Kobe University Repository : Kernel

PDF issue: 2026-11-15

Systems Perspectives and Levels of Analysis : A Systemic Framework for Examining Organizational Interactions

Ali Tarek M.

(Citation)
経営研究,54:1-13

(Issue Date)
2008-07-22

(Resource Type)
departmental bulletin paper

(Version)
Version of Record

(JaLCDOI)
https://doi.org/10.24546/80510007

(URL)
https://hdl.handle.net/20.500.14094/80510007

KOBE UNIVERSITY

ISSN 1347-5495

経営研究

Business Research

No. 54

Tarek M. Ali

Visiting researcher, Graduate School of Business Administration, KOBE University

“Systems Perspectives and Levels of Analysis: A Systemic Framework for Examining Organizational Interactions”

July 22, 2008

Graduate School of Business Administration,

Kobe University

Systems Perspectives and Levels of Analysis: A Systemic Framework for Examining Organizational Interactions

Tarek M. Ali*

Abstract

Systems theory is still a fundamental means that provides us with explanations about organizational interactions. From this standpoint, we develop a systemic framework for examining interactions among and within organizations. The framework enables students of organizations to assign an appropriate theoretical perspective and analytical level that help achieving wide range of their research objectives. Our methodology to portray this guiding framework builds upon Scott's (2003) typology of organization theories. This is to classify traditional organization studies into distinctive systems perspectives as they treat organizational interactions. Then, Blau's (1957) typology of analytical levels is adopted to demonstrate how organization studies focus on different system levels as they analyze interactions within and among organizations. Combining systems perspectives with levels of analysis helps providing new explanations about organizational interactions. We found that organization studies concerning interactions among individuals or work groups adopt close rational and natural perspectives and employ social psychological or structural analysis. This is to demonstrate how these interactions are directed towards accomplishing organizational goals. Otherwise, studies concerning interactions between organizations and their external environments adopt open rational and natural perspectives and employ ecological analysis. This is to examine inter- organizational interactions as they cope with changes in organizational environment.

Keywords: organizational interaction; systems perspectives; levels of the analysis

1 Introduction

The term "organizational interactions" has often been used by organization theorists to refer to the dynamic sequences of the purposive reciprocal actions that emerge among individual participants, work groups or organizations to achieve particular objective/s whereas interaction parties modify their actions and reactions according to the actions by their partner(s) (Hatch, 1997). Structural ties and interactive relationship among interaction parties have attracted significant attention from various organization studies (Hannan & Freeman, 1977; March & Simon, 1958; Weick, 1979; Pfeffer, 1978; Aldrich, 1976；and Cooper & Burrell, 1988). These studies adopt various systems perspectives and employ different levels of analysis to examine interactions among and within organizations. Until now, determining various combinations of systems perspectives and levels of analysis that are needed to examine different forms of organizational interactions has not yet been conducted exclusively. In an attempt to provide a framework that demonstrates such combinations, Scott's (2003) typology of organization theories is adapted to classify traditional organization studies into different systems perspectives according to their view of organizational interactions. Each perspective suggests different assumptions about directing individuals, work groups or organizations interactional behavior towards accomplishing organizational goals. We then adopt Blau's (1957) typology of organizational analysis to treat organizational interaction emphasizing different analytical levels. Here, some studies are conducted at the macro level of an organization or a group of organizations; others use organizational subunits or the work groups as the unit of study; still others emphasize individual participants. Finally, we combine systems

* Visiting researcher, Graduate School of Business Administration, KOBE University 2-1, Rokkodai, Nada, KOBE 657-8501 Japan, tarek2110@yahoo.com

The author would like to acknowledge his grateful thanks to Prof. Dr. Takuji Hara, Graduate School of Business Administration, KOBE University for his invaluable comments and guidance in making this paper possible.

perspectives with levels of analysis to reveal how organizational studies concerning organizational interactions vary in their dominated systems perspectives and level of analysis. Here, number of typically research objectives that can be achieved by adopting particular systems perspective and employing specific level of analysis are suggested.

2 Systems Perspectives

Based on Scott's (2003) typology of organization theory, the present section classifies traditional organization studies into distinctive systems perspectives according to their view of organizational interactions. In this sense, studies concerning organizational interactions can be portrayed in systems terms either with a rational, natural or open systems perspective. Each of these perspectives suggests number of assumptions about interactional behavior among individuals, work groups or organizations.

