

The Best of Times, the Worst of Times:

*Strategic thinking mindsets and practices among
seaport CEOs during the 2008-09 global
economic crisis*

Kevin Nourse, Ph.D.
Leap Advocates

June 2009

Table of Contents

Section 1: Study Abstract	4
Section 2. Introduction and Background.....	6
2.1 Background	6
2.2 Limitations	6
2.3 Participant Demographics	6
Section 3.0: Study Findings	8
3.1. Unique attributes of the current economic challenge	8
3.1.1. Sudden nature of the decline.....	8
3.1.2. Uncertainty about the duration and extent of the downturn	8
3.1.3. Global nature of the crisis.....	9
3.1.4. Willingness of the US federal government to spend billions to stimulate recovery	9
3.1.5. Lack of confidence in major economic institutions.....	9
3.2. Past experiences with similar adversity	9
3.3. Recognition of the crisis.....	10
3.3.1. Recognizing trends internal to the port	10
3.3.2. Observed trends in other seaports	11
3.3.3. Recognized trends from other external sources.....	11
3.4. Frames or views of the crisis.....	13
3.4.1. Viewed as an opportunity.....	13
3.4.2. Viewed as a threat.....	15
3.4.3. Viewed as an opportunity, challenge and a threat.....	16
3.5. Leadership challenges springing from the crisis	16
3.5.1. Thinking strategically.....	16
3.5.2. Managing and motivating port employees.....	18
3.5.3. Understanding the customer’s business and forecasts	18
3.5.4. Managing perceptions of the public	19
3.5.5. Managing the expectations of commissioners and elected officials.....	19
3.5.6. Lack of customer diversification	20
3.6. Leadership actions in response to the crisis.....	20
3.6.1. Embrace a positive leadership mindset	20
3.6.2. Assessment and planning	21
3.6.3. Communicate with and engage port staff.....	22
3.6.4. Communicate and engage with other stakeholders.....	22
3.6.5. Engage the port management team	23
3.7. Identify and develop strategic opportunities.....	26
3.7.1. Assessing and responding to customer needs.....	26
3.7.2. Optimize existing processes, products, or services.....	28
3.7.3. Innovate through new processes, products or services.....	29
3.7.4. Change and adapt the organization.....	30
3.7.5. Partnering.....	32
3.8. Competencies needed by middle managers.....	34
3.9. Leadership lessons	35
3.9.1. Role and importance of communication during crisis.....	35
3.9.2. Importance of maintaining a positive demeanor and outlook.....	36

3.9.3. Importance of not becoming complacent	36
3.9.4. Importance of remaining open and intellectually curious	37
3.9.5. Importance of staying focused on the long-term and preparing for growth	37
Section 4: Conclusions and Next Steps	39
4.1. CEO Emotional intelligence is linked to strategic thinking during a crisis	39
4.2. Crises offer an opportunity for CEOs to develop their own leadership skills as well as those of their followers.....	40
4.3 Proactive environmental scanning by CEOs provides a critical time window to prepare for crises and identify strategic opportunities	41
4.4 CEOs play an important role in driving innovation by shattering denial and reinforcing a compelling vision.....	42
4.5 Formal strategic plans and ad hoc strategic thinking by leaders are key for thriving in crisis.....	42
4.6 CEOs use multiple mindsets to analyze situations and develop strategic responses	43
Appendix A: Biography of the Researcher	44

Section 1: Study Abstract

Research has shown that the ability of organizations to thrive in this economic crisis is strongly linked to the ability and performance of their leaders. To help develop industry leaders, it is essential to identify both critical behaviors as well as intellectual capabilities such as judgment and wisdom. While leadership is the subject of countless books and articles, few focus on the unique challenges of leaders in the seaport industry. Thus, a need exists to better understand how leaders think when faced with a crisis in the context of the dynamic seaport industry. With this information, industry officials can better train and develop future leaders.

This exploratory study was based on anonymous interviews with 15 port directors from the US (12), Canada (2), and the Caribbean (1). Their average tenure as port directors was 12.2 years, and the majority of participants (10) were employed at landlord ports. Participants were invited to take part through an e-mail sent in March to all port directors at the American Association of Port Authorities (AAPA) member organizations. Interviews were conducted in person and by telephone.

Among the key findings:

- Only two of 15 participants had had a previous experience as a port director with a crisis of this magnitude.
- On a scale of 1-10 (with 10 representing the most negative impact, which indicated the economic crisis threatened the continued viability of a port), the average rating by participants of the negative magnitude of the global economic crisis on their ports was 5.
- The economic crisis was perceived as unique based on (1) the sudden nature of the decline, (2) uncertainty about the extent and duration of the situation, and (3) the global impact.
- Participants recognized the emergence of the crisis by identifying trends within their organizations, in other seaports, and in other external sources.
- Participants viewed the crisis as a threat, a challenge, and an opportunity.
- Key leadership challenges triggered by the crisis included thinking strategically in an uncertain context, motivating employees, understanding their customers' businesses, managing public and political perceptions of their organization's response, and dealing with the lack of customer diversification.
- Participants responded to the crisis by embracing a positive mindset, assessing the situation and developing appropriate plans, communicating with stakeholders, and engaging their management teams.
- Participants used five methods to find strategic opportunities including assessing customer needs, optimizing existing services, innovating new

services, making organizational changes, and partnering with various stakeholders.

- Based on a list of 10 crisis leadership skills identified by another researcher, participants listed the five most important skills for middle managers in their ports: (1) embracing the importance of the leadership role, (2) understanding the changing environment, (3) finding opportunities for greater future success, (4) managing oneself and ones' demeanor, and (5) encouraging innovation.

Finally, five themes were identified regarding lessons learned thus far in the crisis, including (1) communicating during a crisis, (2) maintaining a positive leadership demeanor and outlook, (3) avoiding complacency, (4) remaining open and intellectually curious, and (5) staying focused on long-term growth.

The findings of this study suggest a number of conclusions that can be validated with additional research:

- CEO emotional intelligence is linked to strategic thinking during a crisis;
- Crises offer an opportunity for CEOs to develop their own leadership skills as well as those of their followers;
- Proactive environment scanning by CEOs provides a critical time window to prepare for crises and identify strategic opportunities;
- CEOs play an important role in driving innovation by shattering denial and reinforcing a compelling vision;
- Formal strategic plans and ad hoc strategic thinking by leaders are key for thriving a crisis;
- CEOs use multiple mindsets to analyze situations and develop strategic responses.

Section 2. Introduction and Background

In this section, the study background and justification is introduced, along with limitations and participant demographics.

2.1 Background

In a recent *Washington Post* editorial, scholar David Rothkopf of the Carnegie Endowment for International Peace, a think tank in Washington, argued, “the world is in chaos. ... This is not just a global economic crisis. It’s a global leadership crisis.” Seaports serve as a critical element in the global economy and are therefore on the front-line in terms of fallout from the crisis, and they are integral to the recovery from the recession. Research has shown that the ability of organizations to thrive in this crisis is strongly linked to the ability and performance of their leaders.

A key component of American Association of Port Authorities (AAPA) mission is to establish educational programs designed to enhance the skills of current and future seaport industry leaders, as well as to harvest and share industry best practices. To help develop industry leaders, it is essential to identify both critical behaviors as well as intellectual capabilities such as judgment and wisdom. While leadership is the subject of countless books and articles, few focus on the unique challenges of leaders in the seaport industry. Thus, a need exists to better understand leadership thought when faced with crisis in the context of the dynamic seaport industry.

This exploratory study was based on anonymous interviews with 15 port directors from the US, Canada, and Caribbean as reflected in the table below. Participants were invited to participate through an e-mail sent to all port directors at AAPA member organizations in March. Interviews were conducted in person and by telephone. In this article, I summarize preliminary findings from this study.

2.2 Limitations

As with any research study, limitations must be considered when interpreting the findings. First, because the study had only 15 participants, the findings cannot be generalized to reflect the perceptions of all port directors. However, the findings represent a thematic analysis of the interviews conducted and may suggest certain themes that would ideally be validated with larger-scale research. Second, the participants included in this study represent a convenience sample primarily of port directors attending the AAPA Spring Conference in March 2009. Because this is not a random sample, the themes identified in the findings section of this report may or may not represent the views of the majority of port directors.

2.3 Participant Demographics

Table 1 summarizes the demographics of the 15 study participants, of whom only one was female.

Table 1. Study Demographics

Demographic	No of Participants
Location	
USA	
- Gulf Coast	3
- South Atlantic	2
- North Atlantic	4
- South Pacific	2
- Great Lakes	1
Total USA	12
Canada	2
Caribbean	1
Total Participants	15
Port Size (No. of employees)	
- Fewer than 100	7
- 100 to 199	3
- 200+	5
Total Participants	15
Port Type	
- Landlord	10
- Operating	3
- Hybrid/Combined	2
Total Participants	15

Data were collected from all participants regarding the total number of regular employees working for their organizations at the time of the interview. According to the table, most (12) participants were from ports based in the USA and from ports with fewer than 100 employees (7). The most common port type represented in the sample was landlord type (10). Two participants self-identified their port as a hybrid containing both landlord and operating elements. Participants in the study had an average tenure in their role as port director of 12.2 years.

