Organizational Culture and Organizational Effectiveness: A Theory and Some Preliminary Empirical Evidence

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ABSTRACT

Despite the frequently held assumption that organizational culture has an impact on organizational functioning, few authors have explicitly discussed the topic of organizational culture and organizational effectiveness. This paper presents a model of culture and effectiveness derived from the literature and provides preliminary empirical support from a sample of 969 organizations.

INTRODUCTION

Despite the abundance of studies that have emphasized culture's instrumental value, (Barley, 1988) there is still no comprehensive theory of how organizational culture may influence organizational effectiveness, nor much empirical evidence to support the idea (Martin & Siehl, 1988). Several authors have made compelling arguments about the ways in which aspects of culture, such as socialization or commitment, may impact effectiveness (Pascale, 1984), or the way in which values and assumptions which once formed the foundation of an organization's culture may limit change and adaptation at a future point (Martin, Sitkin, & Boehm, 1985). No research that we were able to find, however, has specifically tried to integrate the numerous implicit assumptions about organizational culture and effectiveness into a general theory, and begin to test it empirically.

This paper addresses the problem by deriving from the literature four implicit hypotheses regarding the relationship between culture and effectiveness. The paper then presents a preliminary empirical test of that model using CEO perceptions of culture and effectiveness from a sample of 969 organizations.

FOUR HYPOTHESES ABOUT CULTURE AND EFFECTIVENESS

The implicit theories of organizational effectiveness presented in the culture literature usually have pursued a variation of the following theme: shared values form the basis for consensus and integration which encourages the motivation and commitment of meaningful membership. These same shared values also define an institutional purpose which gives meaning and direction. From these properties comes an organization with high levels of implicit coordination and the capacity to adapt by projecting the existing normative structure on ambiguous situations. These themes can be described in terms of four distinct hypotheses:

The Involvement Hypothesis

This hypothesis suggests that high levels of involvement and participation create a sense of ownership and responsibility. Out of this ownership grows a greater commitment to an organization and a growing capacity to operate under conditions of greater autonomy. Increasing the input of organizational members is also seen as increasing the quality of decisions and their implementation. Ouchi (1980; 1981) suggests that the application of these principles results in an organizational form called the "clan."

This hypothesis is not unique to the culture literature. It has many precedents in organizational behavior, including both classics (McGregor, 1961; Likert, 1961) and more recent work (Lawler, 1986; Walton, 1986; Ouchi, 1981; Peters & Waterman, 1982).

For all the attention that the many different forms of the involvement hypothesis have received and for its perennial centrality within the field of organizational studies, it has relatively little supporting evidence. Recent reviews of the participation literature (Locke & Schweiger, 1979) in fact concluded that in many cases there was only a modest relationship between participation and performance. Nonetheless, the hypothesis is a compelling one and persists as a central hypothesis regarding organizational culture and effectiveness.

The Consistency Hypothesis

The consistency hypothesis about the relationship between organizational culture and effectiveness presents a somewhat different explanation. This perspective, in its popular version, emphasizes the positive impact that a "strong culture" can have on effectiveness; arguing that a shared system of beliefs, values, and symbols, which are widely understood by an organization's members, has a positive impact on their ability to reach consensus and carry out coordinated actions. The fundamental concept is that implicit control systems, based upon internalized values, are a more effective means of achieving coordination than external control systems which rely on explicit rules and regulations (Pascale, 1984; Weick, 1987).

A number of authors (Frost et al., 1985; Martin et al., 1983) have stressed this theme, and have emphasized the importance of shared beliefs and values to organizational effectiveness. They argue that shared meaning has a positive impact because an organization's members all work from a common framework of values and beliefs which forms the basis by which they communicate. The power of this means of control is particularly apparent when organizational members encounter a unfamiliar situation: By stressing a few general value-based principles upon which actions can be grounded, individuals are better able to react in a predictable way to an unpredictable environment.

Very few of these theorists, however, have made a clear distinction between the consistency hypothesis and the involvement hypothesis noted above. Upon closer examination, however, while the involvement hypothesis asserts that the inclusion and participation of members in the processes of the organization will outweigh the dissension, inconsistency, and non-conformity associated with a more democratic internal process, the consistency hypothesis would assert that low levels of involvement and participation can be outweighed by high levels of consistency, conformity and consensus.

Effective organizations seem to combine both principles in a continual cycle. Involvement is used to generate potential ideas and solutions, which are then refined into a more precise set of principles. As White (1988) describes, continuous improvement processes in manufacturing systems requires that ideas generated through involvement are used to create the next higher level of standardization in a production process.

The Adaptability Hypothesis

Schein (1985) discusses the relationship between culture and adaptation, and emphasizes that a culture usually consists of the collective behavioral responses that have proven to be adaptive in the past for a particular social organization. When confronted with a new situation, an organization first "tries" the learned collective responses which are already a part of its repertoire. When new situations are unlike old, the capacity to unlearn the old code and create a new one becomes a central part of the adaptation process.

