on providing "clean rats" and acknowledgement of this crisis could inflict severe damage to that reputation. Over the weekend, this team and Foster debated potential options. In the end, they chose to be completely transparent with all of their customers. They developed a triage plan to provide the highest level of customer support during the situation. Each customer was individually contacted with the news, with Foster personally accepting responsibility. Customers were given a plan on how CRL would maintain service and support them throughout the crisis. Research models were replaced with foreign models flown in from Europe and Asia. Customers were prioritized based on their size and upcoming needs. Teams of individuals from CRL were dispatched to customer's locations to give advice on how to prevent the spread of RPV to their own stock. If research models had already been introduced into a customer stock, CRL provided any resources or expertise necessary to clean their entire stock and testing rooms. Foster's goal was to reassure and preserve the trust of their customers. CRL accepted full responsibility, acted with complete transparency, and continued "to support them despite the crisis."

Over the next months, Foster and the senior leadership at CRL continued their policy of complete transparency with their customers. Employees were reeducated and retrained on the proper procedures mitigating the risk of model infection. More than just the training, Foster focused efforts to build understanding behind the procedures and the consequences of failure. He wanted everyone to understand the financial and reputational impacts to CRL and to feel an ongoing personal

responsibility not to let this mistake happen again. Foster pushed to change the culture from one of blind following to one of empowered decision making.

6.4.5 – Corporate Recovery

In the years following the RPV crisis, CRL continued to grow through a strategy of internal development and acquisition. When B&L downturn forced the sale of CRL, the annual revenues were \$230 million (“Charles River Laboratories ” 2015). Within one year revenues had grown enough to take CRL public once again. Using the \$224 million raised during the IPO, CRL expanded its presence in the biomedical sector with an acquisition of Sierra Biomedical (“Charles River Laboratories ” 2015). This acquisition was the start of the preclinical services, the second of CRL’s business segments (“CRL Second-Quarter Results” 2005). Under Foster’s continued guidance, in 2009, CRL generated \$1.2 billion in net sales and \$114 million in net income. Despite its large amount of growth and diversification, CRL has maintained the “family” atmosphere that existed in the early days of the company. Foster has taken steps to incorporate lessons learned from the RPV crisis into the company’s culture and procedures to decrease the possibility of a similar crisis occurring again.

6.4.6 – Leadership Analysis

Because of Foster’s strong leadership presence and decision-making during the “Thanksgiving Day Massacre,” he was able to effectively turn a potentially devastating situation into a resilient foundation on which CRL not only sustained growth but also thrived as an organization. Foster performed admirably in all areas, but particularly strong in the areas of realistic analysis and propensity to act.

Foster’s successful performance during this crisis had its foundation developed well before the crisis occurred. He recognized the importance of gaining and maintaining a customer’s trust as a fundamental to CRL’s operations. Through providing high-quality products and Foster’s dedication to transparency with customers, he developed a bank of goodwill to draw from during a time of crisis. Though troubled with the introduction of infected models into their own stock and potential disruptions to their research, customers didn’t immediately turn to the competitors of CRL. They trusted CRL to make the situation ‘right’ and take responsibility for their actions. Without the efforts of Foster and his team to establish this foundation of trust early, the financial and long-term business impacts could have been much larger.

Foster’s footing and relationships with internal stakeholders was not as stable. Within CRL itself the foundation was strong. Foster had a good working relationship with his team and had worked hard to earn their trust and respect. With B&L, the story was different. CRL was never a proper fit for B&L’s core mission resulting in a difficult working relationship between the CEO of B&L and Foster. The difficulties with this relationship were one of the fundamental causes of the crisis and why Foster didn’t want to involve B&L in the recovery from the crisis. If this relationship would

have been more robust, Foster might have been more willing to ask B&L for resources and experience to expedite the recovery process.

CRL's leadership capability was particularly strong in the areas of realistic analysis and production of viable options. Foster and his team realized the impacts of losing that many models immediately. Over that Thanksgiving weekend they were able to not only identify those short-term impacts, but took the analysis to a much deeper level and looked at potential long-term impacts. Their analysis uncovered that the crisis was more of a threat to CRL's long-term reputation rather than the short-term financial and logistical impact. Armed with this insightful and clear analysis, in a short amount of time they were able to develop viable options and courses of action. Maintaining their reputation as a transparent provider was their clear aim. Having such a clear goal early in the process focused the development of potential solutions and allowed for quicker implementations.

