

# Management Control Systems: An Integrated Paradigm

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*Abstract This article takes a practical approach to the enduring problem of establishing and maintaining effective management control over organizational operations. Drawing upon organizational control theory found in the social science literature and taking an eclectic approach to the design of management control systems, an integrated framework, or "meta perspective," on management control systems is suggested. Adoption of such a perspective by practicing managers should be useful in the practical, day-to-day selection and implementation of the elementary nuts and bolts of management control system structure and process. Too often, these structures and processes are approached from a fragmented, bottom-up managerial perspective that does not recognize the significant interrelation of the various layered elements comprising the social control system of an organization.*

## Introduction

A highly rationalized approach to the management of organizations suggests that important choices are made in the selection and application of different organizational control structures and processes within any given organization. Clearly, the choice of one alternative control structure or process over another may result in significantly different levels of organizational performance. Vincent Ostrom (1974) underscores the importance of this issue with his scathing inference that if organizational scientists (here including the practicing manager) are unable to indicate the consequences of choices among alternative organizational arrangements, then the scientific warrantability of organizational theory itself must be questioned. On the other hand, Ostrom suggests that if arrangements chosen to provide coordination and control in the organization reflect known causal relationships which can be specified, then, "by altering the appropriate conditions, one set of consequences judged to be pathological might be avoided and another set of consequences judged to be more benign might be realized." (p.3)

This proposition by Ostrom (1974) seems straightforward enough; the manager should simply choose the management control element that provides the desired output. However, as has been noted elsewhere (Tankersley and Grizzle, 1994), a review of literature

dealing with management control systems reveals that there exists a vast array of perspectives and differences of opinion regarding the choice of appropriate control structures and processes for organizations. These divergent views include those of management scientists, political economists, sociologists, social psychologists, organizational theorists, accountants, program evaluators, and organizational economists, among others. "Control issues are approached in the literature at different levels of analysis; they are analyzed from the perspectives of different social assumptions; and, separate studies of similar control issues produce multiple, often incompatible, solutions to the same problem,"<sup>1</sup> (pp. 1 - 2)

Management control choices need to be highly rationalized and closely coordinated. The structures and processes adopted and implemented in the organization should compliment each other in such a manner as to provide a synergistic control effect leading to the accomplishment of the ultimate goals of the organization. This requires a clear understanding of, and appreciation for, the interaction of organizational control elements. As a practical matter, in order to effectively cope with these conditions, the practicing manager needs a succinct, yet broad, overview, (i.e., a frame of reference), which provides him or her with an integrated model of the various component elements of organizational control structures and processes.

## A Meta-Perspective on Control Systems

Eric G. Flamholtz (1983) provides a useful beginning with his model of organizational control structure and process when he advocates the need to develop a "Meta-Perspective of Control Systems." (p. 154) Defining organizational control as "any actions or activities taken to influence the probability that people will behave in ways which lead to the attainment of organizational objectives," Flamholtz (p. 154) models control systems found in social organization as follows:

The control system...is represented by a series of concentric circles. The innermost circle comprises the "core control system." This is a cybernetic structure consisting of four subsystems (planning, operations, measurement and evaluation-reward) which are articulated (linked) by feedback and feed forward loops.

The middle circle comprises the organization's structure:

Thus, the Flamholtz (1983) configuration of the organizational control model conceptualizes the fully developed control system as being comprised of the elements and subsystems displayed in Table 1. It is important that practicing managers have a clear working knowledge of the structures and processes

**Table 1**  
**Elements of the Fully Developed Control System**

<b>Organizational Culture</b>
Value System
Beliefs
Assumptions
Patterned Ways of Thinking
<b>Organizational Structure</b>
Rules
Interrelationships of Rules
Differentiation
Integration
<b>Core Control System</b>
Planning Subsystem
Operations Subsystem
Measurement Subsystem
Evaluation-reward Subsystem

(adapted from Flamholtz, 1983)

its set of rules and their inter-relationships. The outer circle represents the organization's culture; its value system, beliefs, assumptions; the patterned ways of thinking which are characteristic of the entity. These three elements [emphasis added] of the control system are bounded by the environment of the organization (p. 154). represented by the subsystems and elements of the model. A brief discussion of their composition is useful.

#### **The Core Control System**

Beginning with the Core Control System, the Planning Subsystem refers to that process where the organizational goals, and means to attain those goals, are decided. Here, it is important to recognize that if agreement has not emerged *ex ante* with respect to organizational goals, the process will be political in nature. If goal agreement is implicit, or can be attained simply through a process of articulation, the process will tend to be apolitical. (Tankersley and Grizzle, 1994)

The Operations Subsystem refers to the actual daily process of performing the functions of the organization. Organizational roles serve to assign responsibilities and activities within the operations subsystem. Because the assignment of these organizational roles can be understood

to provide significant simplification in the process of coordination and control of daily operations, these decisions carry great weight in the overall design of the organizational control system. (Wildavsky, 1968) Role assignment must be considered in this perspective.

