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## SELF-ORGANIZATION AS THE MOST PERFECT FORM OF ORGANIZATION

**ANNOTATION:** The fact is that everything in the natural and social order has emerged through the process of organizing. It has been scientifically proven that there are two types of organization, as follows: natural or self-organization and artificial, i.e. conscious organization. Self-organization exists in the natural order, and typical examples are: cosmos, all living creatures, especially man as a perfect self-organization. Reasonable organization is the result of man as a conscious living being and it consists of all kinds of social organizations, such as companies, institutions and other types of organizational systems. Self-organization functions based on the laws of nature, and organizing takes place based on man's ideas, man being the example of the highest quality of self-organization.

Although self-organization is the highest quality form of organization, it is rarely or not at all spoken about, and it is even more rarely applied in practice.

Many analogies of self-organization could be transferred to the artificial organizations and enterprises, institutions and other institutions.

This paper aims to highlight the characteristics of self-organization as a result of natural organization, in order for certain principles from this method of organization to be transferred to artificial organizations.

**KEYWORDS:** self-organization, analogies, features of self-organization.

Characteristics of self-organization and the possibility of applying in artificial organizations

One of the reasons for poor implementation of self-organization in the design, construction and management of organizational systems is lack of knowledge about these forms, especially when it comes to the essence of self-organization, its anatomy and function. Therefore, the prerequisite of

the research of this as well as other phenomena is to find out the characteristics of self-organization as we can perform high quality management and master these issues only if we know them well.

Cosmology has established long ago that the universe works on the principle of self-organization. All parts of the universe are linked together in cause-effect relationships and correlations, so that the universe can be regarded as a system consisting of numerous sub-systems, which corresponds to the scientific truth that everything there is represents a whole consisting of parts, and it is, at that very same time, a part of some other whole. This finding is significant because it shows that self-organization is process of the construction of the highest quality. Apart from creating natural organization, self-organization works in the process of their successful maintenance, or alteration. It is one of the most effective responses to the growing turbulence that occurs both in the natural and social order. Therefore, self-organization and self-regulation, i.e. self-reaction of organization to radical changes in the environment leads to automatic adjustment of (self)organization to altered circumstances, a feature that is increasingly required of individuals, but also of businesses and other organizations.

For example, when a person enters certain heated space, his body automatically reacts and triggers defensive mechanism, i.e. tries to get rid of excess heat and to adjust body temperature to the ambient temperature. Thus, the body begins to perspire, until the temperature of both environment and the organism is equilibrated. A similar situation occurs when a man is in a cold room. The body activates the tremor mechanism which speeds up the movement of blood through the organism. In this way, it creates friction, which increases the temperature and shaking will last until the temperature of the body becomes equal to the ambient temperature. The situation is similar when one looks at bright light sources. Through the automatic closing of the eyelids the body, i.e. the eyes, respond to changing circumstances. In these cases it is self-organization, i.e. the ability to react in accordance with the circumstances and situations.

If artificial organizations could be built on the principles of self-organization, they would be very effective, i.e. they would automatically respond to changes in the environment, and above all to markets changes. Let us imagine that a company automatically notices changes in customers regarding performance of individual products, or services (price, quality, design, functional features, etc.), just as it is an automatic reaction to heat and cold; imagine if they would be able to appreciate the changes, to produce what customers want and what they can pay for; that would be unprecedented quality of the

organization. But it is in the present conditions impossible because man has not succeeded in retrieving numerous secrets in the functioning of nature. Probably he shall not be able to discover those secrets for a very long time from now, due both to their complexity, and partly due to insufficient knowledge of the natural law upon which creation, growth and development are based, i.e. upon maintenance selforganized organizations.

Nevertheless, through acquisition of new knowledge in biology and medicine, and especially in anatomy, physiology and other natural sciences with the help of information technology, many secrets have been revealed; we are about to have less and less of those things that are secret, or unknown. This creates pre-conditions for the laws of operation of self organization to get transferred to artificial, i.e. man-made organization, organizations that man designs, builds and maintains.

Each organization including organizations built by nature have certain common characteristics, but also a number of specific features, which requires elaborate explanation.