Once the recovery plan had been finalized, there was no hesitation on Foster's part to implement. The two recovery teams were created and given the necessary resources to take care of the customer's needs. This timely and proactive reaction allowed CRL to handle the crisis in a proactive instead of a reactive manner. They were able to present solutions to customer problems at the same time they were informing them about the infestation. Many of the potential pitfalls with customers were avoided because of this decisive plan. Foster cultivated an image of a company that had experienced an unfortunate incident, but had effectively handled the situation and had everything under control.

As CRL progressed through the recovery, the high degree of communication exhibited by Foster and his leadership became evident. The customer care team worked nonstop with customers to ensure their contaminated models, future orders, and any cleansing operations were addressed in a timely manner. Foster insisted on transparent communication that developed trust and confidence not only in the short-term but further solidified the future relationships.

Internal to CRL communication between the teams, the leadership, and the entire company were extremely effective. The scientific team continued to meet on a regular basis with the leadership for a period of two years. During this period the team was able to not only change and update procedure but communicate the importance of such procedures. Because of the continual communication efforts, the procedures and more importantly the reasoning behind them became ingrained in the culture of CRL.

Foster exhibited superb leadership of CRL during this crisis. He was able to accurately analyze the root causes of the crisis, develop potential solutions, analyze these solutions through a systemic lens and implement a quick, decisive solution. The only major shortfall in his leadership was his failure to develop a closer relationship with parent company B&L. A closer relationship could have provided more resources to strengthen and expedite the recovery plan. Table 11 and Figure 10 summarize the leadership impacts of Foster and his leadership team at CRL during the RPV crisis.

Table 11 – Charles River Labs Leadership Elements Analysis

Individual Leader Elements	Relative Scoring
Strength of Foundation	4
Realistic Analysis	5
Communication	4
Production of Viable Options	4
Propensity to Act	5

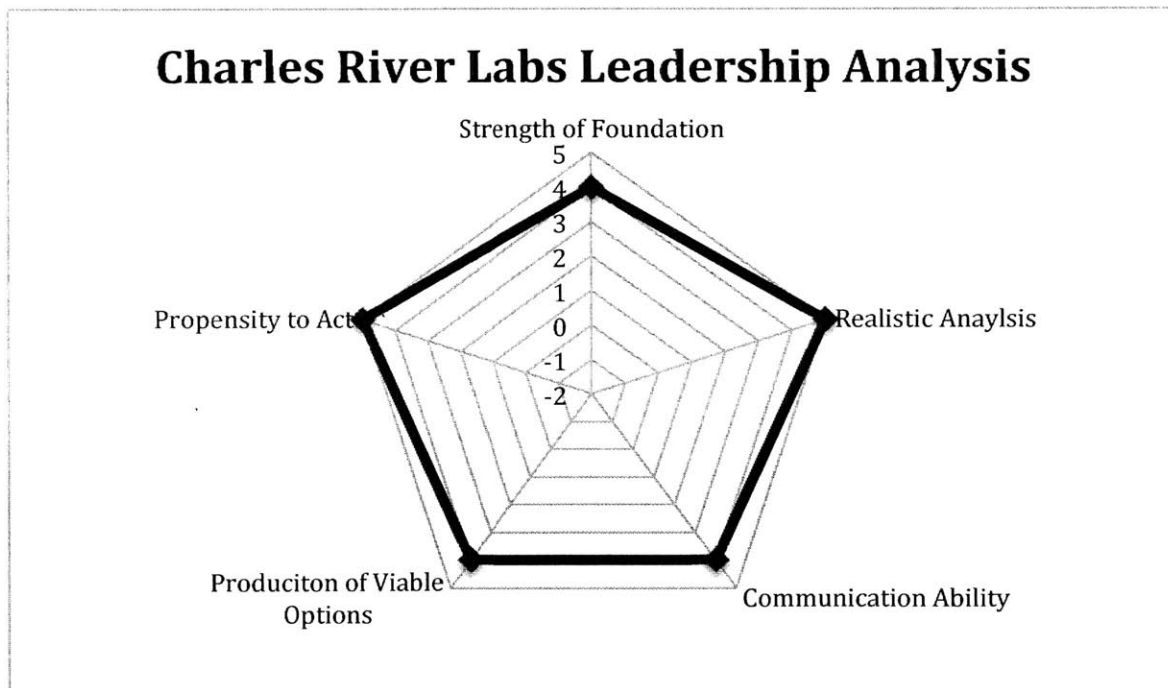


Figure 10 – Charles River Labs Leadership Radar Graph

6.4.7 – Organizational Analysis

CRL, prior to the “Thanksgiving Day Massacre” crisis, had a fundamentally strong organization. The culture at CRL fostered an atmosphere of learning and mutual support. The largest structural weakness was the failure to develop a strong rapport with its parent company B&L which manifested as difficulties in communication and empowerment during the crisis. Throughout the recovery, Foster worked to correct the factors leading to these weaknesses and transformed the overall organization.

