

Crisis of the Management Paradigm

—Is there light at the end of the tunnel?

Victor S. Efremov
Professor, Faculty of Economics
RUDN University
Moscow, Russia
efremov_vs@pfur.ru

Irina G. Vladimirova
Professor, Faculty of Economics
RUDN University
Moscow, Russia
Vladimirova_ig@pfur.ru

Abstract—This paper attempts to rethink the development of management theory in its classical format, to understand the fundamental causes of a critical attitude to its findings and allegations and justify the conceptual continuum, in which it is possible to achieve a public consensus on the model of knowledge on the management in socio-economic systems. A comparative analysis of existing management paradigms and methodological concepts of management was carried out, showed that the basic assumption that limits the development of management theory is the assumption that the organization is a closed system. In fact, none of the socio-economic system can only be developed, but also exist without communion with the external environment. Authors think that a context-oriented management concept may be the answer to many questions to the management theory today.

Keywords—management; regulation; paradigm; closed system; open system; context-oriented management

I. INTRODUCTION

Management as the area of expertise on the regulation within and of the socio-economic systems is characterized by a very controversial nature. Someone calls this area as one of directions of economics, someone – as art, and someone thinks that it is both. Be that as it may, but the fact remains, in its time the need for a theoretical comprehending of the phenomenon of management was motivated by namely the socio-economic practice, but conceptual solutions for the foundation of a new theory were borrowed from the natural and human sciences, such as physics, biology, medicine, psychology, sociology. The vast majority of thinkers, scholars, practitioners, whom the world community to this day reveres as the classics of management and general science of control - cybernetics, as individuals who have made a major contribution to the classical management theory and practice the management organization were engineers, physicists, mathematicians, biologists, psychologists, sociologists, psychiatrists and even surgeons. Fundamental borrowings from other sciences brought into the management theory, being accepted by the scientific community and practitioners with great difficulty and usually represented themselves only as a kind of scientific and practical consensus on the appropriate principles and methods of formulation and solving tasks of management organizations, enterprises and society. The history of the management theory from the very beginning and to this day does not seem an ascending process of cognition of management laws by, to work together and search for a universal paradigm of

management - knowledge model for the effective performance management. Each corresponds to a paradigm of its historical context than we think, and due to the time limitations of its popularity. At the same time, a fairly large number and conceptual variety of paradigms of management in itself is testifying to the lack of objective grounds for the constructing a general theory of management and pushing to the need of returning to the original positions and understand where the wrong turn was made.

II. CONTEXT-HISTORICAL LOOK AT THE DEVELOPMENT OF MANAGEMENT THOUGHT

By context-historical analysis it is easy to identify five paradigms of management: normative, general organizational, bureaucratic, behavioral and cybernetic.

First one was articulated by Frederick Winslow Taylor in 1911 [1] and represented a mechanical approach to establishing an economic efficient organization, built on empirical methods of determining efficient procedures. The historical context of “Taylorism” was a transition of society to a phase of industrial economic development. Within the same historical context, in contrast to F.W.Taylor, who in each individual employee saw the weakest link of the production system and was searching ways of its improvement, the Russian philosopher Alexander Bogdanov, believed that the economic inefficiency problems were results of non-compliance of the internal organization to the external conditions. He had assumed that the main task of management should be the adaptation of the socio-economic system to changes in its external environment [2].

Anri Fayol and Max Weber introduced bureaucratic paradigm in 1920. Within this paradigm the management of the organization boils down to foresight, planning, administration, coordination and control on the basis of the developed rules and regulations governing the order in the organization. The idea was that the economic inefficiency was due to the lack of internal coordination, but the individuals’ performance.

In 1930, the behavioral paradigm was formulated in the works of psychologist Elton Mayo and sociologist Mary Parker Follett, asserted that the management objectives can only be achieved with regard to human behavior factors such as motivation, interests, values, incentives, attitudes, fears. The emergence of this paradigm in the time of Great Depression was a kind of response of unsuccessful attempts to put in order

the work of enterprises in the conditions of macroeconomic instability.