The primary characteristic of any self-organization is its integrity. Natural organizations come to being as wholes, the parts of which are connected to each other and between which there are iterative relationships. Parts are relatively independent, but any change in one part, causes changes in other parts, i.e. at the level of the whole organization. As the complexity of a (self)organization increases, it at the same time increases its autonomy in relation to the environment. The above legality exists in artificial organizations. Small businesses are more depending on the environment. Today, transnational and multinational companies have a high level of independence, which is why the traditional power changed in favour of corporations at the expense of the state.

Reliability of (self)organized structures is determined by the degree of correlation, i.e. integration of parts within a whole. Although the systems whose reliability is based on unreliable man, still he is the basic element of the human being, otherwise those would be technical systems.

Therefore, a young man is more reliable than the older one, because the organs are interconnected into an integrated whole. This rule applies to technical systems as well. A new car is reliable because there is a high degree of integration of components, sub-assemblies and parts within the technical system. The disintegration of parts, assemblies and sub-assemblies in which there is less and less interaction leads to uncertainty and the need to establish their reintegration, which is done through the overhaul seeking to establish

a re-integration and compliance parts. After reintegration, the technical systems become reliable again until the final spending when disorganization reaches such a level that there are no technical or economic opportunities to re-establish repair.

The second characteristic is that every self-organized entity establishes relationships with the environment in which it is located, which means that it receives from the environment the individual impulses, performs the transformation processes and finally realizes output giving the environment a product or service. We see, therefore, that man, plants and animals as forms of self-organization, would not be able to survive if they were isolated. In other words, none of the self-organized structures can survive on the principle of a closed system, because in the natural order nothing is self-sufficient, nor can it survive as an autonomous and independent part. The situation is similar with artificial systems, or organizations. Companies as organizational systems can not function unless they are related to the environment, from which they take inputs, perform the transformation processes and ultimately provide the products or services.

The third characteristic of self-organized structures is their dynamism. Every organization, including self-organization, must keep changing, at least together with the speed of change in the environment. If the organization changes more slowly than the environment, it is doomed to disappear. Example of dinosaurs confirms this. They had disappeared because they failed to adapt to changes that had occurred in the region. The situation is similar with the organization. For example, a large automotive company Ford has managed to last more than a century, thanks to the adjustment, and the changes they constantly introduce. Certainly, today's Ford is not the same as some fifty or a hundred years ago. He was able to survive because it kept changing its models according to customers' requirements. If that had not happened, he would have disappeared like the dinosaurs, and other companies. With the increased pace of movement, the need for more intensive pace of artificial organizations shall increase too.

Each (self)organization is unique and unrepeatable. This is evident from the example of all living beings, including plants, animals, and humans. All the studies have shown that there are no two same men on this earth, even when it comes to twins. Although people are the same in their anatomical and physiological characteristics, still people differ in their consciousness, thinking, behavior and actions. This feature causes a number of implications in artificial organizing, because it shows that every man is motivated and inspired in a

different from any other man, and that pursuant to the above, a particular way of communication must be adapted to every man specifically creating the one that fits his characteristics.

While every man is both autonomous and individual, he can only survive in cooperation with others, but also with elements of the environment to which he belongs. Therefore, man becomes part of the environment or its subsystem. He must adapt his behaviour to the environment and work on its sustainable development, because in this way he increases the chances for his own survival.

Each self-organized structure has a life span, which can not be indefinitely extended. Unlike self-organizations, the organization does not have a limited life span and can theoretically be immortal, provided it lives together with the changes. For example, the Ford has lived for more than a century, but it is not the Ford from a hundred years ago . He has survived and continues to survive because it keeps changing and adjusting its business to the needs of customers, i.e. of market. If the above does not happen, the organization is doomed to death. In this context, each self-organized system eventually faces the exhaustion of its energy resources which eventually results in death. That is why every self-organization has the ability to reproduce; this is the process in which new self-organizations are created. However, the boundaries of reproduction, and regeneration are limited. Man has been successful thanks to the acquisition of new knowledge to extend the time of regeneration and reproduction, but he has not managed to escape her own disappearance, or death, as the ultimate outcome of all living beings.

