

Use of Matrix to Enhance Intraorganizational Coordination in a Human Service Agency

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Introduction

The purpose of this paper is two fold. First, it attempts to synthesize a series of hypotheses to describe how differentiation leads to coordination within the organization. Chapter one deals with a brief review of organization theories, and supplies definitions of the terms. Integrative devices are demonstrated in chapter two. Matrix organization as being one of the integrative devices is discussed in the following chapter. The matrix organization applied in a human services agency is examined and modified—which task corresponds to the second purpose of the paper.

I. Theoretical Analysis of Coordination

Coordination is not a new phenomenon, nor is it a new problem to an organization. On the one hand, the “closed” system schools such as scientific management represented by Taylor in the 1920’s, administrative management by Gulick and Urwick in the 1940’s, and bureaucracy by Weber in the 1950’s, were concerned with the problem of coordination, since these schools all focused on a rational model of organization. Their ultimate criterion was economic efficiency.

Coordination in a social service agency has been dealt with along the same line of efficiency and rationality. Ehlers, Austin and Prothero consider coordination as one of eight administrative (executive) functions, and refer it to as that all-important duty of interrelating the various parts of the work of an agency so that it functions as a whole.¹⁾

The general purpose of coordination in a social service agency is (1) to avoid duplication of the services, (2) to fill the gap between the services, and (3) to gain the economy of scale.

On the other hand, those “open” system schools see coordination from a different

perspective than that of the “closed” system schools: the human relation school seems to view coordination as an vital function of a democratic model; structurists, who regard organization as a unit in interaction with its environment, think coordination as a part of an effort to reduce dependency on task environment. Thompson describes the effort as follows:

The more its technology and task environment tend to tear it apart, the more the organization must guard its integrity.²⁾

In a modern complex organization, where members and units within the organization are differentiated, the organization must be able to control the behavior of the members and units and to coordinate their activities so that they will work toward the shared goal of the organization. In a social service setting such as community health and welfare council, as well, this issue of differentiation v.s. integration is considered to be one of five system dilemmas that an open system has to face.³⁾

The problems of coordination/integration/control become more apparent and attract wider attention from researchers and students of organization as awareness of the extent of differentiation in organizations develops. Although control, coordination, and integration are used interchangeably, there are certain nuances in the meaning of each. Azumi and Hage state:

Coordination denotes integration between departments and/or occupations, and the various devices used to interrelate and reconcile the parts of an organization. Control implies the various means for making people and personalities conform to orders and rules, focusing more directly on the wielding power behind particular commands and the reasons for accepting work directives. Integration has been used to mean both instrumental (task) and expressive (social) ties between people or parts of an organization.⁴⁾

Apart from the twin problems of coordination and control, communication and conflict deserve attention as mechanisms to increase and decrease coordination.

When one touches upon the subject of organizational differentiation, one has to deal with one of the main structural dimension, i.e. complexity, to which the following terms are relevant; configuration, social stratification, division of labor, specialization, functional differentiation, social differentiation and departmentalization.

Ford and Slocum, having reviewed several representative literatures on structural variable, came to the definition:

Complexity refers to the degree or extent of differentiation within a given system, where differentiation may be horizontal, vertical, spatial, or personal

in nature. Thus, complexity includes the number of hierarchical levels (vertical); the number of functions, departments or jobs (horizontal); the number of operating sites (spatial); and the degree of personal expertise (personal).⁵⁾

As contingent theorists of organization, Lawrence and Lorsch depict how differentiation (complexity) is related to integration (coordination).⁶⁾ The relation can be put as follows: The greater the uncertainty of the environment, the greater the organizational differentiation necessary to cope with external demands; the greater the differentiation, the greater the integration needed to insure goal-directed behavior. Their concept of differentiation is unique in the sense that it includes the behavioral attributes of members of organizational subsystems as well as the formal division of labor which the classical definition of differentiation only implies. This dual orientation of the concept would be helpful and applicable to measuring and conceptualizing both the structure and process of coordination. (Van de Ven, Delbecq and Koenig cite that many researchers did studies on structural integration, while few did studies on the processes of coordination.)⁷⁾

The following model has been synthesized through the combination of the Aiken and Hage,⁸⁾ and the Lawrence and Lorsch hypotheses.⁹⁾

Hypothesis 1. As the degree of differentiation becomes greater, the members of a unit will develop more concern with the goals of coping with their particular subenvironment.

Hypothesis 2. As the uncertainty of subenvironments becomes greater, the need for resources to reduce uncertainty intensifies. (The resources include information, money, personnel, prestige, etc.)

Hypothesis 3. As the need for resources intensifies, units are more likely to develop interdependencies. (Exchange takes place.)

Hypothesis 4. As the interdependencies become intensified, units attempt to maximize gains and minimize losses in attempting to secure resources and to maintain equilibrium. (Intensified interdependence increases the internal differentiation of the organization, and the degree of difficulty of developing integration increases.)

Hypothesis 5. Overall performance in coping with the external environment will be related to there being a degree of differentiation among units consistent with the requirements of their relevant subenvironments and a degree of integration consistent with requirements of the total environment.