2.1 Rational Systems Perspective

The term "ration" is used here in the narrow sense of technical or functional rationality. Mannheim (1950) defines such a kind of rationality as a series of actions that lead to the predetermined goals with maximum efficiency. Rational systems models focus on formal structure as a significant tool for the efficient achievement of specific organizational goals[1]. Two basic assumptions thus help viewing organizations as rational systems namely: goal specification and structure formalization. While specific goals provide participants with unambiguous criteria for selecting among alternatives, highly formalized structure provide participants with explicit and precise rules and roles relations that govern their interactional behavior.

In organizational interactions, goal specification and structure formalization may be viewed as an attempt to make participants interactional behavior more predictable by standardizing and regulating it. This, in turn, permits stable expectations to be formed by each member of the group as to the behavior of the other member under specific conditions. Such stable expectations are an essential precondition to a rational consideration of the consequences of interactions in organizational groups (Simon, 1976). The social cement that binds and regulates interactions within formal groups is known as the normative structure that includes values, norms, and role expectations. While values are criteria of selecting goals of the behavior, norms are generalized rules governing that behavior, and roles are expectations for specific positions as their location in a system. In any organization, values, rules and roles constitute a relatively coherent and consistent set of prescriptions governing the behavior of participants (Davis, 1949). Accordingly, rational models' view of organizations aligns somewhat with Morgan's (1986) metaphor of the machine. Here, inter-individual or inter-groups interactions are oriented towards achieving relatively specific goals through exhibiting relatively highly formalized structure.

2.2 Natural Systems Perspective

While rational systems perspective stresses goal specification and structure formalization, natural perspective places more emphasis on goal complexity and informal structure. In this sense, natural system theorists recognize that goals can be pluralistic, rather than unitary. They distinguish the stated or official goals from the real or operative ones. When the stated goals are actually being pursued, they are never the only goal governing participants' behavior. Hence, natural system models presume the existence of certain operative goals that must

[1] Taylor's model of scientific management (Taylor, 1911), Fayol's administrative model (Fayol, 1919) and Weber's model of bureaucracy (Weber, 1968).

be met if the system wants to survive[2]. On the other hand, natural system theorists do not deny the existence of highly formalized structures within organizations, but they do question their impact on the behavior of participants. They argued the existence and importance of the informal structures as those based on the personal characteristics of specific participants rather than their given position within the formal structure.

Goal complexity and structure informality make participants interactional behavior too complex and unpredictable. The social cement that binds and regulates interactions among informal groups is known as the behavioral structure (Davis, 1949). Homans's (1950) well-known classification of social behavior into activities, interactions, and sentiments suggests the type of elements that constitute the behavioral structure. Unlike the normative structure, investigators in behavioral structure focus on the current behavior that exhibit consistency and constancy, rather than the prescriptions of the behavior. Natural systems models argued that elements constituting the normative structures constrain behavioral structure elements. In other words, organization values, norms and roles can shape, channel and pattern participants' sentiments, activities and interactions. As criteria for selecting purpose of the behavior, values shape participants' sentiments that determine their real goals. Moreover, norms that direct the behavior towards selected goals channel participants' activities to achieve such goals. Finally, roles pattern interactions among individual participants according to their positions within formal structure. Building upon this, natural systems models view organizations as collectivities whose participants share a common interest in the survival of the system and who engage in inter-individual and inter-group interactions, informally structured, to secure this end.

2.3 Open Systems Perspectives

Organization studies that are classified as rational and natural systems perspectives focus primarily on intra-organizational interactions among individual participants or organizational work groups (Burnes 1996). While rational models emphasize formal rules and roles relations among multilayered positions, natural models place great emphasis on informal groups and their actual behavior. Both perspectives thus aim to direct participants and groups' formal and informal interactional behavior towards achieving organizational goals. Nevertheless, rational and natural systems models don't give attention to interactions that emerge between an organization and elements constituting its organizational environment[3]. In addition to intra-organizational interactions, Interactions between an organization and its environmental elements receive primary attention by open systems theorists. For organizations to survive, they have to cope with changes occurred in these elements by adopting their structures and behavior to these changes (Millett, 1998). Accordingly, open system perspective views organizations as systems that are affected with the environments in which they operate. However, an ascendance of open systems view has not meant the disappearance of the earlier rational or natural systems views. Instead of that, they have been updated through combining them with the open systems in multiple ways. By cross classifying rational, natural and open systems perspectives with each others, two groups of systems views are emerged. The first group comprises closed rational and natural systems models that have been indicated in sections 1.1 and 1.2. Otherwise, the second group includes open rational and natural systems models.

---

[2] Mayo's (1945) human relation model, Bernard's (1938) model of cooperative systems, and Parsons's (1951) social system model.

