

Overcoming Organizational Inertia: A Tripartite Model for Achieving Strategic Organizational Change

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This paper suggests that insight, action, and psychological inertia are natural barriers to implementing strategic, high impact organizational change. As agents of learning, managers must identify features of the system open to influence which might interrupt cycles of failure and transform them into benevolent points of leverage. This paper explores the nature of resistance to high impact organizational development and institutional change. A “Tripartite Model for Achieving Organizational Change” and overcoming institutional inertia is illustrated and explained.

INTRODUCTION

“For agents of learning in any social system, leverage means identifying a feature of the system that is open to influence and that, if changed, might interrupt vicious cycles or even transform them into benevolent ones.” (Friedman, 2003, p. 408-409). Adaptive and often essential organizational change is routinely stymied by organizational inertia. There is a tendency for organizations to exhibit an apathy to change and lethargy toward taking action. Some seem to fight to remain the same. (Schön, 1971, p. 32) The inability to think ahead and anticipate or failing that to respond to internal and external demands for adaptation and change are regrettably all too common attributes of our twenty-first century organizations. Much like modern day dinosaurs, contemporary institutions must either adapt to shifts in the environment or close their doors. This article explores the nature of resistance to change that leads to organizational failure. Understanding organizational inertial dysfunction helps managers better deal with organizational resistance and failure.

Here we suggest that insight, action and psychological inertia and their constituent parts are key barriers to fostering institutional willingness to develop and implement strategic direction (Hedberg & Ericson, 1997). Such factors are particularly critical when seeking to make strategic changes in direction which, by definition, have a correspondingly high pact on organizational performance. High impact strategies may be related to financial or production functions.

Alternatively, they may involve compliance issues facing management or turnaround initiatives. At any rate, insight, action, and psychological inertia raise their ugly heads when management needs to implement change the most. They threaten organizational progress at the worst possible moments.

To the point, insight inertia appears where there is a time lag between important changes in the organizational environment and organizational awareness of those changes. The discovery of those changes and awareness of their corresponding implications does not occur in a timely way or possibility not at all. Action inertia arises after managerial insight is gained from environmental scanning, but a managerial response is slow and the results of the change efforts do not appear in time to be beneficial. (Hedberg & Wolff, 2003) Psychological inertia must also to be considered a barrier to change. A psychoanalytically informed perspective emphasizes stress, anxiety and psychological defensiveness that may lead to individual and group compromises and dysfunctions that adversely affected organizational performance (Allcorn & Diamond, 1997). We begin our discussion of these inertial dysfunctions by introducing a model of organizational inertial barriers to change (see Figure). The barriers contained in this model are discussed following by a consideration of means and methods for overcoming the inertial barriers in the service of developing and implementing high impact strategic initiatives.

THE COMPONENTS OF ORGANIZATIONAL INTERTIA

In this paper we assume that organizations are naturally constrained by insight, action and psychologically based inertia. Proactive behavior is often thwarted by these barriers to change. Our explanation of insight inertia draws upon theories of action and mental models. We discuss action inertia as issuing from premise control and managerial assumptions and we present psychological barriers as arising from unconscious individual and group dynamics keyed-off by stress that leads to the distressing experience of anxiety that introduce out of awareness coping mechanism and unconscious individual psychodynamics and shared group socially defensive strategies. We begin by discussing insight inertia.

Insight Inertia

Insight inertia is an interruption to the organization learning cycle (March & Olsen, 1975). Management may not observe and interpret cues from the external (or internal) environment in time to determine and adjust organizational behavior to meet environmental, market place and internally driven demands for change. (Hedberg & Wolff, 2003) Kieser, Beck and Tainio (2003, p. 610) describe this problem as "...organizational members are not able to make sense of the environment or to explain why certain changes happened at all." Several factors contribute to insight inertia. Kim's (1993) concept of *mental models* and Argyris and Schön's (1978, 1996) parallel concept of *theories of action* illuminate why insight inertia might take hold. These concepts are the many times familiar and usually unquestioned ways of knowing, understanding and responding that are part of the web of the largely invisible guiding hand of organization culture (Schein, 1985).

