

Strategic Planning in Disaster Management; How to Face the Unexpected in Natural Disasters

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Overview



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**“The Problem Is with the
System and the System
Belongs to Management”**

W. Edwards Deming



Management theories

Effects of extreme events on systems are complex and long-lasting . When a city or a community encounters the post-extreme event environment, there is no "unitary" decision maker. There are hundreds or thousands of decision makers, only some of whom are public policy makers.

A similar growth in emergency management theory also evolved in response to the need for theory, concepts and proven practices in response to the devastating impacts of hurricanes, floods, earthquakes, and chemical spills.

Management theory provides a sound basis for supporting the emergence of emergency management theory utilizing the management process from planning, organizing, leading and controlling (Fayol 1916, Mintzbert 1973, Katz 1974, Koontz 1984).



Contingency Theory

- Contingency theory suggests that management principles and practices are dependent on situational appropriateness. Luthans (1976) notes that “The traditional approaches to management were not necessarily wrong, but today they are no longer adequate. The needed breakthrough for management theory and practice can be found in a contingency approach.” Different situations are unique and require a managerial response that is based on specific considerations and variables. For management and emergency management alike, the successful application of any theory or concept is greatly influenced by the situation.
- Emergency managers must build an organizational culture and structure that improvises and acknowledges that each disaster is unique. As a result, a more dynamic organizational structure could be structured based on the nature of the problem (hazard) and who needs to be involved and the actions taken (Kreps 1991)



General Systems Theory

- Systems theory evolved from the basic sciences but is utilized in the social sciences including management theory. A system composed of interrelated and interdependent parts arranged in a manner that produces a unified whole is critical in understanding all parts of the emergency management process. Viewing societies as complex open systems which interact with their environment provides such a critical view of the emergency management system (Barnard, 1938). Systems theory is based on the idea that everything is part of a larger, interdependent arrangement. It is centered on clarifying the whole, its parts, and the relations between them (von Bertalanffy 1972) .
- Emergency managers acknowledge that effective emergency response and recovery efforts require the cooperation of the entire community; emergency managers do not operate in isolation but as a part of a large open system. Effective emergency response and recovery is dependent on cooperation between local public agencies, business enterprises, and community groups.



General Systems Theory (cont'd)

- Synergy is an important concept for emergency managers in that it emphasizes the need for individuals, as well as departments to work together in a cooperative fashion (Bedeian, 1989). An emergency response is not just a single unit but many different parts that, when effective, understand how they work together to protect public safety and property.
- A systems approach is however, useful for viewing the relationships between interdependent parts in terms of how these relationships affect the performance of the overall system (Kast 1985; Freemont 1985). Systems theory provides emergency managers with a critical perspective to view and understand how to prepare for and respond to hazards and mitigate their adverse impacts.



Chaos theory

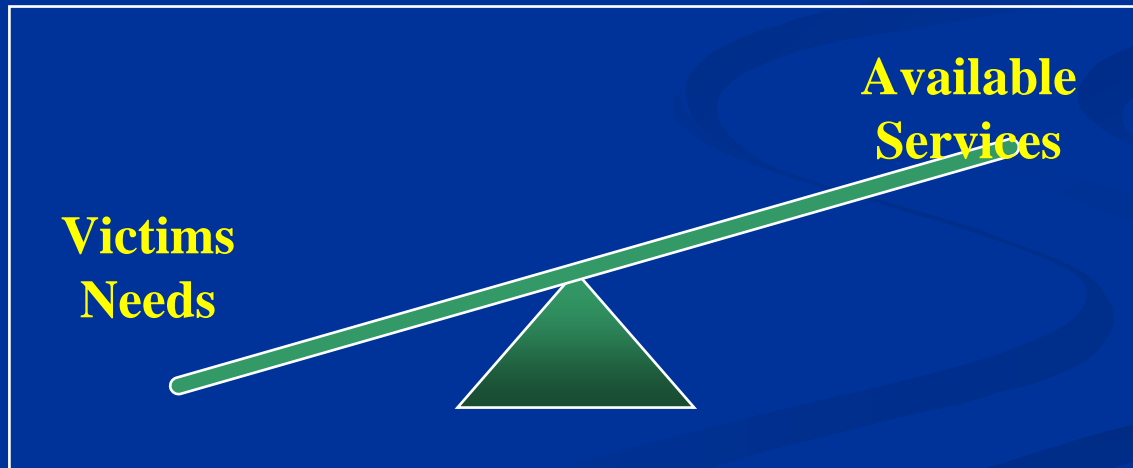
- The importance of leadership and adaptive behavior are stressed by many writers (Lewin 2000; Toffler 1985; Garvin 1993; and Sugarman 2001) who stated that today's leaders including emergency managers must discover ways of creating order in a chaotic world .
- Chaos theory suggests that even in general management systems theory, organizations must adapt to complex change and institutionalize institutional learning through feedback systems. Chaos theory states that just a small change in the initial conditions may have significant change in the long-term behavior of the system. The classic example quoted by many to illustrate the concept is known as the butterfly effect .
- Chaos theory thus provides the emergency manager with a broad perspective for appreciating how other agencies and external organizations are interdependent with and impact emergency management operations .