[3] These elements include groups of suppliers, competitors, partners, governmental agencies and consumers that affect an organization's outcomes and goals. In generic view, other organization theorists divide organizational environment into different sectors including: social, cultural, political, economic and technological environments (Hatch, 1997).

2.3.1 Open-rational Models

Open–rational systems models treat organizations as open systems. At the same time, however, they assume that organizations are striving to develop effective and efficient structures, embracing a rational system perspective[4]. Here, the basic assumptions of rational system perspective (representing in goal specificity and structure formality) have been combined with main features characterizing organizations as open systems. In this sense, Hernes and Bakken (2003) presume that open rational models present organizations as primarily responding organisms that function in an exchange relationship with the environmental elements. Consequently, organizational interactions are analyzed in terms of the functions that individuals, work groups or organizations should perform to help the system respond. From this perspective, organization studies that have been drawn upon open rational models stress elements of an organizational normative structure including: organizational values, rules and roles relations. This is to dominate inter-organizational interactions as they respond to changes in the requirements of the groups constituting organizational environment.

2.3.2 Open-natural Models

Open rational models that have dominated organization researches for about ten years are being challenged by wide variety of models stressing the open but natural character of organizations. Here, open natural models have combined basic assumptions of goal complexity and structure informality, governing the natural system perspective, with main features characterizing organizations as open systems[5]. In this sense, Hernes (2003) asserts that open natural models view organizations as entity that is made up of a process of actions rather than a structure of combined units. Form this view, an organization is considered as a cognitive process by which a set of interlocked (repetitive, reciprocal and contingent) behavior develop between two or more actors. Open natural models use the term "process", referring to the processes of sense making that consist of three activities of enacting, selection and retention. Enactment refers to active roles played by organization participants in defining the environment they confront. In the stage of selection, participants employ rules and communication that help them to cope with the perceived variety of their environment. While rules allow responding to standardized circumstances, communications involve cycles of exchanging information led to interpretations needed to respond to the perceived demand. In the stage of retention, such responses can be repeated if similar situation occur. In this manner, novel activities become routinized and retained (Weick, 1979).

In conclusion, organization studies dominated by different systems perspectives suggest various strategies to direct individuals, work groups or organizations' interactional behaviour towards accomplishing organizational goals. While closed-rational models utilize formal rules and roles relations to govern interactions among individual participants and work groups, closed-natural models place more emphasis on informal work relations and personal characteristics of specific participants. Otherwise, open-rational and natural models emphasize interactions between an organization and its environmental elements. Here, the intended goal is directing inter-individual, inter-group and/or inter-organizational activities to cope with changes in environmental demands. While open-rational models use formal rules and roles relations to provide a set of well defined functions that help achieving this goal, open-natural models use social interaction processes that help perceiving and reacting to environmental demands. While organization studies vary in their dominant systems perspectives, they differ in level of the analysis at which they treat

[4] See Lawrence and Lorsch's (1967) contingency model, Alchian & Demsetz's (1972) agency model, and Blau's (1970) comparative structure model.

[5] See for example Weick's (1979) model of organizing, March and Olsen's (1976) organizational learning model, Selznick's (1948) institutional model and Miller & Rice's (1967) model of socio-technical systems.

organizational interactions. Next section spotlights these analytical levels emphasizing their system of interest and target of the analysis.

3 Levels of the Analysis

In any area of scholarly inquiry, there are always several ways in which the phenomena under study may be sorted and arranged for purposes of systemic analysis (Singer, 1961). The observer may choose to focus upon the parts or upon the whole. From this standpoint, general systems theorists introduce the term "system of interest" as the level at which analysts choose to emphasize or interest (Hatch, 1997). System of interest pinpoints relevant supersystem (those at the next higher level in which the system is embedded) and appropriate subsystems or unit of the analysis (those at the next lower analytical level). In this context, Blau (1957) distinguishes different levels of analysis that are used in organizational research. Based on Blau's typology, organizational research can be conducted at different analytical levels employing social psychological, structural or ecological analysis.

3.1 Social Psychological Analysis

Social psychologists view organizational characteristics as environment to examine their impact on the behavior of individual participants[6]. As illustrated in the following figure, individual participants are considered the subsystems of the system of interest which is organizational work group. At the highest level, elements constituting organization's internal environment are viewed as the supersystem in which both the system and its subsystems are embedded. According to this hierarchy, characteristics of an organization's internal environment, at the super system level, affect individual interactions at the subsystem level. However, examining the impact of these characteristics on the behavior of individual participants requires emphasizing the work group level in which individual participants interact with each others.