The World War II has stimulated the interest to the research of complicated systems and initiated the development of cybernetics as the general theory of control in systems. Management theory did not fail to take an advantage of the achievements of cybernetics and cybernetic paradigm of management emerged, within which a socio-economic system proposed to be considered as a special case of a system in general.

It should also be noted that since the second half of XX century no new theoretical concepts of management in socio-economic systems were appeared. Moreover, it is difficult to name someone from the economists, whose ideas significantly influenced the development of management theory these days in particular. It is fair to note the contribution the management thought of such consultants, educators and publicists like Peter Drucker, Henri Mintzberg, and Tomas Peters. However, their works have rather popular character, than fundamental or conceptual.

On the other hand, in the same period, innovative management concept arose directly in practice. Very well-known Toyota's "lean production", Motorola's "Six Sigma", KPMG Peat Marwick's "Balanced Scorecard, McKensey's "7s" concepts. But this demonstrates one more time that the management theory always was behind the practice and was developed in a different against the practice epistemological dimension.

III. MAIN CLAIM TO THE MANAGEMENT THEORY

All known management paradigms and practical concepts differ from the point of object, purposes and methods of exposure. At the same time, all of them assume identification of the border between the organization and its environment, its structural closure, ignoring the fact that all the socio-economic systems by default consist of elements that are part of many different systems. Theory represents the organization as a closed system, whereas in practice, everything indicates that this is an open system. The theory considers the management of the organization in the light of the exposure of the subject to the object of control, and practice indicates that the more complex the organization, and the process of its functioning, the less the subject of control can interfere with the behavior of the object. Moreover, the more the subject controls the object the lower is the quality of management.

In the reality, any organization is the open system. However, modern management theory cannot explain how to control and predict changes and processes in it, cannot suggest methods for regulating the behavior of the multisystem elements. Abstracting from the open nature of the system allows to theoretically restrict the quantitative and qualitative composition of the structural elements of the system, and then define those of them that form control, and controlled subsystem within the organization, that is the subject and object of management and give the management theory a finished look, focusing on questions of organizing the control, analysis, planning and regulation.

Practice attests that in any organization there are a lot of elements that are parts of many systems at the same time and thus provide different systems interpenetration. Therefore, the "closure" of such elements in the composition of any single organization does not seem justified. First and foremost it is a question of such element as an employee. Any employee of any organization is linked by the relationship not only with the organization, but also with other socio-economic structures such as family, professional and non-professional communities, the place of residence, citizenship, etc. In addition to human resources the financial, intellectual, information and other resources of the organization are also can be seen as multi-system. For example, the actual amount of financial resources available to the organization is determined not only by their nominal value, but also the exchange rate, the discount rate of the central bank, the inflation rate in the country, reflecting their relationship with the global financial and national socio-economic systems. In addition, any of industrial and commercial organizations has certain relationship with its customers through advertising, marketing and flexible pricing. With this it is also important to note that conductors of organization's relations with its customers are its employees. Through its staff the organization receives signals from customers and on its base it generates regulating impacts, despite the fact that customers are not the explicit part of the resources owned by the organization. Thus, the practice of management shows that the theoretical point on the border of the organization with its environment is rather relative and the assumption of its closed nature in this case is unlikely to be used as a basic postulate of the management. Furthermore, determining the elemental base of the organization, it should be presented soon as the intersection of adjacent open subsets, overall structural dynamics of which are not controlled by any particular structure. The processes occurring in the open system are richer than in the closed one, because there are possible transitions between states with the variable composition of elementary states for certain, if not the elements themselves. In a closed system both the number of elements and the number of its states are finite, consistent and, in principle, are countable. Therefore, if we determine the effect of the control with the volume of removed uncertainty in the closed system, it is possible to estimate the difference absolute and relative entropy. If management actions reach the goal and the probability distribution on the set of states of the closed system is changing in favor of the target, the entropy decreases.

