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Creative thinking in the system of modern management

Abstract

According to the widely believed, the central part in world crisis and post-crisis processes certainly belongs to a market economy. This paper deals with the main consequences of the extensive development of the management in creative economy. It's about creative capital, that means simply put, an arsenal of creative thinkers whose ideas can be turned into new or innovative valuable products and services. Creative manager can find employees pioneer new technologies in future it can be new industries, and innovative power economic growth. This paper deals with understanding of the need for a new, creative approach to management in modern enterprises.

Keywords

creative management, creative thinking, modern management, management theory

1 Statement of the problem

Based on studies in various international locations, we suggest that current understanding of organizational effectiveness is limited by historical assumptions and models. Recent decades have seen various attempts to demonstrate a crisis, calling for a rethinking of organizational theory [1]. The need for coordination of actions in order to obtain the desired result of human activity has led to the emergence of management. In this context, management is a purposeful influence, necessary for coordinated human activity. Management is a complex and universal social phenomenon [2, p. 21].

Management is carried out in systems with a network of cause and effect relationships that can move from one state to another within this basic feature. This process ensures stabilization and development of the system, preserving its qualitative determination, maintaining dynamic interaction with the environment. Since complex systems function under conditions of continuous

changes in the internal and external environment, the task of management is to respond as efficiently and promptly as possible to these changes, provided by timely restructuring of the functional and organizational structures of the system in accordance with its regularities and trends [2, p. 21].

The management as a social phenomenon is a conscious activity, conscious control (regulation) of public relations.

2 The purpose and problem of research

The management is in a number of phenomena of "second" (artificial) nature that have arisen and developed throughout the history of human civilization. It has been formed by people for the purpose of conscious self-regulation of their life and depends on the state of society, its regulations and forms, ideals and values, level of development and organization of human potential.

Management is one of the most complex, most responsible areas of intellectual activity of people

[3,p.23]. The most adequately management is determined by the term "influence", which indicates the main thing in management - the moment of influence on consciousness, behaviour and activities of people. Management takes place when a subject influences something, changes something, transforms it from one state to another, for some reason it provides a new direction of movement or development, so if there is no effective influence that would ensure the achievement of a certain goal, then there is no management.

The basic principles of management are aims, interests, knowledge, ideas, aspirations and expectations of people [2,p.24]. That is, management as a system generating category consists of many subsystems based on the human mind.

Thus, the new categories introduced in recent decades by economic science in line with the methodology of individualism - human, intellectual, social, cultural, symbolic capital are only a new halo of established values. The crisis neoclassical economics does not want to accept that only innovative thinking can save economic thinking and mankind from falling into the abyss of nothingness.

Modern Ukrainian science of management is still developing to understand the role of non-economic in economic development. A misunderstanding and a lack of awareness, and as a consequence, underestimation of non-economic is perhaps the main cause of the fact that there is a permanent economic growth in society, but there is no proper development - moral and spiritual, social and cultural; development of opportunities; development of a person in terms of self-realization [5,p.120].

Thus, at the present stage of development of management relations, creativity and diversity of thinking play a key role and form the core competencies of managers.

Each economic agent qualitatively differs from others, each of them has distinctive features that evolve and are measured in time. According to evolutionary approach, diversity is an integral feature of the economic system.

Thus, we can identify some characteristics of the economic system in the aspect of creativeness theory:

- 1) Variability. The principle of variability is characterized by the ability to change the behaviour of the economic agent at a certain period of time, which can be understood as the search for new, more effective ideas in pursuit of improving their position in society.* (109)
- 2) Economic choice. In accordance with the evolutionary theory, all economic agents are in a competitive environment.

Companies compete with each other in commodity markets, workers compete in labour

market, consumers compete in commodity markets. Such rivalry makes economic agents strive to achieve better results than competitors do.

In this way, the competitive environment is some analogue of the natural environment, where species compete for dominance. In the natural environment, the survival factor is the viability of the species, in the economy it is the result of the functioning of agents, which is formed by the diversity of creative thinking [6,p.110].

In general, the term "creativity" was first introduced in 1922 by D. Simpson. He meant by creativity a person's ability to abandon stereotypical ways of thinking and working.

A halo of mystery was around this concept for a long time. However, if creativity is understood as a series of thinking processes that can be applied consistently and can be learned, creativity loses its mysticism.