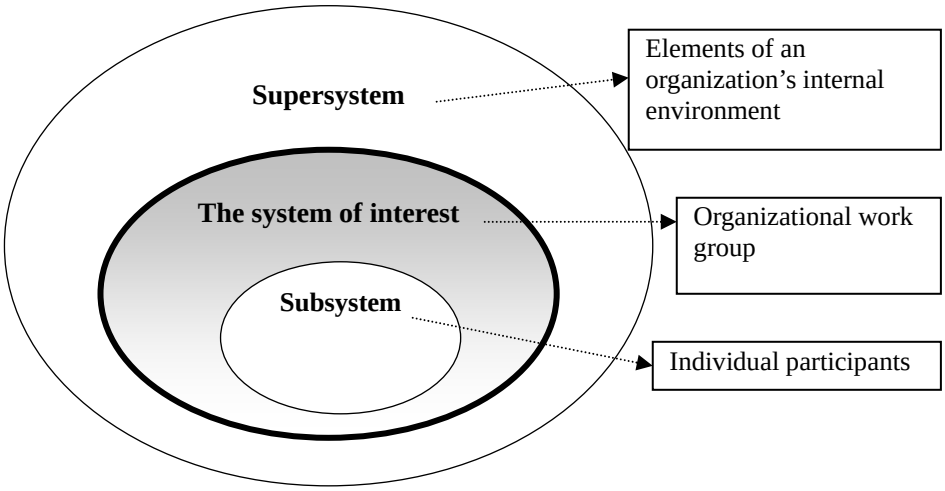


Figure 1: System of interest in the social psychological analysis

3.2 Structural Analysis

In structural analysis, the major concern is to examine the impact of structural features of an organization on work groups' behavior (Scott, 2003). Organizational work groups thus are considered the subsystems of an organizational subunit that represents the system of interest (Hatch, 1997). At the highest level, structural

[6] An organization's internal environment includes its mission statements; policies; formal structure; culture, resources, and climate. This is in addition to its managerial philosophies and leadership styles (Hatch, 1997).

features that characterise an organization and its subunits are regarded as the supersystem (see figure 2).

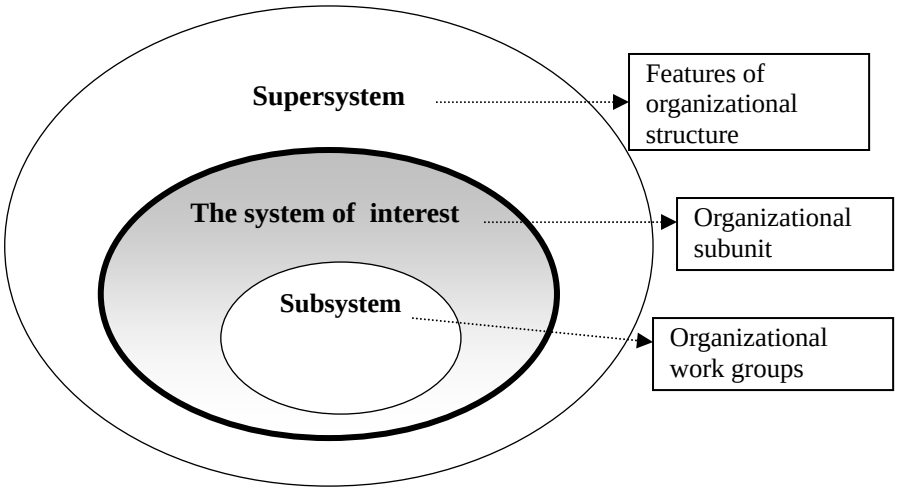


Figure 2: System of interest in the structural analysis

According to such arrangement, structural features of an organization, at the supersystem level, influence work groups' interactional behavior at the subsystem level. However, explaining the influences of features of organizational structure entails focusing on the inter-groups' interactions at the subunit level.

3.3 Ecological Analysis

In the ecological analysis, the system of interest is a business network that includes a group of organizations as subsystems. At the highest level, elements constituting organizational environment are considered the supersystem in which both the system and its subsystems are embedded (Hatch, 1997). According to such order, changes in the requirements of environmental elements at the supersystem level entail other modifications in organization behavior at the subsystem level. However, describing such modifications requires emphasizing the inter-organizational interactions among organizations constituting business network at the system level (see figure 3).