The change of entropy of the open system can occur due to the occurrence both internal processes and processes of free exchange between system and its external environment. Therefore, to estimate the change in the same way as it is done for the closed system is not possible, since the probability distribution on the open set of states of the open system remains unknown. But, according to the classic management theory, the lack of opportunities to assess the effect of the management action in the system makes such management meaningless.

Next claim to the existing management theory is related to the dividing the organization into control and controlled subsystems. If we assume that the management is the activity of the subject to change a state of the object for a particular

purpose, then according to William Ross Ashby's Law of Requisite Variety the control subsystem should not concede on the complexity to the controlled one. This statement supplemented by the previous management theory postulate of the existence of the system's border with the external environment and relatively constant limits on the resource base, demonstrates a contradiction consisting in the fact that the development of such a system can't be any at all, or it leads to a loss of its manageability. The fact is that the development is understood as the adaptation of a system to changes in its environment. This adaptation is inevitably accompanied by the complication of the structure and behavior of the object. However, the complexity of the structure and behavior of the subject of control to ensure the quality of management should grow even faster, as required by the Law of Requisite Variety of W.R.Ashby. Hence, in the process of the closed system's development more and more available resources should be allocated in the subject of control rather than in object. But at some point the lack of resources makes it impossible the adaptation to the changed environment of the closed system and the development will stop anyway. Either, it should happen the opposite reallocation of resources between subject and object of the management, but then there would be a loss of control. Either system should grow due to the replenishment of its components and the resource base from the external environment. But then the system becomes open.

IV. TOWARDS THE CONTEXT-ORIENTED MANAGEMENT CONCEPT

Summarizing the above remarks, we conclude that the theory of management in its current state is full of contradictions and is based on abstractions that have little resemblance to modern practice. In practice, people deal with open organizational systems admitting not only free exchange of information and resources with the external environment, but also the existence of common structural elements. The same elements can be simultaneously in different systems, which make their transformation into objects of management in a single system rather relative. The internal balance for open systems is unattainable and not the purpose of their management. Otherwise, it would inevitably occur a trend towards their isolation. However, in open systems is vital to maintain internal equilibrium by active interaction with the environment, which is the basis of their constancy and internal diversity. At the same time, the uncertainty and complexity of open systems is growing in proportion to the diversity of their external environment, and this means that the diversity of the subject of management should not be less than the diversity of the external environment that really is nonsense. Consequently, for an open system there can't be created a subject of control in the sense of the classical management theory, i.e. is able to monitor, analyze, plan and manage the operation of all of its elements effectively in all their structural interactions, which are multi-system. Measuring the uncertainty of such elements for determining the control action with the aim of its reducing or removing leads to an even greater increase of such uncertainty and management becomes meaningless.

It is interesting that yet in 1960, Douglas McGregor tried to draw the attention of corporate executives to the fact that the

desire to create complex control systems and deep job hierarchy is mainly due to mistrust of their employees because of the negative stereotypes of the lazy nature of human behavior. In his book "The Human Side of Enterprise" [3] he called such conceptual model of management organization a theory X. Within the framework of the theory X it is proposed that people in the organization are effective only if they are forced to by the threat, fear or disguised methods of paternalism. But this is a dead-end approach, which naturally leads to the formation of an authoritarian style of management and the growth of the risk of loss of control by increasing the size of the enterprise.

In contrast to the theory X D.McGregor proposed the theory Y of management organization, which was based on the recognition of the natural human desire to work effectively, to self-expression and self-actualization (self-fulfillment) through such work. Inefficient work of an employee, as he considered, might be only in that case if there were not created the necessary and sufficient conditions for it. D.McGregor saw it is the essence of the real management in the creation of such conditions indeed.

