

Digitalization as a Trigger for the Development of Corporate Education

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Abstract—The attention of the article is devoted to the issue of corporate education in the context of digitalization, defined as a trigger for its development through the creation of corporate universities of modern companies. Based on the conclusion about the transformative nature of «Industry 4.0», leading to a critical revision of the theory and practice of management, its digital transformation, it is concluded that the development of one's own training policy and the testing of appropriate mechanisms for its implementation should become and are becoming priority areas for the development of modern companies. It's substantiated that corporate universities of companies, the opening boom of which in Russia occurred in the first decade of the 21st century, can and are becoming such mechanisms. The conclusions drawn are confirmed by a study of the history of the creation and performance of the pool of corporate universities in Russia. To prove the foregoing, the article conducts a study of the field of activity, infrastructure, and the effectiveness of the leading representatives of the existing population of corporate universities in the Russian Federation. The formats and range of activities, the target audience and its average size, organizational and legal forms and organizational affiliation, and the volume of investments are analyzed.

Keywords—Digitalization, education, development, development of corporate education, corporate university.

I. INTRODUCTION

In the context of the large-scale penetration of «Industry 4.0» (the Fourth Industrial Revolution) into all spheres and branches of the world order, the dynamics of digital business transformation is becoming decisive in shaping the needs of the economy in the competencies of the future. Understanding the transformative nature of «Industry 4.0», leading to a critical revision of the theory and practice of management – its digital transformation, allows today to predict the need for those future competencies that will be able to balance the labor market. Indeed, the report «Industry 4.0 in 40 Figures and Facts» presented by RBC, provides data that by 2030 60% of all professions will be automated, and 77% of workers will be forced to acquire new skills or completely retrain [3, 6].

In such a situation, the changes taking place push modern companies to independently solve the problems of personnel training, their training at a qualitatively new level by creating their own development centers.

This is also facilitated by the need to fill the knowledge deficit of potential employees, which has been worrying employers since the last century.

II. OVERVIEW OF CORPORATE EDUCATION DEVELOPMENT PRACTICES

The study used publicly available data from the corporate websites of PJSC GAZPROM, PJSC LUKOIL, ROSATOM Group, PJSC KAMAZ PTK, PJSC VTB, NLMK GROUP, PJSC Sberbank of Russia, etc. We used open data from the websites of their corporate universities, media materials, and open sources on the Internet.

We used publicly available data from McKinsey & Company [2], as well as the Forbes expert and analytical review «Research: Russian Corporate Universities» [4].

When identifying the challenges of the digital economy, we relied on the RBC report «Industry 4.0 in 40 Figures and Facts» [3] and the document «What is Industry 4.0 and what you need to know about it» [6].

When analyzing the impact of digitalization as a trigger for the development of education, the materials «University 4.0: how digitalization of universities should take place» [5] from RBC and media materials ««Digital» education: let no one remain superfluous» were also used [1].

III. RESEARCH METHODOLOGY OF DIGITALIZATION AS A TRIGGER FOR THE DEVELOPMENT OF CORPORATE EDUCATION

The conducted research was based on theoretical methods of scientific cognition, in particular, methods of analysis, synthesis and deduction, as well as methods of empirical knowledge that made it possible to reflect on the problems of the impact of the digitalization on the economy on the state of the labor market, the discrepancy between the qualifications of employees to their needs. The method of analysis (ancient Greek: ἀνάλυσις «decomposition, separation, dismemberment, disassembly»), as a dialectical way of approaching the study of processes in their formation and development, made it possible, by highlighting individual parts of the objects of research (labor market dynamics and the transformative nature of «Industry 4.0»), to study their cause-effect relationships. The synthesis method (ancient Greek: σύνθεσις «connection, folding, binding»; from συν- «joint action, complicity» + θέσις «arrangement, placement, distribution, <place>position») in conjunction with analysis, allowed us to get an idea of connections between the components of the subject of study. To answer the question: how the digitalization of the economy affects all spheres and branches of business, a deductive method and a systematic

approach to analyzing the dynamics of macroeconomic processes were applied, methods of generalization, comparison and evaluation of data on the research problem were used.

As a result, a hypothesis was put forward, according to which digitalization is a trigger for the development of corporate education, and corporate universities should be the answer of modern companies to the challenges of the digital economy.