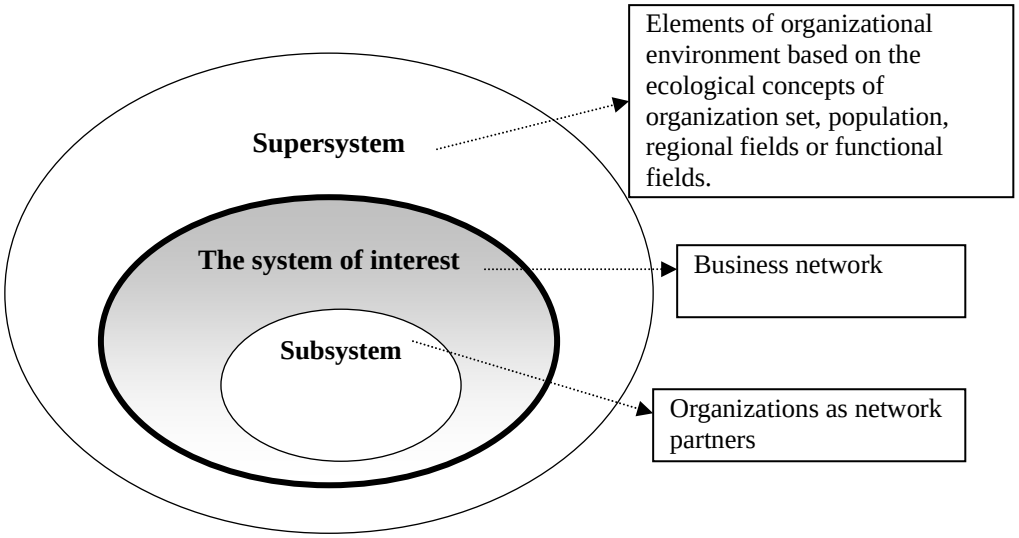


Figure 3: System of interest in the ecological analysis

At this level of analysis, ecologists aim to examine the relation between organizations and environments emphasizing an organization as a collective actor functioning in a larger system of relations (Scott and Davis, 2007). They define elements constituting organizational environment using different approaches including: organizational *set*; *population, regional* fields and *functional* fields.

Organizational set approach defines elements of organizational environment as a group of specific partners who participate in a variety of relations with a respective organization (Blau and Scott, 1962). Organizational set thus consists of a group of suppliers, customers, wholesalers, retailers and competitors that affect the behavior and outcomes of a specific (focal) organization. Here, ecologists aim to examine the inter-organizational interactions between an organization and its set (Thompson, 1967). On the other hand, *organizational population* approach defines elements of organizational environment as the aggregates of organizations that are alike in some aspect (Scott, 2003). These organizations use the same technical activities to transform inputs into outputs (McKelvey, 1982). Population ecologists aim to examine relations that develop between an organization and its population in which organizations share their different yet complementary competences to produce particular product/s (Freeman and Brittain, 1977 and Carroll and Delacroix, 1982).

Organization set and population gave more attention to connections among competitive rather than cooperative organizations. To shed light on such cooperative ties, the ecological concepts of regional and functional organization fields are suggested. In *regional organization field* approach, ecologists examine the horizontal interactions among collection of interdependent organizations sharing the same geographical area (Hawley, 1950 and Warren, 1967). They emphasize the required modifications that help these regional organizations to modify their collaborative practices to cope with changes may occur in the surrounded environment. While each geographical area has its distinctive environment, organizational ecologists classify theses environments according to their complexity (Emery and Trist, 1965). On the other hand, number of ecologists has begun to isolate organizational systems for analysis on the basis of functional rather than geographic criteria (Hirsch, 1985 and Meyer and Scott, 1983). Here, functional organization field approach has emerged to examine the vertical interactions that relate organizations in hierarchical system. It focuses on inter-organizational interactions that connect specialized organizations operating in the same domain, as identified by the similarity of their services, products or functions (e.g. interactions between headquarters and branch offices or small suppliers and parent firms) (Scott and Davis, 2007).

In conclusion, organization studies vary in their level of analysis. Some studies are conducted at the macro level of an organization or a group of organizations; others use organizational subunits or the work groups as the unit of study; still others emphasize individual participants. While organization studies adopt different systems perspectives to treat organizational interactions and their role in accomplishing organizational goals, next section reveals how studies dominated by different systems perspectives vary in level of analysis.

