

ON ANALYSIS OF SOME FACTORS OF THE SUSTAINABILITY OF CORPORATE BUSINESS IN THE CONDITIONS OF THE COVID-19 PANDEMIC

AUTHORSHIP

Dong Zhao 

Qingdao University, Institute of Standardization, Qingdao City, 266071, Shandong Province City Qingdao, 308 Ningxia Road.

ORCID: <https://orcid.org/0000-0003-0488-2787>

E-mail: dongzhao87@163.com

Sergey Orekhov 

Plekhanov Russian University of Economics, Russia, 117997, Stremyanny Lane, 36, Moscow, Russian Federation.

ORCID: <https://orcid.org/0000-0001-6026-7709>

E-mail: corp.innovation@rea.ru

Vladimir Velikorossov 

Plekhanov Russian University of Economics, Russia, 117997, Stremyanny Lane, 36, Moscow, Russian Federation.

ORCID: <https://orcid.org/0000-0001-5845-4820>

E-mail: corp.innovation@rea.ru

Maksim Maksimov 

Plekhanov Russian University of Economics, Russia, 117997, Stremyanny Lane, 36, Moscow, Russian Federation.

ORCID: <https://orcid.org/0000-0001-9247-1819>


E-mail: max_maximoff@mail.ru

Natalia Prodanova 

Plekhanov Russian University of Economics, Russia, 117997, Stremyanny Lane, 36, Moscow, Russian Federation.

ORCID: <https://orcid.org/0000-0001-5140-2702>

E-mail: prodanova-00@mail.ru

Liudmila Chernenkaya 

Peter the Great St.Petersburg Polytechnic University, 195251, Polytechnicheskaya, 29 - St.Petersburg, Russian Federation.

ORCID: <https://orcid.org/0000-0002-9097-8402>

E-mail: ludmila@qmd.spbstu.ru

Received in:

2021-03-10

Approved in:

2020-05-20

DOI: <https://doi.org/10.24115/S2446-622020217Extra-B936p.349-364>

INTRODUCTION

Since March-April of 2020 the Russian economy is in rather difficult condition. The penetration of the coronavirus COVID-19 into the country forced the Russian authorities to take strict measures to prevent the spread of the pandemic. The business of the majority of industries and sub-sectors was suspended or transferred to a distant mode, citizens were subjected to forced self-isolation, the activities of state structures were minimized. An additional negative factor is rather moderate level of oil prices and the lack of progress in cooperation with Western countries, maintaining the sanctions politics. These problems had a significant impact on Russian corporations, forcing corporate management to focus on finding reserves for increasing business stability in the context of the actual economic and social crisis.

The economic crisis caused by the COVID-19 pandemic is characterized by a drop in corporate revenues, an increase in debit debts, and a crisis of non-payments. One of the most obvious ways for adapting the business to this crisis is to reduce costs. However, the current realities differ significantly from the previous crises and require from Russian corporations a deeper understanding of the cost management mechanisms, since the search for the most effective cost-quality combination comes to the fore. This, in turn, requires the

development of a separate cost management system, which, of course, is of a strategic nature and must be implemented into the corporate governance system.

It should be noted that corporate governance encompasses the entire complex of relationships between the management of a corporation, its board of directors, shareholders, creditors, government authorities, society and other interested parties (OREKHOV, et al, 2020); (VELIKOROSSOV, et al, 2020b). The modern theory of corporate governance says that the mechanisms of corporate governance actively influence society, involve it in the problems of the corporate business. Having a well-functioning corporate governance system in a corporation is the basis for effective cost management and improving business quality. Accordingly, we can consider the corporate costs management system at the strategic level as one of the subsystems of the corporate governance system, which quality directly affects the quality of the corporate business and its continuity of operations during the pandemic.

RESEARCH METHODS

In the framework of the presented work, the authors resorted to the following research methods:

1. at the theoretical level: analysis, synthesis, deduction, induction, classification, systematization, methods of vertical and horizontal analysis, axiomatics;
2. at the experimental-theoretical level: experiment, analysis, modeling coefficients analysis;
3. at an empirical level: statistical assessment of the strength of relationship, method of the expert assessments.

LITERATURE REVIEW

The impact of the COVID-19 pandemic on the national economy is one of the most relevant and demanded topics of scientific research conducted by economists, managers, sociologists, and other representatives of the scientific community. Much attention is paid to this problem in the works of the employees of the Plekhanov University.

