Theories of Organizations and Environments: From Organizations and System Concept of Katz & Kahn to Corporations and Industries of Carroll & Hannan

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ABSTRACT

Organization is a relatively young science in comparison with the other scientific disciplines. (Ivanko, 2013) Accounts of the growth of organizational theory usually start with Taylor and Weber, but, as Scott (1987) mentions, organizations were present in the old civilizations which goes back to Sumerians (5000, BC) and which experiences its maturation phase with Taylor, Fayol and Weber, continuing to come up to present with modern management methods and principles. The modern organization may be the most crucial innovation of the past 100 years and it is a theory which will never complete its evolution as the human being continues to exist. Understanding how organizations work has been the focus of scientists and scholars until the early part of the 20th century. Just as organizations have evolved, so to have the theories explaining them. These theories can be divided into 9 different “schools” of thought (Shafritz, Ott, Jang, 2005): Classical Organization Theory, Neoclassical Organization Theory, Human Resource Theory, or the Organizational Behavior Perspective, Modern Structural Organization Theory, Organizational Economics Theory, Power and Politics Organization Theory, Organizational Culture Theory, Reform Though Changes in Organizational Culture and Theories of Organizations and Environments. This introductory paper will concentrate on the theories of organizations and environments and is divided as follows: The introduction talks about the developments of the organization and organization theory from its early stages with detailed definitions. In section 2, theoretical roots in other words literature review on the subject will be presented. At further section, by looking at the perspectives of the 9 pioneering people (Katz & Kahn, Thompson, Meyer & Rowan, Pfeffer & Salancik and Carroll & Hannan) main principles of the classical organization theory are presented one by one. Section 4 mentions strengths and weaknesses of the classical organizational theory and section 5 discusses and concludes the paper.

I. Introduction

Organization theory is not an easy concept. Unless you are naturally dry to the abstract, you probably expect this subject to be dry, unconnected to practical matters and perhaps a little boring. Even if you are interested about abstractions, it can be boring to confront as many of them at one time as organization theory asks you to do. So why would anyone sign up to study this complex and difficult subject matter?

There are many answers to this question. For some, studying organization theory is motivated by curiosity. They want to know what it would be like to think like an organization, to get inside organizing processes far enough to reveal the intricate organizational patterns that make organizations understandable. Others are motivated by the attraction of stretching their minds in new ways. For example, organization theory relies on the sciences, the humanities and the arts, and so presents the intellectual challenge of thinking in interdisciplinary ways. Some turn to organization theory in the hope that it will get better their chances of becoming successful executives in business, government or non-profit organizations. Table lists some of their specific reasons.

Man is intent on describing himself into a web of collectivized patterns. “Modern man has learned to accommodate himself to a world increasingly organized. The trend toward ever more explicit and consciously drawn relationships is profound and sweeping; it is marked by depth no less than by extension.” This comment by Seidenberg summarizes the influence of organization in many shapes of human activity.

Some of the reasons for hectic organizational activity are found in the main transitions which revolutionized our society, shifting it from a rural culture, to a culture based on technology, industry, and the city. From these shifts, a way of life occurred and characterized by the proximity and dependency of people on each other. Proximity and dependency, as conditions of social life, harbor the threats of human conflict, capricious antisocial behavior, instability of human relationships, and uncertainty about the nature of the social structure with its concomitant roles of course, these threats to social integrity are still exist to some degree in all societies, ranging from the primitive to the modern. But, these threats become serious when the harmonious functioning of a society acts upon the maintenance of a highly intricate,
As a main principle for meeting these needs build upon administrative science. A major element of this science is organization theory, which gathers the grounds for management activities in a various number of crucial areas of business endeavor. Organization theory, however, is not a homogeneous science based on generally accepted principles. Different theories of organization have been, are being evolved and continued to be evolving. (Ibid.)