Theories of action and mental models contribute to or detract from organizational insight. “A theory of action is a theory of deliberate human behavior, which is for the agent a theory of control but which, when attributed to the agent, also serves to explain or predict his behavior” (Argyris & Schön, 1974, p. 6). A theory of action therefore guides behavior telling “me” what I need to do to achieve a desired result. They are normative in nature. Friedman, (2000) notes that strategies of action include implicit values that govern the choice of strategies and the assumptions upon which insight and action are based. Argyris and Schon (1974, p. 6) differentiate a theory of action from a theory of practice which “consists of a set of interrelated theories of action that specify for the situations so of the practice the actions that will, under the relevant assumptions, yield intended consequences. Theories of practice usually contain theories of intervention – that is, theories of action aimed at enhancing effectiveness . . .”. Theories of action also introduce the possibility of paradoxes in that the espoused theory of action (what we claim to be doing and why) may differ from the rather more instrumental and not espoused theory in use that includes the “. . . assumptions about self, others, the situation and the connections among action, consequence and situation” (Argyris & Schön, 1974, p. 7). Our theories in practice provide us with a strategy that helps us get what we want. They are what one encounters in the workplace that we not infrequently differ from the espoused organizational mission and values statements. To be noted is that observation of the resulting behavior can reveal the underlying theory in use and its implicit values and assumptions about how the world works.

In sum, tacitly held assumptions and out of awareness theories of action that guide how we approach understanding an organization’s external environment and internal dynamics can create problems that are by their nature of being out of awareness and sight hard to know and evaluate (Nonaka & Takeuchi, 1995; Nonaka, Toyama, & Byoière, 2003). They can be fairly accurate and provide a secure basis for acquiring organizational insight or contain biases and distorting filters that lead to dysfunctions in learning, insight and knowledge generation. Herein lie the barriers to accurate and timely insights that inform problems solving and the taking of effective action. A closely allied perspective is that of mental models.

Individuals carry mental models in their minds and institutions contain “shared mental models” (Kim, 1993, p. 42). Individuals create and operate on the basis of cognitively derived frameworks such as schemata (Neisser, 1976), frames (Bateson, 1972), mental models (Senge, 1990), and cognitive maps (Weick & Bougon, 1986). These constructs help individuals feel the world is orderly and predictable. These often uninspected mental models are the framework from which experience of the environment is perceived and interpreted. They are how we see things and we often see things the same way over time. Shared mental models include organizational routines that have proven successful in the past but may not always apply to the present. In this regard they can also become barriers to organizational insight.

In sum, where mental models are incomplete and theories of action insufficient to understand cues emerging from the external environment, learning is compromised and insight inertia emerges to compromise organizational adaptation and effectiveness. The central element to these change barriers is their uninspected out of awareness nature that are not readily articulated by individuals or even readily known to exist. In this regard they remain in the realm of untested

hypotheses for knowing and dealing with reality. They must be located, exposed and evaluated for this barrier to be overcome. Double-loop learning and reflective practice are two ways to overcome insight inertia.

Action Inertia

Action inertia appears when managerial responses to environmental activity are too slow or the information gathered is insufficient to guide taking informed actions to be beneficial to the organization. (Hedberg & Wolff, 2003) In contrast to insight inertia, action inertia appears after managerial observations of the external and internal environments are gathered and environmental scanning ceases. Something has been learned that is fairly accurate and informative and it guides management decision making but the response is slow, incomplete, ineffective or otherwise deficient. Management drops the ball. Half measures may be poorly conceived and designed and marginally implemented. Failure sometimes seems to be an option. There are three interruptions in the learning cycle identified by March and Olsen (1975) and three recognized by Kim (1993) that shed light on what is taking place where action inertia is encountered. Each is related to organizational learning and memory.

Organizational Learning and Memory

Organizational learning and memory are most often assumed to be occurring. However, this is many times not the case at all or nearly so. The following six types of compromises to learning and memory have similarities in terms of their outcomes, but at the same time offer for consideration different perspectives on a common theme. To be noted is that they contain an underlying element in that organizational structure is a contributor. Learning may not ascend the organizational hierarchy or cross between divisions and silos of specialization.