Hypothesis 6. When the environment requires both a high degree of unit differen-

tiation and a high degree of integration, integrative devices tend to emerge.

The model describes the relation between the internal differentiation and the integration in terms of the external uncertainty. It also introduces the idea of interdependence which was drawn from a conceptual framework of exchange—originally developed for the study of interorganizational relations.^{10),11),12)} The model has not been developed enough to specify determining factors (or conditions) for coordination. However, the model has merit in the sense that it can encompass the processes of coordination by expanding its scope to communication and conflict resolution.

II. Coordination Devices

Differentiation and integration are essentially antagonistic; one can be obtained only at the expense of the other in the conventional design of organization. Modern administrators are aware of this problem, thus, are constantly struggling to keep a balance between the two conflicting organizational needs. A task force is one device to meet those needs, by lessening the uncertainty of the subenvironment.

Sayles states that a number of different researchers have noted the impact of the degree of uncertainty on organizational structure... (and that) increasing amounts of uncertainty ought to lead management to develop organizational forms that permit, encourage, or require more lateral relationship.¹³⁾

Galbraith is one of those researchers. He cites that the way to increase the capacity of the organization to process greater amounts of information is to establish lateral relations and undertake joint decisions.¹⁴⁾ These lateral relations can take many forms: ^{15),16)}

- a) Direct contact; The simplest and least costly form of lateral relationship is direct contact between managers affected by a problem.
- b) Liaison roles; Liaison men are typical examples of specialized roles designed to facilitate communication between two inter-dependent departments and to bypass the long lines of communication involved in upward referral.
- c) Task forces; The task force is made up of representatives from each of the affected departments. It exists only as long as the problem remains. When a solution is reached, each participant returns to his normal tasks.
- d) Team; Teams are formed around frequently occurring problems. They could be formed around common customers, clients, geographic regions, functions, processes, products or projects whichever is appropriate.

- e) Integrating personnel ; They carry labels such as product managers, project managers, brand managers, and materials managers. These managers do not supervise any of the actual work but are responsible for integration of the inter-dependent subunits which are not directly integrated with an authority relationship.
- f) Integrating departments ; The greater the differences in subtask predictability, the greater the differentiation and the greater the difficulty in achieving successful collaboration. Thus, for a given volume of joint decision making, the greater the differentiation the greater the need for integrators and the general manager perspective. Collectively they form an integrating department.
- g) Matrix organization ; The final step in the utilization of lateral relationships is the establishment of a matrix organization. The matrix organization represents a complete commitment to joint problem solving and shared responsibility.

III. The Matrix in a Human Services Agency

The matrix organization deserves special attention for two reasons. For one reason, the matrix organization is found at the top of the cumuli of the lateral forms mentioned above. These lateral forms are cumulative in the sense that each form is adopted and added to the previous forms. Moreover, Delbecq and Filley foresee the change to take place in the organizational structure :

Eventually an organization may find that a temporary task force or permanent project team does not provide sufficient focus, balance, or predictability, causing the organization to shift into a full matrix organization framework.¹⁷⁾

Another reason lies in the unique characteristics of the matrix organization. The design of a matrix organization differs drastically from that of conventional organizations which work under the single-line-of-command, or one-boss, system. Davis and Lawrence define a matrix as any organization that employs a *multiple command system* that includes not only a multiple command structure but also related support mechanisms and an associated organizational culture and behavior pattern.¹⁸⁾

A common matrix structure has two coequal lines of command—a functional line and a project line—in order to maintain the advantage of functional specialization along with the advantage of the improved coordination offered by the concept of project management.

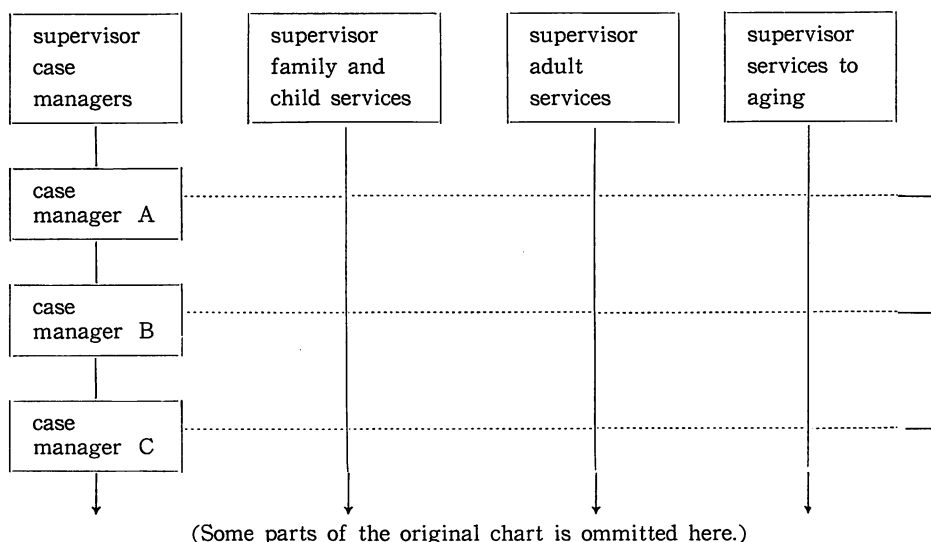
Grinnell and Apple illustrate how “two bosses” share the responsibilities :