Section 3.0: Study Findings

This section summarizes key findings of the study with representative examples in the words of participants included. Major theme areas were identified in the analysis of the interview data, including:

- Attributes of the global economic crisis that appeared to distinguish it from other recessions;
- Participants' past experiences with similar crises;
- Sources of information that enabled the participants recognize the impending crisis;
- Mindsets or cognitive frames that participants held in viewing the unfolding crisis;
- Leadership challenges that the external crisis created;
- Actions taken by leaders thus far in responding to the crisis;
- Strategies used by participants to find and develop opportunities that the crisis created;
- Management competencies identified by participants as being critical for middle managers in their ports; and
- Key lessons learned thus far by participants in the crisis.

Major conclusions drawn from the study findings are identified in Section 4.

3.1. Unique attributes of the current economic challenge

This section identifies five key themes from the study that define how participants perceived unique attributes of the current economic crisis.

3.1.1. Sudden nature of the decline

Participants suggested that the sudden nature of the decline is one of the most significant attributes defining the current economic crisis. This is particularly true given relatively recent predictions of continued double-digit growth for the maritime industry. One participant explained, "I think this is really a brand new for the industry as a whole. ... We've come to these meetings for 30 years and talked about how much growth we're going to see in cargo."

3.1.2. Uncertainty about the duration and extent of the downturn

One participant who was based in Canada perceived that the brunt of the economic crisis had yet to impact his organization. He suggested that one of the unique attributes of the crisis was the lack of perspective about how bad the downturn would be to the point that even experts were unable to predict what was ahead. He explained, "We don't know yet if it's going to be a tsunami or a big wave. ... We know we're going to get hit but [don't know] how bad. ... Even the economists tell us

three months ahead of what’s happening.” Another participant reflected on his lack of experience with an economic crisis of such depth and length, explaining how he had “never seen the depth of and length of this particular recession.”

3.1.3. Global nature of the crisis

Another participant pointed out that the global nature of the crisis and its impact on multiple countries, sectors, and organizations was unprecedented. He observed how “my whole career I’ve spent working in fringe and shallow markets that are much more susceptible to swings and the different business cycles so I’ve never seen one quite on a macro standpoint like this.”

3.1.4. Willingness of the US federal government to spend billions to stimulate recovery

One participant noted that another unique aspect of the economic crisis was the willingness of US government to invest billions in recovery as evidence of the magnitude of the crisis: “What is really stressing in a certain way is it is the first time we see the government pouring billions of dollars to try to stimulate the economy, and we have never seen that before.”

3.1.5. Lack of confidence in major economic institutions

Several participants suggested that one attribute that defined the current economic crisis was the extent to which there is a “lack of confidence [in] our major economic institutions.”

3.2. Past experiences with similar adversity

Only two of fifteen study participants had experienced a similar economic crisis as port directors, as shown below in Table 2.

Table 2. Participant’s experience with crisis

Experienced similar crisis as a port director?	Average tenure as a port director (years)	Number of participants
Yes	23	2
No	12	13
Overall	12	15

Most participants described experiences in previous leadership roles where they faced economic downturns. For example, one port director was in a real estate development role and lost his job in 1991 during an economic downturn. Others shared how they faced challenges in their leadership roles in local government. For example, as a former city manager one participant explained:

Being on the border, especially pre-NAFTA, dependence on Mexico was big time, so we went through some pretty horrific peso devaluations in the late '70s and early '80s, ... pre-NAFTA, when you know there wasn't the diversity in the economy along the border that there is today.

Another described his experiences in a municipal financial leadership role during a period where the city for whom he worked “defaulted on bonds back in the late '70s, early '80s. Much younger then, but it was certainly a crisis.” This was consistent with another participant who explained, “I certainly have had to deal with issues locally that were as draconian as we have seen here. ... I literally had to reduce, you know, the, the workforce considerably. ... I had to lay off 15 to 17percent of the work force.”

3.3. Recognition of the crisis

To develop suitable plans for responding with a crisis, leaders must first recognize that a crisis is impending. Participants shared four sources of information that enabled them to detect the economic crisis, including trends internal to their port, trends among competitors, trends in transportation-related sectors and trends in other industries.

3.3.1. Recognizing trends internal to the port

Study participants identified three themes associated with the source of information that helped them to realize the onset of an economic crisis. These include trends associated with cargo movement, receiving information from existing customers, and revenue figures contained on internal financial reports.

3.3.1.1. Noticed internal port trends associated with cargo movement

While two participants indicated that they initially recognized the onset of the crisis based on trends within their Port associated with cargo movement, they recognized these internal trends at different time intervals. One port director suggested that it was not until January 2009 “when we saw that we had no ships scheduled for over a month. ... In February we had, we had zero ships. That was probably when I realized this is not a slow decline anymore, something else is happening.” Another participant from a port that handled steel explained:

Two years ago we saw it coming when there was no steel coming from Europe on ships, over to the United States. ... When we saw what was going on in the steel industry, ...we sat and asked ourselves, What's going to follow here? And how, how is this going to impact some other sectors? And then we started to understand how the housing markets impact so many different sectors.

3.3.1.2. Received information or requests for price concessions from a customer

Two participants explained that it was their customers who triggered the realization that an economic crisis was unfolding in late 2008. In the case of one, it was “a meeting with our customers ... when they told me what their forecast was for early '09. I was like, Oh, my God.” The other participant indicated that a customer asked for a price concession to remain at his port.

3.3.1.3. Reviewed Internal financial reporting

Two participants suggested that the magnitude of the economic crisis became real for them when they analyzed internal financial reports that showed drastic revenue declines.

3.3.2. Observed trends in other seaports

Two participants gained awareness of the impending crisis and its magnitude by observing trends at other seaports. In the case of one participant, it was “a 42percent decline at the ports of Los Angeles or Long Beach.” Another participant explained his experiences observing the current realities associated with ships in the Singapore Harbor:

It looks like ... the cars that you see at the Wal-Mart on a busy Saturday, hundreds and hundreds of some of the largest vessels in the world, parked out in the harbor, sitting here waiting for an order. ... I have never seen that many ships accumulated anywhere and they're just parked, and they're parked all over the world like that.

3.3.3. Recognized trends from other external sources

Participants identified two major sources of trend information that contributed to their awareness of the economic crisis: trends in the railroad sector and local or national economic trends.

3.3.3.1. Noticed trends in the railroad sector

Two participants indicated that information associated with business trends among railroads contributed to their growing awareness of the economic crisis. One participant explained, “I went to a railroad conference a couple weeks ago, with one of the class ones, largest class one that's hauling containers and freight off the East Coast into the interior part of the United States. Every sector of their business is down.”

3.3.3.2. Observed local or national economic trends

Two participants noted that the information they received at conferences associated with larger economic trends or by observing trends among major employers in their community contributed to their awareness of the impending crisis. One participant explained:

We would go to various conferences, and listen to what was going on to these housing startups, it really dawned on us if they quit building homes, people quit buying homes. If that ever happens, then there's going to be a lot of other

segments of this economy affected. ... Some of the things we didn't even think about it impacting, it impacted.

3.4. Frames or views of the crisis

Participants held multiple views of the economic crisis. One explained he did not see this downturn as a crisis. Other participants who are not US-based explained that the brunt of the crisis had yet to impact their ports. Participants shared their perspectives on the factors leading them to view the crisis as an opportunity, a challenge, and a threat.

One participant believed that the current economic situation does not represent a crisis: "I don't call it a crisis. ... To me a crisis would be if I had a security breach at the port and I had to institute the incident command system. This is a business shift."

Three participants noted that the crisis had yet to impact their geographic location or did not view the economic downturn as a crisis. These participants were all non-US based.

Participants were asked to identify a number from 1 to 10 (10 being the worst possible impact) that best captured their estimate of the potential negative magnitude of the crisis on their organizations. Overall, the average negative impact rating was 5.4. However, the data suggest that there are some differences in perception of the negative magnitude based on port size as summarized in Table 2.

Table 3. Magnitude of Impact Based on Port Size

Average Number of Employees	Average Magnitude Rating (1-10)
76	2.8
128	4.8
298	8.2

3.4.1. Viewed as an opportunity

A number of participants explained that the crisis represented an opportunity on the basis of it strengthening employee loyalty, triggering a re-examination of business priorities, an opportunity to attract new business, a means for refocusing on port development, and a source for greater visibility and support from the US government.

3.4.1.1. Strengthen employee loyalty and enhance competitiveness as an employer

Two participants suggested that the economic crisis represented an opportunity to improve the loyalty of employees to their port as well as make their organization more attractive to prospective employees. One port director suggested:

We had a problem in the past competing and as recently as last year and especially in the engineering fields because our salaries were not really competitive with the private sector. But now that's kind of flipped around where that a lot of those people are either laid off or view the stability of a port much better than a private sector position.

3.4.1.2. Rethink business priorities and focus

Three participants indicated they believed the economic crisis represented an opportunity to rethink business priorities and refocus on the competitiveness of the port. Examples include:

- As a port director and as a citizen, [this economic crisis] is going to make us rethink a lot of our choices in our daily lives and in our professional and business lives. And a correction isn't bad.
- It has provided me an opportunity to sort of bring the pendulum back a little bit in what we're doing. We're not going to back off any of the environmental goals but recognize that we need flexibility in lease negotiations. ... It's an opportunity to help the board understand we have to focus on our competitiveness.

