Barriers to effective crisis preparedness: CEOs assess the challenges

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Abstract:

Emergence of the process approach to crisis management has seen increasing recognition of the role of top executives in the continuum of management activities, from pre-crisis prevention and preparedness through incident response and on to post-crisis issue management and recovery. While much of the crisis management literature focuses on operational aspects and tactical communication, a programme of in-depth interviews with top executives in the Australian chemical and petrochemical industry explores, largely in their own words, their perceptions of the current state of crisis management and the challenges for top management. In particular the CEOs provide a frank view of the barriers to effective organizational crisis preparedness.

Introduction:

Crisis management may be one of the fastest growing areas of public relations practice. Yet its commonest focus remains firmly on the operational aspects of how to get ready for a crisis in case it happens, and how best to respond when it strikes.

Similarly, the crisis management literature tends to examine the effectiveness of process, the tactical response of operational managers, and the role of top executives as spokesperson, rather than emphasising the proactive role of CEOs in promoting an organizational environment where there is equal focus on planned preventive action. And in the same way, much of the crisis communication literature has a strong focus on largely tactical communication such as how to write a crisis management manual, how to stage a desktop simulation, and what to say (and not say) to the news media and other stakeholders after the crisis has struck.

The American practitioner Mark Schannon (2006) has characterized this dichotomy as the difference between *operational preparedness* and *organizational preparedness*. He defined operational preparedness as plans to contain the problem and quickly get back to normal, while organizational preparedness is first and foremost about the creation of a 'crisis mindset' among those in charge.

While the reactive, operational elements are very important, this paper addresses the concept of organizational preparedness, as seen by the top executives of major Australian companies. The executives interviewed unanimously agreed with the proposition that the most effective method of crisis management is to take proactive steps to help prevent a crisis happening in the first place. But they had a wide range of views about how best to achieve that outcome, and they identified a large variety of different barriers to successfully implementing crisis preparedness.

The changing face of crisis preparedness

What is commonly referred to as crisis preparedness actually comprises two distinct elements which are now becoming more accurately described as pre-crisis management -
(a) system preparedness, including systems planning, manuals, documentation, war-rooms, functional checklists, resources and simulation training; and
(b) proactive crisis prevention, including audits, risk assessment, social forecasting, environmental scanning, issue management and emergency response (Jaques, 2007).

This evolving understanding of pre-crisis management as a systematic continuum of processes has been described in detail (for example Coombs, 2009; Jaques, 2010). But for the present purposes, organizational crisis preparedness will be considered across the range of activities which are now recognised within the concept of pre-crisis management.

As part of this concept, leading crisis scholars have taken up and developed the *process approach* to crisis management as distinct from the more traditional *event approach.*

The traditional event approach presents crisis management as a largely tactical activity focused on incident response – how to prepare for a triggering event and how to respond when it happens. By contrast the process approach presents crisis management as a contributory function in a comprehensive sequence of management activity extending well before the triggering event.

An early champion of the process approach was the American Shrivastava, who wrote: "Crises are not events, but processes extended in time and place" (1995, p. 2). This idea was taken up strongly in Europe, where scholars further developed the concept, analysing the two approaches and their relative merits (for example, Forgues & Roux-Dufort, 1998). In this vein the Dutch academics 't Hart, Heyse and Boin (2001) defined crises as "not discreet events, but rather high intensity nodes in ongoing social streams of social interaction" (p 185). The French crisis expert Roux-Dufort (2007) further refined the concept, characterising a crisis as "an accumulation of organizational imperfections." Describing the new paradigm, he concluded: "the process approach to crises . . . leads us to see the triggering event as the factor that reveals a pre-existing dynamic of crisis. In other words, what the event approach sees as the crisis (ie the triggering event) the process approach only sees as the amplifier of a process that started long before" (p 228).

The developing notion of pre-crisis management, and increasing acceptance of the process approach, are particularly relevant to the present research as they emphasise that crisis preparedness and crisis prevention are just as much a part of the continuum of crisis management as more conventional elements such as crisis response and post-crisis recovery. Indeed, the Briton Denis Smith has argued; "To be effective, crisis management should almost by definition include systematic attempts to prevent crises from occurring" (2005, p 312).

It is against this background that organizational crisis preparedness should be seen not as an operational process, but as an essential element of a continuum of executive responsibility.

