

Conceptual features of strategic management in the digital economy

Levchaev P.A.

Professor of Department of finances and credit of the
"National research Mordovian state University",
Saransk, Russia

Khezazna B.

Department of Finance and credit of the
"National research Mordovian state University",
Saransk, Russia

Abstract — A prerequisite for ensuring strategic opportunities for the financial development of the Corporation is the financial strategy, which occupies a key position in the corporate governance system. A comparative study of the classical views of management in the intensification of the processes of digitalization and the construction of a "digital" model of the world. The problems of interaction between the managing and controlled subsystems acquire priority importance, since they directly affect all behavioral features of the individual in the digital economic and social order. The conclusion about the cardinal change of management paradigm and depersonalization highly efficient management of various focus groups from the formalized-algorithmizing teams of artificial intelligence. The main research methods were the following: research, analysis and synthesis, comparison and comparison. The theoretical and methodological basis of the study were the works of economists on the problems of Finance, financial management and corporate planning.

Keywords — *management, strategic planning, artificial intelligence, digitalization, digital technologies, digital technological way.*

I. INTRODUCTION

One of the main directions of increasing the competitiveness of the Corporation in modern economic conditions is to determine strategic priorities and create conditions for their achievement on the basis of an optimal combination of resource, financial, production base and human resources of the company. So, today, in an increasingly competitive environment, the main tool for ensuring the sustainability of corporate development is strategic financial planning. In addition, modern methods of strategic planning are aimed primarily at strengthening the competitive advantages of the enterprise in the market, as well as to prevent the upcoming negative events and develop measures to adapt to them.

Today it is difficult to imagine a commercial organization without analysis and forecasting of its activities. The effectiveness of the financial strategy of the Corporation is determined primarily by a properly constructed model of financial policy. The financial policy of the Corporation is a set of measures in the field of organization of financial relations in the company, which allow to ensure the solution of problems reflected in the strategy and tactics of the enterprise development. Thus, the financial policy includes a set of objectives of the financial strategy of the enterprise and the implementation of a specific tactical financial policy at the operational level.

It is characteristic that in today's popular digital economy, a prerequisite for the effective functioning of Russian companies is the presence of a well-developed and sound financial strategic plan aimed at ensuring the sustainable development of the organization in the future. Modern methodology of strategic planning of financial activity is based on different approaches, having in its Arsenal a different set of tools of so-called strategizing.

The financial strategy of the Corporation should be considered from the point of view of ensuring the competitiveness of the company, its viability and survival in the market in the conditions of digitalization. Therefore, in these conditions, the problem of theoretical justification of the formation of the financial strategy of the company and the solution of methodological and practical problems of its implementation in the development of the digital economy is of particular relevance and importance.

II. RESEARCH OF METHODOLOGY

The theoretical and methodological basis of the research consists of the works of management classics (foreign and domestic scientific schools), as well as research in the field of building a digital economic structure (periodicals, scientific conferences, seminars, Internet sources).

This scientific research assumes the use of the following generally recognized approaches with the tools corresponding to them:

- the system approach assumes consideration of object of research from a position of allocation of subsystems and elements;
- process approach involves the study of the sequence of stages, repetitive acts of managerial influence over time;
- an integrated scientific approach involves the study of interrelated and interdependent variables that affect the purpose and effectiveness of the act of managerial influence.

In addition to these scientific approaches, the provisions of the theory of information objects will be used, suggesting modifications of the information carrier with the primacy of image transmission in the information environment.

The aim of the study is to study the impact of digitalization processes (the widespread use of digital technologies in everyday socio-economic life and business environment, as

well as the transition to a digital economic order based on data transmission and processing technologies using machine intelligence in order to build the so-called of digital society) on the generally recognized ("classical") approaches of management, as the science of management in a narrow plan or the impact of the control subsystem on the management subsystem to achieve the goals (in a broad interpretation of the understanding of the management impact).

The object of research – transforming (under the influence of digital technologies) management science (management).

The subject of the study is a set of conceptual economic, organizational and managerial relations that develop in the process of development and influence of digital technologies on the basic provisions of management science.

The hypothesis of the study is the conceptual transformation of the paradigm of the classical school of management (focused on the use of personal communication skills impact on the managed system (as a group of people) in the industrial economy) on the model of formalized-algorithmized impersonal management of target focus groups by artificial intelligence in the digital economy.