3.4.1.3. Attract new business

Three participants indicated that the crisis represented an opportunity to attract new business from larger ports, by offering regional transportation options to shippers and providing a venue for unused ships. For example, a participant indicated, "We're a small port compared to the big boys, but consequently you know somebody else's problems may present opportunities for us to find those niches. And so we're looking for that. We think there are some opportunities out there to be had." Another noted, "We're starting to see more regionalization. You're starting to see is people are having to look at alternatives, and so consequently maybe longer, shorter hauls, looking at more, you know, kind of regional focus."

3.4.1.4. Refocus on port infrastructure development and reduce development costs

Two participants shared that the economic downturn represented an opportunity to refocus and recommit to longer-term development of their infrastructure. One port director suggested that costs associated with development were reduced because of competition among bidders. Examples include:

- Because of the enormous amount of time and energy that you have to focus into the development process, and the delays that you encounter from the regulatory standpoint, we're actually looking at this as opportunity. We were going to be down anyway, focusing on preparatory work, and the good news is ... that we're not missing any opportunities during this preparation. So we're taking somewhat of an optimistic look at it.

- It's really a time for us to take a breather because we were under a huge amount of pressure to complete the [development] project within a short amount of time, and now we have plenty of time. There's no loss of interest to the project. But now that we have time everyone is beginning to view it as a more realistic opportunity.
- We're getting a lot more bidders. We just did a project that we're going to pave some additional area for new cargoes or existing cargoes that are growing even with the economic downturn. ...[While] we used to get two or three bidders, [more recently] we got eleven, and the bids were about 15 percent under what our estimate was.

3.4.1.5. Attract renewed visibility and stimulus funding from the federal government

Three participants explained that the crisis is serving as an opportunity to attract renewed visibility by the federal government, as well as funding from the stimulus package. One participant noted, "This money is going to clear up the dredging backloads so then I can get our harbor dredged, which hasn't been dredged in 40 years. So ... out of this crisis comes an opportunity."

3.4.2. Viewed as a threat

The economic crisis was viewed as a threat to some participants based on the actual loss of revenue for their organizations, the potential for additional lost revenue, the potential for staff reductions, and a re-examination of past business decisions.

3.4.2.1. Loss of revenue

Two participants indicated that they viewed the crisis as a threat based on loss in revenue from either reduced ferry ridership or reduced cargo volume. For example, one port director explained, "this is the first time in years that there's been a drop in ridership; that's about 20 percent."

3.4.2.2. Potential for loss of future revenue

One participant perceived the crisis as a threat based on the lack of customer diversification: "we are not...diversified. So --- if one leg of our business, which comprises 60 percent, has a slow-down, well, it's a pretty swift kick. ... We're "dependent" is the word -- I don't like using, but I have to use it."

3.4.2.3. Inability to fill open positions or potential for staff reductions

Four participants indicated that one factor representing a threat in the crisis is the potential for layoffs, management team attrition, or not filling open positions. Examples include:

- That will likely decimate the ranks of my management because a lot of people are going to say ... it's coupled with a salary decrease and things like that. So a lot of people say we're going to get out while the getting's good.
- We haven't had to lay off any employees or ask for salary reductions, but we have had to leave one position unfilled.

3.4.2.4. Questioning assumptions underlying past business decisions

Two port directors suggested that the economic crisis represents a threat since it is triggering a re-examination of past business decisions about environmental programs and infrastructure development. Examples include:

- That [environmental program] really hurt us at this economic downturn. It's affecting us competitively. We can't backtrack on it now so what is the best thing to do?
- The other thing that's very obvious is the shipping lines clearly have overbuilt, which they've done in the past but I think in our world it probably is as dramatic as it's ever been. You could very easily translate that to ports and look at all of our ports' activities over the last couple of years. We're all building for what we believe to be a much rosier future. Whether or not that turns out to be the right premise, ... we've yet to ... sort that out.

3.4.3. Viewed as an opportunity, challenge and a threat

Three port directors indicated that the economic crisis represents an opportunity for growth, a challenge to be managed, and a threat to their existing operation. In the words of one participant: "I look at it as the worst of times, but it's also the best of times."

3.5. Leadership challenges springing from the crisis

In this section, findings are presented associated with the leadership challenges that participants linked to the economic crisis. These include thinking strategically, managing and motivating port employees, understanding the customer's business and forecasts, managing perceptions of the public and expectations of commissioners, and the lack of customer diversification.

3.5.1. Thinking strategically

One of the most frequently occurring themes associated with leadership challenges faced by participants was thinking strategically. This consists of three elements: making well-considered decisions, coping with shattered assumptions about double-digit growth predicted for the seaport industry, and challenges in planning because of uncertainty and a lack of context for participants – most of whom had not experienced such a financial crisis in their role as port directors.

3.5.1.2. Making well-considered, timely decisions

Five port director participants indicated that one of the challenges they faced in this economic reality was making well-considered and timely decisions despite not having consistent or reliable information. In addition, this process of ... decision-making needs to balance short-term and longer-term factors:

- During these difficult times, you can't get paranoid and start making just rash decisions to go get new business.

- You just don't feel, you know, a lot of times you'd like to have all the information before you. You've got to rely on the people who are out there seeing things, hearing things and what's going to be impacting this decision. And sometimes it's their best estimate of what's going on so. So you got to have confidence in the people that you have.
- We're always trying to balance these things -- managing the short term while still strategically looking in the long term. And when things change this fast in directions that are not totally expected, but you want to be prepared and ready, you know, to react. But then again you don't want to react too fast.
- If we make the decision this way, this is how it may be perceived politically, socially, environmentally. ... There's a lot of moving parts here and we have to anticipate how our decisions, we want to make the best possible business decision we can. That's job one. But then be mindful on how these decisions could impact, you know, all those other moving parts that I just mentioned.

3.5.1.2. Coping with shattered assumptions about double-digit growth

Because of the rapid change in the economic climate that the crisis created, four participants commented on the challenge of coping or adapting to broken assumptions made about continual double-digit growth in the seaport industry. Specific observations include:

- Cargo volumes historically ... in our port [have] continuously gone up on the average of about 5 percent. ... [Recently] we've seen the double digit increases in cargo volumes. And our challenge is like a lot of ports, was basically how do I grow my capacity to handle more cargo? So this crisis is sort of putting a real crimp in that sort of thinking.
- For the 30 years I've been here, the deals, for most port directors, walk through the door. And all of a sudden the deals are not walking through the door, and all of a sudden, there's a decline.
- A big assumption [has been] ... we make money. We never have to worry about anything. We're immune to those things.

3.5.1.3. Uncertainty and the lack of context making planning difficult

Given the new context created by the economic crisis and lack of direct experience leading their ports through these conditions, three port directors suggested that planning in this environment was particularly challenging. Specific comments include:

- There's no context for this particular situation because I can't say, hey, you know, this happened 10 years ago.

- I don't think any of us are really ready to predict the end of this thing ... you don't want to miscalculate. You don't want to wake up, you know, in 2010 and find out that it's come back and, you know, like gangbusters and you've now sort of put yourself behind the eight ball because truck traffic is choking the roadways and you missed the opportunity when things were light to expand so. You know it's one of those ... one of those situations. It's hard to predict.
- Many of the other port directors I spoke with talked about one of the biggest leadership challenges - the uncertainty.

3.5.2. Managing and motivating port employees

Three participants suggested that managing and motivating their employees in this crisis represented a challenge due in part to the ease by which they maintain a sense of complacency. For one participant this complacency contributed to a lack of urgency in communicating upward the realities faced by customers. Examples include:

- Some people ... some don't want to do any more. They're in their comfort zone so I'm always trying to get them out of their comfort zone to try the next thing.
- People fall into patterns. Ships come on Mondays, leave on Wednesdays, ships come in on, they discharge, you issue a space assignment, and it's rote. You just do it every day and you come to work, you get a paycheck every two weeks. Now all of a sudden, you don't have the banana ships coming in every Monday. You don't have as many auto ships. And as some of the managers who have not gone around the industry, have not experienced anything outside of their own ports, they're not quite sure how to respond to this.
- I actually was a little annoyed with my marketing staff that I didn't hear it from them, you know, initially, that they should have been picking up this kind of [customer] intelligence earlier.

3.5.3. Understanding the customer's business and forecasts

Two participants explained that the crisis created a challenge in understanding the realities of their customer's business and plans for the future:

- We have to understand our customers' businesses better than we ever have before. We need to understand what their challenges are. Where their markets are. Where their opportunities are. Where their challenges are, and where their threats are. And that takes time to sit down, and really truly understand that.

- We talked to our customers and our customers had all told us that, look, you know, well, of course they didn't exactly predict it, either. In 2008 they were telling us they thought by early 2009 things would start to pick up again, but now they're telling us all of 2009 is, forget it.

3.5.4. Managing perceptions of the public

Four port directors suggested they were challenged by the need to manage the perceptions of the public and other key stakeholders about the impact of the crisis on their organization. This challenge is deepened by the emergence of grassroots journalists who do not practice the same journalistic standards as traditional media outlets and journalists who appear to relish prolonging the crisis.

