Mitigating unintended consequences during crises: improving the decision-making process

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ABSTRACT

Public and private sector organizations going through major emergencies or disasters have to work with a variety of stakeholders as they return to normalcy. As with any organization, decisions made by one stakeholder during these trying times can have consequences on other stakeholders. The challenge facing emergency action and business continuity managers is developing procedures that allow supporting stakeholders to understand the decisions made during the crisis, thereby reducing the impact of unintended consequences. This paper reviews the related literature on systems thinking, complexity and structuration theory; and how they can be applied to decision-making during emergency and business continuity management challenges. The paper proposes a model that can be generalized to public or private sector organizations for minimizing unintended consequences and improving decision-making during these trying times.

Key words: Systems thinking, decision-making, learning organization, complexity theory, structuration theory.

INTRODUCTION

As organizations become more and more complex with ever increasing stakeholder interests, a challenge facing emergency and business continuity managers is addressing the interconnectedness of organizations and the impact it has on decision making. Palmberg (2009) and Ng (2009) describe this interconnectedness as a complex adaptive system where dynamic and interdependent connections exist between agents. On an international scale these events can include technological incidents, terror-related risks, food safety and infectious diseases. The same can be said for disasters on a regional or national level such as oil spills, flooding, and on a more local level earthquakes and flooding. Similarly, the interdependence of decision-making can also be applied to the private sector in business continuity responses for events such as information security breaches, computer hacking and terrorist acts. Due to the complexity of these systems, the decisions stakeholders make will result in consequences on other organizations as well.

The challenge emergency and business continuity managers have during these situations is accurately determining the interrelatedness and consequences of actions when attempting to return to a sense of normalcy. Although it is easy to see the interrelatedness of actions on a major scale like Hurricane Isaac or the British Petroleum Deepwater Horizon oil spill in the Gulf of Mexico, they also occur on a smaller scale to local or regional governments, businesses and nonprofits. For example, one of the most common lessons learned from looking back on emergency actions has to do with communication efforts. Kettl (2006) described the various systems of communication between federal, state and local agencies as being a "wicked problem" (273) during Hurricane Katrina that prevented essential support from being provided to communities during the disaster. Similar issues often arise on a more local level with businesses and governments trying to respond to emergencies.

Developing methodologies to identify the interrelatedness of decisions between organizations can be challenging during normal operations. However, identifying relationships and their intended and potential unintended consequences when actions are taken during crisis situations can be particularly challenging. By developing a model to analyze decision-making inputs from a variety of perspectives, emergency and business continuity professionals may be able to better predict decisions made under these trying times, reduce unintended consequences of actions and more quickly return to normalcy.

DISCUSSION

The Learning Organization and Systems of Meaning

Systems thinking, the study of the causal relationships of actions on a system (Senge, 1994 and Senge, Smith, Kruschwitz, Laur and Schley, 2010) is one way for emergency and business continuity managers to begin to understand how actions taken by one organization can impact stakeholders when responding to emergencies. Senge (1994) and Senge et al. (2010) argue that by studying the system of an organization, how it relates to internal and external forces, one can understand the interrelatedness of decisions in providing services during emergencies and disasters. Senge (1994) and Senge et al. (2010) suggest that understanding the interrelatedness of actions of one part of an organization on another and between stakeholders

can help managers understand how to provide services and functions that are coordinated, intended and sustainable.

In addition to Systems Thinking, Mitchell (2006) discusses how two other disciplines can help clarify coordination efforts, quicken response times and promote efficiency in returning to normalcy. Mitchell (2006) suggests that understanding an organization's Mental Models, the defensive mechanisms of individuals that prevent seeing the need for change, and Shared Vision, the common vision of the purpose of the organization, one can better understand how an organization may make decisions during emergencies.

In another perspective of Systems Thinking, Flood (1999) suggests that understanding systems from four perspectives can further define interrelationships within and among organizations. In contrast to Senge (1994) and Senge et al. (2010) who look at Systems Thinking as a way to address organizational problems from a process perspective, Flood uses Systems Thinking as a way of solving organizational issues or dilemmas (pg. 6). According to Flood (1999) systems thinking develops a deeper understanding of the interrelatedness of organizational actions.

Flood's four perspectives of Systems Thinking include:
(1) Systems Process – the efficiency and reliability of the system
(2) Systems Structure – the effectiveness of the system
(3) Systems of Meaning – does the system do what we want them to do?
(4) Systems of Knowledge-Power - how is knowledge transmitted within the system

In addressing the interrelatedness of emergency or business continuity actions, one can suggest that Flood's Systems of Meaning could help in understanding how organizations act in times of disasters. Understanding what drives the decision-making process of an organization as discussed by Flood (1999) or through the lens of the Senge's Learning Organization, one can develop an understanding of how decisions are made in emergencies. Even more importantly, one can also identify potentially unintended consequences from decisions that left unaddressed could cloud transparency in decision-making and delay an organization's return to normalcy.