III. RESEARCH OF RESULT

In conditions of intensification of processes of digitalization and the use of artificial intelligence (AI) in the daily lives of consumers and different groups of users problems interactions the managing and managed subsystems have become vitally important because direct in fact not only affect all the behavioral characteristics of the individual in the digital economic structure, but also in the existing social order. According to the President of Russia V. V. Putin at the St. Petersburg forum, a leader in the development of artificial intelligence can become the ruler of the world. In this statement lies an extremely deep and fundamental thought, understanding of the future structure of the world in which the existing compromises and assumptions of management science will be polarized as never before because of the change in the technological way and the opportunities for development for the elite (attached to technological innovations and promising structural transformations) and the masses (due to various circumstances, not included in the number of initiators, developers or "controllers" of the cardinal structural changes in the economy and society).

Currently [1-6], the dominant approaches in management science are system, situational and process. It is the combination of these fundamental views that formed the so-called comprehensive view, approach in management. However, it does not actually take into account the understanding of management science in terms of the use of information, communication and computing capabilities originating in the post-war (ie, in the 1950s) period. Of course, the fragmentary possibilities of this today, in our opinion, the defining concept originated and took place in the early period – we are talking about the development of quantitative approaches (based on mathematics, statistics and engineering, including research and "scientific" approach F. Taylor), the study of operations and the construction of models (where just the same and set the variable values). As it becomes clear, in

the pre-existing classical understanding of the science of management and behavioral (behavioral) views, the key and starting point is now considered the creation of computers with appropriate computational capabilities and economic and mathematical modeling. Thus, it appeared serious possibilities of computer technology in the 1950s, intensified Cybernetics of the 1980s with the use of automated control systems (ACS), subsequently-in the formation of unified views and models in logistics, accounting and financial reporting, engineering services of leading multinational companies, and finally, through the theory of information objects (considering the distribution of information, including the appropriate view of the person in these processes – only as a carrier of information and no more!), in prevalence of the automated administrative technologies and creation of the corresponding information technological way with construction of the information society inherent in it [7-10].

At the end of the XX century in developed countries began the process of formation of the economy in which important information systems. Significant features of this post-industrial phase of economic development are the financial feature, the transnationalization of transactions, the increasing influence of information and communication technologies and the virtualization of business and social processes. The issues and problems of the digital economy are currently one of the most pressing, as evidenced not only by the numerous discussions and attention to the practical aspects of its functioning, but also quite Philistine and pragmatic interests of users. The new era of the industrial revolution is characterized by the mass use and appropriate means of production, namely the so-called "big data" (big data), artificial intelligence, robotics, the Internet of things. The ongoing technological innovations are changing the way that existed before, both in production and in other spheres of social and economic life-in the labor market, in the sphere of leisure, in the world of Finance, etching the widely used version, the digital economy (electronic, network economy) today is understood as the way of the economy, the dominant part of which is based on the use of digital, electronic technologies, products, results of activities. Certain elements of these technologies (electronic computers, plastic Bank cards, electronic transfers and payments, the Internet) have been developed in the last decades of the twentieth century and have become predominant since the beginning of the new century (mobile communications, electronic money, software, digital data carriers, computerization, the formation of elements of artificial intelligence, robotization of production, "accumulation" of information and business virtualization).

The problem of management in management is considered key at all times, as it concerns the interaction of the control and controlled subsystems to achieve the desired result. The specifics and peculiarities of this interaction have changed in the process of evolution of management science. Today, when the reference point of the social and economic development of society is the reference point of building a digital economic order (including the so-called "digital economy"). digital economy) and, accordingly, the "digital" society, this problem is not just debatable, but also key, and here the importance of understanding and awareness of the processes that are

probably already prepared for the bulk of such a society. Let's focus on the most significant, key changes that, in our opinion, will occur in management as a management science, and in particular the management system.

Currently, we are seeing automation of separate processes with appropriate algorithms folds into concerted action and algorithmization artificial intelligence (AI) in relation to the object of managerial influence personnel, users, various target groups and audiences. Far-looking researchers are already talking about the so-called "singularity" (a stage in the development of artificial intelligence, which will be characterized as uniquely superior to human) to which remains about ten years. In these processes a three-stage (with higher institutional level, management – middle level and technical – lower) classical pyramid of management levels will be transformed and presented segments: 1) the highest level (developer of AI), the number of which tends to 1; 2) moderate (very small and rather symbolic) face defining the operating parameters of the components of AI; 3) the lowest level are the various number of users and consumers (not included in 1 and 2 levels), breadth of coverage which tends to infinity.

