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**TRANSFORMATION OF CORPORATE GOVERNANCE UNDER  
DIGITALIZATION OF RUSSIAN COMPANIES**

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**Abstract**

This article examines the transformation of corporate governance in Russian companies in the context of business digitalization. The introduction of advanced technologies can significantly optimize the management process by reducing monotonous work and focusing on the long-term conduct of the company. The transformation itself becomes part of the corporate culture and must take place "from top to bottom" with the participation of higher authorities. The types of digital technologies, especially those that have entered the practice of corporate governance, are also considered. The scheme of building corporate governance in Russian companies is given. The main principles of corporate governance are listed. Strategic planning and main preferences on the part of business units are considered. Key provisions from the current regulation in the field of corporate governance are given, which are also reflected in the roadmap. The definition of corporate governance for basic conceptual understanding is given. The influence of the "Black Swan" "pandemic on accelerating the process of digitalization of the corporation is shown. An analytical summary of the ranking of the main digital technologies is given. The example of PJSC "Gazprom Neft" examines the introduction of innovations into the corporate structure through convenient platforms that increase the company's competitiveness, investment attractiveness and profit.

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## 1. Introduction

Digitalization is actively taking over all sectors of the Russian economy and is becoming a necessary condition for the survival of companies in the modern environment. Artificial intelligence, blockchains, digital technological platforms, dialogue systems, virtual and augmented real - this is not the whole list of technological "innovations" and developments that have become firmly established in the process of optimization of companies. The scope of digital technology is increasingly expanding its spheres of influence and plays an important role in corporate governance. What is meant by the latter? (Blemus, 2017).

Corporate governance is a system that distributes the rights and obligations of participants in corporate relations and has clear rules for making decisions; it is a system of management and control over a company that forms a clear structure of the company itself, its tasks and means for implementation. That is, the rules of the game are being formed, stabilizing the management process and promoting the growth of confidence on the part of potential investors. The increase in the investment attractiveness of the company directly depends on the effectiveness of the use of corporate governance, therefore, a well-built corporate process allows you to maximize profits, and this is achieved through the introduction of digital technologies.

## 2. Problem Statement

The peculiarity of Russia is that most of the listed companies have one main shareholder. Hence, the attitude towards corporate governance is determined by the point of view of one or two persons. Shareholders recognize the benefits of the corporation in the form of the link between them and high capitalization, reduced risk and better decision making as a result of a more diverse board composition. And the corporate governance scheme looks like this:

1. The decision on the transaction is taken by the majority of shareholders.
2. The Board of Directors, consisting of persons appointed by the majority shareholders, plus one or two independent persons.
3. Executive management (related to shareholder).
4. Minority shareholders.
5. Regulatory authority.

Corporate governance is based on certain principles:

1. Transparency.
2. Development of the company's strategy.
3. The presence of control mechanisms within the company over the work of managers.
4. Protection of the rights and interests of shareholders.
5. Disclosure of financial and other information about the work of the company (Chekhovskaya, 2018).

In practice, a significant indicator for assessing the effectiveness of management is a high level of corporate governance, which allows the company to achieve strategic objectives in the future. However, often, the concepts of ownership and management are combined in one person on the Russian market, which can lead to weak control mechanisms and low transparency of transactions, as well as to the difficulty

of obtaining information about the “real picture” of the company's financial condition. The latter criterion makes the company vulnerable, and therefore can be ignored by the management. However, in the context of the digital economy and the transformation of companies' activities, it is digitalization that has made and continues to make its own changes in corporate governance (Jardon & Martinez-Cobas, 2020).

Companies began to move from short- and medium-term planning to long term. But, nevertheless, there is a lack of involvement of the board of directors in this issue. Last year showed that predominantly the planning horizon was limited to one year, which caused difficulties when faced with current problems. Today, half as many people began to consider a strategy for only 1 year. The planning rate of “up to five years” was 29%, which clearly demonstrates the shift in focus to a longer-term vision of the business. And 16% of respondents showed their interest in planning up to 10 years, taking into account possible difficulties.

As a result, 81% of people note the realism and ambition of the current trend towards long-term planning, which will make it possible to make a profit not just in the moment, but also in the future, subject to taking into account possible problems that may arise in the course of the company's functioning. All this speaks about the changes in the thinking of businessmen aimed at the strategic vision of the company.