An early study

In this respect, one of the most comprehensive early studies of corporate crisis preparedness was based on interviews conducted by Sarah Kovoor-Misra, who undertook a detailed examination of the crisis processes in nine major American corporations – a public utility, a company involved in aerospace, and seven chemical manufacturers (Kovoor-Misra, Zammuto & Mitroff, 1995; Kovoor Misra, 1996; Kovoor-Misra, Zammuto & Mitroff, 2000).

This seminal research identified that there is a substantial discrepancy between the prescriptive literature on crisis preparation and how organizations actually prepare for crises. Some of the key findings (Kovoor-Misra et al, 2000) were: that all nine organizations systematically used elaborate safety systems to prevent dysfunction in technical sub-systems, but none addressed the causes of crises in other sub-systems; signal detection systems were instituted in technical areas, but not in non-technical areas; and decentralization in crisis preparedness away from top management was evident in all nine organizations.

However, for all its innovative analysis, their project, like many others, focused mainly on operational implementation and effectiveness. This is evidenced by the fact that of 183 interviews undertaken in the nine organizations, only 14 subjects were classified by the researchers as being 'top management' - defined as "CEO, COO, heads of business groups and divisions" (Kovoor-Misra et al, 2000, p. 47). The remainder were managers in a very wide range of technical and nontechnical functions.

Another important study is the earlier research reported by Mitroff and Pauchant (1990) based on over 350 interviews with 'top executives' in more than 120 companies, which analysed the rationalizations as to why organizations fail to be properly crisis prepared. In that case the interviewees were not CEOs but "the top individual in the organizations directly concerned with overseeing crisis management" (p. 84). Indeed, the authors explicitly stated that in many cases the interviewees disagreed strongly with the views of their superiors in areas such as crisis preparedness and organizational culture.

Methodology rationale

The present research can be seen as expanding and building on the work by Kovoor Misra et al. in that it also involves 'high reliability' industries with a multinational foundation. In this case the companies were 12 Australian corporations in the field of chemicals and petrochemicals, all of them part of multinational organizations.[1]

But, unlike the work by Kovoor Misra, Mitroff, Pauchant and others, the focus here is solely on the senior executive perspective. All 12 Australian interview subjects, one from each company, fell within the earlier definition of top management - being either Managing Director or General Manager, or in one case a Divisional Director.[2]

In total, the companies represented had 10,600 employees, operated 133 plant sites across Australia and had local annual sales amounting to $13.3 billion (AUD). All but one of the interviews were conducted face to face. The respondents were also asked to complete a brief

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[1] All interviews were conducted on the basis of anonymity for the subjects and the companies they represented, which are labelled from A to L.

[2] For brevity the term CEO will be used to describe the group of interviewees

quantitative questionnaire, which was implemented immediately prior to the interview to ensure answers were not coloured by subsequent discussion. All interviews were recorded, with the transcript reviewed by the participant to ensure accuracy and to avoid any inadvertent identifying detail.

Although the chemical and petrochemical sector is heavily regulated, it can be seen as something of a bellwether for crisis management. Moreover, it is one of the key high-technology industrial sectors identified by Perrow (1984) in his ground-breaking concept of 'normal accidents' which hypothesized that closely coupled and complex high reliability industries face the inevitability of failure.

The vulnerability of the chemical and petrochemical sector is certainly highlighted in news media headlines. While data from the US-based Institute for Crisis Management shows other business sectors are statistically much more likely to have a corporate crisis[3], the impact of crises in chemicals and petrochemicals can be particularly devastating and memorable.

It is probably no coincidence that some of the highest profile emblematic crises in the literature and public awareness involve chemical and petrochemical operations. Indeed the Bhopal chemical release (India, 1984) is regarded as the worst industrial accident in history. Other iconic crises in the same industry sector include the Flixborough plant explosion (UK, 1974); Seveso plant explosion (Italy, 1976); Love Canal chemical waste emergency (Niagara Falls, 1978); Sandoz chemical spill disaster (Switzerland, 1986); Piper Alpha oil rig fire (UK, 1988); Exxon Valdez tanker grounding (Alaska, 1989); Coode Island fire (Australia, 1991); Longford gas explosion (Australia, 1998); AZF plant explosion (France, 2001); Buncefield plant explosion (UK, 2005); BP Texas City refinery fire (Texas, 2005); Montara oil spill (Australia, 2009); Deepwater Horizon oil rig collapse (Gulf of Mexico, 2010).