In the general economic sense creativity is the ability of a person to generate unusual ideas, to find extraordinary solutions, to deviate from traditional patterns of thinking, which in the future will bring material benefits to the person. In this definition, it is emphasized that the creative product should differ with its novelty, the usefulness of creative ideas on the scale of a particular company is not taken into account, which makes this definition unproductive from the point of view of organizations.

Therefore, it is worth first of all to consider the etymology of the term "creativity" in the narrow and broad sense. In the narrow sense, creativity is a divergent thinking (more precisely, divergent productivity operations by J. Guilford), the characteristic feature of which is the willingness to put the plural in equally correct ideas about the same object.

The creativity in the broad sense is a creative intellectual ability. It is regarded as polyphony, multifactor, ability to perceive the variety of meanings: text - context - subtext, ability to see not manifested, potential, unique, "lateral" properties of phenomena; giving preference to complex, ambiguous, unstructured phenomena.

Thus, the implementation of the concept of creative thinking in the enterprise management system, both in developed countries and in developing countries, provides new opportunities for their economic growth, structural renewal and modernization, and the realization of creative potential allows ensure uninterrupted development and growth. Therefore, it is worth considering the existing differences in the established styles of innovative ideas managing at the enterprise level (see Table 1).

The Japanese management system is based on

TABLE 1 The main differences between the Japanese and American styles of an innovative ideas managing

American management	Japanese management
Result-orientated (ensuring innovation standards)	Process-oriented (standards improving)
Innovation (focus on technologies)	Adaptation and improvement (focus on people)
Attention only to significant innovations (based on the search for new technologies)	Attention to details (based on existing technologies)
Manager is a field expert (a clear division between product design and manufacturing)	Manager is a multi-discipline expert (close relationship between the creation, design of the product and manufacturing)
Closed information (Individualism)	Transparency of information for company members (collectivism)
Making decisions from the top management to employees, quickly, individually (decisively, radical implementation of changes)	Making decisions from the employees to the top management, slowly, coordinated (gradual implementation of changes through improvement)
Formal contacts between staff and management	Informal contacts between staff and management

the principles of focusing on the process of quality standards improvement, adaptability and product development, solving scientific and technical tasks of expert and applied nature of commercial importance, involving the workers into the creative process, collectivism in decision-making, innovative approaches to the creation of a system of organization of technological processes and organization of work “exactly for the appointed time” (Kanban system). It is an erroneous thought that the power structure in Japanese corporations is completely decentralized. The power in Japanese companies is centralized, but within the framework of this centralization subsystems are involved, and a consensus is required for decision-making. The top management of successful Japanese companies is focused on the prospect, reveals employees’ initiative in decision-making and persistently implements them. The decisions are made “from top management to employees”. However, within the group decisions are made with the participation of all members of the group based on consensus [7,p.104]. That is, the Japanese system declares so-

called “creative thinking within the permitted limits”, which is an interactive approach. Within the framework of this approach, an adequate description of the employee’s behaviour requires taking into account the social context in which he/she lives and operates. Accordingly, individual differences in creativity can be explained by individual characteristics of a person, as well as a set of situational and contextual characteristics. Contextual characteristics can be defined as certain features of the working environment that potentially affect the creativity of the employee, such as organizational culture, task type, reward system and motivation, time constraints, etc.). At the group level, creativity is seen as a function of the individual creativity of its participants, interaction between them, group characteristics (norms, degree of solidarity), group processes (common approaches to problem solving) and contextual influences.

At the organization level, creative thinking acts as a function of group creativity and contextual influences. It is also worth noting that, according

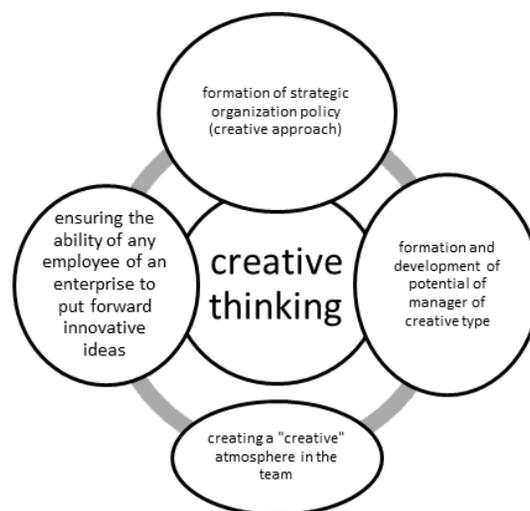


Figure 1 The main tasks of “creative thinking” in the enterprise management system. Source: author’s interpretation

to an interactive approach, R. Woodman and co-authors define organizational creativity as a complex process in which a creative product is the result of human behaviour in a specific context - the organizational environment. According to the ideas of the authors, organizational creativity is the creation of a valuable, useful new product, service, idea, procedure or process by individuals, working together in a complex social system.