Complexity Theory

Complexity theory also attempts to explain how organizations behave. Where systems theory looks at organization actions in terms of processes and procedural efficiency, complexity theory suggests there are underlying assumptions of organizational behavior that drive decision-making. According to Stacey, Griffin and Shaw (2000), individual actions play a major role in how an organization will react in times of emergencies. The authors suggest that one must understand how individuals will act during a crisis to understand how and what decisions may be made in responding to emergencies or disasters. Similarly, Wheatley (1999) discusses how change can cause chaos in organizations. Wheatley suggests that in leading through change one must understand the underlying principles and vision of the organization to understand how it will act in a crisis. To better understand decision-making during emergencies, Wheatley (1999) and Stacey, Griffin and Shaw (2000) suggest that one has to also understand the underlying assumptions (values and shared vision) of an organization to understand crisis decision-making.

Structuration Theory

Similar to complexity theory, structuration theory attempts to explain decisions through the lens of organizational values and culture. Stones (2005) suggests decisions made by individuals in organizations are influenced by the values and culture an organization practices. According to Stones (2005) organizational culture can replace the individual values in decision-making. As a result, understanding organizational culture and values can help predict decision-making during an emergency or disaster and can explain why decision-making during actual emergencies can be different from decisions made during exercises.

Understanding decision-making from a systems perspective during normal business operations can be challenging. One can suggest that predicting and planning for decision-making during a crisis can be even more challenging. By understanding the environments under which organizations operate, one may be able to better predict decisions being made which will help expedite an organization returning to normalcy.

A MODEL FOR UNDERSTANDING ORGANIZATION ACTIONS IN TIMES OF CRISIS

By combining the concepts of the Learning Organization (Senge, 1994, Senge et al., 2010 and Flood, 1999), Complexity Theory (Stacey, Griffin and Shaw, 2000 and Wheatley, 1999) and Structuration Theory (Stones 2005) one can begin to develop a model suggesting how an organization may act during times of emergencies. With an understanding of the systems and structures in which organizations operate and the influences on decision-makers, one may be able to forecast how and what decisions will be made during times of crises. One can also suggest that this may reduce the unintended consequences brought on by decisions made during emergency situations, provide better coordinated responses and improve transparency of decisions.

As indicated in Figure 1 (Appendix), the Systems Thinking/Complexity/Structuration Decision-Making Model organizations:

(1) identify business processes and procedures;

(2) identify other decision-making inputs such as organizational values, vision, underlying assumptions and culture;

(3) identify decision-making inputs that can lead to impacting other stakeholders through intended and unintended consequences; and

(4) collaborate with system stakeholders to develop processes that support each other and recognize the underlying assumptions of each organization. By recognizing a system's business process decision-making inputs, the underlying assumptions, and the values and culture of the organizations collaborative actions can then be developed to best support actions during emergencies, accommodate stakeholder needs and improve transparency of decision-making.

CONCLUSION

During emergencies and disasters organizations strive to recover and return to normalcy. To assist in the process, an understanding of the system in which an organization operates; and the values, assumptions and cultures of the stakeholders can help develop decisions that maximize intended consequences, reduce unintended consequences and improve transparency.

As a result, looking at systems processes and their values, assumptions and culture of stakeholders, organizations can more effectively and expeditiously return to normalcy after an emergency or disaster.

REFERENCES

Flood, R. (1999). *Rethinking the fifth discipline, learning within the unknown*. New York: Routledge.

Kettl, D. (2006). "Is the Worst Yet to Come?". *The ANNALS of the American Academy of Political and Social Science* 604, 273-287.

Palmberg, K. (2009). "Complex Adaptive Systems as Metaphors for Organizational Management." *The Learning Organization*, Volume 16, Number 6, 483-498.

Ng, P. (2009), "Examining the use of new science metaphors in learning organization", *The Learning Organization*, Volume 16, Number 2, 168-80

Senge, P. (1994). *The fifth discipline: the art and practice of the learning organization*. New York: Currency Doubleday.

Senge, P., Smith, B., Kruschwitz, N., Laur, J., and Schley, J. (2010). *The necessary revolution: working together to create a sustainable world.* Broadway Books: New York.

Stacey, R., Griffin, D., and Shaw, P. (2000). *Complexity and Management: Fad or Radical Challenge to Systems Thinking.* New York: Routledge.

Stones, R. (2005). *Structuration Theory.* Palmgrave McMillan: New York.

Wheatley, Margaret (1999). *Leadership and the new science*. San Francisco: Berrett-Koehler.

Appendix 1
Figure 1
Systems Thinking/Complexity/Structuration Decision-Making Model

| Identify business processes of system stakeholders | Identify underlying values, principles, vision and culture of stakeholders | Identify decision-making inputs for intended and unintended consequences | Develop collaborative responses that support decision-making inputs |

(Goldberg, 2012)