Chaos theory (continued)

- **a new definition of a system: a set of cyclic processes that are only temporarily manifested in stable structures that move between order and chaos**

the ability of an organization to develop and grow is dependent on its ability to respond to changes in the environment





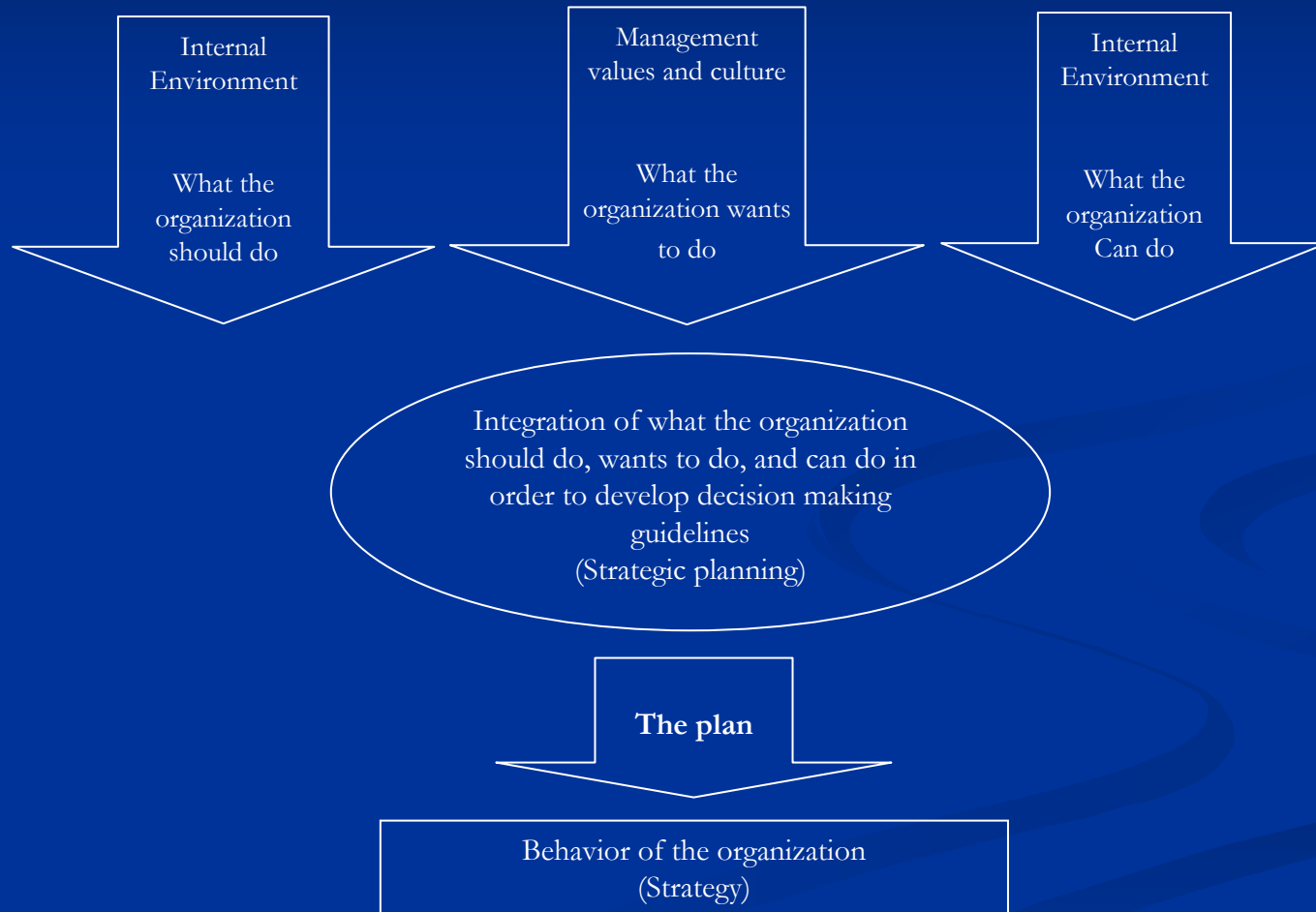
Strategic planning

Systematic, comprehensive approaches to developing strategies. Strategic planning is made up of the situational analysis and strategy formulation stages of strategic management .

Strategy as a Behavior of the organization

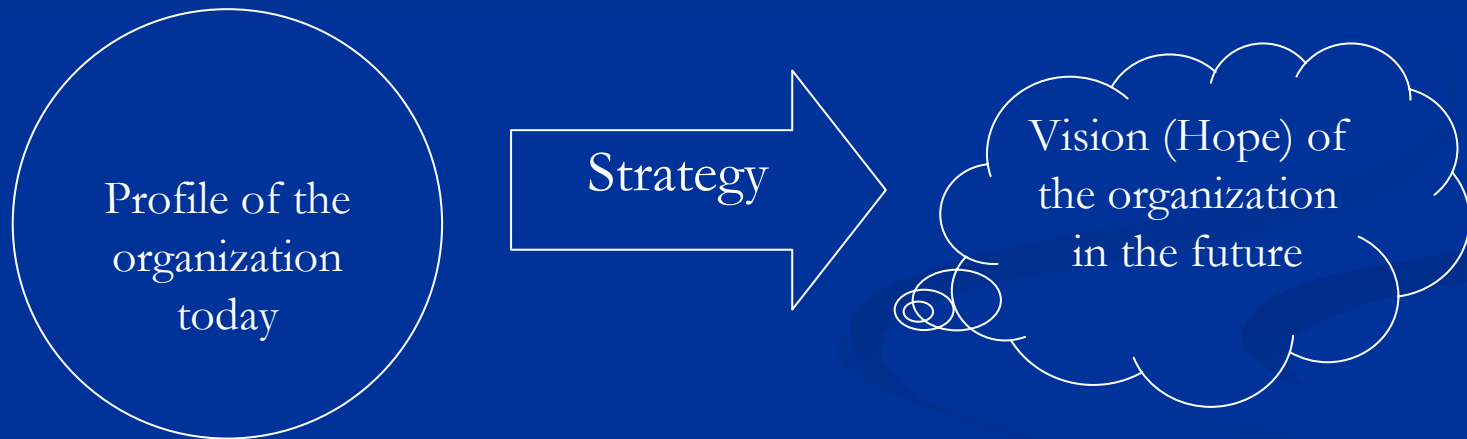


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Strategy Links Today with Tomorrow





Strategic planning (cont'd)

- Situational analysis: Situational analysis consists of investigating the external environment to determine key external forces; analyzing the internal strengths and weaknesses of the organization; and evaluating the organizations' mission, vision, values and objectives .
- Strategy formulation: Based on the results of the situational analysis, organizational goals must be established, strategic alternatives generated and evaluated, and a strategy determined. This process is referred to us strategy formulation .



