STRATEGIC MANAGEMENT IN THE ORGANIZATIONAL SYSTEM

REVIEW ARTICLE

UDK 65.012.4:005.96	DOI 10.7251/DEFEN2454033M	COBISS.RS-ID 141350401

Darko Matijašević[1]

Abstract: The system is widely used in the scientific sense, especially from the point of view of universality and abstraction. In this context, it serves as a broad basis for observing, interpreting and projecting the process. The search for a systemic approach goes deep into history, and written traces are visible from the period of antiquity. Due to its general application, the system is observed in various forms, and observation from a natural (biological) or artificial (technical) aspect is particularly important. The system also has its application in the social context. The understanding of the state and the state organization as a system is interesting. Considering the intention of optimal management of each system, including the state, the systemic approach gains importance. Management, especially strategic management, as required in complex systems, is a significant challenge. It is the understanding and application of basic knowledge about the system that optimizes the approach to the state as an organization and the management system with such an organization.

Keywords: system, organization, management, strategy, state, elements, environment, connections, dynamics, relations, optimization.

1. INTRODUCTION

In the historical context, the general determinacy of the system was expressed above all through the "general system theory", whose determinacy, according to Deželjin (Deželjin, 1987, pp. 15-20), is

1 Corresponding author: Darko Matijašević, PhD. Ministry of Foreign Affairs BiH, e-mail: spelex@outlook.com

based on "materialist philosophical orientation". In this sense, the entire world is viewed in the context of the interaction and dynamics of its individual components, which ultimately make up "its efficiency". Dynamism, as well as the interaction of elements "forms the basis of survival and development". At the same time, in addition to this "materialist-philosophical" basis, the general system theory also contains a so-called "mechanical" basis. These are certain properties, primarily mathematical and logical relationships and models. The "dynamic" part also forms this basis. The mechanical basis, from the point of view of the classical understanding of the general theory, among others, was given by Descartes and Newton (Descartes R., j Newton J), but in contrast to this "static", classical approach, Wiener (Wiener N.) imposed a "dynamic access". According to him, the entire system becomes the "subject" of comprehensive observation. Not only the static structure is observed, but also the "interactivity" of its individual parts, segments, elements. In particular, Wiener places the focus of observation and analysis on the "processes" that take place, which lead the system into a state of instability. This state is cyclically balanced with the "feedback" instrument. Therefore, general system's theory has its instrumentalization in "biological and social" systems. Likewise in processes, based on the knowledge "that necessity and chance are also in a mutual relationship". The special theory of the system arises from the general and is a "purposeful adjustment" of the general theory in certain "scientific or practical areas" or simply as a means for practical "solving problems of a more complex nature".

2. GENERAL ATTITUDE TOWARDS THE SYSTEM

Thinking about the system has its beginnings from generally accepted philosophical approaches that in the human, natural environment, different sets of things, phenomena and ideas can be distinguished, which are sometimes related to each other, interact and in which certain properties can be observed.

System (Gr.-systema), something that is composed, system, in whole, according to a certain point of view, the whole organized and assembled

from various things, a set of ordered parts, e.g., in mathematics, according to logical principles, a variety of mathematical creations are ordered, such as: equations, points, of curves, surface, form of government and state management, way of working, way of acting, building, plan, purposefully composed whole (eg. World system, Solar system, music system, etc.); no system, no connection, no plan, unscientific. The system obviously has its specificities too, its properties that significantly characterize it and are expressed in the current practice and scientific thought with numerous expressions and definitions in that context (Vujaklija, 1980: 849).

The concept of system has already been observed and even very recognizable "indicated" in old ancient philosophical works. The famous philosopher Anaximander created a "written mosaic" of ideas about the "origin of the world" through his works, expressed in prose, which according to him begins "from the Earth and the Sky", and then "ends" with the phenomena of animal and especially "human life". In this way, he also "defined" the approach to the "philosophy of cosmology" over a long, centuries-long period. Anaximander defined the term "apeiron" as the "original principle" of a thing, which translates as "boundless or indefinite". By further analyzing his theory, the ancient philosophers came to the conclusion that two completely opposite but significant "properties of the world" can be described. Namely, in his prose works, his statements suggest a "common analogy in the production" of different worlds. In the sky of "The Sun and The Moon", and on the Earth of "animal life". What's more, it is noted that it happens, it occurs essentially "with the same mechanism". From such indications, the opinion was derived that Anaximander "sees the world as a systemic unity maintained by dynamic transformations, which are completely comprehensible to the human mind." In the same way, Anaximander expressed himself poetically in relation to the stars, the Sun, circles of fire, and their relationships. In that way, "the search for a system is noticeable", considering that he, through his concepts, "reduces the seemingly chaotic diversity" that is visible in the sky to the simplest scheme of geometric and arithmetical relationships, with the observation of "transformations" but also "functions of the circles of air and fire". His explanations "connect" the interaction of "fire and air" with the earlier identified "process of separation, as the cause

of education and the apeiron, a ball of fire enveloped by air, which then separates itself, to be enclosed in air circles." The world and the cosmos are "his system" and his interpretations are that there are "physical processes as a constant interaction", and he expressed his attitude towards the cosmos with; "there is no ordered cosmos without a mind to order it". About how the mind performs its "management role", Anaximander could not give an answer and did not indulge in further interpretations. Aristotle further tried to find a "key" to decipher the "apeiron" while formulating the thesis of eternal motion" (Taylor, 2007: 74–77).