March and Olsen (1975) describe *role-constrained learning* that compromises organizational learning and interrupts the learning cycle. In such a circumstance, individuals that have requisite knowledge also fulfill roles with limited relevance to the questions at hand. Therefore, they cannot readily act on the new knowledge they have acquired. There is no institutional means through which to operationalize what they have come to understand. The organization is deaf to what they have to say. March and Olsen (1975) describe *audience learning* that occurs when individuals change their behavior in response to knowledge acquired, but cannot persuade others to do the same. A best practice may go uninspected and is not adopted. March and Olsen (1975) also describe *superstitious learning* that emerges when individuals draw incorrect conclusions about the impact of organizational actions on the environment. Rhetoric associated with the positive or negative framing of reports about operations, competitors and the task environment contributes to superstitious learning. (Kieser, 1997) In other words, NASA officials thought it was safe to launch the Challenger despite the fact that individuals knowing better were present and going unheard. External requirements attached to political timing may have taken precedence in decision making.

Kim (1993) provides three additional compromises to organizational learning that contribute to our understanding of action inertia. The first two involve the ability of the collective membership of an organization to remember (organizational memory) and learn from experience.

Situational learning compromises learning when individuals solve problems through improvisation but the positive outcome is not incorporated into organizational memory. Best practices are not discovered and embraced. Nothing is learned by others from this innovation (Szulanski, 2003, p. 30). *Fragmented learning* results from a failure to integrate everything that is learned throughout the organization into organizational memory. Fragmented learning is typical in "...very decentralized organizations that do not have the networking capability to keep the parts connected." (p. 46). The ability to put new knowledge to good use is successful only when there is a capture of that knowledge and its long-term retention (Cohen & Levinthal, 1989, 1990; Dewar & Dutton, 1986; Druckman & Bjork, 1991; Szulanski, 2003).

The third of Kim's (1998) interruptions to learning, *opportunistic learning*, arises when policies, procedures, rules and mental models cannot be adapted to a given circumstance. "This mismatch between initiative and organizational or mental frameworks then makes it necessary for the organizational actors to circumvent the existing rules in order to preserve the change" (Kieser, Beck, & Tainio, 2003, p. 612). Not unlike situational learning, necessity becomes the mother of invention and the invention remains undiscovered and exploited despite its potential contribution to effectiveness.

In sum, these six compromises introduce potentially harmful organizational dysfunction. Each makes its own unique contribution individually or in combination. The inability to learn from experience, while often taken for granted, can be crippling.

Managerial Assumptions and Premise Control

Management assumptions and premises about how things work and the proper way to respond to events are mindful creations contained in one's head and most often hidden from the view of others. They may take many forms but may in general be thought of as contributing to the formulation of mental models and theories of action and practice that inform management and employee actions and by extension organizational behavior. We begin by articulating the difference between an assumption and a premise. An assumption is taken for granted and accepted as true without proof. The making of assumptions about things going on around use or what others will do often leads to unexpected and even disastrous outcomes. We simply assume some things are true or false, present or absent and do not think further about it. It is this out of awareness and untested quality that set assumptions apart from premises. In contrast, a premise is much more out in the open for inspection. It is argued that if a dog is an animal and an individual is an animal it therefore can be presumed that the individual is a dog. A premise is a proposition or presumption that forms the basis of an argument from which a conclusion may be drawn.

Managerial assumptions carry with them an element of their being a self-fulfilling prophecy. In the spirit of McGregor's (1960) theory X and Y the out of awareness assumptions of human nature tacitly held by those in management operate in a manner that can most often be inferred to exist but are rarely explicit. For example, management or a manager may empower workers to make nontrivial decisions or not. Lying behind this behavior are uninspected assumptions about the organization, work and human nature as McGregor points out.

The workplace is filled with assumptions about how the external environment is changing and works, what competitors will and will not do and about how the organization operates. These untested and many times undiscussable assumptions very often contribute to organizational dysfunction thereby making the taking of timely and effective action a problem. Assumptions may then be understood to introduce a hard to deal with action inertia. In contrast premise controls offer a different set of challenges.

Premises are frequently stated out in the open or may be readily spotted to exist and available for inspection. Their “if/then” nature contains a causality and premises are often linked together to translate information into knowledge and to inform taking action. They are in this regard discussable and testable for their on-going applicability. In particular a false premise or set of premises can block learning and the taking of effective action. “These premises may be unconsidered choices by managers, but that does not make them any less potent.” (Weick, 2001, p. 170) We might presume, for example, that producing more goods will generate more revenue to the bottom-line or that improving supply chain management is only solution to a operating revenue short-fall. Premises are, therefore, a powerful influence on organizational performance and must be constantly monitored for their on-going applicability.