Fundamental to transformation of CRL were two key elements related to how learning was accomplished. The culture at CRL promoted an environment where individuals learned from and thus avoided future mistakes. Groups inside the organization were actively encouraged to report negative information to the leadership to empower quick, decisive action on potentially damaging problems. In order for this reporting system to work effectively, the fear of reprisal was low. At CRL, leadership promoted a culture where individuals were held responsible for blatant errors or missteps, but much less so for unintentional mistakes, as long as they were reported in a timely manner. Once mistakes were reported, a team would be formed to fix the problem. Having this mindset embedded in the culture was the primary reason the RPV discovery was so quickly reported. Because it was so quickly reported, action to prevent further compounding of the problem could be taken.

Team learning provided the second element of learning fundamental to the successful recovery of CRL. To first seek the answer to, ‘what has happened’ was built into the social norms at CRL. Only after the problem was solved would the leadership address the issue of responsibility, if warranted. In the weeks following the crisis, CRL was solely focused on discovering the fundamental gaps that allowed the contamination, caring for the customers and preventing the situation from occurring again. Foster and his leadership team in those initial weeks never sought out a group or an individual on which to place blame. Instead they sought information of how and why it happened. Because of the cultural norms, the flow of negative information upward to the leadership was not restricted. Having quick and accurate access to this information allowed CRL to rapidly discover the root cause and respond.

Though not as critical as the learning elements, shared vision and leadership support also provided a strong base for the success of CRL during the crisis recovery. Prior to the crisis, leadership support within CRL was strong. Foster and his leadership team had created an empowered environment. During the crisis, Foster quickly expanded this empowerment, coupled with responsibility, to the action teams. In addition to the empowerment, a clear-shared vision was developed for these teams. The teams had a clear mission and the support from the leadership to find and fix the problems. With the help of these teams, their mandates quickly spread throughout CRL and ultimately contributed to a cultural change within the organization. Members understood the potential threat of

a crisis such as the one they just experienced and knew they had leadership support and individual responsibility not to let it occur again in the future.

Though most of CRL's organizational elements contributed in a positive manner, analysis of the elements of structural empowerment and open communication uncovered weaknesses in the structure. The relationship between CRL and its parent company B&L presented high degrees of contention and secondary causal factors. Because of the nature of this relationship, communication became one-dimensional and empowerment of the CRL as an organization was contained. B&L directed CRL to focus on ways to improve profit margins and boost revenue. Pressure from B&L led CRL to reduce the number of contamination inspections performed in order to reduce costs. This decision ultimately delayed the discovery of the RPV in the models. This contentious relationship continued throughout the crisis, thus limiting CRL's ability to utilize B&L's potential resources to help mitigate the crisis.

Foster and his leadership team's ability to incorporate the final element of systemic thinking led to the greatest overall impact on CRL and its future success. During the response and management phase of the crisis, Foster made critical decisions on how to respond. CRL had built its reputation by providing high-quality models to its customers. Putting customer needs at the forefront was ingrained in the culture and mission of the organization. When Foster and his team debated possible responses, the 'right' choice to be transparent became easier to make because of the company's culture. In the short-term, the decision impacted customer relations and the company's financials. Ironically, in the long-term, the crisis had an overall positive impact on their reputation and customer relations. Since CRL was willing to disclose the error and work with the customers to resolve the situation instead of hiding the problem, customers realized that CRL could be trusted. CRL's reputation was enhanced and thus added additional value to their products because of the "peace of mind" factor. Today, CRL maintains that reputation which has allowed it to thrive and grow while some competitors have struggled and sometimes failed.

CRL's organizational structure and culture provided a strong base that Foster and the leadership team effectively used to mitigate the RPV crisis and build a successful future for the company. Particularly visible during the crisis were the elements of a shared vision, systemic thinking, and an atmosphere for team learning. Due to a poor relationship structure with its parent company, open communication and empowerment structure failed to support the recovery. Table 12 and Figure 11 represent a subjective evaluation of the seven key organizational elements of CRL's structure during its loss of RPV crisis.