- It's gone through different levels [public perceptions of the crisis]. At first it was perceived as a threat by our constituencies. And we've had to educate.
- More than ever there's more in the media that actually take some relish in creating or prolonging an issue rather than reporting it. I mean I really believe that.
- You've got to be out there in front of the media. You've got to be out there in front of the stakeholders, because again the rumors and the constant negative exposures that we see, whether it's on TV news or whatever, you've got to be out there putting a different face on things and to balance some of those things. In fact, just about a month ago I set up a Google alert so that everyday it shows me all the most recent blogs. ... The other side of it, too, is because of the economic pressure on the media, we're seeing fewer reports around, and more of the news is getting disseminated by the bloggers.

3.5.5. Managing the expectations of commissioners and elected officials

Related to the challenge of managing the perceptions of the public, five port directors indicated the crisis created a challenge in managing the perceptions and expectations of commissioners. Examples include:

- Our biggest issue we face now is ... trying to manage the expectations of a board that really wants to borrow money. You know they want to hoard money.
- Our primary efforts have been to look at our expenses, and I have to say I'm very satisfied at the management team that we have, as I began to look at that. They are frustrated at times by, again, this fact that the commissioners have sometimes not recognized the financial realities.

- If I'm going to have my commissioner saying to me ... we better cut back and, by the way, cut out those dues to AAPA and don't go to any more conventions ... because it's just you hanging around your friends and stuff like that. So, okay, that ... part of that's true. But I also learn a lot there and what I learn is far greater than what we're paying for. Just because some of the larger ports which may be more hurting, than I am in terms of revenue, I don't think we necessarily all cut back.

3.5.6. Lack of customer diversification

One port director suggested that a major challenge he is facing as a result of the crisis is the lack of diversification in his revenue streams: "Where I'm not prepared for this is I'm too reliant on one source of income for operations. So I've got to be able to withstand that."

3.6. Leadership actions in response to the crisis

In this section, findings are introduced that summarize key themes associated with the actions that participants described taking in response to the crisis. These include embracing a positive leadership mindset toward the unfolding crisis, assessing the situation and planning a response, communication, and management team engagement.

3.6.1. Embrace a positive leadership mindset

A number of participants explained how they embraced a positive mindset toward the crisis by managing or tempering the impulse to react to current economic conditions as well as setting the intention to flourish or thrive despite the crisis.

3.6.1.2. *Manage the temptation to be overly reactive*

Three participants explained that they resisted the temptation to take impulsive action in response to the economic turndown. Examples include:

- Although we have to be frugal and we have to be mindful that, you know, other people don't have it as good. We are kind of tempering our approach in that regard.
- We're not doing anything crazy.
- You can't get paranoid and start making just rash decisions to go get new business. You still go to be doing business with people that are properly capitalized, have good management in place and sound business plans.

3.6.1.3. *Set the intention to thrive versus survive*

Three participants suggested that they held the intention of growing or thriving despite the downturn:

- We're actually looking to grow in this bad environment as opposed to looking to cut back.

- I mean that's what I want, to make it a positive. I haven't started that yet but that's my intention.
- This is our time to flourish.

3.6.2. Assessment and planning

Participants provided examples of how they assessed the unfolding crisis and developed plans, including asking critical questions to test assumptions, scanning the environment to collect information, and revisiting their strategic plans.

3.6.2.1. Ask questions and test assumptions

Three participants explained that asking questions and exploring or testing assumptions were important actions they took as part of their efforts to assess the economic situation and develop plans for moving forward. They explained:

- This is a heck of an opportunity to take one step back and catch our breath here. And figure out long term have we matched up with the right business partners? Do we need to adjust our course here a little bit? Are we on the right course? What opportunities are out there that perhaps we've never looked at before -- that are sort of recession-proof.
- This is a great time to stop and look at all of your processes and all of the things that you do and say, -- you know, could I make this more efficient? Can I stop doing something? Is there something that I should be doing that I'm not doing?

3.6.2.2. Gather and analyze information

In addition to asking questions, two participants explained how they were intentionally scanning their environments to gather and analyze information that might lead to identifying potential new markets or revenue sources.

- Scanning our environment a little bit more. We were working with a biodiesel company to come into the port that would have been a new line of business for us. Well, combination of the economic slow-down and the changes in the energy market have kind of put that on hold for a while if not totally eliminated it. So now I'm starting to look for ... some new things or some other avenues. And the best way to do that is to try to get information, you know, ... from the environment.
- We've been preparing ourselves for the last six months because I heard and I saw what was happening, because we're AAPA, so we talk with a lot of people, see what's happening. We look on the news every day ... steel producers in trouble all over the world. So we knew it was going to come. So we have prepared ourselves. We started preparing ourselves six months ago.

3.6.2.3. Revisit or revise strategic plans

Three participants explained how they revised or revisited their strategic plans, as well as their budgets, to address the new business realities created by the crisis.

Examples include:

- We've been sort of re-constituting ourselves for the last couple of years through each budget cycle, looking at where's the business shifted? Where do I need more resources? Where could I begin? That will continue for the future. It becomes a lot more important now. And every position gets looked at with a great deal of scrutiny. Do you fill it? Do you change the position because we need to do something else?
- We're able to pull that out [our 20-year strategic vision/plan] there and say we've got a plan here. We're not going to let this little blip affect the next 20 years.

3.6.3. Communicate with and engage port staff

Five participants explained how they were taking special measures to communicate with all of their employees about the crisis as a means for engaging them in identifying strategies to save money or increase revenue. Examples include:

- Soon as we learned what was going on, we shared the information with everybody, did a letter to the employees giving them a heads up.
- Everybody. Secretary, clerk, everybody. So everybody knows that if a clerk has to order certain things, you cut in half. You order only half right now. You know, we want so everybody is playing a role at work. I said I'm going to try to save your job. That's one goal. I told my staff my first job is to save your job, but in return you've got to help me to save your job, ok, because we gotta cut costs. We've got to ride the wave together as a team, and we have to be a team to ride the wave.
- I told them at the "all hands" meeting, be prepared for uncertainty. Be prepared for not knowing. You're going to keep going forward and you're not knowing. There's not a clear path identified. We may have to do this. We may have to do that. You have to just be prepared. This is the ... uncertain future.

3.6.4. Communicate and engage with other stakeholders

Three participants explained how they took action to communicate more frequently with other port stakeholders, such as the local chamber of commerce, about the impact of the downturn on the port. This appeared to be based on a need to manage expectations of these stakeholders about port plans for development.

- I'm going to speak to the community and so I've gone to like the local chambers and say set me up for a talk. Because I need to prepare them because they have so many expectations: You know, if staff get furloughed ... I'm not going to be able to deliver as many projects. I mean it is now affordability, not schedule.
- I had been giving a number of presentations on our master planning efforts or the economics of port or the impact of the global financial crisis on trade, international trade.
- I prepared the local people two months ago saying look, there's a crisis in the world, and we're not hit yet. But you know, we're going to get hit. So be prepared. We're going to get hit. So people are aware that we're going to get hit. You have to prepare the people that are saying oh the Ports are bad. No, it's a world problem. It's a world crisis. You know, we are going to get hurt, but right now the only thing we can tell you is what's going to be the level of hurt ... this year, it's going to be very tough.

3.6.5. Engage the port management team

The study found that participants engaged their management teams in a number of ways to make sense of and respond to the economic crisis. Among the approaches they identified were empowering their management teams, challenging their managers, meeting more frequently, and developing scenarios to strengthen their planning efforts.

3.6.5.1. Empower managers

Three participants described their efforts to empower managers to respond to the crisis through the delegation of decision-making, increasing accountability, and coaching by the port director.

- They're empowered to make decisions. But they also know to ask for help when they need it, so it's not like, you know, one person gets too far ahead and then needs to be reeled back in.
- I've always been a fairly open manager and delegation and pushing accountability down as far as possible in the organization. I would say I'm probably even more so today than I have been in the past.
- When I'm coaching managers, I tell them we have to know, we have to understand our customer's businesses better than we ever have before.

3.6.5.2. Challenge managers

Three port directors explained that one of the actions they took was to challenge their management team to develop plans that met the budget, develop awareness of other functional areas, and consider the long-term impacts of their decisions. Examples include:

- [Our managers] had a rude awakening to the budget process. ... These folks never cared about worrying about money, you know, and they were given budget targets. Here's a number. Don't go over it. And for the most part they stayed within it and a lot of them came in less.
- I ask people to stretch beyond just their cadre, relative to are you the finance person? Well you need to look for the marketing perspective, etc. While people will have titles and will have direct responsibilities for certain functions as it relates to ... strategic planning, they have to broaden themselves and look at it from several different perspectives just as I do.
- I try to force the staff, and I force myself, I force the commissioners to approach everything in what is known as bifocal vision. Be able to look at it, what is the immediate, and then eventually what will be the long-term impact of your decision. And to try to make the managers more aware that their tactical decisions on a day-to-day basis really are the strategic decisions.

3.6.5.3. Conduct management retreats

Three participants explained how they initiated efforts to conduct management retreats as a means for building alignment, increasing the sense of urgency to respond to the crisis, and identify solutions to the challenges created by the economic crisis.