So, there is a "generally accepted" scientific knowledge and scientific acceptance of the "existence of the system", and in our approach we would go in the direction of "rejecting" the cognitive-theoretical doubt about its existence. In this context, the "notion of system" means something that is actually the system and thus assumes the "responsibility" for confirming its expression and the consequences of its existence and functioning in reality (Luman, 2001: 49).

The humanist-philosophical understanding of the world as a "human creation" represents a significant step towards the general generation of the foundations of a scientific approach to the understanding of the systems and the systemic. In essence, the humanistic approach to understanding the world is opposed to those philosophical approaches that call into question its "real existence" or its "real structure" independent of man and human consciousness. Likewise, this theoretical approach denies all philosophical doctrines that consider the world as something abstract, separate, isolated or absolutely independent from man. That is, the world as something "given by itself", inevitable, something to which man simply and necessarily has to adapt if he wants to survive and exist. This humanistic approach emphasizes the subjective and essential role of man, who is not a passive being, with the understanding that "he too is a product of long-term evolution" and that he has a series of interactions with the "material world". This interaction, in a multiple and multidimensional way, is conditioned by the structural and qualitative determinants of the objective situation, respectively the ambience, the environment. However, it is indisputable that considering the understanding and acceptance of the "existence of the material world", as well as the awareness of

"evolutionary and natural processes", as well as interactions depending on or independent of human will, with the human being at the "center" of these processes and interactions, can speak about the "recognition and understanding" of the systemic approach in this general philosophical, humanistic understanding and generalization of the world. Furthermore, man essentially determines, and with his practice "creates a transformed environment", which is adapted to his needs. Essentially, a "material object" that would not be understood from the point of view of man, that is, would be the object of "man's understanding", would represent a "thing in itself", as defined by Kant. All "material objects", which make up the "material world" as a system, even when it comes to natural objects, whose recognition is indisputable (earth, water, stars, stone, etc..) even before the creation of man, but also in general notions and their possible downfalls are exactly what "man recognizes" and what they are "in relation to man". The characteristics and properties of material objects that we perceive, and that we can perceive, such as color, form, solidity, are conditioned by the "very structure" of the material object, but also by the limited human senses, capacity and form of thinking, as well as the degree of development and culture of thinking itself (Marković , 1994: 173–175).

3. UNDERSTANDING THE SYSTEM IN BIOLOGICAL AND MECHANICAL SENSE

According to Bertalanfy (Ludwig von Bertalanfy, 1901-1972), the founder of modern system theory and the creator of "general system theory", the concept of system can be experienced in everyday reality, in frequent, ordinary daily use in a "wide field" of application, from industrial enterprises, up to "initiates" in matters of pure science. It is a strong trend in both theory and practice, presented in the form of "new utopians", who, in contrast to the author, were proponents of technology and technocracy, system analysis, and system engineering. Technology has advanced the relationship between "man and machine" in such a sense and at such a level that a "system approach" has become necessary, bringing together teams of various specialists, in order to answer the questions of optimizing the organization, which on a global

level has evolved into something that can be called the "fourth industrial revolution". To all these questions, not a single science, philosophy, physics, mathematics, biology, sociology, psychology, and others, could give an answer, and precisely, bearing in mind the continuity of efforts and evolution in attempts to answer, in a partial scientific, but continuous historical context. The concept of a scientific systemic approach to the "system" has its own long historical path, like every "new idea", which was the originator of the corresponding science, although as a comprehensive concept, in the essential sense, the system is "historically rooted", incorporated, in the famous philosophical in parts, and further, partially, in various areas already mentioned (Bertalanfi, 2009: 3–12).

The author himself, at the beginning of the 1920s, began serious research in the field of biological theory, trying to answer and suppress the dominant scientific approach of the "machanist" approach in the understanding of this science, but also in science in general, which "neglected or actively rejected", exactly what he considered crucial in the "phenomenon" of human life. He advocated the organic conception in biology, which emphasizes the understanding of the organism as a whole or system. As the main goal of biology as a science, he saw the discovery of principles of organization at its various levels. The author's first statement was made in 1925/26, while Whitehead's philosophy of "organic mechanism" was published in 1925. Cannon's work on homeostasis (maintenance of constant composition and properties of the internal environment, pa.a.) appeared in 1929 and 1932. Claude Bernard (Claude Bernard, pa.a.) was a great predecessor of the organic conception, but his work was barely known outside of France, even now it is awaiting evaluation (Bernal, 1957: 969). The simultaneous appearance of independent similar ideas on different continents was a symptomatic new trend, which, however, required time to be accepted (Bertalanfi, 2009: 12).