The adaptation hypothesis asserts that an organization must hold a system of norms and beliefs which support the capacity of an organization to receive, interpret, and translate signals from its environment into internal behavioral changes that increase its chances for survival, growth and development. Theorists such as William Starbuck (1971), for example, using the language of general systems theory, have discussed the concept of morphogenesis, or the capacity of a system to acquire an increasingly complex adaptive structure. Such concepts can readily be used to describe the means by which an organization continuously alters its internal structure and processes in a manner that increases chances for survival.

In practical terms, the absence of adaptability is well known and easy to identify; it is rigid bureaucratization, which derives from, and inevitably supports a system of values and beliefs oriented toward stability. Kanter (1983) in The Change Masters, discusses the issue of the capacity to restructure and it relationship to adaptation, and emphasizes that managers with the capacity for integration are most likely to be successful at introducing change. Balkanized organizational structures are often impossible to change because of the low probability of finding a common direction in which all elements can pull at the same time. Similarly, Tichy (1983) emphasizes that the capacity to manage change and strategic adaptation is a central element to any organization's effectiveness.

Thus, three aspects of adaptability are likely to have an impact on an organization's effectiveness: First is the ability to perceive and respond to the external environment. As Abegglen & Stalk (1986) have pointed out, one of the distinguishing characteristics of successful Japanese organizations is that they are obsessed with their customers and their competitors. Second is the ability to respond to internal customers. Insularity with respect to other departments, divisions, or districts within the same corporation exemplify a lack of adaptability, and have direct impacts on effective performance. Finally, reacting to either internal or external customers requires the capacity to restructure and re-institutionalize a set of behaviors and processes that allow the organization to adapt. Without this ability to implement an adaptive response, an organization cannot be effective.

The Mission Hypothesis

The last major component of this theory and a fourth implicit hypothesis in the literature on organizational culture is the importance of a mission, or a shared definition of the purpose and direction of an organization and its members. Although few authors have written directly on the topic (see Torbert, 1987, for an exception) most have agreed that a sense of mission provides two major influences on an organization's functioning: First, a mission provides purpose and meaning, and a host of non-economic reasons why the work of an organization is important. Second, a sense of mission provides clear direction and goals which serve to define the appropriate course of action for the organization and its members. Both of these factors grow out of and support the key values of the organization.

A mission provides purpose and meaning by defining a social role for an institution and defining the importance of individual roles with respect to the institutional role. Through this process, behavior is given intrinsic, or even spiritual meaning that transcends functionally defined bureaucratic roles. This process of internalization and identification contributes both to short and long term commitment and leads to effective performance.

The second major influence that a strong sense of mission has on an organization is to provide clarity and direction. On an individual level, there is convincing evidence that success is more likely when it is goal-directed (Locke, 1968). On an organizational level, despite the fact that organizational "goals" may often be post hoc reconstructions, a related process seems to take place. The impact at the organizational level may more likely stem from the definition of a common goal, and the resulting coordination, rather than the definition of an objective, external criteria, but the effect on performance may well be similar.

A sense of mission also requires that organizations apply future perfect thinking (Weick, 1979; Davis, 1988). (Example: by June 30 of next year our exports will have doubled). Using this mode of thought has an impact on behavior (Weick, 1979) and allows for an organization to shape current behavior by envisioning a desired future state (Bourgeois & Eisenhart, 1989). The planning technology of futuring was developed to help create a vision or ideal end state to help guide organizations (Michael, 1977; Tichy, 1987).

Such a mission presents a set of goals that reach far beyond the short-term planning of most corporations. Particularly in successful corporations whose age is measured in decades rather than years, a shared sense of the broad long-term goals of the firm is implicit and helps to structure behavior.

A PRELIMINARY EMPIRICAL TEST

With the recognition that any research design has inherent limitations, the goal of this paper is to present a broad but superficial test of the four hypotheses, using CEO perceptions as the primary data, to use as a guide for future research. The weakness of this research design, of course, is that it trades off detailed measures of culture for a broader sample of organizations. Case studies of five organizations used to ground this theory through direct observation are presented and discussed elsewhere (Denison, 1989; Denison & Mishra, 1989).

Based on the theoretical model described above, a set of 18 questionnaire items were developed focusing on the four dimensions. After identifying a population of firms in the Midwest, a probability sample of firms was drawn from the files. of the state Employment Security Commission as suggested by Birley (1984). The sample placed primary emphasis on large firms, rapidly growing firms, manufacturing firms, business services and financial organizations. Surveys were addressed to the chief executive officer or top individual in each organization, and the respondents were most typically the chief executive, operating, or financial officer. Following the initial verification of names and addresses, a survey questionnaire, follow-up letter, second survey, and follow-up postcard were mailed out, each spaced about one week apart. After these four mailings, telephone calls were made to those firms that had still not returned their surveys. All data collection was completed by December, 1987. From 3,425 surveys sent, 969 completed surveys were received and analyzed for an overall response rate of 28.3 percent.