4 Combination of Systems Perspectives With Levels of the Analysis

This section aims to combine levels of the analysis adopted by different organization studies with systems perspectives that dominate their view of organizational interactions. Here, organization studies classified as closed-rational models emphasize number of factors including: specification of positions, tasks prescription, role definitions, procedural rules and regulations. These factors are used as criteria to direct intra-organizational interactions towards achieving organizational goals. From this standpoint, most of the closed rational models operate primarily at the structural level of analysis to conceptualize and analyze structural features of an organization and their impact on work groups' interactions (Fayol's (1919)

administrative model and Weber's (1968) model of bureaucracy). Nevertheless, some other closed-rational models utilize social psychological level of analysis that focuses on individual participants as they perform tasks or make decisions. These models treat organizational internal environment as context to examine its impact on the performance of individual participants (Taylor's (1911) model of scientific management and Simon's (1945) model of decision making). On the other hand, closed-national models stress participants' personal attributes and attitudes rather than their given position within the formal structure. They operate primarily at the social psychological level of analysis to explain how features of an organization's internal environment affect participants' attributes, attitudes and consequently their relationships (Whyte's (1959) model of human relations). Still other closed-natural models work on the structural level of analysis. These models emphasize various analytical components that characterize organizational informal structure, such as interpersonal systems of power, communication, status and friendship, and examine their impact on formal systems (Mayo's (1945) model of human relations and Bernard's (1938) model of cooperative systems).

With appearance of the open systems perspectives, the ecological level has been emerged as a new level of analysis in addition to the former social psychological and structural levels (Scott and Davis, 2007). However, open systems models, whether rational or natural, may work on each of these analytical levels. In this context, open-rational and open-natural models that work on the social psychological level of analysis emphasize the behavior of individual participants. They presume that environmental demands and organizational response are mediated by decision makers or managers who develop adequate arrangements to cope with environmental changes. Here, open-rational models emphasize the cognitive limitations of decision makers and the role of normative structure components of values, rules and roles to support their rational response to environmental demand (March & Simon's (1958) model of bounded rationality). On the contrary, open-national models place great emphasis on the importance of the cognitive processes that help participants to perceive and react to environmental changes (Weick's (1979) model of organizing). On the other hand, open-rational and open-natural models that work on the structural level of analysis emphasize a correspondence between structural modifications and environmental challenges (Lawrence and Lorsch's (1967) model of contingency). In open-rational models, structural features of an organization are governed by a number of environmental constraints[7]. Alternatively, open-natural models insist that the state of technology and other environmental conditions pose only broad and general constraints on structural design. Such a given set of circumstances support many adaptive responses and alternative strategies. An effective structure for a given organization is shaped not only by its technology and task environment but by the adopted strategy (Hickson's (1971) model of strategic contingencies). Finally, open-rational and open-natural models that operate at the ecological level of analysis emphasize inter-organizational interactions between an organization and its environmental elements. Hence, open-rational models emphasize inter-organizational interactions among interdependent organizations working in the same regional or functional fields. They presume that an organization is both open and rational systems through modifying organizational rules and roles relations that govern inter -organizational practices (Ouchi's (1980) transaction cost model). On the other hand, open-natural models stress interactions between an organization and its set or population. They employ sense making processes by which an organization perceive changes in environmental demands and provide suitable actions to react to these changes (Hannan & Freeman's (1977) model of Population Ecology and Pfeffer and Salancik's (1978) resource dependence model).

[7] Environmental constrains refer to the condition of organizational environment in terms of its social, cultural, political, economic and technological circumstances (Emery and Trist, 1965).

Table 1. Analytical levels and systems perspectives in organizational interaction research

Levels Of analysis / **Perspectives of Organizational interactions**	**Closed-rational Systems perspective**	**Closed-natural Systems perspective**	**Open-rational Systems perspective**	**Open-natural systems perspective**
Social psychological analysis that stresses inter-individual interactions within organizational work group as the system of interest.	Target of the analysis:			
	Examine the impact of features of an organization's internal environment on individual participants' activities as they perform tasks. (Taylor's model of *scientific management*)	Explain how features of an organization's internal environment affect participants' attributes, attitudes and consequently their interactive relationships. (Whyte's model of *human relations*).	Examine rationality of individual decision makers as they respond to changes in environmental demand using components of an organization's normative structure. (March & Simon's model of *bounded rationality*).	Assist decision makers to perceive and react to environmental changes employing the cognitive processes of enacting, selection and retention. (Weick's model of *organizing*)
Structural analysis that stresses the inter-groups interactions among organizational subunits as the system of interest.	Target of the analysis:			
	Analyze components that characterize organizational formal structure and examine their impact on the groups' interactional behavior. (Fayol's *administrative* model).	Investigate informal groups' interactive relationships and examine their impact on formal systems and organization's internal arrangements. (Mayo's model of *human relations*).	Modify formal rules and roles relations that guide groups' interactions to cope with changes in environmental constraints. (Lawrence and Lorsch's model of *contingency*).	Provide alternative strategies that guide organizational groups to cope with environmental constraints through employing cognitive processes (Hickson's model of *strategic contingencies*).
Ecological analysis that stresses inter-organizational interactions among partners of business network as the system of interest.	Ecological level of analysis is inapplicable to the closed rational and natural systems models because they give a restricted attention to the internal characteristics of an organization ignoring external factors that affect organizational structures and behavior. Otherwise, ecological analysis is utilized to examine these external factors.		Target of the analysis:	
			Adapt organizational rules and roles relations that govern inter -organizational practices to cope with changes in environmental demands. (Ouchi's *transaction cost* model)	Describe the desired modifications in inter-organizational practices that are needed to cope with changes in environmental demands using the sense making processes of enacting, selection and retention. (Hannan & Freeman's model of *Population Ecology*).