Digital technologies are becoming part of the company's overall strategy. About 72% of businessmen mark this as a positive "trend". Therefore, the shareholders, at a certain moment, actively pursued the personnel policy of the top management of companies, realizing that many of them do not understand digitalization issues, and began to replace them with younger and "proactive" ones. However, more than 37% believe that most of the technologies have not yet been introduced into Russian practice.

The list of leading processes transforming the corporation took the following form:

1. Internet of things - 19%.
2. Artificial intelligence - 19%.
3. Robotics - 19%.
4. Blockchain - 11%.

Above are the areas that were primarily considered by Russian companies. It was the blockchain that, starting in 2018, actively captured the "brain processes" of directors and for the next three years set a course for transformation on a par with artificial intelligence. It is a database distribution system that uses software algorithms to anonymously record and confirm transactions. Only the participants in the operations possess this information, and after it is entered into the system, it cannot be changed by the protection system of the “last” chains by the “previous” ones.

Good practice can put on the agenda the issue of changing legislation and including in corporate laws norms that allow the use of an electronic form of meeting without the risk of interpreting current rules.

Blockchain technology has unique properties:

1. Immutability (impossibility of substitution).
2. Self-regulation (consensus).
3. Distribution.
4. Publicity reinforcing security.

The possibility of using "smart packages" contributes to the optimization of business processes and reduces the speed of executive actions described in advance in smart contracts. The whole difficulty lies in

the prescribed program code, where information is entered even about detailed payments of remuneration to employees.

### **3. Research Questions**

In the course of the research, the issues related to trends in the field of corporate governance and the main trends leading to building the best business model of corporate governance were considered. Issues related to digital technologies and platforms to optimize the process. Questions that answer whether digital technologies are the main trend in corporate governance. The question was raised on the subject of which innovative products increase investment attractiveness. It was found out why it is necessary to create innovative ecosystems in business, creating a pool of innovative ideas and developments that solve social and economic problems. The question is raised about how the state influences changes in the field of corporate governance. The issue of integrating strategic business unit initiatives with global hubs was raised to create meaningful innovations that transform corporate governance.

### **4. Purpose of the Study**

The aim of the study is to study the current corporate governance system of companies from the point of view of their optimization through the introduction of digital technologies. Research into digital technologies contributes to the development of principles and methods of corporate governance, which are the main purpose. Studying the main trends of Russian companies in the field of corporate governance will help to achieve the goal.

The purpose of the study also includes an examination of state legislation in the field of corporate governance, which is aimed at protecting corporate governance in the face of uncertainty and unforeseen situations. It takes into account the study of the current year's corporate governance trend, which forms a single pool of management and corporate activities for organizations. It also includes an analysis of the company's development strategy, which becomes a guarantor and a key direction for the successful functioning of the company. The aim was to identify the peculiarities of a Russian corporation to understand the business model and structure of corporate governance.

### **5. Research Methods**

During the research, theoretical and practical methods were used. The analysis of the current corporate governance system and the main trends in its development was carried out. An assessment of the economic effect after the introduction of digital technologies and platforms was carried out. A synthesis of information and an analytical summary of key trends was applied, which led to a general model of the company's strategic development. Deduction was used, which allowed drawing conclusions about the degree of implementation of digital technologies in the field of corporate governance. An analytical generalization of the facts was carried out to form conclusions on corporate governance. An analytical summary of the leading processes that change the corporation and strategic business models was collected.

## 6. Findings

Artificial intelligence directly assists in problem solving in the form of perception, speech recognition and decision making. It uses behavioral patterns to generate cognitive hypotheses and more predictive analytics. And a model of work is being built: an adaptive model + language recognition + artificial intelligence. The mechanism for obtaining information fits into the DIKW (data, information, knowledge, freedom) pyramid. This will reduce work time by 40% and increase new processes in the company. The scope of application is not limited to IT leaders in the financial sector and retail, but also in industry (Novoselova & Medvedeva, 2017).