Flamholtz (1983) suggests that the Measurement Subsystem performs two functions in the control process: first, numbers provide a medium by which the achievement of goals can be evaluated; second, the fact that something is measured "tends to influence the behavior of people in organizations" (p. 156). Finally, the Evaluation-reward Subsystem is comprised of mechanisms for performance assessment and the ensuing rewards or penalties.

The interactions of these elements of the Core Control System explicitly establish the direct linkage of the overall social control system existing in the organization to organizational results. Planning, operations, measurement and evaluation-reward subsystems, both individually and jointly, focus attention directly on results. Thus, the logic of a functional link is established. Results are a function of an effective control system.

#### **Organizational Structure**

The case for considering Organizational Structure as the second element of the organizational control system begins with an observation made by Otley and Berry (1980):

Control is...importantly related to purposes, coordination and change...A full description of organizational control procedures must therefore include an analysis of those procedures which act to maintain viability through goal achievement, those concerned with the coordination and integration of differentiated parts, and those which promote adaptation to both internal and external change. (p. 232)

Accepting this notion, Flamholtz (1983) includes organizational structure in his control system model. Citing Otley and Berry (1980), he notes, "indeed, organization can itself be viewed as a control process, occurring when groups of people feel the need to cooperate in order to achieve purposes which require their joint actions." (p. 158) Thus, here it is recognized that the degree of centralization or decentralization in the organization, the degree of functional specialization, the degree of vertical or horizontal integration, the degree of reliance on predetermined procedures for dealing with problems, and the use of rules as well as the other dimensions of classic bureaucratic structure, are understood to be important factors comprising the second major element in this model of organizational control.

In this context, organizational structure can be thought of as representing a strategic response in the adaptation of the organizational entity to its environment, but, once the initial response is made, the permanency of this emergent organizational structure is, when compared

to the sub-elements of the core control system, relatively static. Nonetheless, while it may be that change in organizational structure occurs relatively slowly, the words of Charles Lindblom (1977) must not be forgotten:

...each bureaucracy tends to develop its own style and thereafter can only be bent so far, only partly adapted, to new tasks. Despite the availability of ostensibly appropriate old bureaucracies, high-level decision makers must therefore often create new bureaucracies to attack new tasks...administrative reform is endless. (p. 28)

Managers and control analysts must ever be alert to the need for appropriate administrative reforms. Organizational structure cannot be assumed to necessarily be static or permanent.

### Organizational Culture

Organizational Culture, the third element specified in the model, can be understood as those shared values, beliefs and social norms which tend to influence individual thoughts and actions within the organizational framework. (Flamholtz, 1983) Although here, as well as elsewhere, (Sathe, 1983; Schein, 1985), culture is viewed as an organizational control variable that can be identified and changed for the purpose of improving organizational effectiveness, there remain important nuances in the interpretation of the concept itself. (Sathe, 1983) While some adopt the "cultural adaptations" approach, viewing culture as nothing more than those artifacts which are directly observable in the focus group, (i.e. patterns of behavior, speech, and use of material objects), others adopt the "ideational" approach, where, as with Flamholtz (1983) and Schein (1985), culture is that which is shared within the mind. The problem in examining culture with this approach is, of course, the very difficult proposition of discovery of what is in the mind of others. Additionally, with respect to this problem, differences are found even within the "ideational" approach itself. Sathe (1983), for example, argues that organizational culture manifests itself in four different observable phenomena: shared things, shared sayings, shared doings, and shared feelings. Important cultural differences can be inferred from observing differences in these four manifestations. Edgar Schein (1985), on the other hand, suggests that the essence of organizational culture resides in fundamental, preconscious, basic assumptions about, among other things, reality, time and space, human nature, and human relationships. Thus, to understand a given organizational culture requires a highly intensive ethnomethodological, or phenomenological, approach. (see Patton, 1980, p. 44 et seq.) For many practical purposes related to the analysis of organizational systems, it is suggested that the cultural element can be understood to be those shared values, beliefs and social norms which tend to influence individuals' thoughts and actions, and which can be inferred from the examination of organizational artifacts and processes. (see Sathe, 1983) The undisputed fact that

these shared meanings influence and affect the thoughts, and more importantly, the actions of individuals, brings cultural analysis clearly within the bounds of concern for managerial control system development.<sup>2</sup>

### Comparative Dimensions of Organizational Control Systems

While the above discussion defines organizational control systems in terms of the distinctive components which analysts should consider, it does not adequately provide for the recognition of variances in these elements which may be found across organizations. According to Lawler and Rhode (1976), "to predict the impact of a control system,...we need to know not only what the parts of the system are but how they operate" (p. 41). Not only do organizations differ with respect to the presence or absence of control elements in their systems, singular control elements that are found to exist within two or more organizations do not necessarily operate identically across the organizations under observation.

Two perspectives are helpful in illustrating this comparative aspect of control system analysis. The first approach is suggested by Flamholtz (1983), while the second is taken from the contingency model of organizational analysis. (Morgan, 1986, Burrell and Morgan, 1979)

Flamholtz (1983) observes that organizational control systems can be categorized into different "control levels" (p. 157) according to the presence or absence in a given organization of the elemental subsystems forming the Core Control System. He offers a straightforward definition of the various levels:

...if none of the...elements of control [here, referring to the planning, measurement and evaluation-reward subsystems] are present, we shall define this condition as first degree control. In this condition, there are merely operations (decisions and actions) which produce results. This type of condition is not uncommon and is characteristic of entrepreneurship and relatively small businesses.