IV. STUDY OF THE DEVELOPMENT OF CORPORATE EDUCATION IN RUSSIA IN THE CONTEXT OF DIGITALIZATION

The new challenges of the digital world, the impact of rapid changes taking place not only in science and technology, but also in all spheres of society and the economy, determine the need not only to search for new ideas, but also to change the management paradigm of modern companies. In the context of the digital transformation of the economy, new technologies are changing the composition and profile of professions in almost all industries, increasing the shortage of highly qualified personnel in the labor market, forcing its participants to seriously think about providing companies with human resources for the medium and long term. Indeed, today, when the potential benefits from the penetration of digital technologies into all spheres and branches of business are obvious, the lack of spheres of life that cannot be digitized, determines the training and development of personnel of modern companies as a key factor in their long-term success and competitiveness. This can be confirmed by the assessment of the Worldskills Russia company of the scale of losses of the world economy from the discrepancy between the qualifications of workers to the demands of the labor market, which can reach 5 trillion dollars by 2030, as well as the global personnel imbalance, which may exceed 1.4 billion people [1].

In this regard, the problems of training and retraining of personnel, designed to become a key factor in the long-term success of modern companies, is receiving a new reading, bringing to the fore the consideration of the formation and development of corporate universities as a response of companies to the challenges of the digital economy.

This is also facilitated by the need to make up for the lack of knowledge of potential employees, which has been bothering employers since the last century, forcing them to independently solve the problems of staff training facing them. Thus, according to a study by the National Qualifications Development Agency (NARK) and the VTSIOM Foundation, only 1.6% of companies do not feel the need to supplement the knowledge of newly hired employees, being satisfied with the qualifications of applicants [5].

In such a situation, increased disruption of communications between employers, who are not always able to formulate requests about the competencies of their potential employees – graduates, and educational institutions that do not keep up with the rapidly changing labor market, has led to the fact that today more than 100 Russian companies [4], representatives of various industries, having chosen their own training format, and having created structural units within themselves capable of solving the problems of training and staff development, have reported on the launch of modern educational programs with the already traditional name

«corporate university» (CU), having created a serious population of them in Russia.

Although in Russia, many «post-Soviet» companies with a long history had training centers and other formats of personnel training created long before the beginning of market reforms, it was the changes of the 1990s that pushed them to create corporate universities to develop their managerial personnel in the new economic realities of the country and to restart the training system at a qualitatively new level and staff development in general.

This trend has covered almost all business sectors (Table 1), allowing companies to use all the advantages of corporate universities, as well as similar synonymous educational units in the construction of deeply customized systems of training and staff development.

Table 1. Representatives of the population of corporate universities in Russia in the sectoral context

Company	Business sector / Industry	Name
PJSC GAZPROM	Oil and gas industry	Corporate Institute
PJSC LUKOIL	Oil and gas industry	Corporate Training Center
ROSATOM Group	Energy	Corporate University
PJSC «RusHydro»	Energy	Corporate University
PJSC SIBUR Holding	Chemical and petrochemical industry	Corporate University
The Central Bank of the Russian Federation	Finance	University
PJSC Sberbank of Russia	Finance	Corporate University
PJSC VTB	Finance	Corporate University
JSCo «RZD»	Transport	Corporate University
Aeroflot PJSC	Transport	Corporate Educational Center
ROSATOM	Energy	Corporate Academy
NLMK GROUP	Metallurgy	Corporate University
KAMAZ PTC	Mechanical engineering	Corporate University
PJSC «MegaFon»	Telecommunications	Corporate University
PJSC «Rostelecom»	Telecommunications	Corporate University
X5 Retail Group	Retail trade	Corporate Educational Center
PJSC «M.video»	Retail trade	Corporate University

As a result, as noted in the study of corporate universities in Russia, today more than 100 domestic companies have

announced the «launch of divisions or programs called «corporate university» or similar educational units.

At the same time, depending on the goals of the company and the university, both the entire staff and only top-level management personnel can study there according to the «Leaders Teaching Leaders» (LTL) scheme. As noted in the study, usually the CU is a division of the company or is issued within the framework of HR functionality [4].

At the same time, as a rule, the CU receives a state license for educational activities in order to issue documents on advanced training or additional education. CU uses various forms and methods of training, offering formats of short training or multi-level programs ending with an MBA degree.

The Forbes study notes that the average number of CU educational programs is 356 with an available spread from 10 to 2100 [4].

A number of universities are also engaged in attracting young people, having additional training programs for students and schoolchildren in their tools. In such a situation, the target audience of CU can vary from 1,500 to 880000 students. The average number is more than 73,000 people per corporate university [4].

In addition to educational activities, universities are engaged in expert-analytical and publishing activities.

At the same time, as the authors of the study note, the average budget is more than 400 million rubles or 1.19% of the wage fund.

Modern corporate universities have a classroom fund (traditional (91%) and for hybrid education (86%)), their own campuses (41%), studios for the production of media content (61%).