In sum, to be noted is that management behavior typically dominates strategic direction, operations and culture – what it is like to work here and how the organization works. In this regard out of awareness assumptions and premises become self-fulfilling prophesies if not open to inspection and testing. This appreciation applies equally well to the psychological nature of the workplace.

Psychological Inertia

Organizational resistance to change often translates into psychological inertia. Members of organizations are often notoriously resistant to change regardless of how needed it is. Change implies many things to individuals. Some may think that it is about time and look forward to change. Others along a range are less enthusiastic or severely threatened by change. Change impacts many things in the lives of workers. Long standing relationships may be lost. New skills may have to be learned. The nature of work and performance expectation may change usually requiring more effort. Change may be planned and implemented poorly and rammed through the organization without much thought assuring that organization members will find it unacceptable. Relocation within a building or to a different site may be involved. Mergers and acquisitions may eliminate the organization altogether or it may be downsized or redesigned all of which may result in the loss of one’s employment. There are indeed many aspects of change that may readily be experienced as stressful or more specifically distressing promoting anxiety that alerts us to threat and psychologically defensive individual and group responses (Allcorn and Diamond, 1997). Fear, anger and loss are very frequently the accompanying emotions. Polarizing us versus them mentalities may emerge fuelled by psychological splitting and projection creating a black and white all good, all bad world view. Management and those advocating change may come to be seen and experienced as bad individuals worthy of being resisted and even destroyed in terms of undermining their competencies and skills such as withholding or manipulating information and resisting or blocking their ability to act. The

actions of organization members may also include transference of prior life thoughts and feelings associated with events with similar qualities onto the present. Feelings of being dominated or caused submit in an earlier relationship may be evoked leading to the experience of the present as being filled with this experience as though what happened then is happening now. Unsatisfactory relationships with past and remote authority figures with their attendant coping responses may become attached to the present situation. Past work experience where downsizing and redesign with the all of the attached feelings of alienation, powerlessness, and loss of self-other boundaries and personal integrity may reemerge.

In sum, the distressing experience of change evokes anxiety that must be addressed in some way. A common aspect of the workplace is that anxiety leads to polarizing splitting and projection accompanied by transference of past experience, thoughts and feelings onto the present fueling distress and many times highly energized individual and group responses. These responses may include actively fighting back, passive resistances, dropping out of organizational life (I just work here.) and becoming excessively dependent on leaders and others for being taken care of. These are all common outcomes evoked by change. It is also the case that the psychological inertia contributes to insight and action inertia.

A Note on Model Interactions

The model presented below is a typology and all typologies have their problems in terms of the exclusivity between the types and the relationship between the types. This tripartite model is no exception. The separation of organizational inertia into insight, action and psychological inertia promotes critical thinking between but also introduces intellectual tensions. Mental models and theories of action and practice influence organizational learning and memory and certainly the heavy reliance upon out of sight and often untested theories, models, assumptions and premises is often reinforced when executives find themselves under a lot of pressure to perform. The interplay of the three forms of inertia must, therefore, be considered a dynamic aspect of the model.

PROMOTERS OF CHANGE

There are many ways to promote organizational and individual change. Two promoters are listed for each of the three types of inertia. It is also important to note that in Figure 1 there is a feedback loop from the promoters to the barriers. This loop indicates that the barriers and promoters are interactive. The promotion of change via double-loop learning calls into question theories of action thereby reducing any negative impact that they may have on promoting change. Also to be considered is that there is a break-even or tilting point implied where the adverse impact of theories in action is overcome by promoters leading to change.

Insight Acquisition

Insight inertia introduces many failures, blockages and distortions to timely and effective reality testing and actionable knowledge generation. Chris Argyris and Donald Schön (1974, 1978) offer two important perspectives for overcoming insight inertia that are supported by many other authors (e. g., Hedberg & Wolff, 2003; Stopford, 2003).