We believe that over the years this idea of D.McGregor is becoming more relevant and useful. In 1990 a book of Peter M. Senge "The Fifth Discipline: The Art and Practice of the Learning Organization" [4] was published in which the necessity of understanding by managers the phenomenon of "openness" of the organization was justified, because without such an understanding it is impossible to adequately identify and address the perceived shortcomings of organization's functioning. The development of managers' understanding that their organizations are open systems Peter M. Senge sees in deeper integration and cooperation of the team, teamwork development, and on this basis the formation of shared team's values and ideas about how the organization should operate and be developed. Exactly this approach to the formation of system thinking of managers Peter M. Senge called "fifth discipline". Obviously, the more management is integrated in the organization's team, the more blurred the boundaries between the object and the subject of management. What, then, managers affect, if the employees cease to be their object? Peter M. Senge believes that so-called «mental models», i.e. employees' models of perception of reality and the sources of problems become the center of their attention. A manager integrated in the team, perceives problems from the inside, he how-to "resides" them and, understanding their nature, helps the team to develop in the organization such terms and rules that will minimize the likelihood of similar problems in the future.

Next popular book in which D.McGregor's ideas got further development was the book "The End of Management and Rise of Organizational Democracy" of Kenneth Cloke and Joan Goldsmith [5]. The authors provide sufficient arguments in favor of that the system of management, cultivated in modern society in unchanged form from the end of the XIX century, in fact, became a major obstacle on the way to the achievement of high standards of organizational sustainability and effectiveness. But, perhaps, the main conclusion, which was justified by the authors, was that the management is the sum of two required components: the managers, who control

the employees and employees who need a control. The development of management system presumes the development of employees as well.

Scientific and technological progress leads to radical changes in the content and nature of work, first of all to its complication. Opportunities for people direct administration in an organization are becoming less and less. For employees, whose activities in the organization are associated with solving complicated and complex tasks required special knowledge and professional skills, it is meaningless to attach managers, directing them how and what they should do, because the required number of such managers in the result will be not less than the number of employees regulated by them. In such organizations, it is expedient to organize the management of regulatory, indirectly influencing the actions of employees through organizational provisions and regulations, ambiguous prescribing algorithm of their work, relying on their professional competence, ability, knowledge, experience and skills. This not only gives the experts enough freedom for self-expression and self-realization within certain limits, but also fundamentally changes the management content, shifting the focus from the employee himself to the context of his functions. An employee ceases to be seen as an object of the control and a manager - a subject. Manager is not built over the executive structure of the organization but integrated into it and its activities and in fact also becomes executive, bearing in mind that the result of his actions is to create the necessary conditions for self-organization and self-realization of employees. Such management can be identified as meta-management, in which the items of control, analysis and regulation are at the meta-level organization. These items can be described as the context of processes taking place in organization - the context of evolving situations, personnel

actions context, the context of emerging issues, the context of decisions taken by the employees, etc. That is why we can call such management as context-oriented one. Context-oriented management is actually management of that performs management functions itself. The conditions, created for the employee, direct his actions and, therefore, to some extent, determine their outcome. The difference is that under the directive management the manager directs employee's actions regardless of the context and, in fact, the link between actions and conditions is broken.

V. CONCLUSION

The development of methodological aspects of context-oriented management as the concept of management of the functional context of the organization, can't just open up new prospects for the development of management science, but also transfer to the new framework for the implementation of practical activities of the integrated management information systems.

REFERENCES

- [1] F. W. Taylor (1911), *The Principles of Scientific Management*, Harper & Brothers, New York
- [2] Bogdanov A.A. (1989), *Tektologiya: (Vseobshchaya organizatsionnaya nauka). v 2-kh kn., M.: Ekonomika.*
- [3] Douglas McGregor, *The Human Side of Enterprise*, Annotated Edition,- McGraw Hill Professional, 2006.
- [4] Peter M. Senge, *The Fifth Discipline: the art and practice of learning organization*, 2-nd edition, Currency, 2006.
- [5] Kenneth Cloke, Joan Goldsmith, *The End of Management and Rise of Organizational Democracy,- Jossey-Bass, A Willey Company, 2002.*