REDESIGNING DISASTER MANAGEMENT ORGANIZATIONS

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ABSTRACT

Unfortunate events over the past year have brought disaster management to the forefront of people's minds. Recent analysis of the failure of disaster relief organizations to handle the aftermath of Hurricane Katrina has focused blame on faulty executive decision making, and poor planning and coordination of relief efforts, in particular at FEMA, but also at supporting organizations. There is no question that executive level decision making at FEMA was severely flawed, and this has been extensively documented. Largely overlooked in this analysis is the design of the disaster relief organizations themselves. Too few are asking whether these organizations are appropriately designed for their mission. This paper focuses on the design of disaster relief organizations, particularly those responsible for immediate rather than long term relief.

All organizations, public and private, must find an appropriate blend of proactive and reactive capabilities appropriate for their environments. This is particularly true for disaster management organizations.

Think of the appropriate blend of proactive and reactive capabilities as lying on a continuum. On one end of this continuum, pre-planned, highly tailored responses can be prepared for events that are largely predictable. Resources can be aligned to these tasks. In such environments, the appropriate focus is on planning, including contingency planning, and preparedness. Precise and efficient strategic implementation is the ultimate goal in these settings.

On the other end of the continuum, in unpredictable environments, organizations need flexibility to react to events as they unfold. Organizational flexibility requires slack resources and decision maker autonomy to rapidly deploy those slack resources as outcomes become clear. However, reactive capabilities are costly and not optimized to any particular outcome; rather they are designed to enable the management of many possible outcomes. And with decision maker autonomy pushed to lower levels in the organization, control over the organization becomes more diffused and decentralized. Such organizations are less precise and less efficient in their actions, but capable of achieving success in a wide variety of settings. In essence, this is a hedging strategy against uncertainty. However, unless the uncertainty is recognized, reactive strategies appear to be expensive, inefficient and unnecessary.

Disasters are predictable in the abstract, yet unpredictable in the specific. We all know that hurricanes, earthquakes and tsunamis will strike. In many cases we know where they will occur, and to some degree, as in the case of hurricanes, we also know when. But even hurricanes change direction, speed and intensity and the damages caused as a result vary from relatively insignificant to catastrophic.

Unfortunately, in hindsight, most outcomes are seen as having been relatively more predictable than they were thought to be in foresight [3]. In hindsight, many, arguably most disasters appear to have been predictable. The result is a lack of appreciation for the uncertainty involved in disaster management. For organizational design, this has the effect of reducing the reactive capabilities that disaster management organizations carry, biasing these organizations towards strategies designed to take advantage of the

predictability; in other words, the disaster management organization will under-invest in flexibility. This phenomenon is known as strategic bias [2]. This leads to sub-optimal fit of strategy to its environment and a reduction in organizational effectiveness. However, since underinvestment in flexibility is both less costly in the short run, and cedes less decision maker control to lower levels in the organization, this bias towards planning will have the appearance of being prudent.

Over time, and as experience accumulates, organization learning should occur which helps to right the balance. However, the lessons from experience are not always so obvious. Rather than shifting the organization towards more reactive strategies, failures may instead have the effect of increasing the emphasis on developing better, yet still inflexible strategies. This occurs when the focus of the blame for failure is on the decision makers and the plans themselves, rather than the strategic fit of the organization with its environment. This appears to be the primary focus of the debate taking place today. Attention is being focused on redoubling efforts to plan better for the future.

Unfortunately, in an unpredictable environment, this will not increase the likelihood of future success. While planning is an important element in the preparation of any disaster relief effort, an over-reliance on planning will leave organizations unprepared for the unpredictable.

Modifying the organizational capabilities requires a type of meta-learning, where decision makers step back, see the bigger picture and focus their attention on the strategic fit of the organization with its environment [1]. For meta-learning to occur, a relatively significant failure is often required. Cataclysmic events often stimulate this learning.

Some events are so shocking that hindsight effects are absent. Indeed a reversal of hindsight effect occurs in such situations, leading some decision makers to ask: “Could any organization have been effective in managing relief efforts?” The silver lining of Hurricane Katrina, the Pakistani earthquake, and the Indian Ocean tsunamis is that they are just such cataclysmic events. They show in stark relief that planning and preparedness is no match for truly major disasters. The contingencies to manage such disasters are far too great to fathom.

The unpredictability of major disasters puts a great premium on rapid response, often to remote locations, and at a scale unimagined. For a disaster management organization to deal with this uncertainty the following resources and capabilities are required. The organization must be able to move very quickly and it must have vast resources at its disposal. Decision makers must be given the autonomy to act. And not merely at the top of the organization. Highly skilled decision makers throughout the organization’s ranks must be empowered to make decisions quickly and independently on how best to deploy resources.

It is very difficult for a governmental or quasi-governmental organization, like FEMA to be so structured. An organization employing highly skilled, experienced, and probably highly paid disaster relief decision makers with access to large pools of resources which they can use at their discretion simply does not fit into the typical governmental model. Governmental organizations restrict decision maker autonomy to prevent abuses in the use of discretion. In governmental organizations, decision making gets deferred to higher and higher levels, which places too much emphasis on the abilities of the top decision makers to anticipate the grass roots decisions that need to be made. It is simply not possible for decision makers to be so insightful.

That said, recent experience has shown that the world's pre-eminent disaster relief organization is the U.S. military. Witness the speed of response of the U.S. military to the Iran earthquakes, the earthquake in Pakistan, and the Indian Ocean tsunami, and the enormous goodwill created by such efforts. The military is able to deploy vast resources in remote regions of the world quickly and efficiently. The military chain of command provides clear decision maker authority over a defined scope (e.g., an aircraft carrier and the resources on it, sent for example to the coast of Sumatra) enabling the deployment of resources by individuals who have been trained and empowered to act using their best judgment in life and death situations (individual sailors and soldiers on the ground at the scene).

The efficiency of the U.S. military in this role is a result of economies of scope. These global capabilities already exist in the military and are critical to the performance of its basic defense function. In essence, the disaster management capabilities are bi-products of this defense function. Duplication of these resources in scale and in scope in another organization would be extremely costly.

It is these successes that have likely led to the recent calls for the military to be in charge of disaster relief in the U.S. This idea would seem to have considerable merit. Undoubtedly, additional resources and capabilities would need to be added to the present structure of the military to effectively manage these tasks. But regardless of the outcome of this debate, what is needed at this point is a focus on ensuring that whatever organization is charged with the task of immediate disaster management response, that it be designed with the proper strategic fit. Specifically, the organization should be built for speed, be highly flexible, have skilled and empowered decision makers with sufficient resources at their disposal to deal with the extreme uncertainty involved in disaster management. The cost of such an organization will be high; but not nearly as high as the cost of more of the same.

REFERENCES

[1] Argyris, S. C. & Schon, D. A. (1977). *Organizational learning: A theory of action perspective*, Addison-Wesley: Reading MA.

[2] Bukszar, E. (1999). Strategic bias: The impact of cognitive biases on strategy. *Canadian Journal of Administrative Sciences*. 16(2): 105-117.

[3] Fischhoff, B. (1975). Hindsight ≠ foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, 1, 288-299.