Table 12 - Charles River Labs Organizational Element Analysis

Organizational Elements	Relative Scoring
Supporting/Empowering Structure	2
Open Communication	3
Leadership Support	4
Shared Vision	5
Team Learning	5
Personal Efficacy	4
Systemic Thinking	5

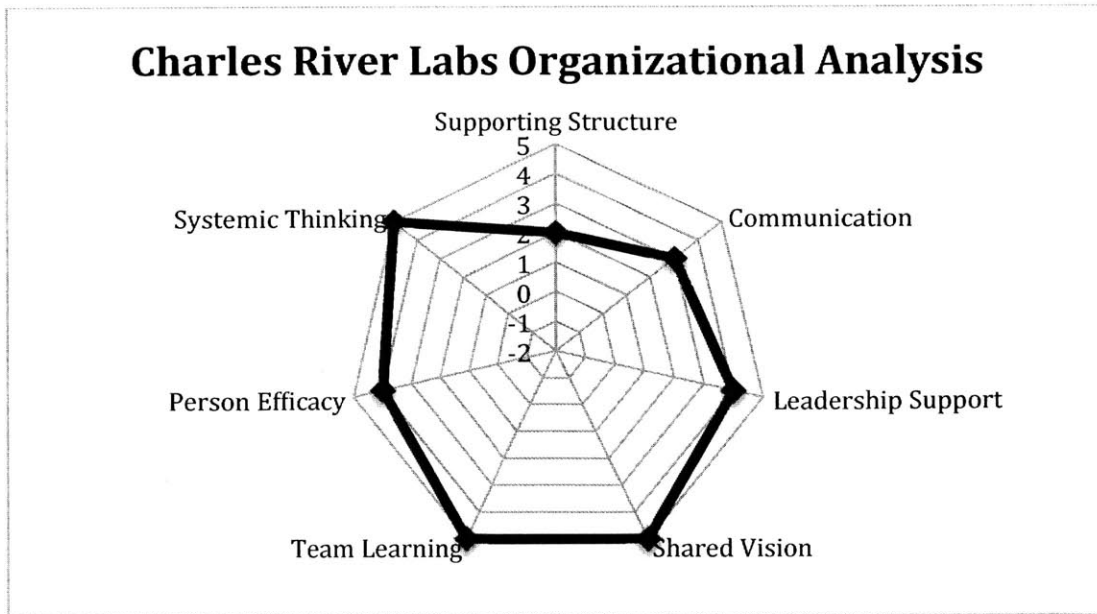


Figure 11 - Charles River Labs Organizational Radar Graph

6.4.8 – Key Observations and Conclusions

- Strong corporate values or culture established well before a crisis will guide key decisions during a crisis. The stronger the values, the easier the decisions become.
- Transparency during a crisis might have negative short-term repercussions, but can bolster a company's reputation in the long-term.
- When considering communication structures, it is equally important to build strong relationships with both internal and external stakeholders.

Chapter 7

Conclusions and Recommendations

In today's business environment every company will eventually face a crisis of some manner. It is not a matter of if, but when that crisis will occur. Each crisis, each situation, and each organization is different. As such, there is not one 'right' way to handle a crisis situation. While there might not be one 'right' way to handle a crisis, there are definitely numerous pitfalls to avoid during all phases of a crisis. Organizations who have successfully handled a crisis situation, whether by chance or deliberate planning, tend to have a combination of strong leadership and organizational structure.

7.1 – Leadership and Organizational Elements

Due to the limited number of case studies evaluated for this research, it is not possible to make a definitive ranking or assessment on which leadership and organizational elements are essential for successful crisis management. In fact, even with numerous evaluations, it would not be possible to definitively determine the most important elements due to the uniqueness of each crisis and each organization. Instead, evaluating the elements within the case studies of this research gives a better perspective on what elements are present at a macro level in each situation. Though each situation is different, basic trends emerge. By aggregating the leadership and organizational evaluation results, three areas in leadership and three areas within the organizational structure emerge as key elements to success. (The aggregated results can be seen in Table 13 and Table 14 below.)

In the evaluation of the leadership elements, realistic analysis had a strong presence in all the cases. During the crisis situation, leaders had to have the ability to quickly make order of the chaos, assess their current ability to handle the situation, and determine if assistance was needed. Without this ability it would have been easy for a leader to approach the crisis with limited scope or without all the resources he or she needs to be successful.

Secondly, the elements of strength of foundation and propensity to act were seen in the leaders evaluated. The successful leaders had developed strong foundations, both internally with the company and with external stakeholders prior to the occurrence of the crisis. They were able to utilize this strong foundation, especially during the beginning stages of a crisis situation. Once the leaders had survived the initial phase of the crisis situation and had developed a plan, they were not

afraid to act. A crisis is a time for action in a dynamic environment. The leader who is unwilling to act will unsuccessfully survive a crisis situation.