Today, the use of algorithmized automated management technologies is often beyond the understanding of the General picture of the world of the ordinary citizen. These facts become more clear (and even then not always) when hiring (when robotic artificial intelligence on the basis of selected resumes makes a decision about a particular vacancy), when installing the so-called mobile assistant (taking into account the habits of the user and his behavior in the cellular network or when driving, other "smart" things (we are talking about the "Internet of things"), including "smart home", "safe city", etc.) with a personalized pass (or ban) to the workplace (office, warehouse), assessment of knowledge in the electronic diary of a student, etc. It is not without, to put it mildly, curiosities – for example, in the United States there was a case of not passing by artificial intelligence of a competent developer of an expensive project to the office (on the basis of a contract that ended and was not subsequently extended), which cost the company significant material losses, and the specialist himself – time and effort to prove his innocence and extend the contract through "outdated" human relations.

And what will happen in the management system in terms of the process approach?

Currently, the classic understanding of the management impact of the subject (control subsystem) on the object (controlled subsystem) management is the allocation of a number of functions-phases such as planning, organization, motivation, control to achieve the goals in management and in the future – the implementation of the mission of the control system. Thus, these management acts, the functions of direct management subsystem in the context of the stated goal-setting (setting of target reference points of development of the system), which for a business may involve the increase in its value, for the administrative apparatus – the growing influence of and aspiration to the heights of power, economic and social spheres of society – comprehensive, harmonious and balanced development of culture of society towards

cultivated values in a dynamically-changing environment, etc. However, the processes of algorithmization of what is happening regarding "standard" criteria-variables of the system, make the management process is formalized and cheap, and therefore we are talking about the application of waste management technologies to control object – for example, as you know, in some of the most scandalous cases of unfair voting, or promotional companies to create the desired image and mentality of the inhabitant. It is no secret that today most consumers form their opinion (or rather come to it) under the influence of advertising or information flows and news from various news feeds (synthesizing the news flow of information and analytical aggregators, and simply put-robots). It is clear that in such conditions from "classical" functions there is only a name, moreover in them there is no need any more as all work in the conditions of domination of computer developments and the corresponding software (so-called software) is reduced to the installation of filters, sets of variables (controls) and landmarks at the input of such a system and obtaining the planned result at the output. The process itself is transformed from a sequence of management actions "planning-organization-motivation-control" into an algorithmized sequence of computer iterations "system input-system process-system output" implemented by AI.

In fact, each of us – inhabitants, all of your conscious day is spent under the control of the predetermined optimal range of behavior and input-output acts of managerial influence (this is the focus understanding is shaped by the technological revolution and the creation of computers and algorithms understanding of his actions, and the evolution of management science stepped out of the past (classical foundations of management) in the future (algorithmization actions optimally modeled processes with desired results). How far is it to a digital copy of a person, if all the parameters of his existence and functioning are already known and "accepted" by artificial intelligence for self-learning and improving their own efficiency? Far as people with limited creative potential can just "go" in such a digital blank game, while others more gradually will be forced to increase their digital effectiveness in the digital environment, such as starting with implantation of the chip indicator personality to enter the office. Interpersonal communication today often takes place in absentia via video or social networks, as well as medical operations and conferences.

Internal and external environment like the once open system (as is clear from the tenets of situational and systemic approaches of management of the past) are also amenable algorithmization, for it is well understood, deciphered, and to amend the motives of behavior of individuals (both internal components of the control system) as well as environmental factors are connected into a network structure of control, serving as a "breeding ground" for self-learning AI and develop optimal solutions to its actions and regulation of behavioral parameters of individuals (or rather controls) on the pre-stated commands of the developer or Owner. In this case, the feedback (intended in the classical management to adjust management process) non-existent (it is sufficient to read the response of the virtual satisfaction of the brain from the process to know the efficiency and the effectiveness of input

filters and carried out by teams of algorithms), since replaced by the adjustment of inlet filters management algorithmizing exposure control system in the form of AI.