Many of these widely-studied and iconic crises led to regulatory reform, and they all further reinforced long-standing public and regulatory concern about risks and safety in the chemical and petrochemical sector. This is consistent with the view of the Australian CEOs interviewed, where seven out of 12 characterized their sector as more vulnerable to crises than others. Four felt it was neither more nor less vulnerable than other industries, and only one CEO believed that – by its proven processes and standards – his sector was less vulnerable than others.

CEOs identify the barriers

Asked to identify the main barriers to Australian companies putting effective crisis management in place, the CEOs provided a wide range of responses, which largely fell into six common areas:

1. Denial and failure to prioritise
2. Lack of experience and full understanding of potential risks
3. Inadequate systems, process and management discipline
4. Insufficient size and therefore available resources
5. Unwillingness or lack of opportunity for executives to share crisis experience

[3] ICM annually tabulates the most crisis-prone business sectors. While the petroleum industry is often high on the list, it consistently falls below other sectors, such as the banking and securities industries (www.crisisexperts.com)

6. Failures of leadership and upward communication

Interview questions were asked on an open-ended basis to obtain a comprehensive view from the executive suite. While most initial responses were fairly predictable, further probing revealed a much deeper understanding about the CEO perspective, presented here largely in their own words.

(1)Denial and failure to prioritise

Addressing the first main barrier to putting effective crisis management in place, the linked challenges of denial and failure to prioritise were the first top of mind response from many of the CEOs. They consistently used phrases such as “the obvious first one . . . ” and “clearly the main problem . . . ”

> (Company A) I think number one would be priorities, and by that I mean that it’s a nice thing to do, and we should do it. But it’s not going to change next week’s financial result, or this year’s result. So given that my shareholders, or whoever, are looking at that result, I’m going to focus on that result before I get around to doing any crisis management planning. I suspect that’s a reason.
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> (Company B) It’s an attitude problem, that “she’ll be right” or “it won’t happen to me” or “the chance is very small” or “it’s all just too scary that I don’t want to think about it, so let’s not do anything.” No-one will ever verbalize that, but I am sure people look at it and think about it and think “Where do I start? “ . . . These problems are hard to talk about. People don’t know where to start, don’t know how to do it. And if they do think about it, it’s all too big of a problem, so let’s not bother. . . . I’ve got away with it for the last 30 years, so what’s to say it won’t get me though the next time.
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> (Company C) It all goes back to “it’s not going to happen to me.” It’s like driving on the road. Most people don’t expect to have a crash on the way home.

Two CEOs neatly brought these two challenges together

> (Company D) “It won’t happen to me” is the most obvious one. “We’re ok, we don’t have crises here.” The other one is the time barrier. “We haven’t had a crisis, so why do we have to plan for one.” Then it’s a case of “I’m too busy running the business.” So it’s a priority issue.
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> (Company E) People prioritize based on day-to-day issues and pressures. And, hopefully, on more than 99% of days, crisis management is not an issue or priority. Consequently, I think there is a tendency for people to put it off. When it’s time to do the crisis management stuff, there is always something else which is more important in the short term. It’s a matter of planning and priority setting and leadership.

(2)Lack of experience and full understanding of potential risks

The barrier of inexperience and inadequate understanding of potential risks was seen by the CEOs as building on the basic notions of denial and effective prioritization. Accordingly, they quickly identified what they saw as contributing factors for this second challenge. As one CEO expressed it:

> (Company D) If you've never had a crisis you tend to maintain the belief that it will never happen to you.

In fact nearly every CEO highlighted lack of experience and understanding as a critical barrier.

> (Company F) I think it might be just experience. You don't understand the potential issues so you don't put in the resources . . . I'm not sure people are even aware of some of these potential issues. Unless you've been exposed to it, it's not easy to get that mindset . . . I would speculate that some businesses may be too focused on the growth opportunities. They are important, but you have to make sure you have a very robust base. If the base is not working well you'll get into all sorts of strife, even ending up in a crisis.

> (Company G) I would say that people underestimate the risk. The likelihood of it occurring and, if it should occur, what the scale of it is likely to be – the two sides of the risk equation. I think you underestimate the risk until you've been through one of these. You probably don't have a concept of how bad it can be. So it's like anything else. If you don't think it's going to happen, or you think if it does happen it's no big deal, then you're not going to plan for it. Why would you?

> (Company H) I guess experience is always the best teacher and the majority of companies, fortunately, have not had to experience it and therefore don't appreciate the impact on their operations. My observation is that the companies which tend to do this well, operating in Australia or offshore, have had experience or exposure and understand the potential implications more . . . How do you improve on that? One way or another I guess it is the leadership of the company, recognizing the risk. There is basically an insufficient risk analysis, identifying the potential consequences of such incidents, and following through the mitigation steps.