Similar to Robert Wiener, Boguslav was an advocate that "the purpose of human engineering", that is, human management, is the "elimination" of the human factor as much as possible in the system and organization. According to him, "there was no need" for existence of concern or interest in the issue of "the nature of man and his psychological" needs and it is only necessary to "include" man in the system, on the basis of which he

will "adapt" to any demands that the system will make in front of him. This kind of technocratic, corporate-developmental-systemic movement was primarily in the function of the military-industrial complex and then in the function of the education of the administration. Also, Wiener himself claimed that "management techniques" can solve the issue of the human factor, that is, that by developing "engineering and management techniques" the human role in the system can be achieved and replaced, and the search for a "new dimension" of man in the organization and system (Devey, 2012: 297).

So, the cause, foundation and need to understand the system even more deeply and specifically as a separate and important entity, was the concept of "structural or identical-isomorphic properties", characteristics and phenomena in different scientific fields. A clear coincidence was observed regarding the issue of "influence" on the behavior of different entities in the fields, which, in the essential sense, were very different and interpreted from fundamentally different scientific positions. Thus, for example, it was possible to "apply" the law of exponential growth of certain bacterial cells, the number of bacteria, animals and humans to "progress" in scientific research, which was measured in the general sense by the "number of publications", such as say the field of genetics or science in general. In dealing with the "set of elements", three different groups can be observed in terms of their number, subtypes and relationships among elements. Thus, in relation to this approach, the system could be understood as a "set" of elements in a state of mutual relations as well as multiple relations with its environment. Any possibility of progress, initiation in a purposeful sense is possible only by "transitioning" from the state of "immutable wholeness, totality" to the state of "variability and change" of the parts of the system itself (Bertalanfi, 2012).

4. SYSTEM FROM A BASIC PHILOSOPHICAL POINT OF VIEW

System, as well as other concepts such as definitions, proportions, logical reasoning, speech, explanation of sentences and others, i.e. a whole range of meanings can be connected with the ancient concept of "logos". Therefore, this specific dimension, very complex, is added to

the system, meaning its complexity is continuously indicated from the very root of the concept of the system as a conceptual entity. Logos, according to many philosophers, including Aristotle, and especially Heraclitus, "suggests" that it is some kind of "coherence", establishing the "principle at the base of our significant world" and which, according to Heraclitus, "we can hear", thanks to "what we hear" even though logos is associated from Plato onwards as "Heraclitus's interest in change". Plato advocated the thesis that "everything flows and nothing remains at rest". However, the relation of the logos to "systemic changes and the system" is also highlighted. According to these interpretations, "logos" represents "measure or proportion", which is unchanging and regular in the processes of the nature of exchange. The mentioned measure is "independent of material continuity". It cannot be understood as some kind of "continuous goods exchange". According to Heraclitus, "logos" ensures that "the same value remains", after the process of "discontinuity in changes", which in the world "we perceive as a structured system of measured proportion". In other words, after the change, "the same value of proportion remains", that is, that the process is "measured according to the same logos". According to Taylor, the assumption is that no material substance permanently marked a radical break with the older Ionic tradition, which aspired to find unity for the processes of change in the form of one basic substance, which remains in change, and which manifests itself in different forms, but in the final form it retains its identity. For Anaximenes, everything is a form of air, and differs only in density. For Heraclitus, it does not matter whether the air completely "dies" while fire is born from its ashes. We can still meaningfully say that the world has a permanent identity, like the identity of a river that made the new one by the continuous influx of new water. Logos "ensures" that "all points in radical change", in which there is no obvious "material substance", but "the world that changes" during that process, in the end,nevertheless " has coherence and unity" (Taylor, 2007: 114–117).

In the end, a system can be considered as a whole that consists of purposefully joined parts, which interact with each other, and as the whole, with its environment. Everything is in the function of achieving common interests, or in the most general case it is understood as a separate

functional unit consisting of a set of objects, their established properties (attributes) and a set of relations that connect those objects as well as the properties of those relations. What is not included in the system is its environment.

Already as it is presented in principle, and through the very original ancient notions of the system, certain peculiarities, characteristics, specific to the system can be categorized. It is indisputable that, in antiquity, the questions of the existence of the system, its substance, certain interactions and processes, were essential in the function of movement or change of state.