If it is needed to give detailed definition of organization and organization theory; there are various definitions. To start with organizations, organizations are universal phenomena in human social and were explained by March and Simon (1958) as a systems of coordinated action among individuals who differ in the dimensions of interests, preferences and knowledge. Who holding the same philosophy included Arrow (1974), Mintzberg (1979), et cetera. Organizations exist when people interact with one another to implement essential (Daft, 2007), they are social units of people with recognizable boundary to reach certain goals (Robbins, 1990). Organizations are the unities composed of mental activities of member with same goals and technologies and operate in the clear relationship mode (Liu,2007). On rational, natural, and open system perspectives, there are various emphasis in the definitions of organizations. The rational perspective sees an organization with tool which is designed to meet the pre-defined goals; the natural perspective underlines that an organization is a group; and the open system perspective concentrates on that an organization as a self-regulation system and an open system, exchanging with its external environment.

Organization theories comes from organization practices and in turn serve practices. Nicholson explains them as "a series of academic viewpoints which attempt to explain the multiplicities of organizational structure and operating process (Nicholson, 1995)." In other words, organization theories are knowledge systems which study and explain organizational structure, function and operation and organizational group behavior and individual behavior (Zhu, 1999).

Complete organization science should include 4 layers: philosophy, methodology, theory and application, and organization theory takes place on the third layer, under the direction of methodology, it builds various management theories, management methods and management techniques by management practices. The relationship of them shows as the following figure:

Furthermore, science of management is a process arise of which goes back to Sumerians (5000, BC) and which experiences its maturation phase with Taylor, Fayol and Weber, going to exist up to present with modern management methods and principles such as, Total Quality Management, Process Management and it is a theory that will never complete its development. On the contrary, to developments and changes in world economy and industry during years before First World War, especially fast economic growth breaking out in the USA, production techniques used being far away from science interested some scientists. With Industry Revolution happening at the end of 18th c., human abilities, skills and energy were replaced with machines, small scaled employers who couldn't adapt to these changes began to work as workers in enterprising implementing change; and production moved from small locations to big locations (factories). Thus came out with problems regarding management and organization structure (Celik and Dogan, 2011).
Organization is a relatively young science in comparison with the other scientific disciplines. An organization is a system of two or more persons, engaged in cooperative action, trying to reach some purpose. Organizations are bounded systems of structured social interaction featuring authority relations, communication systems, and the use of incentives. Example of organizations includes businesses, hospitals, colleges, retail stores et cetera. (Ivanko, 2013) Accounts of the growth of organizational theory usually start with Taylor and Weber, but, as Scott (1987) mentions, organizations were present in the old civilizations which goes back to Sumerians (5000, BC).

Complex forms of organization were necessitated and did change as families grew into tribes and tribes evolved into nations. The earliest written record, the clay tablets of the Sumerians, recorded division of labor and supervision practices. In Sumerian society, as in various others since then, the wisest and best leaders were thought to be the priests and other religious leaders.

Likewise, the ancient Babylonian cities developed very strict codes, such as the code of Hammurabi. King Nebuchadnezzar used color codes to control production of the hanging gardens and there were weekly and annual reports, norms for productivity, and rewards for piecework. The Egyptians organized their human and their slaves to build cities and pyramids. Construction of one pyramid, around 5000 B.C., required the labor of 100,000 people working for approximately 20 years. Planning, organizing, and controlling were required elements.

China was perfected military organization based on line-and-staff principles and utilized these same principles in the early Chinese dynasties. Confucius wrote parables that offered practical suggestions for public administration. The city-states of ancient Greece were commonwealths, with councils, courts, administrative officials, and boards of generals. Socrates talked about management as a skill different from technical knowledge and experience. Plato wrote about specialization and suggested notions of a healthy republic. Many think the Roman Empire did well also because of the Romans’ great ability to organize the military and conquer new lands. Similarly, those sent to govern the far-flung parts of the empire were successful administrators and were able to maintain relationships with the other provinces and the empire as a whole. There are various other ancient examples of organization development, such as Hannibal leading a massive army across the Alps, Alexander the Great building a vast inter-connected empire, and the first emperor of China building the Great Wall. Many of the practices employed today in leading, managing, and administering modern organizations have their origins in antiquity.