> (Company C) I think it is important to think through the scenarios that could cause a crisis and then rate them. You can't work on every single thing so you've got to find some way to prioritise to what you believe is the highest risk/highest impact for the company . . . We don't think broadly enough about scenarios. I don't think there is a lot of analysis of the risk of it happening versus the impact, and looking at different things other than what might traditionally jump into your mind. For a chemical company, for example, you might think about things blowing up, that's going to be our crisis, but it's far from that.

> (Company I) Probably companies don't take it seriously enough until something goes wrong, and then you've got a panic. A lot of damage can be done in a short amount of time if you are not prepared, but I'm not sure how well-structured training is in Australia for that . . . I don't think a lot of people understand the ramification of changes to the business to the full extent that

> they should and only focus on operational issues. So I think that good training of leadership is probably missing, because people aren't fully trained on the full range of risks.

One CEO further developed this issue of training:

> (Company H) I don't think crisis management is necessarily something which is taught in management schools or business schools. I believe and understand it is beginning to be more involved, but I think perhaps it is seen as a dry process. It's not particularly exciting, it's not about growth, it's not about selling. It's seen as something which is a cost, which you have to do to fob off the auditors each year, to get through the audit process, without contemplating what that potentially means.

However another CEO had a more sanguine viewpoint:

> (Company J) Most (crises) are caused by ineptitude in some areas, or risk taking. I'll stick my neck out and say there are a lot of people who come into business at a fairly young age, and have only seen upside. So they only ever factor in that life's going to be like it has been into the future, and I think not being able to run a business with an eye to what if some of these things turn against us . . . A lot of the problem is people who don't identify that there is risk out there.

(3) Inadequate systems and processes

The value of systems and processes was another strong common theme among the CEOs interviewed, which was not surprising for representatives of major multinationals, which are traditional bastions of a strong process focus. However an unexpected finding of the research analysis was a distinct divide between the CEOs who appeared to implicitly rely – perhaps over-rely – on the effectiveness of systems and process, and the CEOs who felt that no amount of process will provide a sufficient safeguard without strong leadership and personal skills.

> (Company H) It seems to me as if the problem is probably going to get down to the awareness of the management of the importance of risk management and getting the process steps in place . . . Unfortunately it is not an exact science, so it is not something which can be readily done. It requires work and effort with no obvious return.

> (Company J) It is essential to have good systems and processes in place. The way you do things. You've got to train your people well . . . Big companies have a lot of systems and processes and you've got to audit them. It's alright to have the processes, but you have to actually conduct the training and then audit . . . (When) you do regular audits, it's very difficult in large companies to get away with too much.

(4) Insufficient size and resources

Although experience and newspaper headlines might contradict the idea that in large companies it is hard to get away with much, this approach highlights the belief that size, resources and international exposure matter in crisis management. The CEOs interviewed were unanimous with regard to size supporting availability of resources. However there was much less agreement on whether size and resources necessarily make for better crisis preparedness.

In terms of resource availability the consensus was clear.

> (Company G) We have quite a bit of experience and history managing major incidents. So I suggest one of the benefits of being a larger corporation is that these things tend to happen to you, so you practice them. You'd rather they didn't, but if you were a smaller company, maybe the chances aren't that great.

> (Company F) My main experience has been with major companies who do this stuff fairly well. You get very sensitized to making sure you are in good shape locally. I suspect that if you are more an Australian company you may not fully appreciate that until you have it happen to you. Smaller companies – Australian focused, Australian owned companies – I am not sure all of them even understand the potential risks they are running trying to manage their business.

> (Company J) We have a whole range of processes, procedures, policies, audits. We are associated with a major multinational, and they have very many risk management processes in place. So a lot of it is built into the way you do business. If you were to go outside of our industry I don't think you would find that rigidity of risk management within other industries. That's my assessment.

> (Company A) As a company we run several major hazard facilities and most of our products are dangerous goods. Most of them will have environmental impact if spilled, and some have the potential to be lethal if misused. Consequently the whole environment, health, safety incident management – therefore crisis management – is at the forefront of our minds. Other companies with perhaps less involvement in that aspect – in terms of dangerous goods or hazard facilities – may not see as great a need, so it may not cross the radar screen that anything's ever going to happen.