Greek philosophers "atomists" who were based on the works and theories of Leucippus and Democritus, as well as their followers, and, according to Aristotle, had "observable data about multitude, movement and change" and,together with Anaxagoras, tried to "reconcile" these theories with the Elean denial of the possibility of arising and disappearing". For the atomists, contrary to Anaxigoras, "original things were not properties or substances, but physical individualities, and the original processes were not mixing and separation, but the formation and decomposition of those individualities." Also, the specificity of the "atomists", according to Anaxagoras, was that "basic singularities were imperceptible". Accordingly, since "their properties were not observable", they had to be theoretically clarified and interpreted. Thus, the "atomists" formulated "physically indivisible particles (atomon, literally: which cannot be cut)", considering that they "had to be too small" and thus could not be known physically. Aristotle reports an (unreliable) atomistic argument - which is somewhat close to Zen's arguments against the multitude - that if, as Anaxagoras claimed for example, it were theoretically possible to divide a material thing ad infinitum, that division would have to bring the thing down to nothing. This Zenian argument was supported by another argument, which led to the same conclusion that atoms are theoretically indivisible because they do not contain a void...The same principle explains that atoms resist other kinds of change, such as reshaping, compression, and expansion: all these changes require displacement of matter within atoms, which is impossible without voids to accommodate the displaced matter (Taylor, 2007: 225–226).

In addition to this fact, that they are too small and physically indivisible, Aristotle adds another "principle" characteristic. According to the basic "atomist" theory, "atoms are in a state of eternal motion in the basic space". This movement is "not the product" of a plan, but is determined by "a series of previous interactions between atoms." Here we come to Aristotle's famous criticism of Democritus that he "removed the final cause" and made the "movement of atoms" completely "unnatural", because if empty space is "posturally" determined as something "necessary for movement", then the atomists violate the "Elean principle", that , "what is not cannot be". However, it is obvious that "emptiness is postulated" also in order to understand the "multiplicity" of things. This is based on the understanding that the atomists followed Parmenides in terms of the interpretation "that there could not be a multitude of things, unless there were a void to separate them". Since atoms are "separated by empty space", according to this theory, they could never come into contact, but over time theories were developed about their "collision", interpretations of "intertwining", but the inconsistency remained until the period of modern philosophical understandings on this matter. And while the views of atomists on these subjects can be largely reconstructed in general terms, much is unclear about the details. The universe of atomists is incomplete, mechanistic and deterministic, every event has a cause, and causes necessarily lead to their effects. In a broader sense, this process is mechanical, ultimately, everything in the world happens as a result of the interaction of atoms. The process of the action of atoms has neither a beginning nor an end, and each individual stage of that process is necessarily caused by the previous stage. But how atomists exactly understood the functioning of that process remains unclear. This ambiguity should mainly be attributed to the fragmentary nature of the evidence we have, but it is also possible that the presentation of the theory itself was not completely devoid of ambiguity (Taylor, 2007: 226–227).

5. AN ATTEMPT AT SYSTEMATIZATION INTO A GENERAL SYSTEM THEORY

In today's modern conditions, there is no consensus on the general theory of the system. General theory means more like a "summary label" for a wide range of approaches within the framework of research procedures in different areas and at the levels of their application. Today there are agreed attitudes, that there is a clear "differentiation" of the system and its "environment". That is, that there is a mutual "relationship" between the system and its environment. Systems are also oriented towards their environment with their "structure" and without it, "the environment", they could not exist. In this context, the "boundaries" of the system and their maintenance imply the necessity for the survival or existence of the system in general. The boundaries of the system themselves do not harm the "connections" and mutual "interaction", both within the system and the relationship, the interaction of the system with its environment. The relationship between a system and its environment is very complex, but it is important to make a distinction, to notice a special dimension in the "relationship between the environment of a system" and the system in the "environment" of this system. In other words, there must be a clear understanding of the difference and dimension of system-environment and system-system relations. By observing this dimension, the "separation, differentiation" of the system and the environment, we come to a conclusion about the consequence of differentiation. Namely, there is an "internal differentiation of the system, that is, within the system itself, there may be "further system-environment differentiations". This essentially means that within the system "parts of the system are differentiated" and the entire system then acquires the dimension of the "internal environment". This process can be further multiplied, and the entire system "multiplies" itself through numerous "system-environment differentiations".In this way, the system is broken down into "component parts" and there is an "interaction" of these parts within the environment of the "internal environment" of the system itself. Essentially, the "multiplication" of parts,namely further internal differentiation of the system-environment, is a process of "increasing the complexity", the complexity of the system. This brings us to the concept of a complex

system. On the other hand, we have another "constitutive differentiation". It is the differentiation of the "elements" of the system and the "relations" between them. The elements of the system acquire their quality by "relations" bringing them into quantitative and qualitative relationship with each other. Quantitatively, the elements of the system in mutual relations can be expressed mathematically by the number of relations, but with the very "essence of the quality of the relation", namely the "imaginable relation", the dimension of the quality of the elements of the system, the system as a whole, is obtained. This "process" is possible only on the principle of "selection of elements and connections", which further necessarily leads to the formation of complex systems. Classical "internal differentiation" based on the "system-environment" relationship leads to the state of "differentiation of the system itself" and not to its complexity (Luman, 2001: 49–60).