The fifth characteristic of self-organization is their stability. Self-organizations constantly exchange matter, energy and information with the environment and strive to increase the ability of self-preservation, despite permanent changes that occur in their structure. This is confirmed on the example of pancreas. We see that pancreas replaces most of its cells every twenty-four hours, the white blood cells are renewed every ten days, and 98% protein in the human brain that changes every month. These changes happen constantly, but within the same pattern of events and behavior. Self-organized structure continues to operate in an environment that is changing. However, over time, these structures become deformed too, and in the end they die of exposure and the inability to regenerate and renew..

Self-organized structures tend to extend their fields of action and master the elements of the environment to which they belong. They try to spread out their influence and dominance resulting in competition as the basis of any kind of progress and the progress of civilization. This is why man as a living being wants a permanent

expansion of the area of his influence striving to master the wider area and a larger number of people.

All the above indicates and proves that self-organization is a significant source of knowledge that may be used in the design, construction, maintenance and management of man-made, i.e. consciously organized organizations and systems. In this way, it does perform an imitation of what is happening in the natural organization.

Given that the practice of organizing artificial systems still uses the postulates of classical organization which in modern terms can not give proper effect, we are sure that in the future there will emerge increasing need for introduction of a new concept of organization based on the principles of self-organization, as the most perfect way of organizing. Findings regarding self-organization can be used to increase the effectiveness of corporate organizations, with different ownership, or organization type, different sizes, etc. Successful implementation of knowledge does not require any funding which is often presented as a limiting factor in certain acts or omissions. In this sense, we should bear in mind the saying of Johann Goethe: 'We are too old to criticize, but young enough to do certain things and change and change them.'

#### Resume

Man as the most complex biological being is a product of self-organization. He is so far the most perfect mode, or the product of self-organization. However, no organization is perfect, nor will it ever be possible to achieve. The main reason for the above is that man is the main element of any organization, and all systems whose reliability is based on man are unreliable. Therefore, neither man as a conscious living being nor the systems in which he is present are not and can not be perfect. In fact, no one is as good as his opinion of himself, nor as bad as presented by others. In this respect, there is a vast area for a man to improve, upgrade and increase his ability regarding work, behaviour, and life in general. If any man any other organization reached the level of perfection, it would collapse.

Through the study self-organization and drawing adequate conclusions, it is possible to transfer certain laws and principles of their functioning onto the organizational systems as artificial creations, made from natural (human) and artificial elements (resources and labour, raw materials, etc.). In this way, the organizational systems would took on the characteristics of self-organization, which would lead to increased flexibility and adaptability and rapid and appropriate response to the changes occurring in modern world.

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### **УПРАВЛІННЯ КОМУНІКАЦІЙНИМ ПРОЦЕСОМ У СВІТІ ПСИХОЛОГІЧНОГО ІНФОРМАЦІЙНОГО ПОТОКУ**

**АНОТАЦІЯ.** Розглянуто вплив засобів масової інформації на свідомість людини застосовуючи маніпулятивні технології у процесі управління. Запропоновано модель прогнозу впливу інформаційного потоку на свідомість людини як можливість управляти інформаційно-комунікаційним процесом.

**КЛЮЧОВІ СЛОВА:** управління, комунікаційний процес, маніпулятивні технології, психологічний вплив, інформаційно-комунікаційний вплив.

**АННОТАЦИЯ.** Рассмотрено влияние средств массовой информации на сознание человека применяя манипулятивные технологии в процессе управления. Предложена модель прогноза влияния информационного потока на сознание человека как возможность управлять информационно-коммуникационным процессом.

**КЛЮЧЕВЫЕ СЛОВА:** управление, коммуникационный процесс, манипулятивные технологии, психологическое воздействие, информационно-коммуникационное влияние.

**ABSTRACT.** The influence of the media on the human mind using manipulative techniques in the management process. The model forecast the impact of information flow in the human mind as the ability to manage information and communication processes.

**KEYWORDS:** management, communication process, manipulative techniques, the psychological impact of information and communication impact.

Сьогодні у світі психологічної атаки інформаційного потоку на свідомість людини припадає великий об'єм передачі сигнальних повідомлень, які надзвичайно важко прийняти, сприйняти, перевірити і переосмислити. Засоби психологічного впливу, які