The Industrial Revolution caused occurrence a need for new thinking and the refinement of old thinking. However, modern management theory, as discussed in this paper and applied specifically to organizations, is primarily a phenomenon of the 20th century with new theoretical constructs and practices emerging now in the early 21st century. Taylor, Fayol and Weber, continuing to come up to present with modern management methods and principles. The modern organization may be the most crucial innovation of the past 100 years and it is a theory which will never complete its evolution as the human being continues to exist. Organization theory comes from practice and the evolution of it depends on the evolution of organization practice. The development of productivity causes the development of organization theory. As environments have become more complex, organizations going to be flat-structure, class stratified, network relationship, flexible and fuzzy boundary. The paradigm of organization theory has developed to the complexity one as seen below (Chunxia et al, 2013).

Understanding how organizations work has been the focus of scientists and scholars until the early part of the 20th century. Just as organizations have evolved, so to have the theories explaining them. These theories can be divided into 9 different “schools” of thought (Shafritz, Ott, Jang, 2005): Classical Organization Theory, Neoclassical Organization Theory, Human Resource Theory, or the Organizational Behavior Perspective, Modern Structural Organization Theory, Organizational Economics Theory, Power and Politics Organization Theory, Organizational Culture Theory, Reform Though Changes in Organizational Culture and Theories of
II. Literature Review

Organization theory draws on interdisciplinary thinking to provide knowledge and understanding of the phenomena of organizations, which helps to explain the concepts and general principles of the various organizational elements and their interrelationships with each other. People embrace organization theories to improve their chances of becoming successful in business practices such as strategy, finance, sales and marketing, information technology, human resources and operations. To apply organization theories to these business practices, societal culture is an important factor to be considered, as it is the supersystem of which organizational systems are a part. First, “the success of the organization in external adaptation required closeness to the contextual culture”. Second, employees who are members of the societal culture bring the same values into their activities within the organization. The studies of organizations and societal cultures are an “inseparable reciprocal process by which organizations and societal spheres influence each other”.

The ability of organizations to manage and survive change is becoming increasingly important in an environment where competition and globalization of markets are ever intensifying. Through the mid-20th century, there had been increased attempts to apply theories of organizational change to the analysis of human organizations. The first attempt, which applied concepts of systems theory was mainly concerned with equilibrium and stability, and their maintenance through control of negative feedback. The systems concept views organizations as constantly interacting with their environment. The organizational environment is comprised of a set of relationships between agents or stakeholders and other factors that may be beyond the control of the organization (Mason, 2007: 10). With the ever-increasing complexity of the organizational environment, the systems concepts no longer seems adequate in dealing with complex phenomena. This shortcoming, among others, has led to the emergence of complexity theory which focuses on the use of such terms as entropy, non-equilibrium, instability, and the emergence of new patterns and structures. In the complexity paradigm, systems are usually considered to be evolving or self-organizing into something new.

Since the most prevalent trends in contemporary organizations are towards continuous and pervasive change and increasing interdependencies, close parallels can be drawn between the private and public sectors where there are broadly similar environmental challenges. Within this context, public and private organizations are approaching a turbulent environment characterized by increasing uncertainties. These uncertainties are due to dramatic changes that have taken place in the political and economic environment, as well as changes in technology. To help understand change better and manage the process more effectively, a more dynamic and comprehensive view of change management has been suggested as a way forward. By integrating complexity and systems theories, the disruptive, and fluid processes of organizational change may be better understood.