The Internet of things is a network of objects that can collect information from everywhere and exchange it over the Internet. That is, it is any connected device to which it is possible to obtain network access. The focus is on electricity, healthcare, agriculture and livestock, transportation and storage of goods. The economic effect until 2025 within the electric power industry will amount to about 532 billion rubles. After all, not only technology is changing, but also the management culture of the company is being rebuilt, which implies a complete change in the business model. Active investment comes from industry and sweat trading, because the introduction of innovation in products and business model is a priority task within this type of digitalization through monitoring and analysis of big data, intellectual analysis.

Robotics are electromechanical devices (virtual agents) that automate and improve the active process of a person (Aleksina et al., 2020). The process of robotization itself allows you to free a person for 14 minutes (at least) (Ivanova & Shikhovtsov, 2017). Since the robot itself can exchange data between applications, interact with corporate systems, has the ability to optical character recognition (OCR) and gain access to mail. You can replace routine and monotonous processes in order to reduce the costs of their implementation, reduce errors and the level of quality of process execution, and moreover, get new business opportunities. For example, internal control and audit is carried out through the testing of automatic controls in IT systems, through general computer controls, analytical procedures.

Virtual reality is a computer simulation of a three-dimensional image within a given and controlled space, which allows the user to realistically interact with an object. It is a powerful tool for solving business problems. For example, the "hrvr" (hardware) platform. Academy trains employees in accordance with corporate standards at no additional cost at any time. Training is carried out at a single standardized level due to immersion in the work environment and the possibility of multiple trainings with a visual passage of the training (Volkova & Volkova, 2019). The trend of modern development of corporate governance involves the development of corporate entrepreneurship together with knowledge management systems through the creation of joint ventures and alliances by major market players.

Russian business represented by the "corporation" is going through a long stage of innovative integration and strategic development. At the first stage, the emergence of interest on the part of corporations in innovative projects and steps appeared for their launch and management in the company. Then, development institutions were built, including non-state ones. At the second stage, active work began on the development of innovation tools. This period has been going on for the last 3-4 years under high demand from business. At the third stage, the construction of innovative ecosystems will begin. This is also achieved by integrating the efforts of corporations and universities along with widespread digitalization.

The planning horizon is increasing. However, it is necessary to take into account the conditions of constant uncertainty in Russia and adapt to constant changes. What was the "Black Swan pandemic"?

It was the pandemic that accelerated the digitalization of business and management systems. In two months, the platforms became the basis for a transformation that was supposed to take two years. The transition to a remote format, on the one hand, optimized the workflow, but also complicated the "corporation" on the other hand. Digitalization has become a condition for the survival of most companies. The government promptly responded to support business by approving a roadmap for transforming the business climate in the field of corporate governance (Yakimova & Lomonosova, 2020).

The state relied on requests from the business community and included proposals in the roadmap. The main points are presented below:

1. A mechanism will be created to regulate problems with shareholders, about which there is no information and who do not exercise the rights of shareholders for a long period of time ("lost shareholders").

2. Legislative consolidation of the possibility for non-public joint stock companies to refuse to conduct a mandatory audit of their annual accounting (financial) statements, taking into account the priority of regulation by special laws.

3. Creation of a mechanism for registration of reports on the assessment of objects of assessment in a single system; formation of a register of information contained in the reports on the assessment of objects.

All this should contribute to the improvement of the investment climate and corporate legislation in Russia.

Thus, PJSC "Gazprom Neft" has developed its own system for analyzing promising technologies ("Digital Technological Vision"), which has become the basis in the development strategy of the entire company through the prism of the needs of the company and the corporation (Halin, 2020). The company independently tests innovative products:

- blockchain and smart contracts (a system for negotiating contracts and solutions based on blockchain, a platform for fast currency conversion on blockchain, HR workflow);
- collaboration tools (intelligent platform for joint modeling and publication of business processes);
- robotics and 3D printing (automated system for open source software);
- AR / VR and natural interfaces (certification of personnel for industrial safety in VR, assessment of soft - skills of personnel using VR simulation);
- artificial intelligence and digital twins (analysis and optimization of business processes using process analytics).

