
Organizational Communication in Complex System

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Abstract

This paper sets forth the application of complex systems theory for generating propositions regarding the management of organizational change in turbulent transitional environment by use of constantly renewed organizational communication strategies. Organizational communication is the transactional, symbolic process in which the activities of a social collective are coordinated to achieve individual and collective goals. Most traditional approaches seem to be inadequate in providing a “wholistic” perspective of “hyper turbulent” transition organizational issues. This paper argues that the survival and growth of organizations in an increasingly turbulent environment would depend upon effective utilization of original organizational communication strategies for constantly re-aligning the organizational structure with environmental constraints of complex systems dynamism.

Keywords: Change, Communication, Management, Organization, Strategy, Complex, Systems, Transition.

Introduction

Background

Extensively analyzed, the implementation process of economic reforms in Algeria – previously known for its planned economy and lack of entrepreneurial freedom- has led to a dramatic development of free market and competitive enterprises within a yet “hyper turbulent” environment. Algeria can be regarded as a laboratory for scientific research on the impact of organizational communication

on macroeconomic transformation. Algeria - considered to be the first Arab/Muslim/Oil&Gas rich country which simultaneously spearheaded the process of political and economic democratization and liberalization – is becoming progressively (since the 2000 recent return of social peace following the major 1990 political turnaround) also a preferred target market for concentrated investments from large US and European based multinational enterprises. The many facets of Algeria’s process of developing a market-oriented strategy, structure and culture reveal the enormous challenges of organizational change communication in a transforming society. Although there is a rapidly growing body of work on the macroeconomic transformation processes in transition economies, less has been written about the organizational change communication strategies and the challenges involved in changing state-owned conglomerates into highly responsive, consumer oriented, lean-structured private enterprises. Algerian managers had to develop their own situation-related solutions, as prior experience of similar organizational change communication strategies did not exist. This paper attempt to analyze the organizational communication requirements implied by the complex transition of production-centered, highly diversified, vertically integrated Algerian conglomerates into thriving consumer oriented privatized enterprises.

Statement of the problem

Organizational communication is no longer a business resource, it is the business environment itself. As a matter of fact, swift leaps in information, coupled with ever-

increasing global competition, are adding up complexity and uncertainty to the organizational environment. Indeed, one of the most extensively discussed areas in recent business communication literature is that of a new organizational communication paradigm that hold the promise of survival and growth in an environment of ever-increasing complexity (Bradley, Hausman & Nolan, 1993). Therefore, many organizational theorists have emphasized the value of coping with environmental uncertainty as essential for organizational survival (Crozier, 1964; Duncan, 1972; Thompson, 1967). In initiating this investigation we wish to uncover the followings: how can organizational communication strategies help the organizations in responding to the challenges of an increasingly complex and uncertain environment? and how can it help complex systems “transitional” organizations achieve the “continuous” organization structure fit?

Research Objectives

Specialized literature (Adler, 1966; Blau & Scott, 1962; Dill, 1958; Evan, 1966; Levine & White, 1961; Litwak & Hylton, 1962; Thompson & McEwen, 1958) has provided evidence that in hyper turbulent environments, organizations are experiencing decreasing level of autonomy and an increasing level of interdependence. This paper extend these views to incorporate organizational communication as the prime constituent exploited by organizations to anticipate, react and respond to environmental change and hence align their structures with the changed environment.

Importance of the Study

Complexity and chaos theory analytical perspectives have in fact generated a remarkable literature concerned with the behaviour of complex systems. If complexity theory stipulates that, under specific conditions, systems perform in regular, knowable ways, under other conditions, they display behavior in which regularity and predictability are missing. These untraceable differences in primary circumstances lead to steadily diverging system reactions until ultimately the progression of behavior is quite dissimilar. Given that these systems are dynamic systems and hence capable of changing in due course, there is obviously a major concern with the certainty of their behavior.