Through this approach, we also come to the understanding of the existence of "elements" in the system, as "units of the system", which can no longer be decomposed. In this way, the exclusive determination, in essence, is not scientifically sustainable, taking into account at least one aspect in the approach. Namely, by further analysis, microscopically, each element represents a "multi-complex composition". However, from the aspect of the attempt at necessary abstraction, in order to theoretically inclusion of the understanding of the system, we limit the approach to the conceptually accepted definition and understanding of the elements of the system. Respecting the principle that the "element" of the system cannot be further decomposed, we arrive at a new dimension of the system itself. Based on this understanding, the system is "constituted" and "changed" through the "relationship" of its elements. So it is important to note that the "relationship" of system elements is "constitutive" for the system. Therefore, in the approach to understanding and analyzing the system, this aspect is taken as primary in relation to the dimension of observing the system based on the "system-environment differentiation". A key concept in systems' theory is the concept of "regulation". This term refers to mutual "relationships between system elements". Likewise, it is implied that a "certain relation" is not a "case" but a cognitive-theoretical category. Relations take place in "conditions of possibility", therefore,

in the dimension of knowledge about the existence of "conditions" in which relations are realized and "can be regulated". In this context, it must be emphasized that the relationship exists "because another one also appeared", namely,there is a cause-and-effect relationship between them. However, on the other hand, it should be pointed out that there can also be special "catalysts" elements, i.e. the creation of a "higher degree form" among relations, as Marx defines it through the "theory of form". The basic point of view of the system theory, although it is difficult to defend theoretically and accurately founded, is that the "quantity of relations" between the elements of the system determines, first of all, the "basis of constitution", the formation of the system, and that by developing "quantity, quantity of relations" the system acquires the characteristic of "regulating ". In this way, in essence, the correlation between the "number of relations" and the "complexity of the system" is expressed. Systems with "smaller amount of relations" are less complex. On the other hand, systems with the dimension of "increasing the amount of relations" take on the dimension of increasing the level of complexity (Luman, 2001: 60–63).

6. GIVING PROPERTIES TO THE SYSTEM

The characteristic of the system is that when it comes to performing a task, it must have a management function, through which these tasks can be accomplished. So, the system must also have appropriate means or ways, i.e. "executive organs" (people have arms and legs like that), and another characteristic, i.e. property is that they must have "en rapport" with the outside world. This is achieved through sense organs, in the case of mechanical systems, for example, through a photoelectric cell or a thermometer. The function of these executive bodies is to enable "execution" and "take care" of the execution, and not only to inform about the "existing circumstances" in the outside world, the environment. Therefore, there must be "central authorities" for "decision-making". This applies for any form of behavior, system level, especially for more complex behavior, more complex systems. These central organs "determine" what the machine or the human organism will do based

on the "information" that the machine receives and remembers with a "memory similar to living organisms" and man with his own memory (Viner, 1964: 49–50).

Each system can be viewed comprehensively through elements, structure, parts, internal connections, properties, processes, boundaries, environment, functions and goals.

The concept of "elements" has been of interest to philosophical thought since ancient times, and the theory of elements itself emerged as one of the "most influential discoveries" in the history of science. This discovery was reached by Empedocles, who started from one basic principle, which is "understanding the nature" of the element itself. Namely, Empedocles reduced, generalized the nature of the element, all reductions of all forms of apparent emergence, change and decay, together with certain and changeable properties of what is perceived, through a limited number of entities "which have the characteristics of immutability and permanence". In a certain way, Empedocles continued the work and conclusions of his predecessor Parmenides, who asserted "that absolute birth and death cannot exist at the same time". This is based on the premise that "simultaneity" logically rejects "temporal non-existence". A close interpretation of Parmedin's approach, Anaxagoras' fragment explains: "It is impossible to exist from something that doesn't exist, neither has it happened nor heard that what exists is completely destroyed." So, Paramenides denied "corresponding spatial non-existence", and Empedocles "defined" it as "void, the empty or canon". Also, for similar logical reasons, he refused to "accept that something" could share "the continuity and homogeneity of being". On the basis of Parmenides' "way of thought", Empedocles "developed an understanding of the minimum number of elements, with constant and unchanging properties, which are capable of explaining the world of multitude and variety, through their proportion and arrangement in compounds".At the very beginning, he avoided specifying the number of elements, but expressed it (in the number four, which corresponds to fire, air, earth and water) with excerpts from Anaxagoras' philosophy. As a poet, he expressed himself with: "Four first hear, there are the roots of everything: radiant Zeus, life-giving Hera and Aidoneus, Nestis who with her tears for mortals water

the spring" (Taylor, 2007: 186–187). The depth of thinking, according to the interpretations, had deeper roots, and Empedocles' expression - rhizomes (roots) - was remembered in science, with which he "united" his four basic elements, earth, air, fire and water.