On the basis of our research and observations, we can formulate the main tasks that are designed to solve creative thinking in accordance with the interactive approach and being in the general management system of a modern enterprise (Fig, 1).

In its essence any strategic measures are innovative, since they are in one way or another based on innovations, adequate changes in behaviour, specific actions of structural components (branches, units) and the enterprise as a whole in order to adapt to existing or foreseeable events, situations in an external organization environment.

At the end of 2017 the famous Forbes issued the new rating of the world's most innovative companies. Salesforce, the client's relationship management system producer, took the leadership position, followed by Tesla Motors and the electronic retail leader Amazon [8].

Unfortunately not a single Ukrainian company, which deals with the innovative activity, was included to this rating, though there are many of them existing. Ukraine is included to the eight world's countries, which can provide the full cycle of design and production of the aviation and space technics, and to five world's full cycle producers of tanks. Also Ukraine is in ten world's big ship producers. The country is proud of its' relatively high education level and great intellectual potential, achieved thanks to the developed higher education system and scientific personnel preparation.

2014-2017 State Statics Service of Ukraine analysis shows, that 17% of entrepreneurs do not see the point to implement innovative projects because of few reasons: the market does not request innovation, the competition on the market is quite low, and there are no good ideas or possibilities for innovations [9]. The rest 82% of entrepreneurs noted, that there are few internal environment factors that hurdle them to implement innovative projects. One of them is the lack of the creative management of enterprises.

The analysis of the modern literature demonstrated, that modern competitive enterprises are obliged to not only have the creative entrepreneurs, but also be based on creative management.

To understand the practical value of the

mentioned problem, we will analyse the effectiveness of different spheres Ukrainian enterprises creative management. To evaluate the enterprise creative management effectiveness, we suggest to use the method, suggested by D.K. Zinkevych in his dissertation work.

The research of the current enterprises' creative management systems for 2014-2017, conducted on the basis of indexes, shown in Table 1, allowed to evaluate the indexes deviations in 2017 comparing to those in 2014-2016.

To summarize the received expert information regarding the current situation of the enterprises' creative management systems, we can conclude the following:

- The indexes, characteristic to the creative management systems on the examined enterprises during the set timeframe, showed the tendency of being non-stable;
- As the state of the examined systems is greatly influenced by the external environment, the conclusion can be made, that all these systems are currently on the early stage of development. There are currently no mechanisms that can provide the stable functioning of these systems, the protection from the lack of funding, etc.
- The creative activity in general is seen by the managers of the enterprises as one of the development directions, but not as a strategy to be competitive. Because of this, the turbulence periods of markets do not let the managers and the business owners to perceive creative ideas as the basis for the production and economic problems solution. They try to overcome difficulties using their usual manner, which often leads to the losses in assets, production phasing down, job cuts etc.

To sum up, it is worth saying that the enterprises with the developed creative management system improve their quality, differentiate the production and economic processes tactical tools and rationalize development strategies during turbulent times on the market.

Creative thinking is implemented in modern organizations, basing on certain principles. In particular, the following principles should be highlighted:

- effective leadership;
- innovation, technological thinking, experiments stimulating;
- constant self-improvement on the basis of the latest knowledge;
- motivation for the realization of the creative potential of the staff and the enterprise as a whole.

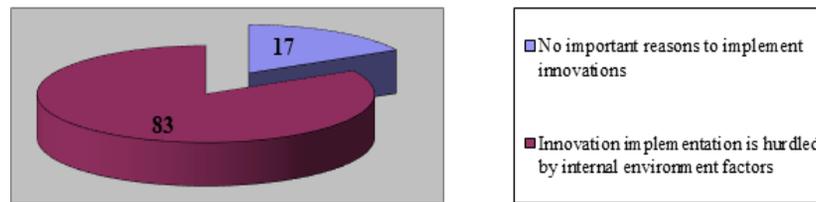


Figure 2 Ukrainian entrepreneurs point of view of the obstacles, which do not let them to implement innovations on enterprises