Gazprom together with MTS have created a private LTE corporate network, which speeds up data exchange and allows to provide stable communication with technology centers at a distance. The network was tested in the 1800 MHz and 2600 MHz bands on 5G-ready equipment of the technical partner - Ericsson. In the course of the pilot project, the functionality of telemetry and geolocation systems was tested, voice communication and digital assistant services for an AR headset were tested when monitoring technological work. On the Private LTE network, Gazprom Neft managed to combine the main functionality of a distributed communications ecosystem - a high-speed cellular network, corporate telephony (including FMC), as well as an integrated mobile radio communication system of the DMR

standard with group multimedia broadcasting (MC-PTT) service. After that, the corporate architecture of the corporate data transmission network will be developed, as well as the selection of potential technology partners for the development of this system.

The corporate governance system of "Gazprom Neft" PJSC is based on principles aimed at preserving and increasing assets, increasing market value, maintaining financial stability and profitability of the Company, respecting the rights and interests of shareholders and other stakeholders. The numbers show interest in the company. Net profit for 2019 amounted to 400.2 billion rubles. The pandemic adjusted the demand on the international market, due to which there was a drop in indicators, for six months the proceeds left 913 billion rubles.

## 7. Conclusion

Thus, the introduction of advanced technologies creates a number of risks and peculiarities for the board of directors, primarily in protecting data from espionage. Today there are no completely invulnerable data security systems, although the process of improving them is in full swing. It should be noted that good corporate governance is expensive, as the level of costs sets the pace for entrepreneurial activity. It is not rational not to have a board of directors at all, because it provides the company's competitive advantage on the market. It is important to consider this in strategic planning. All of these technologies allow you to increase the reliability of strategies while reducing maintenance costs, make it possible to optimize asset performance, and optimize investments and the asset management process. They force a change in the depth of shareholder interaction, while integrating all advanced technologies into the activities and corporate structure of the company and increasing its productivity, as well as changing the way people think for a "long-term" vision.

"Digital" is not something material, not some kind of service or product. This is a word that describes the entire surrounding modern world, in which "corporate governance" is changing in step with the times, introducing advanced technologies and mechanisms that greatly simplify the workflow. Corporation more actively chooses a course for long-term planning, which is impossible without a vision of the current market situation and transformation of business. As advances in technology have completely blurred the boundaries between the physical and virtual worlds, today's companies are gaining new opportunities to optimize in a timely manner. But it's important for businesses to remember to focus on strategy, design from needs, be agile, and always look for opportunities to improve.

## References

- Aleksina, A.O., Chernova, D.V., & Aleksin, A.Y. (2020). Electronic interaction in the sphere of physical culture and sports services in Russia. In S. I. Ashmarina, A. Mesquita, & M. Vochozka, (Eds.), *Digital Transformation of the Economy: Challenges, Trends and New Opportunities. Advances in Intelligent Systems and Computing*, 908 (pp. 703-713). Springer.
- Blemus, S. (2017). Law and blockchain: A legal perspective on current regulatory trends worldwide. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3080639](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3080639)
- Chekhovskaya, S.A. (2018). New contours of corporate law. *Entrepreneurial Law*, 3, 31-41.
- Halin, D. (2020). Gazprom Neft and MTS tested a dedicated wireless private LTE network. <https://www.gazprom-neft.ru/press->

center/news/gazprom\_neft\_i\_mts\_protestirovali\_vydeleennyu\_5g\_ready\_set\_dlya\_upravleniya\_udalennymi\_obektami\_proi/

- Ivanova, L. A., & Shikhovtsov, Y. V. (2017). Results of an experiment on the introduction of a conflict resolution program in sports teams of the university. *Theory and Practice of Physical Culture, 11*, 41.
- Jardon, C., & Martinez-Cobas, F.X. (2020). Measuring dynamic capabilities in Russian companies. *Post Communist Economies*. <https://doi.org/10.1080/14631377.2020.1793611>
- Novoselova, L., & Medvedeva, T. (2017). Blockchain for shareholder voting. *Economy and Law, 10*(489), 1-128.
- Volkova, T. A., & Volkova, S. A. (2019). Risk management in Russian companies. *Questions of Modern Science and Practice. University Named V.I. Vernadsky, 1*(71), 49-59.
- Yakimova, E. A., & Lomonosova, N. V. (2020). The state and prospects of using digital HR tools by Russian companies. *Open Education, 24*(4), 47-55.