Perhaps Empedocles had in mind the Homeric division of the world, which assigned the sky to Zeus, the sea to Poseidon, the underworld to Hades, and left the Earth common to all, in order to adapt that division to two pairs of male and female principles - one higher (Zeus as fire and Hera as air), and once lower (Aidoneus as earth and Nestis as water). Four was an economical, minimal number, the choice of which is supported by the importance that the contrasts hot/cold, dry/wet had for the older Milesians, as well as the fact that they are four different fundamental principles: air (Anaximenes), fire (Heraclitus), water (attributed to Thales) and the general tradition, according to which the Earth is the mother of all. The set of four - which is the first square number, which in Pythagoras is more strongly associated with justice - also allowed mutual activity within a balanced structure. In the end, Empedocles made a "far-reaching conclusion" and contrasted his theory with Anaxagoras' theory "on the infinite divisibility of compounds". He interprets his theory, the concept of elements identically to Aristotle's expression as "divisible, but which will never be divided". In this way, Empedocles defined that "all living and non-living forms should be understood as certain arrangements in different proportions of a small number of unchanging, qualitatively different elements". This definition became the basis for further philosophical and other research in the ancient period, but also in the Middle Ages, as well as in the modern era. This is how the basic "hypotheses" of modern science were established (Taylor, 2007: 186–189).

The connections between the elements, as well as the structure in which the elements are bound, are also already recognized as concepts in ancient, famous ancient works, fragments of Empedocles and Aristotle. Aristotle, dealing with Empedocles, "praised his" insight that the "character of a thing" is not given so much by the elements from which it is made, but rather by "the logos or the proportion of their combination". This would become the further basis for Aristotle's teaching which

would become known as "formal cause". The significance that Aristotle attributes to Empedocles is in the fact of "expressing the bond between the elements, but not as an additional ingredient, but as inherently contained in their attraction when combined in the correct formula." Describing the world on the Earth, Empedocles observed "structures of trees, plants and fruits, up to the range of animal species", as well as "armour", which is "the structure of a sea turtle". In this way, Empedocles somewhat expressed his awareness of biological "analogy and homology", between "plant and animal structures". He also noticed "processes", which can be "connected" in a certain way. According to him, "it seems that the same changes, sepsis, take place in "liquids", and that "water makes wine, milk makes yogurt...". In essence, through his thinking about the world and forms of life, Empedocles taught "the common function of covering and protection", which "intersects in forms of life and different elements, in order to unite people and plants on land, birds in the air and fish in the water". Empedocles was also the forerunner of Aristotle's "fifth element, quinta essential", i.e. "the one that eternally surrounds the cosmos". The one to whom "the human psyche is related" (Taylor, 2007: 195–197).

Parmenides dealt with the issues of "limits", in relation to the dilemma of "reality or what is" and "from what" it arises, as well as other dilemmas. In his statements, Parmenides describes the "limit" as a "constraint of reality", because his approach to the "need for completeness" represents a logical constraint. Dilemmas of "spatial and temporal" properties also arise, because "the word border" does not express the essence by itself, and a "clearer" definition of border and limitation was given by Philolaus and the "Pythagoreans". Philolaus had his starting point in "gnosis", which would mean "everyday cognitive insight into individual things". This insight is based on "cognitive and experiential", and in this way, individual things are "measurable and countable" and, consequently, must be "separated from everything else by a sharp, determined border". Philolaus himself points out that the border can be temporal and spatial, and the object itself will have a "measurable size, volume or time duration" depending on what kind it is.Thus, a "cognitive set of objects" must have its own identification, "have a number" or "be recognizable" as one object and not "a multitude". Part of "what it is must be an individual", and Parmenides interprets the

same, that "it must have a limit". So Philolaus with his thoughts leads to a "logical separation of the contents of the universe" into two categories. The first "the one which limits" and the second "the one which is limited". Philolaus is guided by mathematics in the direction of Aristotle's "form and matter, and according to such an interpretation any "substance" from which some "individual is made" is not "limited" in itself, but must "exist a limit" because in contrast "that individuality" could exist in any size. Philolaus could not give a more detailed explanation of what "further the assembly would include", because he considered it to be beyond human knowledge. Likewise, regarding the cosmos, Philolaus points out that it is also "assembled" from a "structure" that is assembled with "contents that are limited and that are not limited." His approach is "close" to Aristotle's understanding of the "so-called Pythagoreans", who claimed that some of them made "two columns of pairs, opposites, in which they found limited/unlimited, even/odd, one/many, right/left, male/female (Taylor, 2007: 151–171).