Dominant Model, Metaphor, Underlying Assumptions

Open Systems Theory vs. Closed – p. 401
- “The primary focus of research and theory building shifted from the internal characteristics of organizations to the external dynamics of organizational competition, interaction, and interdependency” (p. 401).
- “The organization as open systems perspective views organizations as systems of interdependent activities embedded in and dependent on wider environments” (p. 401).
- “System theories of organization have two major conceptual themes or components:
  - Applications of Ludwig Von Bertalanffy’s general systems theory to organizations, and
  - The use of quantitative tools and techniques to understand complex relationships among organizational and environmental variables and thereby to optimize decisions” (p. 401).
- “A system is an organized collection of parts united by prescribed interactions and designed for the accomplishment of specific goals or general purposes” (p. 401).
- “System theory views and organization as a complex set of dynamically intertwined and interconnected elements, including its inputs, processes, outputs, and feedback loops, and the environment in which it operates and with which it continually interacts” and “a change in any element of the system causes changes in other elements” (p. 401).
• “The interconnections tend to be complex, dynamic, and often unknown; thus, when management makes decisions involving one organizational element, unanticipated impacts usually occur throughout the organizational system” (p. 401).
• “Whereas classical organization theory tends to be single-dimensional and somewhat simplistic, open systems theories tend to be multidimensional and complex in their assumptions about organizational cause-and-effect relationships. The classicalists viewed organizations as static structures; systems theorists see organizations as always-changing processes of interaction among organizational and environmental elements” (p. 401).
• “Classical organization theorists saw organizations as rational but closed systems that pursued the goal of economic efficiency” (p. 403).
• “Organizations are not static, but are rather in constantly shifting states of dynamic equilibrium. They are adaptive systems that are integral parts of their environments. Organizations must adjust to changes in their environment if they are to survive; in turn, virtually all of their decisions and actions affect their environment” (p. 401-402).
• “The systems approach is strongly cause-and-effect oriented (‘positivist’) in its philosophy and methods. In these respects, system theories have close ties to the scientific management approach of Frederick Winslow Taylor. Whereas Taylor used quantitative scientific methods to find “the one best way,” the systems theorist uses quantitative scientific methods to identify cause-and-effect relationships to find optimal solutions systems theories are often called management sciences” (p. 402).
• “Computers, models, and interdisciplinary teams of analysts are the tools of the systems perspective” (p. 402).
• “defense and aerospace programs provided the development and testing settings for many of the tools and techniques of operations research, including PERT (Performance Evaluation and Review Technique), CPM (Critical Path Method), statistical inference, linear programming, gaming, Monte Carlo methods, and simulation” (p. 402).

Institutional Theory – p. 403.
• “asserts that the world is a product of our ideas and conceptions; our socially created and validated meanings define reality. The rise of the modern world as we know it was not caused solely by new production technologies and administrative structures for coordinating complex activities. The growth of certain beliefs and cognitions about the nature of the world and the way things happen – and should happen – also shaped the modern world” (p. 403).
• “Beliefs about organizations and institutions are created and reinforced by a wide range of actors and forces, including universities, professional groups, public opinion, the mass media, the state, and laws” (p. 403).
• “According to institutional theory, an organization’s life chances are significantly improved by an organization’s demonstrated conformity to the norms and social expectations of the institutional environments. Thus, environments are sources of legitimacy and support” (p. 403).
• “Many of the environmental forces that affect organizations are not based on the values of efficiency or effectiveness but instead on social and cultural pressures to conform to a prescribed structural form” (p. 403).
• “The early intra-organizational-level theories focused on primarily on the internal structure, processes, and dynamics of organizations, while depicting organizations as separate from their environments – as closed entities with clear boundaries” (p. 404).

Resource Dependence Theory – p. 403
• “Stresses that all organizations exchange resources with their environment as a condition for survival” (p. 403).

III. Major Theorists and Contributions
Daniel Katz and Robert L. Kahn – Organizations and the System Concept (p. 407)

Conclude “that the traditional closed-system view of organizations has led to a failure to fully appreciate the interdependencies and interactions between organizations and their environments” (p. 403).

Common characteristics of open systems” (p. 410-415)
• Importation of Energy
• The Through-Put
• The Output
• Systems as Cycles of Events
• Negative Entropy
• Information Input, Negative Feedback, and the Coding process
• The Steady State and Dynamic Homeostasis
• Differentiation
• Equipotential
• The open-system approach to organizations is contrasted with common-sense approaches, which tend to accept popular names and stereotypes as basic organizational properties and to identify the purpose of an organization in terms of the goals of its founders and leaders (p. 416).
• The open system approach, on the other hand, begins by identify and mapping the repeated cycles of input, transformation, output, and renewed input which comprise the organizational pattern (p. 416).
• Traditional organizational theories have tended to view the human organization as a closed system. This tendency has led to a disregard of differing organizational environments and the nature of organizational dependency on environment. It has led also to an overconcentration on principles of internal organizational functioning, with consequent failure to develop and understand the processes of feedback which are essential to survival” (p. 417).