TABLE 2 Indexes characterizing the system of the creative enterprise management

Index	Ways to calculate index
Creative management goals consistency index (K_g)	Correlation between the contradictory goals (K_{u1}) and the total number of the set goals (K_{u2})
Creative management system goals implementation index (K_i)	Correlation between the implemented goals (K_{i1}) and the total number of the set goals
Creative management system goals renewal frequency index (K_f)	Correlation between the number of outdated and terminated or changed goals (K_{c1}) and the total number of the set goals
Creative management system employees education index (K_e)	Correlation between the employees with the higher education (K_{e1}), and the total number of employees, who are the part of creative ideas development and accumulation (K_{e2})
Creative management system employees effectiveness index (K_p)	Correlation between the expressed creative ideas (K_{p1}) and the analysed timeframe (K_{p2})
Creative management system employees discipline index (K_d)	Correlation between the number of discipline breachers, who are the part of creative ideas development and accumulation (K_{d1}), and the total number of employees who breach the discipline (K_{d2})
Creative ideas implementation index (K_v)	Correlation between the creative ideas implementation (K_{v1}) and the total number of the suggested creative ideas
Creative ideas adoption intensity process index (K_k)	Correlation between the number of the adopted creative decisions (K_{k1}) and the length of creative decisions development process (K_{k2})
Creative decisions rationality index (K_r)	Correlation between the number of effectively implemented creative decisions (K_{r1}) and the total number of the adopted creative ideas
Enterprise's creative management information supply completeness index (K_i)	Correlation between the amount of the used information sources (K_{i1}) and the total amount of the possible information sources (K_{i2})
Creative management system communication development index (K_z)	Correlation between the used communications types (K_{z1}) and the total amount of possible communications types (K_{z2})

Source: [9,10]

TABLE 3 Indexes deviations in 2017 comparing to the average in 2014-2016

Names of enterprises	Indexes numerical order										
	1	2	3	4	5	6	7	8	9	10	11
Mechanical engineering											
PJC NVP Bilotserkiv MAZ	0,05	-0,01	-0,07	0,01	-0,05	-0,21	-0,34	0,04	-0,40	-0,02	0,41
SE Vinnytskyi Aviatsiynyi Zavod	-0,07	0,25	0,02	-0,03	-0,21	-0,15	0,23	0,27	0,5	0,12	0,11
PJC Donetskirmash	0,01	-0,03	-0,23	-0,01	0,84	-0,10	-0,29	0,21	0,15	-0,3	-0,15
PrJC NVK Girnychi mashyny	0,23	0,07	-0,06	0,08	-1,06	0,05	0,06	0,27	-0,11	0,25	0,20
Brewing											
PrJC Karlsberg Ukraine	0,06	0,17	-0,23	0,26	0,12	0,08	-0,09	0,64	0,24	0,21	0,08
PrJC Obolon	0,24	-0,04	-0,03	0,22	-0,45	-0,18	-0,53	-0,22	-0,03	0,11	-0,19
PJC Sun Inbev Ukraine	0,14	0,09	-0,68	0,4	1,88	-0,14	-0,09	-0,22	-0,27	0,30	-0,10

Source: systematized by authors

Notes: 1 – creative management goals consistency index; 2 – creative management system goals implementation index; 3 – creative management system goals renewal frequency index; 4 Creative management system employees education index; 5 – creative management system employees effectiveness index; 6 – creative management system employees discipline index; 7 – creative ideas implementation index; 8 – creative ideas adoption intensity process index; 9 – creative decisions rationality index; 10 – enterprise's creative management information supply completeness index; 11 – creative management system communication development index.

3 Results of the research

Therefore, we can conclude that creative thinking in modern management system may have the following features:

- 1) The non-linearity of the interaction of elements of the modern system of management of organizations leads to the fact that the behaviour of a complex system cannot be reduced to a simple sum of the behaviour of its constituent elements. In complex systems there are energetic, that is system-forming properties, and also there may be processes of self-organization, in which locally-separated elements show system level order;
- 2) The openness of the system generates an interchange of information and matter of the surrounding environment.
- 3) The dynamic nature of the behaviour of the economic system is constantly evolving over time.
- 4) Stochastic behaviour of the system makes it

unpredictable.

- 5) Multi-level system can significantly complicate the understanding of its structure.
- 6) Dependence on the previous development and on the initial conditions of the system.
- 7) Presence of self-supporting processes manifests itself in the ability of some systems to auto-reproduction and self-creation [10,p.111-112].

Therefore, we come to the conclusion that the implementation of the system of creative thinking within the concept of modern management opens new horizons for social and economic progress.

Modern management as a system of constantly updated knowledge and art of management is characterized by increased globalization influences and democratization of managerial processes, formation of a new type of managerial relations based on the principles of creativity and innovative management techniques.

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