From the previously mentioned elaboration, as well as some of the theoretical comparisons mentioned, regarding the concept of system, it is obvious that a large number of authors, from different aspects, historical context and other peculiarities, not only conceptually determined the system, but also classified its essential features. Bearing in mind the historical notions and definitions of the system already presented, Deželjin defines it as "a set of mutually purposefully connected and mutually influencing elements, things, occurrences and relationships - in their movement and changeability in nature, technology and society and openness to their surroundings, a set that at the same time it is characterized by certain goals which connect it as a whole with feedback links by means of which it is governed and self-governed." Also, according to him, there is no doubt that there is a single system-universe. However, if such a universal system is divided into its component parts and if it is viewed as absolutely or relatively open to its environment (surroundings), then those parts can also be considered as a system, because they are in objective interdependence and interactivity with the environment, and ultimately with the system universe. A certain openness cannot be absolutely denied even by technical systems (Deželjin, 1987: 68).

7. THE STATE AS AN ORGANIZATIONAL SYSTEM

The state and state organization were the subject of ancient Greek philosophy and learning, which then evolved into modern forms of state organization and state administration. Still, Piraeus, in accordance with "Aristotle's Politics, imagined one state". That state "would have ten thousand people", it would be divided into three groups, the classes of "craftsmen, farmers and warriors". Likewise, the land would be divided into three parts "divine, state and private". Hippodamus further thought about the need to have "three types of laws, since disputes "before the courts" are mainly for "insult, damage or murder", and he intended to introduce a "supreme court", whose role would be to take over those cases "which are not well judged". He expressed his "doubt" about the correctness of the decision-making process in the trial and its fairness. He also believed that it was necessary to enact a "special law" that would award "honor" awards to people who "discover" something that would be useful for the state, as well as to ensure the "maintenance" of the children of "citizens" who died in the war. According to him, the clerkship and clerks were under the jurisdiction of "the people" and should deal with "public affairs, and also about foreigners and widows." This ideal model of the state was the "pattern" of the political philosophy of the ancient Greeks. Pericles, reflecting on the "Athenian democracy" that already existed, added an essential part, the need for "the possibility of unhindered development of personality and private initiative" and in a way gave "hints of liberalism" in the approach to state issues. Pericles' views further, probably, influenced Hippodamus' view on legislation. Namely, according to him, legislation in the "ideal state" should be limited to the protection of individual rights and interests. Likewise, he also has a "reformist approach", primarily with the view of the need to establish an "appellate court", as the highest judicial instance, composed of "experienced and older people", which would have the role of eliminating unjust decisions made by the existing "people's courts". His critics, Aristotle on the one hand, challenged him in the sense that he "speaks only of the workers, craftsmen and warriors", as the three classes of the state, but that he "forgot" the slaves whom he does not mention at

all. It is more miserable to inflict injustice on someone who is unfortunate, than someone who is happy. A nation can have value only where laws also have value. Injustice occurs when equals are treated unequally and when unequals are treated equally. A happy state is one in which all citizens have moderate and sufficient property (Aristotle, 2007: 5–10).

Here comes to the fore,"that time" prevailing philosophical opinion,that this class was not considered "an element of the state organization". Also, his criticism goes in the direction of Hippodamus' aspiration to invite the "whole nation" to "state power", as well as what the relationship would be between farmers and warriors. If the warriors were given land to cultivate, and cultivated it, then the farmers would disappear, and if the farmers did it for the warriors, in that way they would become their slaves. But since there are no written records of this famous "Miletian architect", there remains a certain "reserve" about the very "originality" of Plato's "political-philosophical ideas about the ideal state". The novelty introduced by Hippodamus is a "practice" to try to avoid the "mistakes" of the popular courts of that time, and Plato himself in "his second great political work Leg. VI 767", essentially harmonized his philosophical and political thought with the views of Hippodamus and "accepted" the need to establish an appellate court, which he incorporated into the "system of the branched judicial network of his second best state". There are indeed big differences between Hippodamus' and Plato's states - in Plato's case, only one class that is engaged in production is foreseen and this is completely excluded from political life, but in the sense mentioned above, the contours of Plato's teachings are marked, nevertheless, but at Hippodamus (Đurić, 2009, 72–81).

8. STRATEGIC MANAGEMENT AS THE BASIS OF THE FUNCTIONING OF THE SYSTEM-ORGANIZATION

Strategic management in the organization is aimed at establishing an optimal relationship in the functioning (existence) of the organization, but also in the interaction with the environment. The relationship with the environment is particularly significant from the aspect of constant and major changes, which are often unpredictable. For this reason, the basic

task of strategic management in the organization derives from ensuring its optimal response to all the previously mentioned challenges, both within the organization and in its immediate or wider environment.