Double Loop Learning

Double-loop learning (Argyris & Schön, 1974, 1978) speaks to the importance of always examining underlying assumptions about behaviors for distortions, misconceptions and what often becomes an unquestioned, static and taken for granted understanding of the world that is not subsequently called into question. A typical example is a room thermostat that heats and cools a room at preset temperatures. It always responds with more of the same type of adjustments. The settings themselves may seldom be questioned as might be the need to heat or cool through a 24 hour period or at all. Much the same can be said for the workplace and its many rules and regulations, processes and procedures and what is made and how including marketing and distribution. "We have always done it this way." Double-loop learning calls into question theories of action and practice as well as their embedded assumptions and premises. Individual decision making. Leadership styles and the meaning of reports and analyses can readily create threat and stress making double-loop many times an unrealized potential.

Double-loop learning can be a challenge that "...is widely regarded as so difficult and contentious that managers typically require external facilitation. " (Stopford, 2003, p. 272) Argyris and Schön's (1982; 1996) research has demonstrated that true double-loop learning "...is extremely rare, if it exists at all, particularly in situations involving a high degree of psychological threat." (Friedman, 2003, p. 407) In part this difficulty arises from psychological defenses (Diamond, 1986) and in part because it is not an established part of an organization's culture or managerial leadership dynamics. It is also not as easy as it may sound in that what should be questioned is often hard to recognize since it has blended into the background. Waste in a manufacturing process may after months or years become so accepted that it is no longer questioned and merely thought to be an inevitable by-product of the work. It is taken for granted. Calling it into question can make individuals feel defensive in that they will understand it should have been questioned before and was not. Defensive routines materialize when managers want to avoid embarrassment or threat (Friedman, 2003) . Explanatory theories, therefore, can positively be used to overcome defensive routines that stifle creatively overcoming those routines. Friedman (2003) suggests five ways to do this, namely: (1) have participants describe the current problem as they see it, (2) ask top and middle managers if the descriptions gathered are accurate so far as they are concerned, (3) identify differentials between different views, resulting from data sources or interpretations, and negotiate a reality of the two groups, (4) identify the reasoning behind the views presented to "...increase the insight that all parties have into the complexity, uncertainty, ambiguity, and dilemmas of the problem involved." (Friedman, 2003, p. 408), and (5) agree on and design methods to address the problems identified. These tools and many others that may be innovated as a response to the unique qualities of the organization and change opportunity lead the way in establishing double-loop learning as a desirable part of an organization's culture.

Reflective Practice

The ability to be reflective in the workplace can significantly contribute to insightful analysis of operating problems and opportunities. Reflective practice increases the probability of taking informed action when situations are complex, unique and uncertain. Reflective practice involves

learning from your own experience and that of others which is accomplished by examining experience rather than just living it to gain new perspectives on the dilemmas and contradictions. This opens up the possibility of learning by being able to explore and be curious about our own experience and actions. This also applies to groups. A reflective group process focuses on individual practice. In one version of an organizational learning process, each person identifies significant events from the perspective of their role. This promotes collective learning by exploring the relationship among multiple perspectives and how each contributes to the barrier and the solution. Also to be considered are stories drawn from experience and thinking about experience out loud.

Action Orientation

Action inertia arises when management information gathering and responses to a changed operating context are too slow blocking the organization from adapting. Management assumptions and premises introduce barriers to accurately understanding environmental change in a timely manner. Two ways to overcome these barriers are the use of cross functional teams and the use of a systematic problems solving methodology combined with premises control.

Cross Functional Groups

Management assumptions and premises about how things work often go unspotted and questioned. This is especially true when it comes to assumptions and premises that lie within a work group, department, division or profession. These assumptions and premises, however, are readily spotted by others outside the group, department or profession. A revenue shortfall may, from a CFO's perspective, be the result of costs being too high whereas someone in operations may see the problem as too few sales. These heretofore unquestioned assumptions and premises may become glaring problems in a cross functional or interdisciplinary group. Calling these assumptions and premises can be stressful and lead to competition as to who has the right set of assumptions. However, this work, regardless of its inherent stress, is crucial if fundamental underlying issues, perspectives, and problems are to be examined.

Systematic Problem Solving and Premise Control

Another methodological approach is using a systematic problem solving strategy that by its nature calls everything that is going on into question. This sounds simpler than it is to put into practice. In the above revenue shortfall example one the key underlying element is how you define the problem – too much cost, too little revenue. Of course both are factors and should be considered. Careful problem definition is the critical first step. What exactly is wrong? What are the contributing factors and to what extent? What is the relationship to each other? The definition leads to the notion of brainstorming solutions, evaluating the solutions, selecting one or more, placing them on a time line with resources and implementing them with provision for monitoring and a feedback loop – did it work?

