

A Complex Adaptive Systems Approach to Strategic Planning

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ABSTRACT

A complex adaptive systems approach to strategic planning builds upon organizational learning methods while it emphasizes mindfulness, mission, and values based decisions, fostering relationships and systems of communication, and continuing to construct possibilities that contribute to an organization's self-organizing and resiliency in its immediate and distant environment. A vision of a near or distant future and the strategic plan itself are not blueprints for a future state but ways to prepare an organization to be more mindful of the constant changes and possibilities happening in the present. This article describes the current state of traditional approaches to strategic planning, some emerging approaches, and the potential for further rethinking offered by Complex Adaptive Systems Theory.

A Complex Adaptive Systems Approach to Strategic Planning

Strategic planning is one of the most requested consulting services in both the for-profit and non-profit sector. The various consulting clients have distinctly varied constructs of what strategic planning is. The constructs span the spectrum from one-day retreats to a yearlong process that involves in depth research into the various corporate metrics as well as internal and external environmental scans. The hope of the organization embarking on strategic planning is one where the 'right' plan is the final expected product. This final plan is the map that the organization needs to move into the future or, at the very least, help their organization survive for the next three to five years. The organizations that participate in the extensive data collection express the conviction that if they gather the correct amount of quality data, then they can avoid the pitfalls that have befallen other organizations, thus bringing about the very desirable outcomes for their organization.

If we examine what many organizations are attempting to achieve and the language that is employed by organizations both small and large, we can conclude that we are still in Richard Pascale's (1999) 'strategic era.' Pascale points out that until the late 1940s, organizations did not look at the environment from a strategic perspective. After World War II, the faculty of the Harvard Business School began to take organizational strategy seriously and by the 1970s, strategic concepts had taken hold. Strategic concepts such as SWOT analysis, Porter's Five

Forces framework, strategic portfolios, and the concept of competitive advantage became the standard weaponry in the strategic planning arsenal.

Pascale (1999) did argue that there are new approaches to strategic planning, such as Complex Adaptive Systems. His article discusses the state of traditional approaches to strategic planning in organizations, emerging approaches, and the potential that is offered by using Complex Adaptive Systems Theory to rethink strategic planning concepts and processes.

Traditional Approaches

Strategic planning, since it came into the forefront of prominence in the 1970s, is now a method for scrutinizing an organization's mission for appositeness and positioning the organization to handle prospective future challenges. If many refinements that were introduced since the 1970s were included, the methodology that is applied by organizations typically involves:

Underlying Principals:

- An organization's mission and vision needs to be clear and well-understood
- Trust, honesty, and accountability must undergird the organization's culture
- Strategic/systems thinking and skills should be evident in all organizational activities
- The best insights are gained from cross-functional networks that are well-informed and these networks share the processes and decisions throughout the organization
- Good communications must be effectively facilitated, managed, and maintained at all times throughout the organization
- The team that coordinates the strategic planning process must define what a successful planning process consists of for the organization and must clearly communicate that definition and model to members of the organization

The process usually includes:

- A planning committee
- Task forces that are responsible for developing the various sections of the strategic plan
- A planning retreat for internal stakeholders and key external stakeholders
- A document that is developed by the various task forces and the planning committee with outside assistance, if necessary

The process includes various steps, but no necessarily in this particular order:

- A review of the organization's purpose, mission, vision, and values
- An external environmental and internal organizational SWOT analysis
- Analyze the data provided in the SWOT analysis
- Create a document that elicits discussion and involves stakeholders in the data that was collected in the SWOT
- If necessary, revise the organizational vision and mission statements
- Create, revise, or clarify organizational values to facilitate understanding by all organizational stakeholders
- Develop strategies to implement the organizational vision
- Identify specific long range goals and/or objectives
- Design and develop a first-year implementation plan that s detailed
- Design processes to evaluate the implementation plan

Typically, the outside strategic planning consultant, if one is retained, and the internal planning/coordinating committee share responsibility for accomplishing the strategic planning steps. In previous generations of strategic planning, the strategic plan was developed and handed down by the executive committee with little input from internal or external

stakeholders. The internal input was primarily using surveys, interviews, and focus groups. In today's strategic planning environment, organizations should attempt to elicit internal and external stakeholder input through a series of large/small group planning sessions to assist in the formulation of the various components of the plan.