- Next Friday we're going to have a day-long budget summit in the form of a retreat. And at that time we'll have a lot of good ... things. I've asked everybody to bring any suggestion that they possibly can bring from their respective divisions to the table, to the meeting. I'll probably have about 20 or 30 of my top, all of my division managers and sub managers, deputy manager. And I think a lot of good will come of that.
- After I came back from that management summit meeting, I immediately called everybody together and said we have to go into war room mentality. It [the outcome of the management summit] was not what I expected to hear. It was much worse so.
- Our retreat is tomorrow and we're going to focus on interim goals. Because we've slipped our timeline about 10 years in this project so now we're going to start focusing on what we do in this 10 years until we expect to have the project completed so ... the management team has an active partnership with our commission.

3.6.5.4. More frequent meetings with the management team

Nine participants explained how they increased the frequency of management team meetings, refocused these meetings to share information about the external environment, and develop responses to evolving challenges. Examples include:

- The word you just used nails it all. Rather than looking at the gas gauge every 150 miles, we're looking at it every 10 miles. So we're managing in a very ... very tight vein as opposed to previously loosely.
- We try to do that every Monday, just to get a sense of what's going on, what's planned in the next ... both short and long term.
- Every Monday at 2:00, we have conference calls with, with those three managers, myself, our general counsel and our director of engineering, and we strategize collaboratively on opportunities, threats that we're hearing out there ... changes in direction that we might want to consider, and those kinds of things.
- Every Monday we get together. And one of the topics, of course, is the crisis. We handle that as a specific topic. Everybody gives their information what they have and following, of course, what's happening in the United States, what's happening in Venezuela, Colombia, all the neighboring countries ... to watch what's happening and of course follow ... follow the news with a very, very aggressively focus on the news, and everybody follows CNN and all the stations.

3.6.5.5. Engage the management team to identify options and future scenarios

Nine participants explained how the crisis has triggered them to engage their management team to identify specific options to respond to the crisis, as well as explore future scenarios as part of a strategic thinking process. For example:

- Well they're very engaged. I mean ... all of the management team meets weekly. And so we discuss those opportunities. And then we don't fail to discuss specific opportunities as they come up. So I mean we meet very often and talk about that.
- We walk six months behind the development [of the crisis in the USA] as we are. We said, Let's go and see alternatives. There must be alternatives in Latin America. There must be in the United States. But you have to ... look for solutions and alternatives.
- We also have to be mindful that, you know, as tenuous as things appear to be there still can be an event out there that will catch up with us. Because we've talked about our contingency plan. I mean we've talked about how we're going to approach if we have to ever get to the point of laying people off. So we've talked about some scenarios.

- We just got our numbers last week ... and I actually was thinking, Do I send a letter out to all employees again? But I want to call the management together ... my think tank, and say, Okay, what do you guys think we should do in terms of sharing this with all of your staff? What's the best way?
- We have an approved capital budget that our commission approved but we've taken the steps, okay, if... things go south more than they are, what are we going to pull back on when we need to because what we're going to try to do is make our budget for the end of the year so how do we do that still moving forward? What's in that budget that we can either delay or just not do? I'd rather do it than have the commissioners do it for us like, okay, they see the report and say what are you guys doing?
- The "what if" game becomes more critical in terms of looking at those scenarios. And at the same time you have to do it much more efficiently. You've got to be able to sit down and almost plug ... new assumptions in on a very frequent basis.

3.7. Identify and develop strategic opportunities

In this section, findings are introduced that explain how participants identified and leveraged strategic opportunities using five core approaches:

- Assessing and responding to customer and market needs;
- Optimizing existing products and services, such as finding new markets for existing services;
- Innovating new products and services, such as using new technologies or processes;
- Changing or adapting their organizations to better enable their port to respond to the needs of customers; and
- Partnering with various stakeholders such as customers or competitors to better respond to the needs of their markets.

3.7.1. Assessing and responding to customer needs

Port director participants described various strategies they are using to assess the needs of their customers and respond to these needs to ensure their viability through the crisis. These strategies include engaging customers to explore their needs and maintaining regular two-way communication to sustain the relationship.

3.7.1.1. Engage customers to explore their needs

Eight participants indicated they reached out to their customers to more fully and proactively explore their needs, probing below their stated needs to surface and exploring underlying assumptions made in developing their plans, exploring opportunities to support customers and to build or maintain strategic relationships. Examples include:

- I try to do it in a planned fashion where we're out front of the curve as opposed to a reactionary mode. Since I guess April about a year ago we've been consciously aware of the fact that ... that we were probably going to have to offset some costs, provide some discounts and some incentives. And to do things that maybe we had never done before, a little extra for the customer in an effort to (a) keep them here, (b) make them happy here, and (c) make them profitable here.
- Everyone now has a pretty fair picture ... of where things are ... but quite frankly it's not difficult to assess customer and market needs right now. ... It's important for you now to take seriously survival strategies for your customers. How can you give them ways to survive? Or can you add value to their survivability so I would say, eah it's still important but not like it used to be. Not the same.
- We try to have as much as we can most of senior staff and middle management staff be aware of what customer needs are and also what our overall strategies are in looking at that so that if they're out talking to somebody whether it's engineering or operational staff and... see opportunities or they talk about different things that we're ready to respond to.
- We have to understand our customers' businesses better than we ever have before. We need to understand what their challenges are. Where their markets are. Where their opportunities are. Where their challenges are, and where their threats are. And that takes time to sit down, and really truly understand that I want him to see, I want him to view me as an equal to him. I don't want him to view me as somebody in a political seat, because I'm not. I want him to view me as gosh, this guys got as much industry experience as I do ... he could be a resource to me. Ask the right questions and know the right questions to ask, so that you can perhaps uncover opportunities that may come up for this business, or quite frankly at the same time, uncover problems that could be coming up, and make us better anticipators, and perhaps help head off a problem, be a problem solver, before the problem, you know, really occurs.
- Never taking what they're saying on face value. Always basically research it. ... If they're saying, "Oh, I'm going to double my cargo in the next year," go back and say what assumptions is he working on. Check his assumptions, check and make sure it's the validity before you pass on that information to somebody else, because the worst thing you're doing is if he's giving you bad information and you're acting on that, passing that bad information above, you are just continuing to perpetuate a situation.

3.7.1.2. Maintain regular two-way communication with customers

In addition to engaging customers to understand their needs, four participants pointed out the importance of maintaining regular two-way communication with their customers to stay abreast of changes in their business. For example:

- We tend to ... meet on a regular basis with our major customers. For instance we... have three major railroads, BN, UP, KCS. While we stay in regular touch with them at a local level and a level above at least once a year we go to their headquarters and spend two days with them trying to get a sense of what's important to them, what have we done right or wrong in the last year and what do they see coming that we need to work on.
- I think the key is the communication back and forth with the customers.
- We didn't wait that they call us. We going to see every customer, and to say. Hey, anything we can do for you guys, ok?

3.7.2. Optimize existing processes, products, or services

With knowledge of their customers and markets, participants explained various strategies they are using to optimize their existing product and service offerings for customers. These include diversifying their markets by leveraging existing services, improving operating efficiencies, and responding to customer's needs for cost reductions.

3.7.2.1. Diversify customer markets and leverage existing services

Three participants explained how they are attempting to optimize current services by diversifying their existing markets. Examples include:

- Seeing how we can make that relevant to what's going on in the future, trying to make use of existing facility ... take it from a capital sense or sunk in the ground of existing facilities, how can we maximize the use of those for a number of different customers who may have completely different needs for that space is something that we try to do on a regular basis. We're doing that right now between handling wind energy components and military cargo. I mean they both have demand ... a lot of demand for open space where they can store, just go lay down ... So they're we're trying to make those two uses compatible.
- We're now able to go back and see that some of the rationales that we had used in the development of our plan, things such as diversification of market. We are somewhat unique as a port that our revenue streams are rather broad. We have the crew sector. We have the cargo sector. And we have a petroleum sector. So rather than concentrating in any one of those areas, we try to take the best of all of those so that when the price of oil goes to \$120 and we see a decline in petroleum, that's being covered by an increase in container cargo.

3.7.2.2. Improve efficiency and productivity

One port director explained how he was attempting to optimize existing services for customers by improving the efficiency of his operations by asking some fundamental questions: “This is a great time to stop and look at all of your processes and all of the things that you do and say, you know, Could I make this more efficient? Can I stop doing something? Is there something that I should be doing that I’m not doing?”

3.7.2.3. Respond to customer’s needs for cost reductions

In response to the needs of their customers for cost reductions to survive the crisis, three participants shared how they managed these requests through reducing the fees they charged customers or deferring rate increases previously scheduled. Examples include:

- I’ve already had a customer come to me that, you know, at the end of the year... you sort of settle up on what they owe you and what you might owe them or whatever. And, you know, they owe us \$2 million and they can’t pay. So, you know, you’re not going to kick them out. ... Their welfare is our welfare and, you know, as I told the employees, you know, at our “all hands,” We’re going have to suck it up for our customers.
- We’re not going to put an increase on the rate this year. We’re going to hold our cost. We’re going to ride it [out] with our customers.

3.7.3. Innovate through new processes, products or services

Participants explained how they are attempting to innovate to respond to the needs of existing and future customers by exploring new technologies, moving beyond traditional port services, and identifying businesses that could compliment existing customers.