James D. Thompson – Organizations in Action (p. 419)
• Thompson “seeks to bridge the gap between open and closed systems by postulating that organizations ‘abhor uncertainty’ and deal with it in the environment by creating specific elements designed to cope with the outside world, while other elements are able to focus on the rational nature of technical operations” (p. 403).
• “Core technologies rest on closed systems of logic, but are invariably embedded in a larger organizational rationality which pins the technology to a time and place, and links it with the larger environment through input and output activities. Organizational rationality thus calls for an open-system of logic, for when the organization is opened to environmental influences” (p. 430).

John W. Meyer and Brian Rowan – Institutionalized Organizations: Formal Structure as Myth and Ceremony (p. 433)
• “Emphasize cultural and institutional environmental influences while arguing that the modern world contains socially constructed practices and norms that provide the framework for the creation and elaboration of formal organizations (p. 403).
• “Organizational structures are created and made more
elaborate with the rise of institutionalized myths, and, in highly institutionalized contexts, organizational action must support these myths. But an organization must also tend to practical activity. The two requirements are at odds. A stable solution is to maintain the organization in a loosely coupled nature” (p. 446).

Jeffrey Pfeffer and Gerald R. Salancik – External Control of Organizations: A Resource Dependence Perspective (p. 449)

• Explain that “one cannot understand the structure and behavior of an organization without understanding the context within which it operates” (p. 403).
• “No organizations are self-sufficient, and thus they must engage in exchanges with their environment in order to survive. Organizations need to acquire resources from their environment, and the importance and scarcity of these resources determine the extent of organizational dependency in and on their environment. For example, information is a resource organizations need to reduce uncertainty and dependency, and thus organizations seek information to survive” (p. 403).
• “The key to organizational survival is the ability to acquire and maintain resources” (p. 449).
• “When the administrator really does make a difference and really does affect organizational performance, his effect will be obvious to all and there will be little need to make a show of power and control. It is only when the administrator makes little or no difference that some symbol of control and effectiveness is needed” (p. 457).
• “Many organizational troubles stem from inaccurate perceptions of external demands or from patterns of dependence on the environment (p. 549).
• “After all, anyone can make decisions or take actions – it requires more skill to be correct” (p. 459).

Glenn R. Carroll and Michael T. Hannan – Demography of Corporations and Industries (p. 461)

• Draw “on the theories of organizational ecology to explore theories, models, methods, and data used in demographic approaches to organizational studies. Organizational ecologists assess the applicability of bio-ecological models to the study or organization–environment relations (p. 404).
• “From this perspective, organizational environments are the loci of competition, selection, and the survival of the fittest. Organizations do not adapt to their changing environments by making decisions, instead, the environment selects the fittest among different organizational forms” (p. 404).
• “Explain how ‘populations of organizations’ change over time through the processes of founding, growth, decline, transformation, and mortality” (p. 404).
• The organizational ecology approach differs from other open system theory approaches in that it focuses on populations of organizations rather than individual organizational units” and “organizational ecology attempts to explain why certain types or species of organizations survive and multiply whereas others languish and die” (p. 404).
• “Environments differentially select organizations for survival on the basis of the fit between organization forms and environmental characteristics” and “the stronger the pressures are from within or outside an organization, the less flexibly adaptive it can be and the higher likelihood that environmental selection will prevail” (p. 404).

IV. Strengths and Weaknesses

Strengths

• Open systems approach that attempts to account for internal and external environments.
• Attempts to address interwoven variables.
• Multi-dimension approaches.
• Led to institutional, resource dependence, and other theories.
• Is considered an intellectual merger of most prior schools of thought.

Weaknesses

• Locus of control is mostly external.
• Deemphasizes rational and closed systems.
• States that the use of closed systems is useful only to core technologies.

V. Discussion and Conclusion

By benefiting from theories of organizational change, this paper attempts to explain the complex, dynamic, unpredictable and sometimes chaotic process of organizational transformation (Sullivan, 2004: 50; Styhre, 2002: 348). Organizational change activities can be successfully examined from complexity and systems theories framework. The organizational change paradigms discussed in the paper suggest that changes are produced on the basis of a number of interconnected causes and effects whose relationships are complicated to conceive of from an analytical framework relied on linearity. Systems and complexity models can propose more promising avenues from which organizational leaders can appreciate and address complex organizational dilemmas.

VI. References


Ivanko, Š. (2013), Modern Theory of Organization, University of Ljubljana Faculty of Public Administration.