The reality is the so-called "digital enterprise", which is an organization that builds its activities and achieves competitive advantages through the use of digital technologies in all leading areas of its activities (from product design to delivery to the consumer and receiving payment for it). Digital business must not only operate in the digital environment, but also to build the (digital) culture and business philosophy in which the common man (less so to say "cyborgisation") there is given less and less space and there's nothing he can oppose, because the measurement is in processing speed and the evolution of man is inferior to machine.

IV. DISCUSSION OF RESULTS

So, we formulate the main results and conclusions of the study:

1) in the conditions of digitalization, the efficiency of management decisions based on the use of digital technologies, and in particular algorithms and artificial intelligence capabilities, increases many times;

2) increases the polarization of society, entailing very limited in number (close to one) top of the management pyramid the management subsystem is presented by the initiator, the developer, the controlling element and the lower part (managed subsystem) – users of services, the object of managerial influence;

3) the Control system becomes self-sufficient, since it already includes and covers a set of all possible variables in the implementation of management acts in relation to the "formalized" object of influence. The action of the object in a predetermined digital environment forms the skills of existence in it, depriving the person, the individual of creativity and the ability to independent thinking and action.

V. SUMMARY

Thus, under these conditions, initially socio-technical system becomes technical and social with a predominance of command-management functions generated by AI. The famous pyramid of needs by Maslow in this case, "virtual servers" and looks like an illusion (since all applied values and needs - security, social, respect, self - expression presented in the digital environment and are also satisfied virtual like for example, in a computer game) and is reduced (and the original) to the physiological needs of primary, basic level. Thus, the paradigm of the classical school of management

(with a predominance of personal communication skills impact on the managed system) is replaced by the paradigm of formalized algorithmized impersonal control of focus groups by artificial intelligence.

We must assume that the near future of the digital world and the economy is due to the fact that each of us will, for example, have an electronic code (a chip in a plastic card, passport, or under the skin) with automatic binding of comprehensive information (including Bank accounts, liabilities), which will identify this person within the created algorithms of the digital world and give the opportunity (or deprive of the opportunity) to use commercial, state, social and other services from the society. Such identification will allow full control of its economic and social activities, anticipate its needs, direct development in the right direction. To the digital image of "icons", "avatars" of a person in the network will be tied all his present and all the possibilities of development in the future.

References

- [1] Mescon M. H., Albert M., Hedouri F. Fundamentals of management: TRANS. – M.: "Delo" LTD, 1994 – 702 S.
- [2] Levchaev P. A. challenges of the digital economy. // Research and development. Economy. - Volume 5 number 5, 2017). - Mode of access: <https://naukaru.EN/ru/nauka/article/18558/view>.
- [3] Bell, M. and Pavitt, K. (1993) 'Technological Accumulation and Industrial Growth: Contrasts between developed and developing countries', *Industrial and Corporate Change*, 2(2): 157-210.
- [4] Bello, O. A and Aderbigbe, F.E (2014). The Role of ICT In National Development and Poverty Alleviation; *International Journal of Research in Engineering & Technology* ;Vol. 2, Issue 5, Pp; 275-284.
- [5] Gholami, Roghieh, Sang-Young, Tom Le, Almas, Heshmati, 2002, "The Causal Relationship Between Information and Communication Technology ICT and Foreign Direct Investment FDI", 11th European Conference on Information Systems, ECIS 2002.
- [6] Iwu, A.O and Nzeako, R.C. (2012). ICT as a Viable Tool for Entrepreneurship Education *Journal of Educational and Social Research* Vol. 2 (9); Pp; 125-131.
- [7] Kleiner, D. (2018, February 01). The Face Value of Bitcoin: Proof of Work and the Labour Theory of Value. Retrieved January 29, 2019, from <https://blog.p2pfoundation.net/face-value-bitcoin-proof-work-labour-theory-value/2018/02/01>.
- [8] Jorgenson, D.W. 2005. "Raising the Speed Limit U.S Economic Growth in the Information Age", *Brookings Papers on Economic Activity*, 125-211.
- [9] Odufowokan, B. A.(2010). "Information & communication technology (ICT) & Graduate unemployment in Nigeria". *The 21st century challenges. International journal of creativity & technical development*, 2(1-3).
- [10] Sethi, V. and King, W.R. (1994) 'Development of measures to assess the extent to which an Information Technology application provides competitive advantage', *Management Science*, December, pp.1601-1626.