5 Conclusion

Organization studies are classified into different systems perspectives according to their view of organizational interactions. Basic assumptions that govern individuals, work groups or organizations interactional behavior and their role in accomplishing organizational goals vary from one perspective to another. In addition, organization studies work at different analytical levels as they examine interactions within and among organizations. In the empirical domain, combining systems perspectives with levels of analysis helps students of organizations to provide new explanations about inter-individuals, work groups and organizations interactional behaviour. Studies concerning organizational interactions thus employ a particular combination of systems perspectives and analytical level to achieve their research objectives.

If the study emphasizes inter-individual interactions among participants of organizational work group, social psychological analysis has to be employed to achieve the typical objectives:

A) Examine the impact of the elements constituting organization's internal environment on the behavior of individual participants.

B) Examine rationality of individual decision makers as they respond to changes in external environmental demand.

C) Examine the impact of internal environmental elements on participants' attitudes and consequently their interactive relationships.

D) Assist individual decision makers to perceive and react to external environmental changes.

Otherwise, if the study focuses on inter-groups interactions that occur among organizational subunits, structural analysis is employed to achieve the typical objectives:

E) Analyze the components that characterize organizational formal structure and examine their impact on inter-groups' interactions as they perform tasks.

F) Modify formal rules and roles relations that guide inter-groups' interactions as they respond to external environmental constraints.

G) Investigate informal work relations and examine their impact on features of an organization's formal structure.

H) Guide organizational work groups to perceive and react to external environmental constraints.

Here, (A), (B), (E) and (F) typical objectives require adopting basic assumptions of rational systems perspective in which goal specification and structure formalization govern organizational interactions and their role in accomplishing organizational goals. On the other hand, (C), (D), (G) and (H) objectives entail adopting basic assumptions of national systems perspectives in which goal complexity and structure informality direct organizational interactions towards achieving organizational goals.

Finally, if the study stresses interactions between an organization and the elements that constitute its external environment, ecological analysis is employed to achieve the typical objectives:

I) Adapt organizational rules and roles relations that govern inter -organizational practices as they respond to changes in external environmental demands.

J) Describe the desired modifications in inter-organizational practices that are needed to cope with changes in external environmental demands using the sense making processes of enacting, selection and retention.

Achieving (I) and (J) typical objectives requires adopting basic assumptions of open rational and natural perspectives. This is to demonstrate the linkages between organizational goals and the requirements of other organizations constituting elements of an organizational environment. Here, great emphasis is given to the role of inter-organizational interactions to achieve organizational goals.

References

Alchian, A. & Demsetz, H. (1972). "Production, Information Cost, and Economic Organization," *American Economic Review*, 62, 777-796.

Aldrich, H. (1976). "Resource Dependence and Interorganizational Relations: Local Employment Service Offices and Social Services Sector Organizations," *Administration and Society*, 7, 419-454.

----------. (1979). *Organizations and Environments*. NJ.: Prentic-Hall.

Barnard, Ch. (1938). *The Function of Executive*. Mass.: Harvard university press.

Blau, P. & Scott, W. (1962). *Formal Organizations*. San Francisco: Chandler Blauner.

Blau, P. (1957). "Formal Organization: Dimensions of Analysis," *American Journal of Sociology*, 63, 58-69.

---------. (1970). "A Formal Theory of Differentiation in Organizations," *American Sociological Review*, 35, 201-218.

Burnes, B. (1996). *Managing Change: A Strategic Approach to Organizational Dynamics*. London: Pitman.