In this structure (matrix), the functional leaders and the project leaders have

separate but complementary responsibilities. The functional leaders are responsible for developing and deploying, in the form of skilled people, a technical resource. The project leaders are responsible for getting their projects done.¹⁹⁾

The matrix feature of the dual structure in a social service setting, to take a “community of human services center” for example,²⁰⁾ is recognized by the functional units which provide services to families and children, adults, the elderly, mental health, etc., and by the case management units which assume the advocate role for the client. (Figure 1)

Figure 1. Ryan and Washington's Matrix for Human Services Center



As seen in this example and the other,²¹⁾ a matrix style of management seems more promising in terms of efficient operation than the traditional hierarchical organizational structure when one recognizes the fact that social services at the community level are numerous, yet isolated from each other.

Ryan and Washington advocate their matrix model:

This arrangement (as shown in Figure 1) is implemented in most human services organizations with two groups of managers, one of which is responsible for service delivery while the other is responsible for lateral integration and coordination among service groupings including the linking of clients to services through such functions as brokerage and mediation.²²⁾

This matrix of a “community of human services center” has strengths as well as weaknesses in terms of coordinating services. In search of ways for coordinating human services, Aiken, Dewar, Tomaso, Hage and Zeitz view coordination as consist-

ing of three aspects: comprehensiveness—all parts existing; compatibility—existing parts appropriately sequenced and linked; and cooperation—quality of relationships between the human actors.²³⁾ Ryan and Washington's matrix may guarantee the two aspects of compatibility and cooperation but ignores the aspect of comprehensiveness. It takes for granted that coordination should be restricted to only those programs and services currently in the agency. Such inadequacy in view of coordination could be attributed to the classical casework orientation of the model.

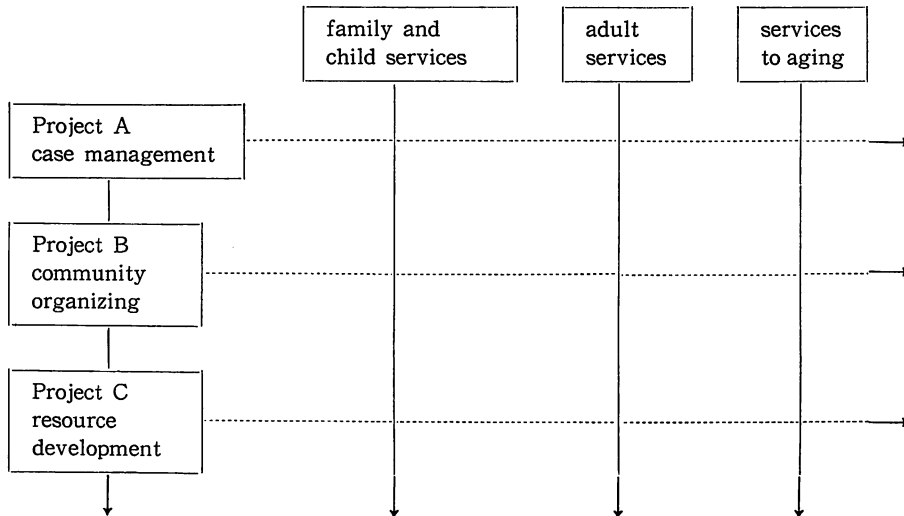
Consequently, the model does not generate potentials to deal with social change. It will only fit in a situation where one single person or family comes to the agency for the available services which are likely to be coordinated around the specific problems of the client.

The following matrix model (Figure 2) is suggested to eliminate the weaknesses of the previous one. In this model, case management is only one of the projects that the agency handles. Both functions (multi-services) and projects can be attained through this arrangement. With the introduction of various projects, the model allows the agency to cope with a wider variety of clients, ranging from individuals and families to the community as a whole. Moreover, projects will facilitate the expansion of the "web of relationships"²⁴⁾ of a matrix because of the dynamic nature of the projects.

This matrix style is appropriated to such a setting as a multi-service community center, where the residents' (clients') participation in decision making is of vital importance in terms of organizational interaction with the externality, and where workers are expected to communicate not only with their bosses and subordinates but with peers and near-equals both laterally and diagonally in their task performance within the organization.

Another possibility of this model is that it could add some service units as part of interorganizational coordination in the course of project implementation. As long as the goals for a project are shared between the agencies, service units linkages under this system will not meet severe obstacles. Nevertheless, problems will arise when the institutional level of the agency fails to set up a policy that specifies the short-term primary output of the project. Such problems are likely to occur in such projects as community organizing. One has to remember: Management by project objectives or results is paramount to the way of thinking and working in a matrix type of organization.²⁵⁾

Figure 2. Modified Matrix for Human Services Center



The modified model for a human service center is both an “ideal” and an “idealistic” type of matrix organization. For the realization of this model, staff has to be more professionalized not only in social work but in management. In addition, specifying coordination conditions across the work units will improve the applicability of the model to reality.

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