> (Company B) It is an expensive thing to put together a plan and then test it. So I think a hurdle is probably the cost and the resources commitment. If you are BHP you can probably employ half a dozen people and say "go off and do a study." But if you are, for example, a small plastics moulder, it probably doesn't enter your mind. And if it does you might think "I just don't know where to start, so I won't do anything." And if the manager does think about it he probably says "I don't have the time or the resources or the people to do it." For the vast bulk of Australian companies, which are small to medium or even small, I would say no, they don't put enough effort into crisis prevention.

Although the link between size and resources was largely agreed, when it comes to effectiveness the answer was much less clear. Several respondents questioned the assumption that size and resources necessarily make for better crisis management.

> (Company A) I don't know if it's true that big companies are more inclined to do crisis prevention. I can appreciate that larger companies have resources generally available, and functional specialists available in the organization which allows them to bring a crisis management team together. If you don't have in-house resources and you are having to utilize consultants and contractors, then there is probably a reluctance to do so in terms of crisis management planning. So that aspect could be a function of size. Maybe you don't have to spend a lot of money to do it, but you have to consciously want to do it.

Another CEO took the notion further.

> (Company D) I think you can argue both ways . . . It's true that there are more resources in bigger companies. But I don't think that's necessarily easier. The benefit of a big organization is you have more resources to put to it, you can run full scale training programmes. But if you are a smaller company you can get the management team together for a half hour or hour session on crisis management because the communication chains are very short . . . But if you operate in some companies that are extraordinarily hierarchical, you can't talk to anyone across functions and it has to go to the top.

The benefit of smaller size was also expressed by another CEO;

> (Company H) I think that size is a two-edged sword. In a larger company you might hear "That's a Group responsibility, or Corporate Affairs. I don't have to worry about it." Whereas I would argue that with fewer people they recognise that – like it or not – it's part of their responsibility, alongside their responsibilities for HSE, stewardship and so on.

(5) Unwillingness or inability of executives to share crisis experience

A somewhat less expected perspective from the executive suite was the CEO viewpoint about the unwillingness of senior executives to share crisis experience with executives from other companies, or lack of opportunity to do so.

Referring to lack of discussion on crises, one CEO commented:

> (Company H) CEOs don't meet to do that. It's either a social or management context. When you are engaged in some lobbying you are representing the industry and you won't be talking there about your dirty linen or risks. And at an industry meeting the agenda would be tight and you would be looking at governance and not necessarily be looking at industry reputation. One of the key things companies want to protect and value is their reputation, and they will sweep things under the carpet to protect their reputation. So when you start talking about risk management and areas where one is weak or not, that is inevitably going to be impacting, or perceived to be impacting, on the company's reputation, and there is going to be a natural desire to protect that.

With regard to reputation another said:

> (Company H) By openly sharing when things are not perfect you may learn the most. But I know there are some areas where I feel a little vulnerable. So potentially, unless it is a very trusting relationship I am not sure you would talk about those. I guess that is what I am wondering, whether from a reputational management viewpoint that provides a natural barrier.

> (Company L) I think it (embarrassment) is part of the problem. But I think it's also that people want to boast about market share, growth, investment, developments. They don't want to say "let me tell you the things which are going wrong."

Some CEOs also raised legal constraints on discussion.

> (Company C) People naturally shy away from uncomfortable, difficult situations . . . And there's the fine line between speculation and liability. You could document some scenarios and the lawyers would constrain you because if you speculate too much about an issue it puts you in a position where you start to get legal 'help' about what you can and can't document within the company. So I think there are some legal constraints about how far you can go in formally speculating within an organization.

> (Company K) I think our industry bodies focus primarily on safety and quality and, from my experience, that's one of the few areas which it's legal to get into . . . I wouldn't say the topic was embarrassing. But having said that I am not aware that I have ever sat through an industry executive meeting where we have specifically addressed crisis management as a topic. But I don't think the subject is taboo by any means . . . Quite why it doesn't get onto agenda is an interesting observation.

> (Company E) I am not sure it's true that we wouldn't talk about it. At an industry association meeting you certainly wouldn't share information which has a competitive impact. But one of the important points of an industry association, especially one like ours, is that you want to learn from your peers, so I am not sure it's true. If you had a particular experience you felt could benefit the industry I feel pretty sure you would share.

One CEO had a more prosaic view of the challenge.