Research hypothesis

In today’s escalating global interdependencies and accelerating pace of change, demand more flexible and adaptive organizations. Indeed, organizational flexibility, being defined in terms of “vulnerability” and “adaptability” (Malone and Smith, 1984), effective implementation of organizational communication strategies would in fact decrease vulnerability by reducing the cost of expected failures and enhance adaptability by reducing the cost of adjustment. But because organizational environments are increasingly turbulent; organizations are also increasingly less autonomous; and formal organizations are likewise increasingly important components of organizational environments. This state of affairs lead us to formulate the following hypotheses: 1) Organizational change is increasingly externally induced; 2) Organizational

adaptability is a function of the ability to communicate, learn and perform according to changing environmental contingencies.

Scope and Limitations

The “complex” a system approach has been elected due to the fact that it has been applauded for its latent capacity to “synthesize and analyze complexity” (Simon, 1969). Factually, the grasp of a “complex” system cannot be achieved without a constant study of the forces that infringe upon it (Katz and Kahn, 1966) to the extent whereby complex systems theorists’ principle of uncertainty (Heinzberg, 1960) challenge management orthodoxy in terms of various reservations concerning analysis primacy, causal contingency, long-term planning, corporate vision, corporate consensus, organizational cultures, and statistical relationships (Stacey, 1990).

Lecturer Review

Introduction

Increased emphasis has been invested on complex systems thinking in order to understand the amplified linkages between the system and its environment, and between the various parts of the system (Leavitt, Pinfield & Ramstrom, 1974). It has been argued that “the only meaningful way to study organizations is to study them as “complex” systems (Scott, 1961) . It has also been suggested that the “complex” systems approach is the best way for studying modern organizations in quest of survival in today’s fast-changing hyper turbulent environment (Webb, 1974). In fact, under proper

circumstances, systems may function at the boundary amid stable and unstable zones, called “transition”, or ‘edge of chaos’. However, in this bordered instability, we could detect unpredictability of definite behavior within a predictable general structure of behavior. Therefore, since “transitional” organizations are bound to face increasing environmental complexity and turbulence, organizations’ requirements to process information and make decisions ought to be significantly augmented (Huber, 1984). Undeniably, the capabilities and flexibilities of communication systems can make them ever more pertinent to organizations by being capable to address explicit information and communication prerequisite (Holt, 1992). Some authors went even to argue that the need for the concept of “the causal texture of the environment” is due to the fact that environmental contexts in which organizations evolve are themselves swiftly becoming increasing complex under the blow of technological change (Emery & Trist, 1965). This very “turbulent field,” i.e., the “interdependencies within the environment itself” comprise in fact the “causal texture” of the field; turbulence itself being characterized by complexity as well as rapidity of change in its causal environmental interconnections. As a fact, turbulent situations are verily those in which speeding rate and complexity of interactive effects exceeds the capacities of prophecy of the organizational systems. Similarly, turbulent environment parallels “dynamic- complex” environment (Duncan, 1972), “high-unstable change” (Jurkovich, 1974) as well as “unstable-heterogeneous” environment (Thompson, 1967). Environmental turbulence is therefore the scale

of environmental disturbance due to mounting environmental interconnection (Emery & Trist, 1965; Terreberry, 1968). But, turbulence should not refer to environmental chaos, but to a rising causal interconnection, that renders environments ambiguous to observers (Aldrich, 1979). Certainly, environments of formal organizations are evolving toward turbulent-field conditions that would selectively reward organizations that would develop efficient monitoring, screening, and information-processing systems.

Research Methodology

Post-positivist epistemological approach address effectively the process of knowing, using open ended and binary evaluative interviewing methodology as a vehicle for selected organizational knowledge corpus. Due to the complex nature of the studied phenomenon, ideas might have a survival value but knowledge evolves solely through process of variation, selection and retention as the ones involved in this kind of research.

Focus groups

Applied qualitative structured interviewing research coupled with triangulation sharpens analytical conceptual “metaphors” applied to embrace the organizational entities’ dynamics, object of this study (constructs) and the organizational entities’ dynamics as they in fact exist (operationalization) in Algeria’s complex multidimensional systemic context. Interviews and observations of the theoretical population of interest in the study unit (representative sample) have been extremely fruitful. This causal investigation interest being in the effects of causes on outcomes directly related to the

research problem at hand, via deductive top-down approach singling out complex system theory as a phenomenon decoding code , allowing validation of internal and external hypotheses and observations as well as confirmation of “complex” systems theory.