Emerging Approaches to Planning

Several strategic planning approaches have emerged over the past twenty years. Whole-Scale (Dannemiller, 2000), Search/future Search Conferences (Emery, 1996), (Weisbord & Janoff, 1992), the Conference Model (Axelrod, 2000), and FutureScape (Sanders, 1998) are a few of the approaches that have been utilized. Each of these models uses variations of the traditional strategic planning methodology with the following differences:

- Both large and small groups are emphasized as methods of encompassing as many internal and external stakeholders as possible in the planning process
- Organizational and environmental scanning is conducted in real-time as a large group meeting (with some preliminary scanning completed to shape the questions and providing a foundation or facilitating the initial phase of the process)
- Emphasis is placed on applying a holistic approach to strategic planning; this is it is necessary to engage representatives are needed from all parts of the organization
- Visual and metaphoric approaches are favored, as well as the rational process
- Short-term immediate changes are looked for while developing the long-term goals

Some organizations utilize David Cooperrider's Appreciative Inquiry (1999) process and highlight how to cultivate the effectiveness of those aspects of the organization that are valued by internal stakeholders and produce value for the external stakeholders. As such, clarifying what is valuable to the external stakeholder becomes the focus of the environmental scan. This scan can be conducted through the more traditional approaches of interviews or focus groups or through forums and large group meetings.

Some interesting strategic planning hybrids have come about as practitioners have incorporated the emerging approaches with the traditional approaches. The following approaches assume the starting point is revisiting the organization's purpose, vision, and mission statements. In most cases, there is a large group environmental scan, or a forum with external representatives, or the more traditional environmental scanning and report writing:

- Develop a three to five year vision with long-term strategies. Examples are "we will emphasize collaborative projects with other service providers; we will expand our capacity by emphasizing staff development" (Regine & Lewin, 2000). Detailed goals and objectives are produced in an annual operations planning process.
- Examine how people presently spend their time and energy and recognize the emergent strategies and practices that are and can continue to advance the organization. Indicate how to sustain or further advance those strategies and design goals and objectives to achieve those goals and objectives. The emerging strategies may lead to re-examination of the vision and mission statements.
- Identify key strategic questions that become the topic of regular board and staff meetings instead of developing a plan (Juarrero, 2000). Such questions are: Who are our customers and how are they changing? How do we deal with an economic downturn? What are the emerging service needs? As a product of the discussions, the board and staff formulate long-range strategies that inform operational decisions.

Complex Adaptive Systems Theory's Influence on Strategic Planning

Some practitioners of the emerging versions of strategic planning draw from the fields of Theoretical Biology, Quantum Physics, and Chaos Theory. The strategic planning practitioners draw particularly from the theories of self-organization, non-equilibrium, complementarity, and the Butterfly Effect – where minuet fluctuations have the ability to produce changes that are quite large in scale and scope (Holland, 1992). Complex Adaptive Systems Theory attempts to understand how physical, biological, and social systems operate and interact. This theory, when described, may be viewed as having the following characteristics:

- Agents' schemata. Agents interrelate with one another to build and restructure schemata (assumptions, expectations, values, and habits) that form relations at local levels (Anderson, 1999). These agents repeatedly come together to comprehend the world and each other, form conclusions, construct the future, and sustain relationships. Their act of responding to and interpreting what they experience involves building, rebuilding, and adjusting their schemata.
- Global patterns of relationship emerge. While agents cooperate with each other on a local level, become accustomed to each other, and create variety and complexity in their schemata, they also create comprehensible and comprehensive patterns of interacting, i.e., rituals, organized relationships, communication systems, universally held criteria for making decisions, a common purpose, and organizations (Stacey, 2001). The appearance of self-organization comes from a range of variable and valuable innovations to unfortunate accidents. Misinterpretations and miscues offer ways of interrelating and opportunities to restructure the assumptions and expectations that have become global patterns. Each of these may contribute to the recurrent change occurring within the organization. Each time the members resolve difficulties individually and together, they self-organize and release variety into the system. The system will diminish unless replenished with energy created by internal and external relations and the successive innovations and mistakes.
- Co-evolution at the edge of chaos. Complex Adaptive systems occur at the frontier regions near the brink of chaos where the frozen mechanisms of order begin to melt and the agents within the system evolve in order to endure and optimize themselves in their fluctuating environment (Gell-Mann, 1994). The agents often have incompatible goals that require adaptation to each other's behavior. Complex adaptive systems are continuously generating variations and are in danger of stagnation when they move toward equipoise. It may also be difficult to predict which difference will have the greatest influence on a particular circumstance. Often, small dissimilarities can have very large effects and immense efforts may have little effect. Additionally, simple patterns can combine to produce excessive complexity and variety. These emerging complexities can create numerous possibilities and countless conceivable futures. There are many small changes and infrequent, irregular substantial fluctuations (Pascale, 1999).
- System development based upon recombination. Agents enact historic patterns – the heretofore created schemata – in every interaction with variations (Rouse, 2000). Agents are able to distinguish the patterns, understand the difference, and elect to reconstruct or to construct new patterns. Thus, there is consistency yet variation. The system produces a uniqueness without forsaking the best elements of its past. The system is also resilient by being flexible and open to learning in order to create growth while being sturdy and constant with its schemata – purpose, values, rituals, and relations.