> (Company D) I don't really talk about crisis management with other companies very much, other than when one comes up, because it is not a terribly engaging topic. Of course you talk about it, but you don't get a lot of traction unless there's a crisis going on . . . And it probably is a bit awkward. It's like it doesn't get put there unless you are in a forum specifically designed for that discussion or where it's on the agenda. Maybe there's a bit of "it's not a topic for discussion" or is it just that it's not so interesting a topic because it's not current. It goes back to my view, that for a lot of people the view is "it has never happened to me yet, and won't happen in the future. Or if it does, we'll deal with it. So we'll be ok. She'll be right"

(6) Failures of leadership and upward communication

The final barrier to effective crisis preparedness identified by the CEOs was in the area of failures of leadership and hurdles to open, upward communication.

> (Company C) I think leaders underestimate the breadth of things that can cause a crisis. I think they have a belief that "it's not going to happen to me" and they are probably, generally not very well trained to deal with it. So maybe because of the fact that you don't feel comfortable, you don't put yourself out in front as much.
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> (Company H) If leadership from the very top of the organization doesn't give adequate focus to crisis management then why would you expect that layers of leadership further down the organization would give it adequate focus? But I don't see this as a barrier. It's simply a matter of making the time and doing it.

Several CEOs raised the role of a leader in promoting an organizational environment in which open, upward communication is encouraged. This challenge is not new, and Morrison and Milliken (2000) coined the term 'organizational silence' to describe when employees withhold information about potential problems and issues. This is particularly pertinent when it comes to potential crises, and one CEO had a stark view of the problem.

> (Company D) Too often it's "don't talk about bad news. I don't want to know about bad news. We can't deal with bad news here." It's never said that way, but that's the subliminal message that comes through. People just sit on stuff. And so it becomes "I have terrible news I ought to be telling you, but I don't find the culture that enables me to do it in a free and open way. So I won't do it" . . . Or people say "I didn't have the environment in which I was operating where I could feel free and able to raise it in a constructive way." Or "I did raise it and was told to be quiet."
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> (Company A) Having the right culture in place is very important. I won't use the term 'no blame culture,' because that's a cop-out. But a culture where you don't shoot messengers, a culture where you are prepared to accept things being said to you, and then go and find the facts. A culture which is inclusive rather than bury your head in the sand and hope things don't happen.

Finally, in addition to the general question of leadership, two CEOs suggested it could also be a reflection of local culture or management style, which one called the Australian *antipodean style*.

> (Company L) The thinking is crisis management is what we do. We react. We respond. We improvise. It's the 'number eight wire' mentality. The planning and organization of it is all a bit 'too German' for us.

Another described the problem somewhat more formally.

> (Company F) When it comes to structure and discipline, I think Australians are not as accepting of that as some others, particularly when I see my colleagues in Asia-Pacific and elsewhere. For example, the Japanese will follow road maps to the letter of the law. Australians have a tendency to try to be creative and innovative in some ways, and will deviate from the plan if they think that will give a better outcome. That might be good in the short term but often not in the long run. You need the right culture and you need to set the standard from the top.

Discussion

While the research base is limited in size, it tapped directly into the view of leaders, not just leaders in their respective companies but in an industry which is regarded as a bellwether in crisis management.

A key finding from the research of Kovoor-Misra et al (2000) was that technology intensive-industries primarily prepared for crises in their technical systems but were less prepared in non-technical areas. The present research reinforces that conclusion, but more importantly it demonstrates that this shortcoming is recognised and acknowledged at the CEO level.

It suggests that CEOs in this crisis-prone industry sector are very aware of the barriers to effective crisis management and are consciously seeking ways to improve performance, including actively seeking appropriate forums for senior executives to share crisis experience. This certainly helps identify future directions for practitioners in the field.

Perhaps the most significant conclusion is the very evident importance which CEOs assign to crisis management. Almost half of the respondents said that in their company the CEO led or was personally involved in crisis management planning. Moreover, when asked which corporate function should have the lead role in managing crisis management, 50% named the Office of the CEO/MD. Only 16% nominated the Corporate Affairs/Public Affairs.

One of the leaders interviewed, a respected chemical industry veteran, colourfully captured the concept of the process approach to crisis management when asked about the place of crisis preparedness in the continuum of management activity. He emphasised that the management team need to balance all priorities, not just safety, or output, or least cost or avoiding HR issues.

> (Company J) You can't put one ball on the table and juggle a few others. They all have to stay in the air, and they are all part of the holistic way you do business. I think the companies which don't do well are the ones which concentrate on one or two things and let something else lapse. But in our sort of industry you can't.

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