The dependent variable in our analyses, organizational effectiveness, is primarily operationalized through the respondents ratings of a set of subjective performance measures: new product development, sales growth, market share, cash flow, profitability/return on assets, and overall company performance. The respondent was asked to rate his or her firm's performance on a seven point Likert-type scale in each of these areas "given the current stage of development of the company and its market." Objective performance measures such as sales growth and return on investment were also collected, although only about one-third of the respondents provided adequate performance measures. As noted in the results section, these objective performance measures were generally correlated with the subjective performance measures that are the primary focus of this study. This approach is also supported by other research (Venkatraman & Ramanujam, 1986).

RESULTS

A factor analysis of the items reproduced the four culture dimensions, all with reliabilities between .62 -.79. Tables 1-4 present the results of an analysis of variance with each of the four cultural dimensions (bracketed into three levels) as independent variables and each of the six subjective performance measures as separate dependent variables.

Table 1 shows very strong support for the involvement index as a predictor of effectiveness. All of the ANOVAs are significant at the .02 level or better, and the results for new product development and overall performance are particularly strong. Table 2 shows that the results for the consistency index are less significant. Specific aspects of effectiveness approach, but do not reach the .05 level of significance. The overall effectiveness rating, however, is highly significant. Many of the insignificant results seem to stem from the fact that there is very little difference between low and medium consistency organizations on the effectiveness measures.

Table 3 shows that the adaptability index is a significant predictor of four of the six effectiveness measures, and that product development and overall performance are very highly significant. Table 4 shows that the mission index is the strongest of the four predictors. All of the analyses are extremely significant, with the strongest predictions being of market share and overall performance.

Table 1: INVOLVEMENT AND EFFECTIVENESS ANALYSIS OF VARIANCE

	Subjective Effectiveness Measures					
Level of Involvement	New Product Development	Sales Growth	Market Share	Cash Flow	Return on Assets	Overall Performance
Low	4.79	4.44	4.24	4.57	4.46	4.85
Medium	5.29	4.72	4.50	4.52	4.42	5.00
High	5.61	5.04	4.84	4.90	4.81	5.50
F	20.0	10.5	9.18	4.02	4.06	15.7
P(F)	.00	.00	.00	.02	.02	.00

Table 2: CONSISTENCY AND EFFECTIVENESS ANALYSIS OF VARIANCE

Level of Involvement	Subjective Effectiveness Measures					
	New Product Development	Sales Growth	Market Share	Cash Flow	Return on Assets	Overall Performance
Low	5.22	4.73	4.49	4.53	4.43	4.97
Medium	5.15	4.63	4.45	4.64	4.53	5.05
High	5.26	4.90	4.42	4.94	4.84	5.53
F	0.34	1.46	0.11	2.44	2.41	7.04
P(F)	.71	.23	.90	.09	.09	.00

Table 3: ADAPTABILITY AND EFFECTIVENESS ANALYSIS OF VARIANCE

Level of Involvement	Subjective Effectiveness Measures					
	New Product Development	Sales Growth	Market Share	Cash Flow	Return on Assets	Overall Performance
Low	4.97	4.59	4.32	4.56	4.55	4.98
Medium	5.25	4.68	4.52	4.65	4.40	5.03
High	5.78	5.07	4.78	4.80	4.74	5.41
F	16.3	6.23	4.97	1.19	2.22	6.09
P(F)	.00	.00	.01	.30	.11	.00

Table 4: INVOLVEMENT AND EFFECTIVENESS ANALYSIS OF VARIANCE

Level of Involvement	Subjective Effectiveness Measures					
	New Product Development	Sales Growth	Market Share	Cash Flow	Return on Assets	Overall Performance
Low	4.81	4.34	3.96	4.21	4.05	4.56
Medium	5.36	4.81	4.70	4.98	4.82	5.29
High	5.57	5.08	4.97	4.84	4.89	5.56
F	22.6	20.8	37.8	22.6	28.1	52.2
P(F)	.00	.00	.00	.00	.00	.00

DISCUSSION

The empirical results of this study provide support for the four hypotheses. The mission and involvement hypotheses received particularly strong support, as did the prediction of new product development and overall effectiveness.

The implications of this study for the integration of these four hypotheses into a general theory about culture and effectiveness is more equivocal: support for the impact of each element of the theory provides a base to build upon, but does not address the interrelationship between these four factors, or the degree to which they represent the best approach to defining the culture domain. These issues are addressed more fully in other extensions of this research (Denison, 1989; Denison & Mishra, 1989), and are discussed with respect to theorists who have emphasized the importance of paradox and contradiction in organizations (Quinn, 1988; Quinn & Cameron, 1988).

Two major limitations hinder this research. First, as a classic cross-sectional study, there are obvious limitations on the inference of causality . A second wave of data is currently being collected, however, and may offer a way to begin to address this problem in the future. The second major limitation of the study is its reliance on CEO perceptions of each firm's cultural dimensions. The breadth that this approach allows is valuable, but the depth of these perceptual measures of culture has obvious limitations. Clearly, future research on organizational culture and effectiveness must begin to include research designs that incorporate *both* breadth and depth.

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