Second degree control consists of operations plus (any) one additional element: planning, measurement, or evaluation-reward. For example, an organization may have a measurement system without formal planning or even without any system for performance assessment and the administration of rewards.

Third degree control consists of operations plus any two additional elements.

Fourth degree control consists of all of the four basic elements of the core control system: planning, operations, measurement and evaluation-reward. (p.158)

While it is true that organizational control systems may vary in respect to the elemental composition of the core control system, and while this aspect of control analysis is indeed important, even fundamental, to the improvement of control in organizations, the Flamholtz

(1983) analysis falls short in that it does not provide an analytical perspective which detects differences in control levels across organizations where the same control system elements are present.

There seems to be recognition that cultural and selected structural elements of organizational control systems may vary across organizations, yet for Flamholtz, "control level" is solely a function of the presence or absence of the elements of the core control system. Presumably, in such a model, control systems comprised of the same elemental constructs are equivalent. This deserves more attention.

Concepts found within the contingency model of organizational analysis (Morgan, 1986, Burrell and Morgan, 1979), are helpful in this regard. Here, again, organizations are seen as being comprised of several subsystems. The structural subsystem and the managerial subsystem are the subsystems most closely congruent with the control elements included in the control model discussed above. An explicit feature of contingency theory, however, is the recognition that these subsystems may take on widely varying characteristics across organizations. For example, the structural subsystem is described as varying from, on the one hand, mechanistic and highly bureaucratic, to on the other hand, an organic structural arrangement.

...it has become more or less orthodox to compare organizations in terms of their degree of bureaucratization, using Weber's ideal-type 'bureaucracy' as a basis for analysis. The distinction offered by Burns and Stalker (1961) between mechanistic (bureaucratic) and organic organizations has become well established, and the research of Woodward (1958), the Ashton group (Pugh et al., 1976) and Richard Hall (1972)...has added empirical substance to the notion that organizations do in fact vary in terms of formal structure. (Burrell and Morgan, 1979, p. 175)

Likewise, managerial subsystems are described as ranging from highly authoritarian to highly participatory and democratic. Burrell and Morgan (1979) argue that these differences in managerial subsystems across organizations can be discerned in variances of managerial or leadership styles. For example, they cite McGregor's (1960) "Theory X" and "Theory Y" as providing a clear distinction between the highly authoritarian, directive style of management and the flexible, open, democratic style. McGregor "provides a convenient way of characterizing this dimension of the managerial subsystem. (p. 176)" Also, this variance in managerial or leadership style is reflected in Likert's work (1967), Blake and Mouton's managerial grid (1964) and the Ohio State leadership studies. (Yukl, 1981) Burrell and Morgan conclude:

[This]...distinction will thus serve to capture the common element which distinguishes those managerial styles which seek to direct, coerce and control and those

designed to integrate the individual and the organization through a more open, democratic style which emphasized the importance of delegation, trust and intrinsic job satisfaction. (p. 176)

The contingency approach to organizational analysis thus augments the model of control presented above. Not only can an organizational control system be seen as comprised of certain specified elements, it is now recognized that these control elements (including the core control subsystems) are, themselves, distinctive in that significant differences in the elements can be identified across organizations. These differences will impact organizational outcomes.

### Summary: Utility of The Control Model

The control model presented here provides two perspectives from which to approach the analysis of organizational control systems. First, control arrangements are seen as being comprised of specific social artifacts: organizational culture, organizational structure, and a core control system. Each of these artifacts has been described in terms of its component parts. (See Table 1) Second, these component elements are seen as varying across organizations. Using the perspective offered by the contingency theory of organizational analysis, the separate elements found in organizational control systems may be described at one extreme as being mechanistic, bureaucratic and highly authoritarian. The other extreme may be characterized as organic, democratic and more participatory in nature. Utilizing this framework, organizational control systems can be analyzed in terms of their component parts as well as their relative level of centralized authority.

These conceptual tools provide practicing managers with a framework useful for the description and analysis of the organizational control systems presently in place in their organizations. Proper specification and consequent appreciation of the layered elements comprising the social control system in an organization is the first step toward accomplishing Ostrom's (1974) proposition that, "by altering the appropriate conditions, one set of consequences judged to be pathological might be avoided and another set of consequences judged to be more benign might be realized." (p.3) ▲

### Endnotes

<sup>1</sup>For interesting, but widely varying approaches to organizational control see: Eisenhardt (1985), Downs (1966), Anthony and Herzlinger (1980), Hofstede (1981), McGregor (1985), Merchant (1985), Perrow (1986), Schein (1985), Weiss (1986) and Williamson (1986).

<sup>2</sup>For a very practical and comprehensive discussion of the analysis of organizational culture as it relates to control of

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organizations, see Edgar H. Schein, *Organizational Culture and Leadership*, 2nd edition (1993).

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