3.7.3.1. Explore the use of new technologies

Two port directors explained how they are exploring the use of new technologies, including the generation of electricity that could be sold to the local electrical utility or the use of federal stimulus money to electrify berths for tenants to reduce wear and tear of their diesel engines. Examples include:

- Ports can play an important role in that and whether or not it’s electrification of a terminal where the ships tie in or leasing some land in your port ... maybe you can have some wind generation or something like that ... why don’t I try and so something to gather it and sell it to the grid ... that endears us to the communities who when I say communities, the constituencies rather that say, hey, you guys are bad guys, the polluters.
- I think there are a lot of different things we can do by innovation and this is why I’m putting it over there, but there are certainly a significant amount of money through stimulus grants. We’re trying to be very innovative.... We

also run fishing docks and so one of their concerns is there's no electrification of the berth. So everything they want to do they've got to run their engines and generators and, you know, it's wear and tear on an engine in an industry that isn't particularly successful. It's consuming huge amounts of diesel and plus the emissions issue. So we got a grant to be able to electrify the berth. Now there's certain things I need from them as well but if you give them ... what I find if you can give them a little bit and sometimes you get something back that helps in the service.

3.7.3.2. Move beyond traditional port services and consider multi-use options

One participant explained his approach to innovation that involved the consideration of multi-use options beyond traditional port services. He explained, "Innovation certainly is again at the top of the list. You've got to think creatively. The parking garage [is an example of an innovative new service] and what I need now is three or four more like it. Maybe it'll come as a result of some of this riverfront development where you ... do multi-use and multi-purpose things."

3.7.3.3. Identify businesses that can complement existing customers

In order to provide innovative solutions to existing tenants, one participant explained that he emphasized the identification of new customers that could complement the products or services of existing tenants. He said, "It sends a strong message to our exiting customers -- 'Damn, the managers in this business care as much about my business as they do their own. They're coming to me for some advice and counsel and, you know,' ... we can get lucky here and attract, attract a business that will compliment their business. We all win."

3.7.4. Change and adapt the organization

Participants identified five ways they changed or adapted their ports to better be able to respond to the needs of their customers and markets, including adapting the culture, enhancing collaboration and employee engagement, investing in tools and infrastructure, managing staffing levels, and restructuring.

3.7.4.1. Adapt or sustain the port's culture

Five participants shared their rationale and strategies for adapting the culture of their ports to innovate or optimize. These strategies included enabling innovation by making it okay for failure, maintaining a sense of connection and support, and whole-scale efforts to rebrand the port internally and externally.

- They have tried ... and came close with success and then experienced failure ... I tried to tell them, well, that's fine. It's okay to fail. Because, you know, it's better ... to have loved and lost than never to have loved before. I mean, if we don't keep trying, then there's really no need for the organization, so the organization goes away. ... Promoting a culture where it's okay for failure ... the 100-10-1 rule, for 100 efforts you may have 10 bites, and out of those 10 bites you may get one success. I think it's just that you have a lot of coaching that you have to do, during these periods to keep people's attitudes up ... You know, and whenever you fail, so we do a lot of, oh, team building experiences.

- We're a very social organization. We'll have a lot of get-togethers, potlucks. ... You can't do this in a large-scale organization, but we're small enough and we can do it. And we did a lot of cross-over support.
- We actually at the same time went through a whole re-branding, changed our logo, changed our image. But we used that to really get the employees more focused on whom we are and what we do and what direction we're going in.

3.7.4.2. Enhance collaboration and employee engagement

Two participants explained how they took action to enhance collaboration and engagement to innovate or optimize. Examples include:

- With our employees giving information and telling them to give us their input of what they think should be done, looking at what's happening in the world crisis because it's not only the United States. It's also in Europe, and Holland is feeling the affect. And everybody. Wee how we can ... what we can do to avoid that you have to fire the people because, of course, on a small island like that, firing people is horrible.
- They [managers in our port] have to be less territorial and not thinking parochial, parochial, thinking more about what's best for the port. That's the way we've encouraged these managers to look at their business and, quite frankly, at the end of the year, when it comes to reward time, we're rewarding them that way.

3.7.4.3. Invest in tools and facilities for future growth

Three participants shared how they are adapting their ports by investing in tools and facilities to prepare for future growth:

- We're continuing to work on our facilities, improve our facilities, add to our facilities. We positioned ourselves where we could have one bad year and it wouldn't hurt us. So we're saying, Look, if we don't do this now, if we wait until things pick up, we'll be that further behind. So here is an opportunity for us to try to get ahead of the curve so when there is this recovery, guess what? We're in a position to take advantage of those opportunities.
- We're giving the employees the tools necessary to do their jobs, and you know we started doing that last year when things were really well, and we haven't stopped ... especially in our line staff. I mean, you know, they're getting new equipment, they're getting their new vehicles. You know, now they're doing things that they couldn't do before.
- One of the things that I did last year was took revenues and purchased some industrial land a mile and a half away from the port, to try to diversify the port to give it a real estate opportunity, because, you know, in some cases

real estate trans-shipment and warehousing may be a niche for us to go. So on the positive side, you know you're looking at new business opportunities.

3.7.4.4. Manage staffing levels

Five port director participants explained how they were attempting to adapt their ports by managing the existing staffing levels with an emphasis on avoiding layoffs, deferring the hiring of new staff, retaining existing staff, and even the addition of jobs that could generate additional revenue. Examples include:

- I just signed off on hiring nine new people here at the port. We've been holding off on that even though, you know, we went through the first quarter with not filling those positions, wondering, well, how is it going to be? Is it going to be that negative? The focus of being in those areas that either contribute to existing revenue streams, maintain existing revenue streams, or can add new revenue streams.
- I did my budget with the goal of protecting every job. That was like the baseline thing, so what else can you give up so [as to preserve these jobs]?
- They haven't had a layoff but they're having a hiring freeze, which basically requires people to do work longer, you know, to make up for the people we haven't replaced.
- We've tried to focus on retaining a productive work force, people are beginning to look around and realize working at the port authority is not a bad place to be.
- We are kind of small. Our dynamic is not very complex. But we have taken advantage of a couple retirements to hire people of different educational background and mindset, and that has proven fruitful in actually helping us diversify the business a bit.

3.7.4.5. Restructure organization to improve strategic focus

One participant explained how he restructured his port to reduce the number of direct reports and thereby allow him to focus on strategic issues. This participant explained, "We've only had that in place ... since October, so six months. But it seems to be working very well. What it did was get me out of all the day-to-day and I can focus on those three big projects and it's really made a difference. I have a lot more time to focus on the big issues and the big picture instead of getting drug down into the details."

3.7.5. Partnering

In addition to adapting or changing their organizations to be able to innovate or optimize, participants shared their perspectives on partnering strategies as a means to improve their capacity to thrive in the crisis. As one port director explained, "People that you traditionally would not have even thought twice about partnering

with suddenly become like a United Nations, your allies. I'm a firm believer in competitiveness and free enterprise system. But it's a lot easier to join forces at a regional level and to become allies and as you said the power is in the numbers." Another added that the key for successful partnering by port authorities is "to be able to take cost out, provide value into the system. I believe our industry needs to be more focused on the beneficial user of the cargo, then the carriers ... because those make good partners."

Participants shared examples of how they have partnered with customers, competitors, and other stakeholders.

3.7.5.1. Partnering with customers

Three participants shared examples of how they are partnering with customers. Examples include:

- A good example is our environmental initiatives. I mean we're finding ourselves under huge pressure these days to continue to find ways to dramatically reduce both criteria pollutants and greenhouse gases. We can't do that by ourselves since we're a landlord. So if we're not partnering with our tenants,... if we're not partnering with the lines that call on the port, you're really not going to make any progress. And that requires not only us to find more resources but it requires them to do the same thing because an awful lot of those programs are not going to make a lot of money.
- What's happening here in Canada is that the federal government as part of its recession control program is spending a lot of money on infrastructure, same with the States, I guess. They have advised all the port authorities that there will be vast sums of money available if you are to partner locally with your customers, ... put together a business plan, that if you can achieve that in very short order, they will look at providing one-third to a half. ... You know, it's the old story: They want to spend, spend us out of the recession. And that's one way of doing it. So I guess they're, they're doing it in the United States, and to even a higher level of funding obviously. The flip side of that is that you get involved with, potentially ... cities or regions that aren't poor planners at their core, that you, you'll end up with the city maybe agreeing to participate if you put park benches along the terminal instead of rooms, more room for boxes, you know?
- We talk to our ... the brokers, the importers, the exporters for them to say, Look, we want your ships to come to Boston so we can find different ways. So we're trying to kind of, for lack of better terms, deputize our customers to help sell the port because ... [for] several years we have the tag line, This is your port. And it's your port. You live here. You work here. Our livelihoods are here. We need ships to come. We need activity here so that we all can be successful. It'll make us all benefit so I'm very into, you know, to partnering with this and that's what our customers are saying to us now. We're in a

difficult time, you know. We want you to partner with us and we'll remember you. Now we'll see if they remember us or not.

3.7.5.2. Partnering with competitors

Two port directors provided examples of how they are partnering with competitors:

- We've been doing this actually for about five years now, cooperative endeavor agreements. Two other ports below us, in fact there'll be a piece of legislation that came up last year and didn't pass but probably will pass this year, which will allow us to partner with another port and expand our footprint down into that port's jurisdictional area.
- There's a private port terminal within our port that has always viewed us as a competitor. To some degree, they are but in a very small way. ... I went and out met with him first and then had our deputy and some of his marketing staff go out and meet with him to see where we could collaborate.... This makes no sense where we're competing. We are in some areas -- I mentioned the wind turbines and the military -- where there are points where we're completely full. And instead of turning that business away and having it go to another port, let's keep it here. And so we're trying to develop a joint effort where we can shift that work to their site.