- No single point of control. For a Complex Adaptive System to endure it must nurture variation, but it is an illusion to think that agents can direct the variations (Stacey, 2001). Agents can only disrupt the system and while being attentive to what is occurring. Concurrently, an agent cannot be separate from the system, i.e., stand outside and influence the direction. Agents may only influence the rules, the relationships, and the choices made as a participant during interactions while being influenced by others.

In Complex Adaptive Systems, the agents are interconnected through commonly held criteria for making decisions (operational values) and a shared purpose that also informs the way they relate to each other and the other stakeholders (Beinbocker, 1999). The coordinating group needs to involve the whole organization in clarifying and reaffirming what outcomes the agency is trying to achieve with its stakeholders, how they will know if they have achieved that difference, and what are the values/criteria that will influence the practices, methods, and resources they will use to achieve those outcomes.

Fostering Relationships, Systems, and Modes of Communications

By utilizing a Complex Adaptive systems approach to strategic planning, an opportunity is presented to rebuild relationships and build possibilities through dialogue and networking among both internal and external groups (Ahmed, Elgazzar, & Hegazi, 2005). This means there is a shift in emphasis. Meetings among stakeholders, as a traditional and emerging strategic planning approaches, still have a role in generating information for decision-making, but they have a larger role nurturing the relationships that contribute building possibilities and encouraging self-organization. Instead of a traditional organizational and environmental SWOT analysis, the agency may use Appreciative Inquiry and other methods to look for the changes already happening or about to happen. There may be a series of large and small group meetings of internal staff and external stakeholders in order to create the opportunity for new relationships and better communication (Hobbs & Scheepers, 2010). The agency may try to understand the various relationships it has with its stakeholders and other community entities and how they and the stakeholders indulge those relationships. The staff may need to explore their assumptions about the past, present, and future and how those assumptions are affecting how the staff relates to each other and to the stakeholders.

Choosing Strategies that Increase resiliency and the Ability to Perform Complex and Reliable Decision Making

Beinhocker (1999) recommends that instead of choosing singularly focused strategies, organizations need to cultivate multiple strategies, many of which will operate in parallel in order to encourage co-evolution. The multiple strategies that can increase resiliency of an organization are 1) those that deepen and extend current practices, 2) those that create new practices, and 3) those that plant the seeds for future developments. While emphasizing the first, organizations that continue to optimize in their particular fitness environment commit varying degrees of resources to the other two.

In forming strategies, the coordinating group and the entire system through group meetings can be mindful of the continual changes happening in the organization and decide how to foster those that fit the mission, values, and criteria.

In order to contribute to continual resiliency, planning strategies could include ways to foster the organizational learning processes mentioned previously. These could include instituting and supporting opportunities for cross-functional and staff in the same program to come together for peer learning groups, case conferences, and mutual problem-solving sessions.

A complex adaptive systems approach to strategic planning builds upon organizational learning methods while it emphasizes mindfulness, mission and values based decisions, fostering

relationships and system of communication, and continuing to construct possibilities that contribute to an organization's self-organizing and resiliency in its immediate and distant environment. A vision of a near or distant future and the strategic plan itself are not blueprints for a future state but ways to prepare an organization to be more mindful of the constant changes and possibilities occurring in the present.

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