Carroll, R. & Delacroix, J. (1982). Organization Mortality in the Newspaper Industries in Argentina and Ireland: An Ecological Approach," *Administrative science Quarterly*, 27, 169-198.

Cooper, R. & Burrell, G. (1988). "Modernism, Postmodernism and Organizational Analysis: An introduction," *Organization Studies*, 9, 91-112.

Davis, K. (1949). *Human Society*. NY.: Macmillan.

Emery, E. & Trist, L. (1965). "The Causal Texture of Organizational Environments," *Human Relations*, 18, 21-32.

Fayol, H. (1949). *General and Industrial Management*. London: Pitman.

Freeman, H. & Brittain, W. (1977). "Union Merger Process and Industrial Environment," *Industrial Relations*, 16, 173-185.

Hannan, M. & Freeman, J. (1977). "The Population Ecology of Organizations," *American Journal of Sociology*, 82 (5), 929-964.

Hatch, M. (1997). *Organization Theory: Modern, Symbolic and Postmodern Perspectives*. NY.: Oxford University press.

Hawley, A. (1950). *Human Ecology*. NY.: Ronald press.

Hernes, T. & Bakken, T. (2003). "Implications of Self-references: Niklas Luhmann's Autopoiesis and Organization Theory," *Organization Studies*, 24 (9), 1511-1535.

Hickson, J. & Pennings, M. (1971). "A Strategic Contingencies' Theory of Intra-organizational Power," *Administrative Science Quarterly*, 16, 216-229.

Hirsch, M. (1985). "The Studies of Industries," in *Research in the Sociology of Organizations*, 4, 271-309, ed. Samuel, B. & Stephen, M. Conn.: JAl press.

Homans, G. (1950). *The Human Group*. NY.: Harcourt.

Lawrence, P. & Lorsch, W. (1967). *Organization and Environment: Managing Differentiation and Integration*. Boston: Graduate school of business administration, Harvard University.

Mannheim, K. (1950). *Man and Society in an Age of Reconstruction*. NY.: Edward Shils.

March, J. & Olsen, J. (1976). *Ambiguity and Choice in Organizations*. Bergen: Universitetsforlaget.

March, J. & Simon, H. (1958). *Organizations*. NY.: John Wiley.

Mayo、E. (1945). *The Social Problems of an Industrial Civilization*. Boston: Graduate school of business administration, Harvard University.

Meyer、J. & Scott, R. (1983). *Organizational Environments: Ritual and Rationality*. Calif.: Sage publication.

Miller, J. & Rice, K. (1967). *Systems of Organization*. London: Tavistock.

Millett, B. (1998). Understanding Organizations: The Dominance of Systems Theory, *International Journal of Organizational Behavior*, 1(1), 1-12.

Morgan, G. (1986). *Images of Organization*. Calif.: Beverley Hills.

Ouchi、W. (1980). "Markets, Bureaucratises and Clans," *Administrative Science Quarterly*, 25, 129-141.

Parsons, T. (1951). *The Social System*. Ill.: Free Press.

Parsons, T. (1960). *Structure and Process in Modern Societies*. Ill.: Free Press.

Pfeffer, J. (1978). "The Micropolitics of Organizations," in *Environments and Organizations*, Marshall W. Meyer, W. (Eds.), , San Francisco: Jossey-Bass, 29-50.

Scott, W. & Davis, F. (2007). *Organizations and Organizing: Rational, Natural and Open System Perspectives*. NJ.: Pearson prentice-Hall.

Scott, W. (2003). *Organizations: Rational, Natural and Open Systems* (5 ed.). NJ.: Englewood Cliffs.

Selznick、P. (1948). "Foundations of the Theory of Organization," *American Sociology Review*, 13, 25-35.

Simon, H. (1997). *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization* (4 ed.). NY.: Free Press.

Singer, J. (1961). "The Level-of-Analysis Problem in International Relations," *World Politics*, 14, 77-92.

Taylor, F. (1911). *The Principles of Scientific Management*. NY.: Harper & Row.

Thompson, J. (1967). *Organizations in Action: Social Science Bases of Administration*. NY.: McGraw-Hill.

Warren, R. (1967). "The Interorganizational Field as Focus of Investigation," *Administrative Science Quarterly*, 12, 396-419.

Weber, M. (1968). *Economy and Society: An Interpretive Sociology*. NY.: Bedminister press.

Weick, K. (1979). *The Social Psychology of Organizing* (2 ed.). NY.: Random House.

Whyte, W. (1959). *Man and Organization*. Ill.: Richard D. Irwin.