3.7.5.3. Partnering with other stakeholders

Three participants cited examples of how they are partnering with other stakeholders including the Panama Canal, a local railroad, and travel agents:

- We just signed an MOU, a (memorandum of understanding) from signing with the Canal of Panama because in 2014 the maritime industry will change on the East Coast of the United States. Also all those very big ships that now arrive at Los Angeles. So Miami is preparing for them. We are preparing. We signed the MOU. We want to become ... a hub because most of the Latin ports do not have the draft to receive even the smaller ships. So if that happens and we continue and we are investing in making the studies and we ask the Canal of Panama assess us in that.
- Another one is the notion and the concept of teaming up with the public belt railroad, ... an entity of the city, and combining the port and the public belt together as well.
- We have a limited marketing staff so what I've always done on the cruise business is I try to put together the key travel agents and meet with the key travel agents so that they can ... when they travel and do their business with cruise, they can sell the port.

3.8. Competencies needed by middle managers

Participants ranked a list of core management competencies identified by another researcher as being critical for middle managers to lead effectively in crisis. The scale was 1 (least important) to 5 (most important). Table 3 summarizes the rankings. The competency area with a rank of 1 indicates it is the most important.

Table 4. Participants' ranking of middle manager crisis leadership competencies

Competency Area	Score	Rank
Embrace the importance of leadership role	4.8	1
Understand the changing environment	4.7	2
Find opportunities for greater future success	4.5	3
Manage self and demeanor	4.5	4
Encourage creativity and innovation	4.5	5
Communicate openly, honestly, frequently	4.2	6
Engage and involve staff	4.2	7
Get people focused	4.2	8
Refine performance management; clarify expectations	4.0	9
Heighten emphasis on managing resources	3.9	10

3.9. Leadership lessons

During the interview, participants were asked about leadership lessons they are learning thus far in responding to the crisis. Among the lessons identified were affirmation of the importance of communication during crisis, maintaining a positive demeanor and outlook, not becoming complacent or taking things for granted, remaining open and curious, and staying focused on long-term growth.

3.9.1. Role and importance of communication during crisis

Nine participants explained how the crisis was reinforcing the importance of communicating during the crisis with stakeholders such as customers, employees, and the community. Specific examples include:

- People have always looked up to the port. So maintaining that same image in view of down times and in view of maybe volumes and cargo being down is a tough challenge because the newspaper's going to come at you every chance they get. They're always ready to make somebody ... you know, they're always ready to sell newspapers. So that's always a challenge, is keeping, you know, keeping a good image with the public and doing that, as I said, by minimizing the losses.
- Communications with the tenants ... I tend to get involved with there's a crisis, but it's got to be a continuous thing. You can't wait that long [to communicate] because it took us a while to evaluate [how to respond to their needs]. They're in a crisis mode already. You want to give them immediate

relief. I can't decide, ooh, let's drop this 10 percent. I got to do an analysis. So I needed to take a couple of weeks to do that. And so, you know, probably although I believe we had a lot of good communication, we could have known about it sooner.

- If you explain and give people the information on the types of things that you can do in a period like this, they are willing to listen and will understand. I mean as I said the fact that right now -- and we may change depending on how the year goes -- we're certainly watching it, but by not cutting back. It's viewed in general in a positive respect overall both with the leadership of our community and just as a general perception that we're not just, you know, sort of pulling everything in and stopping.
- I think it's important to be very, very honest with your people, you know.
- We could have been as good as they [experts or economists] were just by talking to our customer, seeing they stop buying such a commodity because they been reducing the production.
- I'm a firm believer in whoever you do business with you have to be very clear, very open and on both sides that should be open, clear and whatever you feel a thing that's not doing well, tell your partner.

3.9.2. Importance of maintaining a positive demeanor and outlook

Two participants noted that the crisis reinforced the importance of maintaining a positive demeanor and outlook. In particular, one participant noted that "the more desperate they [customers] become, the more interested they are in knowing what you're doing, and have less capacity to be tolerant of actions that they don't perceive to be productive. So you have to be very careful of the image."

3.9.3. Importance of not becoming complacent

Five participants explained how they again learned the importance of not becoming complacent about the business and relying upon untested assumptions. Examples include:

- You can't take it for granted just like that, but it's very important to analyze what's going on for the welfare of all, you know. The best lesson is that don't take the development for granted. Be prepared. Anything can happen anytime.
- I don't think you can get complacent or expect that anything is absolute. I mean if you looked at 2006 when we were first starting working on our container project, I mean you were looking at the graphs and the data and it appeared that it was a recession-proof industry, that it never was going to stop climbing. The assumption was it was just going to go on never-ending.

- It's just a rude awakening that there are no givens. There are no certainties. And that we probably as an organization, as long as I'm here, never going to change our mentality, that just because it's here today, doesn't mean it couldn't be gone tomorrow and don't, don't assume that the business cycle is dead, 'cause the business cycle, as long as there's capitalism will probably be with us.
- So I mean I don't think we'll be as complacent as we have been. I don't think we'll take anything for granted as we have before. Now will that last, if we get back in good old days, I don't know, but I think it's big enough to have a fairly meaningful impact.
- I think it will change the organization for the better in terms of not being so cavalier about money and not counting on the business always being there.

3.9.4. Importance of remaining open and intellectually curious

Two participants affirmed the importance of remaining open and intellectually curious about new information and periodically asking basic questions about the business to quickly adapt as needed. Examples include:

- In one sense the customers came to us too late. They should have come to us earlier. The first thing anyone says to me: I know you're busy. Everybody thinks I'm busy and then I'm sitting in my office doing nothing because no one contacts me because they think I'm busy. And I keep telling these guys you're my highest priority.
- One of the things that I had the opportunity to do when I got to the port authority, now nine years ago, was to ask what I call sort of stupid questions, you know. Why are we doing this? How do you define success? And, you know, the longer you're there the more you sort of slip into a role and you don't ... you really begin to ask yourself those kind of questions. I think asking questions is probably the most important thing that a leader can do and particularly in these days. And I think if we continue ... if we had that sort of attitude of sort of being intellectually curious about what's going on around us, how do we find alternatives to deal with this, how do you prioritize things, how do you pick out alternatives, how do you begin to sort of evaluate things and develop a mindset where not only you but other people in doing the same thing, I think that's really the key to behavior in this sort of a situation.

3.9.5. Importance of staying focused on the long-term and preparing for growth

Seven participants volunteered that they learned the importance of remaining focused on long-term growth and avoid over-reacting in the present. Examples include:

- You have to be very conscious, very, very conscious of your decisions that you're taking and not short term but with the longer view.
- How we need to be prepared and try to get again ahead of the curve. ... The staff has responded very well. What I refer to as getting ahead of the curve is that, you know, if we start expanding our storage space right now, for example -- because, oh my god it's, you know, things are slow, or why do we need it -- when it comes back, we're not going to be ready to capture that additional growth.
- [Use] restraint. Don't overreact. Don't overreact to the constituencies that want to do ill to you or what not
- We got some time right now to put our thinking caps on and to analyze this environment we're in today, and I guarantee you ... there's some opportunities out there that I haven't, that we as an organization haven't, probably have missed. ... We need to figure out what those are and take advantage of them now, because while other people are sitting back saying, oh, it's, it's doom and gloom and this thing is not going to come back for another three years or five years, while they're on cruise control, this is the time to be aggressive and go after something that perhaps, you thought may have been out of reach in the past.

Section 4: Conclusions and Next Steps

This exploratory study sought to understand the strategic thinking mindsets and practices of seaport CEOs during the global economic crisis. To understand how these participants appraised the threats and took specific leadership actions, the interviews explored their perceptions, thought processes, and specific actions they took. In section 3, key findings from the study were introduced. In this section, the findings will be analyzed and overall conclusions drawn about how participants use of strategic thinking mindsets and techniques.

4.1. CEO Emotional intelligence is linked to strategic thinking during a crisis

A number of the participants in the study described how the elements of the crisis created the challenge of making well-considered and timely decisions. In essence, the nature of this crisis created highly stressful conditions for participants based on a number of factors:

- The highly visible nature of their role among demanding stakeholders;
- The potential for significant loss to their organizations including downsizing their workforce;
- Customers who were experiencing highly emotional reactions to the threats created by the crisis; and
- The need to develop strategic responses in dynamic and rapidly changing business conditions in which even the notable economic experts could not predict the future.

Participants appeared to rely on more than just cognitive ability to lead during this crisis and think strategically. Participants used their emotional intelligence skills in conjunction with their strategic thinking ability to lead during this crisis. Emotional intelligence represents the ability to recognize and manage one's own emotions as well as the emotions of others. Researcher Daniel Goleman has written substantially on this area, emphasizing its importance for leaders to be effective.

A number of findings suggest the presence of emotional intelligence among participants. Several appeared to recognize the need to maintain an even demeanor throughout the crisis and avoid the temptation to be overly reactive based on emotional reactions to the unfolding crisis. As a result, they were better able to make well-considered strategic choices and consider a greater range of options in how to respond organizationally to the crisis. Some participants noted the importance of reframing the crisis as an opportunity and emphasizing the positive attributes of the situation. Participants also demonstrated emotional intelligence in helping manage the emotions of stakeholders by communicating openly and honestly.