Strategic planning (cont'd)

The management literature has for many years stressed the importance of strategic planning (Drucker 2002). A greater awareness of the value of environmental scanning and the broader impacts of international affairs on internal operations will be increasingly important to the emergency management community.

Recovery would be simple if all that were required was restoring the built environment. Recovery is complex and difficult because it requires establishing or re-establishing important relationships within the system and between the system and its environment. Emergency and crisis management emphasize that effective emergency response and recovery is based on good planning .



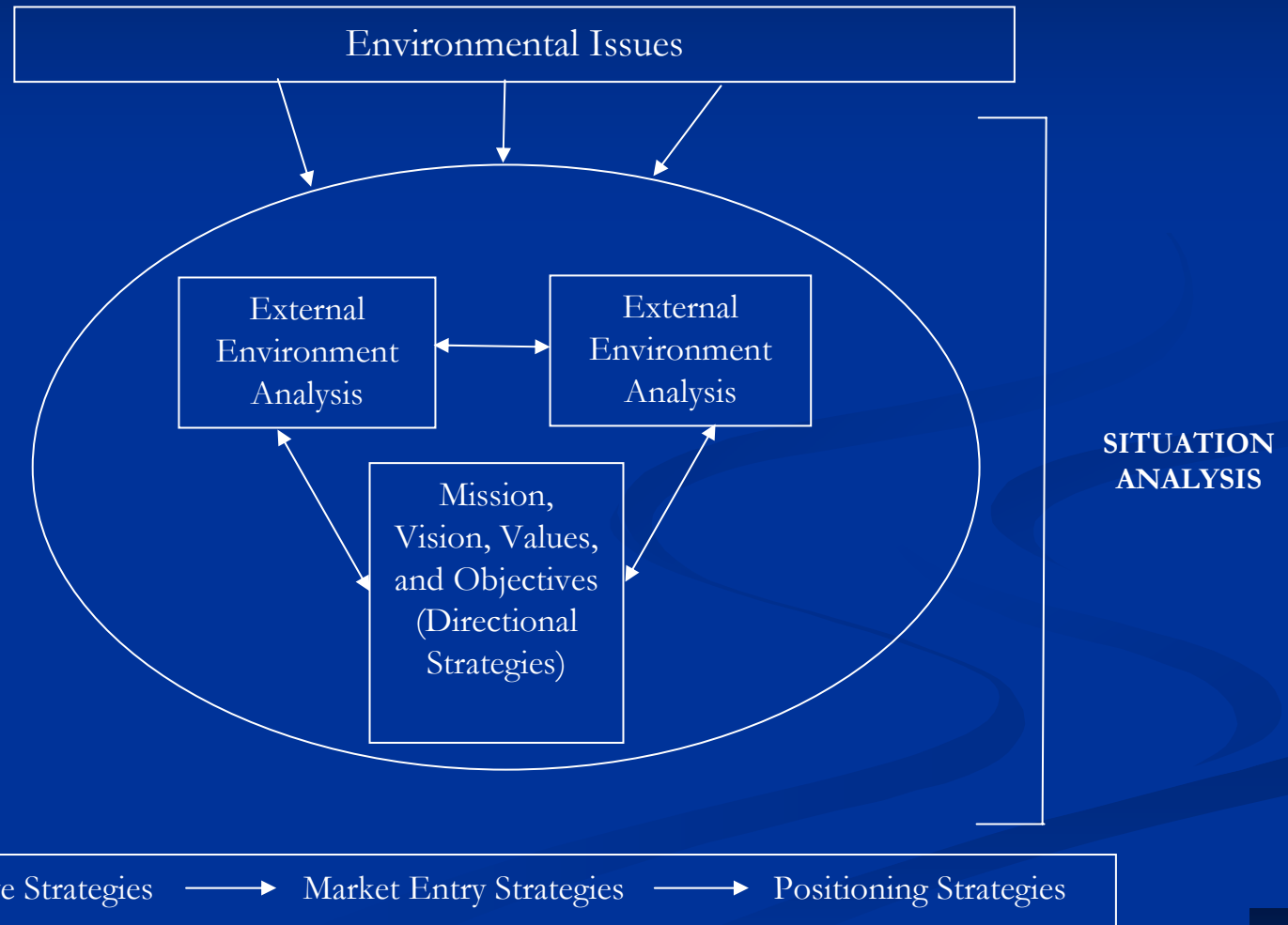
Strategic Planning and the Organizational Environment