Based on the trends seen within this research, strong leaders within a crisis show strengths in and utilize the elements of a strong foundation, realistic analysis, and a propensity to act. In order to better prepare for a crisis, a leader should reflect on how well he or she is prepared within these elements.

Table 13 – Aggregated Leadership Elements Analysis

Individual Leader Elements	Relative Scoring
Strength of Foundation	4
Realistic Analysis	4.75
Communication	3
Production of Viable Options	3.75
Propensity to Act	3.25

When evaluating the organizational elements, leadership support, and shared vision had a strong presence in each of the cases. As seen in this thesis, leadership support for the organization goes beyond the basic elements of leadership. Leadership support is needed to give authority to the structure itself. With a strong organizational structure and leadership backing, the elements of empowerment, learning, and communication can flourish. Without the leadership support for the fundamental structure, these elements won't possess a necessary framework to succeed. Leadership support of the organization itself is the foundation on which all other elements are developed.

In addition to leadership support, it was seen that a strong, shared vision was an essential element in each of the cases studied. During a crisis situation, this research showed those organizations that were able to develop a vision, convey that vision to its members, and to obtain buy-in from the members, handled the crisis situation in a more effective manner. Members internalized the vision, thus were willing to take the necessary steps to accomplish that vision without constant direction or mandates from the leadership.

Systemic thinking was the third element that played a significant role in the success of the majority of the organizations studied during this research. Each organization had the ability to holistically look at not only the immediate pressures of the crisis, but the system in which the crisis was manifested as well. Causal factors were explored to determine which faults within the greater system were to blame. Short-term as well as long-term ramifications of each action were considered and balanced. During this research, it was discovered that leaders and organizations that were able to cogitate in

this manner were better able to prepare the organization for a faster recovery and overall long-term success.

Based on the trends seen within this research, strong organizations within a crisis show strengths in and utilize the elements of high-degree of leadership support, shared vision, and systemic thinking. In order to better prepare for a crisis, an organization should focus attention on broadening these capabilities.

Table 14 – Aggregated Organizational Element Analysis

Organizational Elements	Relative Scoring
Supporting/Empowering Structure	4
Open Communication	2.25
Leadership Support	4.5
Shared Vision	4.5
Team Learning	3.5
Personal Efficacy	2.75
Systemic Thinking	4.25

7.2 – Overlay into Phases of a Crisis

Each of the elements proposed had a defined role and significance within a crisis. During this research, it was seen that the relative importance of each element transforms through the life cycle of a crisis. Some elements, such as strength of foundation, play a significant role in the time period prior to and in the warning phase of the crisis. Other factors, such as team learning, play a much larger role in the resolution and recovery phase. By viewing the elements through the lens of phase, it increases their applicability and usefulness. Organizations and leaders can utilize this information to further refine their preparation for and focus actions during a crisis. During the different phases, leaders can utilize this overlay as a checklist on which elements should garner the most attention. Table 15 below represents this overlay based on the research conducted in this thesis.

Table 15 – Crisis Phase and Element Overlay

Phase of Crisis	Key Elements
Prior to the Start	Strength of Foundation Supportive Structure
Warning	Open Communication
Risk Assessment	Realistic Analysis Production of Viable Options
Response	Communication Propensity to Act Systemic Thinking
Management	Communication Leadership Support Empowering Structure
Resolution	Personal Efficacy
Recovery	Team Learning

7.3 – Future Research

The purpose of this thesis was to explore critical leadership and organization elements models, which contribute significantly to the ability of an organization to successfully navigate a crisis. In order to discover the validity of these models, they were tested in an open interview format with a limited number of organizations that have successfully survived a crisis. In the next phase of research, there are three primary opportunities for expansion. First, the refined elements can be tested in a quantitative manner with a larger set of senior leadership through a formalized survey. This quantitative data will provide greater insights into the relative importance of each of these elements in a larger variety of organizations and crisis situations. Secondly, the case studies in this research focused exclusively on organizations that had handled a crisis situation in a positive manner. In order to confirm the validity of the elements, research can be conducted on organizations that failed to survive a crisis. Reasons for failure can be determined as they relate to the elements proposed in this thesis. Regardless of the approach, there is need for further research in this area of leadership and organizational structure analysis during a crisis. Better understanding in this area of research will help organizations to better prepare for and successfully navigate a crisis.

Chapter 8

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