A systematic problem solving strategy, by its nature, makes it acceptable to call into question how work is designed and managed. There should be no sacred cows. The group doing the work can be recruited to a perspective of monitoring their own group process for defensiveness,

ideological rigidities and effort to control and dominate aimed at imposing one set of assumptions and premises. An equally systematic process is premise control that involves identifying key assumptions and premises for plans and then gathering data systematically to monitor their ongoing accuracy. A major issue can determining which assumptions and premises should be monitored. An interdisciplinary approach can help resolve this problem.

Managerial Implications: Psychological Readiness to Change

Psychological barriers to change are many times driven by a distressing experience of the workplace that promotes excessive anxiety that leads to psychological regression and psychologically defensive responses. Rationality may indeed not be particularly available at a point in time when clear thinking and analysis are critical. Two ways to avoid this all too common outcome are containment and the development of a safe enough holding environment that permits the development of transitional and many times transformational space and time.

Leader/Organizational Containment

Regressive psychodynamics are an important contributor to organizational dysfunction. Organizations and leaders often serve a containing and holding function for members projected aggression and anxieties. When organizational leaders fail to “contain” members’ aggression and anxieties, psychological regression arises along with its individual and group psychologically defense mechanisms. Unsuccessful containment of psychological regression by leaders and more generally the organization renders conflict management and resolution impossible and encourages top-down oppressive management methods that further perpetuate psychologically regression. This vicious cycle of organized madness suppresses collaboration and consensual decision making.

Without the capacity for play, organizations and their leaders are handicapped in their ability to tolerate ambiguity, new ideas, differences of opinion, critical feedback, worker demands for recognition and respect. Organizational leaders who are successful at containing anxiety and psychological regressions and defensiveness encourage reflective processes for learning, conflict resolution, and change as vehicles for countering suppression, psychological regression, and defensive actions. A workplace culture that acknowledges emotions rather than suppressing them is an organizational culture where articulation and confrontation with conflicting parties and ideas are encouraged and seen as productive and supportive of effective organizational operations. In sum, containing anxiety, psychological defensiveness, paranoia, aggression and emotions such as fear and anger help us to achieve a more ideal workplace culture we have to fully understand the psychodynamics of power, aggression and regression, in groups and organizations.

Transitional Space and Time

The good enough parent may be thought of as creating a safe enough context or holding environment to permit reflection, accurate reality testing, the surfacing of conflict for resolution and a sense of playful exploration of the possibilities. However organization members frequently fail to master their anxieties and end up seeking a false haven in the easy promise of a quick fix

(Gilles and Ambrose, 2001, p. 19). They express their insecurity in a number of ways such as by tunnel vision, envy, rivalry, destructiveness and interpersonal conflict and by defending irrational courses of behavior such as clinging to outmoded practices, values, objectives, and methods (Gilles and Ambrose, 2001, p. 20). These expected negative outcomes have to be managed so that they are “contained” by the transitional leader within a safe enough space and time to permit the collective work of confronting oneself, others and reality in the service of organizational change. This requires responsible self-management and initiative and coordination within and between interdependent working groups that arise from collaborative work and management (Gilles and Ambrose, 2001, p. 17).

In sum, transitional leadership promotes optimal collaboration that creates a safe enough context that contains potential space where organization members are able to exercise freedom to explore in thought and act. “It is a space in which their perceptions, imaginations, even illusions can mingle kaleidoscopically, in which new meanings and action possibilities can be stumbled upon almost accidentally, in which quantum leaps can be made, and in which ownership of ideas – their own or other people’s – is not an issue” (Gilles and Ambrose, p. 21).

CONCLUSION

The interactive tripartite model for overcoming organizational inertia to achieve timely and effective organizational change offers a challenging and integrated perspective of many of the complexity involved in creating and leading organizational change. The appreciation of this complexity is the first step in overcoming the inertia. The model provides the reader a jumping off point to further reflection on one’s own experience and workplace. In this regard it provides an important organizer of experience, thoughts and feelings encouraging a more systematic and systemic approach to organizational change.

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FIGURE 1
A TRIPARTITE MODEL FOR ACHIEVING
STRATEGIC ORGANIZATIONAL CHANGE