An important segment of strategic management is the controlling of human resources, whose basic task is to permanently ensure the optimal functioning of the organization.

The times in which we live are characterized, among other things, by significant changes in the understanding of capital and value in general, as a product of the organization's functioning from the aspect of creating material goods and providing services of various contents. People become the most important capital, their ability to work, work values, and motivation, in the ultimate satisfaction in performing work, becomes the main attribute of the value and competitive ability of the organization. The world's most successful companies largely base their business success on a well-conceived and successfully implemented strategy for acquiring, developing and engaging human resources. For this reason, the strategic management of human resources becomes an integral part of the business and development strategy of the organization.

This is explained by the exceptional importance attached to people in achieving the goals of the organization, and in general the successful functioning of the organization in complex conditions.

Therefore, it can be concluded that issues of human resource management are of strategic importance for the organization and that the entire system of managing the work and development of employees in the organization is largely influenced by decisions of a strategic nature.

Turbulent changes in the business conditions of almost all organizations, which, in addition to economic factors, are greatly influenced by the development of technologies and the creation of new and innovative means of work, put the management of organizations in front of new challenges. They are expected not only to ensure the survival of the organization, but to create ways for its long-term development based on successful business operations. For this reason, the field of strategic management is constantly gaining importance. Since the key carriers of the organization's development are its human resources, it is necessary that their development is based on a well-conceived

strategy. Only devising a good strategy in this segment is not always a guarantee for achieving the desired effects. That is why it is necessary that, in addition to ensuring adequate work and creative potential of employees, the level of quality in performing a series of processes in the field of human resources management is constantly raised. Most of those processes are in the function of raising, preserving and using that potential. Achieving the stated goals, which are of strategic importance for the organization in terms of their content and scope, also implies the need to emphasize in the right plan the strategic component of human resources management, which is insufficiently embedded in the practice of domestic organizations.

9. CONCLUDING CONSIDERATIONS

There is a clear definiteness in the understanding of the system and evolution in its observation. Based on the original thoughts about the system from the period of antiquity, a systematization in the approaches to this phenomenon is gradually coming. Important characteristics of the system, determinants, properties, but also the structure itself, as well as the dynamism in the functioning of the system, are taught. Due to the technological revolution and acceleration in this area, reduction and abstraction are necessarily imposed in the observation of such extensive and complex matter. It is this approach that gives "a new dimension", universality both in the observation and study of the system, but even more so in its instrumentalization, in wide, and one might say, inexhaustible fields. Our thinking goes in the sense that its general dimension can be applied to any organization. So does the state, which we see as an organization. In this way, we can observe the state through a systemic approach and act towards such an organization in order to optimize its functioning. Manageability and optimization of the functioning of every organization is a basic property, the ultimate purpose in the application of system knowledge, that is, the instrumentalization of systems' science. Management and the human factor, at this technological and civilizational moment in the development of mankind, has a key, administrative, and most importantly, control function in the functioning of the organization.

The state, as one of the most meaningful forms of human organization, should use all the benefits of such a scientific, systematic approach. In the future, there will certainly be a need for further optimization of the human and artificial factor in the management and optimization of the work of the state, but also of any organizational form - any system. Therefore, the "generality" and significance of our approach remain relevant in new challenging times for science and humanity.

REFERENCES

1. Aristotel, (2007). *Misli nad mislima, antologija*. Beograd: Alba Greaca Book.
2. Bertalanffy, L. (2009). *General System Theory-Foundations, Development, Applications*. New York: George Braziller.
3. Viner, N. (1964) Kibernetika i društvo - Ljudska upotreba ljudskih bića. Beograd: Nolit.
4. Đurić, M. (2009). *Iz istorije antičke filozofije, Službeni glasnik*. Beograd: Pravni fakultet Univerziteta u Beogradu.
5. Deželjin, J. (1987). *Teorija sistema i informatizacija privrede i društva*. Zagreb: Narodne novine.
6. Luman, N. (2001). *Društveni sistemi, Osnovi opšte teorije*. Sremski Karlovci, Novi Sad: Izdavačka knjižarnica Zorana Stojanovića.
7. Marković, M. (1994). *Filozofski osnovi nauke, Izabrana dela, Prvi Tom*. BIGZ, GENEZ-S Štampa, Prosveta, CKZ: Beograd.
8. Vujaklija, M. (1980*). Leksikon stranih reči i izraza*. Beograd: Prosveta.
9. Tejlor, K. K.V. (2007). *Od Početka do Platona, Istorija filozofije,TOM I*. Beograd: Plato.

Paper received: 15.12.2023
Paper accepted: 15. 7. 2024