In the context of digitalization, companies demonstrate their capabilities on the official websites of their universities.

An example is the visualization of the infrastructure of the JSCo «RZD» Corporate University on the official website (Fig. 1):



Fig. 1. Visualization of the infrastructure of the JSCo «RZD» Corporate University on the official website [7].

It is no less interesting to get acquainted with the possibilities of passing virtual training (Fig. 2) and the conditions of the campus (Fig. 3) of the PJSC Sberbank of Russia Corporate University.



Fig. 2. Visualization of virtual learning opportunities on the official website of PJSC Sberbank of Russia Corporate University [8].

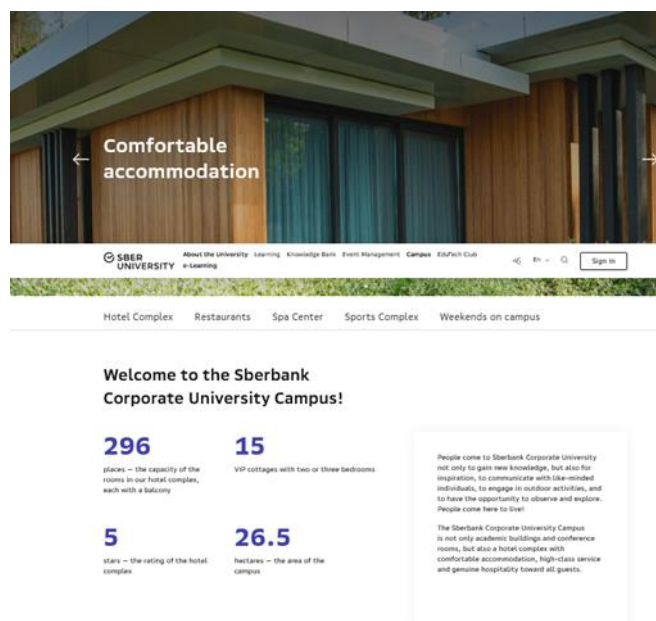


Fig. 3. Visualization of the campus conditions on the official website of PJSC Sberbank of Russia Corporate University [8].

As a result, the group of leaders of domestic CU already has international recognition, having become members of key global associations, having passed the appropriate accreditation and certification procedures (in the pool of domestic CU there are 5 EFMD members, 3 ECLF members, 2 CLIP accreditation holders, 3 GLOBAL CCU certification holders, 2 EOCCS certification holders) (Table 2):

Table 2. A group of leaders of the CU of Russia who have received international recognition

Membership in global associations	Company
EFMD	PJSC Sberbank of Russia, The Central Bank of the Russian Federation, NLMK GROUP, PJSC SIBUR Holding, JSCo «RZD»
ECLF	PJSC Sberbank of Russia, The Central Bank of the Russian Federation, NLMK GROUP

CLIP	PJSC Sberbank of Russia, PJSC SIBUR Holding
GLOBAL CCU	PJSC Sberbank of Russia, JSCo «RZD», PJSC GAZPROM
EOCCS	PJSC Sberbank of Russia, The Central Bank of the Russian Federation

- [7] The official website of the JSCo «RZD» Corporate University. [Online]. Available: <https://universitetzrd.ru>
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Thus, the conducted study of the specifics and features of the educational activities of the leading representatives of the established population of corporate universities of the Russian Federation allows us to conclude that by implementing the appropriate mechanisms for their formation and development, modern companies find an answer to the challenges of the digital economy. Digitalization, being a trigger for the development of corporate education, determines its future path.

V. PRIORITIES FOR THE DEVELOPMENT OF CORPORATE EDUCATION IN THE CONTEXT OF DIGITALIZATION

The analysis of the results of the conducted research allows us to conclude that corporate universities can become the answer of modern companies to the challenges of the digital economy, becoming an essential factor in their development in the conditions of the advent of «Industry 4.0». Indeed, today, it is within the framework of corporate universities that retraining and staff development in the conditions of rapid development of the digital economy can be implemented through:

- continuous training aimed at acquiring and assimilating the necessary knowledge, skills and abilities of the emerging digital world order;
- changing the role of trainees and trainers, acquiring not only new functions by the learning process, but also revealing a new content in the existing ones;
- application of innovative educational models and technologies that meet the challenges of the rapid development of «Industry 4.0»;
- achieving a reasonable balance in the development of «soft», professional and digital skills.

Thus, already today, the development of one's own training policy and the testing of appropriate mechanisms for its implementation through the creation and development of corporate universities should become and are becoming priority areas for the development of modern companies.

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