Data Collection

The two corporations selected on the basis of performance on the inter-industrial Input-Output matrix (Leontieff, 1983) viz. highest integration coefficients allowing optimal matrix “blackening”, i.e., the National Oil Corporation (trade extrovert /external markets orientation) and the National Mechanical Corporation (trade introvert/internal market orientation). Top management and technical experts interviewed (100) in both corporations showed eagerness in participating in this summative evaluation.

Data Analysis

Null hypothesis being rejected (exact significance value > alpha value). Therefore, a concluding validation of contingent organizational communication strategy real causality effect (fewer number of hypothesis tests reduced experiment-wise error rate via ANOVA / SPSS) in decreasing organizational “vulnerability” and enhancing “adaptability” levels in hyper turbulent transitional adjustments.

Results

An in-depth analysis of organizational change communication process- during recent Algeria’s turbulent transition environment- is that standard theories, models and many

important facets of change management communication processes need to be much more grounded, a difficult exercise due to pressing demands for speedy solutions adapted to the chaos and urgency of local turbulent transition environments. Definitely, effective organizational communication strategies enable organizations to respond to the challenges of an increasingly complex and uncertain environment and even help complex systems “transitional” organizations achieve the “continuous” organization structure fit. As a fact, organizational change being increasingly externally induced, organizational adaptability is a function of the ability to learn and to perform according to changing environmental contingencies.

Conclusion

Changing economics, different managerial traditions, and problems of assimilation calls for major reappraisals of organization structures in Algeria, whereby transformation from a system of central planning to a market economy has been and still is, to a certain degree, one of the biggest national development issues. This issue comprises the major areas of macroeconomic stabilization and liberalization, privatization and structural adjustment, industrial policy, social policy and political economy of reform as well as financial assistance for development.

Recommendations

In view of the findings of this study and in order to formulate generalizations related to adapted organizational communication strategies-compliant with “complex” systems theory- the

following generalizations are suggested:

1. The selective advantage of one intra- or inter- organizational configuration over another cannot be assessed apart from an understanding of the dynamics of the environment itself;
2. Breakdowns in communication are often cited as a primary cause of failures to effectively undertake change in organizations, but it is an issue that is rarely considered explicitly;
3. Turbulent environment necessitate effective organizational communication for monitoring the preferences of the environment;
4. Organizations are purposive systems that learn of the impending threats by scanning, and scanning is no more than the process by which organizations acquire and communicate information for decision-making;
5. Complex systems require complex controllers, effective organizational communication strategies will provide the “complex controller” to the increasingly complex organizations.
6. The information systems of an organization need to evolve as a response to the obscurity of causal laws of turbulence, scanning could provide organizations with the desired “competitive edge” ;
7. Turbulent environment drives organizations to use information technologies to align their structure with environmental preferences;
8. The phenomenal organizational “adaptive capacity” can be largely attributed to

advances in the technologies of organizational communication.

Summary

Organizational communication has been one of the most written about management theme in recent managerial literature and its functional integrative importance, but the particular aspect of organizational communication applied to the geographical area of turbulent transition environments remain one of the most under-researched areas relevant to organizational change and development. Indeed, turbulent environments are increasingly significant because most organizational change is externally induced. Hence, "survival of the fittest" become a function of the fitness of the environment; and organizational adaptability become likewise a function of the ability to learn and to perform according to changes in the environment. For an organisation to seek stable equilibrium relationships within an environment, which is inherently unpredictable, is bound to lead to failure. Therefore, successful strategies, especially in the longer-term, do not result from fixing an organisational communication strategy and mobilising around it; they do emerge from complex and continuing interactions between people. Management complexity theorists emphasize, that strategy is the emerging resultant. Rather than trying to consolidate stable equilibrium, the organisation should aim to position itself in a region of bounded instability, to seek the edge of chaos. Instead of a perfectly planned corporate communication strategy, the released creativity leads to an organisational communication, which continuously re-invents itself.

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