In addition, the ability of leaders in this study to remain emotionally intelligent through the crisis can be linked to their state of hopefulness. Research has suggested a relationship between a leader's state of hope and their own sense of resiliency as well as the resilience of the followers. In essence, hope is contagious and transmitted through words and actions.

4.2. Crises offer an opportunity for CEOs to develop their own leadership skills as well as those of their followers

An important distinction between merely surviving a crisis and actually growing through it is the extent to which organizations and individuals draw meaning and insight from what they have experienced. Even though only two of the participants had encountered a similar crisis during their tenure as a seaport CEO, most appeared to draw upon lessons learned during challenging circumstances in past professional roles in other industries. Their capacity to respond powerfully to the current crisis was shaped in part by tacit knowledge they gained in part from facing challenging circumstances during past crises. This finding is consistent with other studies that examined the experiences of highly visible leaders who had in common their experience in facing adversity and overcoming challenges as a critical factor in their development as leaders. Researchers Bill Joiner and Stephen Josephs, authors of the book *Leadership Agility* (Jossey-Bass 2007), suggest that self-leadership is an important aspect of being an agile leader. They contend that agile leaders are those who intentionally use situations like crises as opportunities to develop.

However, recognizing an opportunity to grow leaders during crises is not enough – it must be accompanied by the presence of mentoring and support. As the findings suggest, at least one participant actively coached and mentored his direct report managers to help them enhance their ability to think strategically and consider the bigger picture associated with impacts of decisions. This is consistent with research that identified the role of mentors to guide and motivate leaders in their professional growth. Mentors often provide perspective and context to their mentees who are facing adversity as means for reframing threats into opportunities.

The findings of this study are also consistent with the four key skills that researchers Warren Bennis and Robert Thomas describe in their 2002 article in the Harvard Business Review *Crucibles of Leadership*. These researchers argued that four skills necessary for leaders to learn from adversity include (1) engaging others in shared meaning, (2) distinctive and compelling leadership voice, (3) integrity based on a strong sense of values, and most important, (4) adaptive capacity including the ability to grasp context and hardiness. A number of the participants in the study described how they engaged their management teams and employees to make sense of the unfolding crisis as well as identify suitable responses. Several port directors in this study described how the nature of the crisis prompted them to act upon their values and speak openly and transparently about the severity of the crisis. This level of honesty appeared to have a profound impact on their employees, prompting them to take action to identify ways to save on expenses or identify revenue-generating

options. A number of participants explained how they attempted to anticipate the reactions of various stakeholder groups and explore the impact of strategic scenarios for their ports. This represents the ability to grasp context. Finally, several participants explained how they embodied hardiness by maintaining a positive and opportunity-oriented perspective on the crisis. The findings of this study suggest that among the entire participant sample there was evidence of all four skills that enable learning from adversity. The capacity of an individual to learn from adversity is an integral part of thriving in crisis.

4.3 Proactive environmental scanning by CEOs provides a critical time window to prepare for crises and identify strategic opportunities

Leadership researchers have identified a concept known as signal detection whereby leaders are able to detect an impending crisis as a result of scanning their environments to identify potential threats to their organizations. In this regard, signal detection functions like the white blood cells in the human body, which identify sources of infection that could ultimately threaten the survival of a person. Without this capacity, organizations could be blindsided and incapable of navigating their organizations through a crisis. Beyond simply surviving a crisis, researchers George Day and Paul Schoemaker who wrote *Peripheral Vision: Detecting the Weak Signals That Will Make or Break Your Company* argue that scanning the environment is an effective means for identifying strategic opportunities and contributing to overall organizational thriving.

The findings in this study suggest that participants relied upon at least four sources of trend data to anticipate and assess the unfolding global economic crisis:

- Existing customers through direct interactions and internal financial reporting;
- Competitor ports through the direct interactions with other leaders, AAPA-related events or seminars, and general media reports;
- Other stakeholders in the transportation sector (such as railroads) through conferences, articles, and media reports; and
- Other industries such as housing or construction through articles and other media reports.

The four primary sources of trend information can be placed along a continuum based on urgency. Participants in the study whose customers approached them with requests to reduce fees or tariffs ultimately had to act very quickly to react to these requests. In contrast, some participants in this study began noticing trends associated with steel imports or housing starts. As a result, they were afforded more time to make sense of this information and creatively identify strategic options or solutions. Those participants who scanned trends in other industries were afforded the luxury of time to spot the trend, anticipate the impact, and make strategic choices that will help inoculate the organization against the threat and ensure the opportunity to thrive. In summary, CEOs who are actively scanning the environment for information and relevant trends are more apt to thrive because they have the

time and space to consider the threat, make sense of it, and formulate an appropriate strategic response.

4.4 CEOs play an important role in driving innovation by shattering denial and reinforcing a compelling vision

Numerous participants talked of having to deliver information to their employees and commissioners about the harsh realities of the crisis and the potential implications of the downturn for their port. These actions played an important role in breaking the denial of managers and staff about the seriousness of the situation and the necessity for all staff to play a role in reducing expenses or identifying new revenue opportunities. This was combined with the CEO reinforcing a compelling vision for the future and demonstrating confidence in the ability of their staff to thrive in the crisis. In order for staff to perform, they must maintain hope for the future – inspired, in many cases, from leaders who reinforce a vision with their words and actions.

This approach is consistent with the findings of Robert Rosen in his work *Just Enough Anxiety*. According to Rosen, anxiety among staff can serve a productive role in motivating action if those individuals perceive adequate support to cope with the challenges. He argued that the role of a leader is to create a work environment where there is neither too much nor too little anxiety in order to drive performance. It is also consistent with researcher Richard Beckhardt's work, *Organization Development: Strategies and Models*, arguing that dissatisfaction with the current state as well as compelling vision for what could be are essential to change to happen.

In addition, creativity plays an important role in organizational innovation. One of the major blocks to creativity in the workplace consists of untested assumptions about what is and is not possible. As the findings in the study suggest, crises often trigger a shattering of previously unexamined assumptions about an organization and its future. Thus, leaders can choose to use crises as an opportunity to shatter untested assumptions about what is and is not possible in reducing expenses or increasing revenue – and therefore unleash creativity and innovation.

4.5 Formal strategic plans and ad hoc strategic thinking by leaders are key for thriving in crisis

The existence of an organizational strategic plan does not mitigate the need for management teams to think and act strategically based on the rapidly changing market and economic conditions that are present during crises. Many of the participants had a strategic plan in place, yet none indicated that their plan had anticipated the global economic crisis. They had to think and act strategically to cope with and respond to unanticipated and rapidly changing conditions in their markets. In this regard, strategic plans and ad hoc strategic thinking appear to be independent but aligned processes. Leaders appear more able to maintain their

long-term perspective while thinking strategically in the moment if a well-crafted strategic plan is in place.

4.6 CEOs use multiple mindsets to analyze situations and develop strategic responses

The participants in this study used a number of ways to respond to the unfolding crisis rooted in three primary ways of cognition. First, a number of participants describe how they used critical thinking to analyze trend data, uncover underlying assumptions, and draw well-founded conclusions as the basis for decisions. Second, some participants explained their efforts to think expansively about customers' needs, suggesting a creative thinking approach. This allowed them to identify and harvest creative solutions by challenging well-ingrained assumptions about what is and is not possible. Finally, some participants described the importance of using a systems-oriented thinking approach to make sense of patterns, relationships, and trends.

Appendix A: Biography of the Researcher

Dr. Kevin Nourse is an executive coach, organization development consultant, and facilitator with nearly 20 years of progressive experience in both for-profit and non-profit organizations. He focuses his practice on creating sustainable and resilient leaders, teams, and organizations. Before launching his practice, Kevin was a management consultant and human resource director with PricewaterhouseCoopers Consulting.

He is a Professional Certified Coach (PCC) through the International Coach Federation and has extensive experience coaching leaders in the areas of emotional intelligence, career planning and transition, influence, risk-taking, and strategic thinking. Kevin's consulting experience includes conducting organizational assessments, change management, competency modeling, learning strategy development, facilitation, and team effectiveness. As a trainer, Kevin has delivered training for a wide range of audiences on diversity, career management, team dynamics, influence, risk-taking, strategic thinking, negotiation, and transformational leadership.

Kevin has an MA degree in human resource development and an MA in human and organization systems. Kevin is qualified to administer the CCL Benchmarks assessment, the MBTI, as well as the Hay Group emotional intelligence instrument. He earned his Ph.D. in human and organization development, focusing his research on thriving and social support among middle managers that were impacted by Hurricane Katrina.

Some of Kevin's former and current clients include Abbott Laboratories, America Online, American Association of Port Authorities, American Psychological Association, AstraZeneca, Cisco Systems, Eli Lilly, Fannie Mae, Marriott, National Institute of Health (NIH), Port of Los Angeles, Texas Instruments, The Nature Conservancy, and the U.S. Food and Drug Administration (FDA). Prior to launching his practice, Kevin worked as an HR director, financial analyst, CPA, instructional designer, training manager, and software developer. His passions include his work as a hospice volunteer, impressionist oil painting, and flying trapeze.

Kevin can be contacted at 202-462-6252 or knourse@lepadvocates.com.