- A major contribution of the strategic planning process to management and to emergency management is the need to monitor the nature and changing character of external forces and how they impact the operations of an organization. Environmental scanning clarifies how technology, the law, the press, elected officials, citizens, and the natural environment impact internal operations. They were major factors pushing for changes in emergency management response and recovery programs, planning tools and approaches to mitigation.
- Hurricane Andrew provides an excellent illustration of how the external environment changed emergency management theory and practice. The catastrophic impacts of Andrew in Florida and Louisiana resulted in many changes in FEMA from an increased focus on mitigation and disaster reduction to broader operational planning.

The Role of Environment Analysis in Situational Analysis



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The Environment Analysis Process

SCANNING

- View external environmental information
- Organize information into desired categories
- Identify issues within each category

MONITORING

- Specify the sources of data (organizations, individuals, or publications)
- Add to the environmental data base
- Confirm or disprove issues (trends, developments, dilemmas, and possibility of events)
- Determine the rate of change within issues

FORECASTING

- Extend the trends, developments, dilemmas, or occurrence of an event
- Identify the interrelationships between issues and between environmental categories
- Develop alternative projections

ASSESSING

- Evaluate the significance of the extended (forecasted) issues to the organization
- Identify the forces that must be considered in the formulation of the vision, mission, internal analysis, and strategic plan



Strategic management

- Strategic management is a philosophy or way of managing an organization therefore the benefits of strategic management are not always quantifiable. Strategic management is not always quantifiable. Strategic management asks managers to understand the present and think about the future. Strategic management is a philosophy of managing the organization that is externally oriented and links strategic planning to operational decision making. Strategic management attempts to achieve a productive and creative fit between the organization's external environment and its internal situation .
- In general, strategic management can help health care managers cope with the anticipated change that is occurring in health care .



conclusion

- The natural disasters occurrence can highlight the efficiency of the governmental system because the authority in charge, are facing the short time and the limited sources while they are being forced to continue to help the victims. Because natural disasters reveal not only the structural strengths and limitations of the physical environment of a community but also how local, state and national response organizations function effectively and ineffectively. Therefore the countries which have not structured comprehensive and strategic plan would be confronting more problems than other countries. So in spite of natural disaster's unpredictability, the governments can be prepared beforehand in order to cope with disasters.
- General systems theory and contingency theory are used on the basis of human relation view on the organizations which consider the organizations as live bodies. Because the organizations in these theories are like live creatures which are connected with their environment and their permanence is due to environmental agreement.



Conclusion (cont'd)

- Recent natural disasters had significant impacts on people's health and the loss of people's lives which could be controlled by appropriate disaster management. The study of the recent earthquakes in Iran and other countries show the absence of integrated disaster management in this regard.
- Intervention by the absence of comprehensive and fundamental planning will have unpredictable, unexpected and subsequently unaccepted consequences. Services are found disrupted right at the time they are most needed, so strategic planning has to include some solutions in order to minimize these types of operation disruptions in times of crisis and natural disasters. Strategic planning provides the appropriate infrastructure for integrated, coordinated decision making following natural disasters such as earthquakes. Hence, applying Strategic planning to disaster management can reduce the impact of earthquake on the community which results in reducing the number of casualties and disabilities.



Conclusion (cont'd)

- As emergency and crisis management imply, an effective emergency response and recovery operation in natural disasters requires establishing vital collaborations and communications within the system and between the system and its environment. A major contribution of the strategic planning process to emergency and disaster management is the necessity of monitoring the nature and changing character of external forces and their impacts on the operations of an organization.
- In disaster management the weakest point should be recognized, the problem can be pinpointed by situational analysis in strategic planning and deal with it.