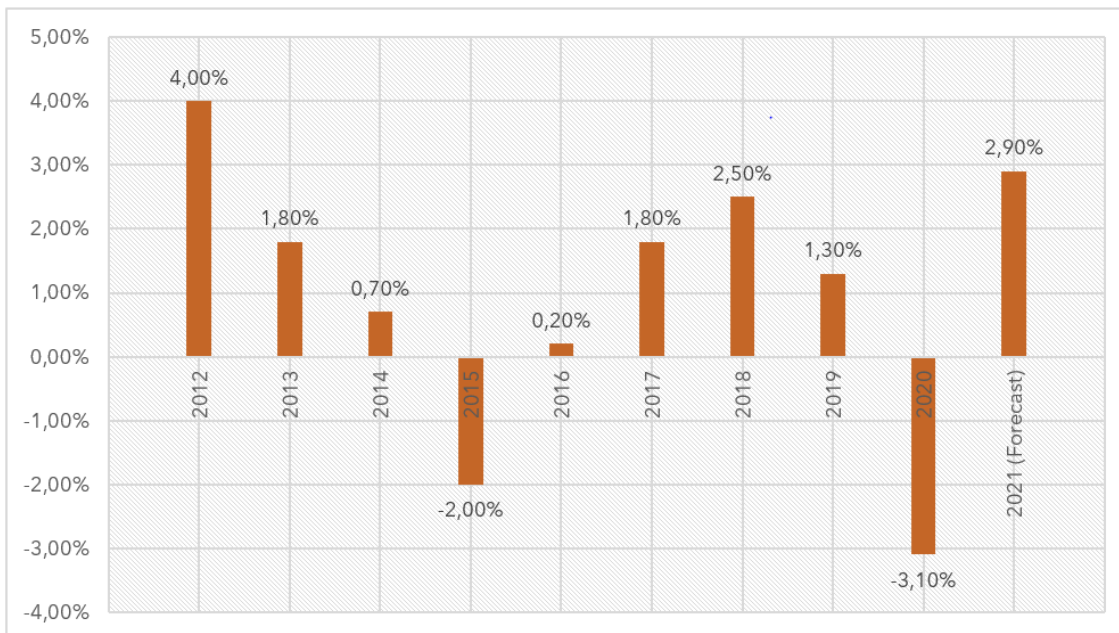
In particular, in the work (VELIKOROSSOV et al., 2020a), the task to assess the impact of administrative decisions and measures taken by government agencies of various countries on the degree of success in overcoming the negative impact of the pandemic by these countries is solved. In turn, the work (MAKSIMOV et al, 2021) analytically proves that the main problems during a pandemic arise due to the reluctance of a number of Russia's European partners to act in a unified manner and format in order to minimize the harmful effects of quarantine measures.

Several works focus on the features of various sectors of the national economy and their use in reducing the negative effects of the pandemic (VELIKOROSSOV et al., 2021); (MAKSIMOV, MATVEEV, 2020); (GENKIN; BALAKHANOVA; VELIKOROSSOV, 2020); MAKSIMOV, GORBATENKO, 2020). The study (RYZHKOVA, KOLESNIKOV, 2020) comprises a survey of possible actions of the business-owners to fortify the competitive positions of their companies to survive in crisis markets. Finally, the work (DONG et al., 2021) raises the question of the effectiveness of global economic and social structures in protecting national economies and populations from crisis trends caused by COVID-19.

RESULTS

We substantiated the introduction of the concept "business quality" into the scientific context, which means the level of how the corporation meets the expectations of stakeholders within the framework of the corporate governance mechanisms. The systematization of approaches within the system of strategic cost management was carried out, presenting the concepts of the value chain, the strategic positioning, and factor analysis.

The article reveals the impact of the strategic cost management system on the quality of business in terms of internal standards and the key performance indicators of management. We proved that the strategic cost management system external stakeholders. does not business in relation to the affect the quality of the Despite the extremely unfavorable external and internal economic environment, the state has largely managed to maintain a balance in the social environment, avoid the collapse of the national economy and stop the decline in GDP at a generally acceptable level (Figure 1). According to the forecast of the Bank of Russia for 2021-2022, the level of GDP should return to the pre-crisis level in the third quarter of 2021 (BANK OF RUSSIA, 2020).

Figure 1. Indexes of the physical volume of the RF GDP, in percent (%) to the previous year

Source: Rosstat (2021)

In these conditions, corporations should pay special attention to finding the most effective corporate governance tools, for example, the strategic cost management system (VELIKOROSSOV et al., 2020b); (GENKIN, ROMAN, 2015). Strategic cost management has an impact on all economic indicators of the corporate structure, showing the management capabilities in terms of maintaining the sustainability of the business during the pandemic (FILIN et al., 2020); (VELIKOROSSOV; GENKIN, KOLESNIKOV, 2020). Taking into account the involvement of corporate governance entities in the strategic cost management system, we can definitely assume that building an effective cost management system is necessary to increase the stability of corporations in conditions of limited business opportunities or a multiple drop in revenue.

In modern studies, the problems of interaction between the subjects of corporate governance are considered in sufficient detail, especially the issues related to the distribution of the functionality and responsibility of management, the board of directors' activities, control over the observance of the minority shareholders' rights, control over the activities of the corporation in general by the owners, state and society (VELIKOROSSOV, 2001), (BYTOV, 2016), (BALAKHANOVA, TLEUDERGENOV, 2019). We are interested in the issue of strategic control over the activities of the corporation and, accordingly, over its costs. Historically, there are two systems of corporate control.

The system of external control over the activities of the corporate structure, formed by the following elements:

- legislation in the field of corporate governance. The laws may determine the percentage of votes required to convene a general meeting of shareholders, and the rights of minority shareholders are specially stipulated and protected.
- mechanisms of financial markets based on the constant possibility for transition of the corporate structure from current owners to others at the background of inefficient management. This leads to the change in the corporation management through the process of mass dumping of shares by the current owners, the company's loss of capitalization and the subsequent purchase of shares by new owners. These mechanisms stimulate managers to work as efficiently as possible, including high-quality cost management, since otherwise they may lose their jobs.

- mechanisms of control from the part of credit institutions providing loans to corporations. The risk of bankruptcy in case of ineffective activity due to non-fulfillment of the credit obligations and low work efficiency is a strong incentive for management to perform their duties efficiently.
- mechanisms of remote voting, allowing to involve all shareholders without exception in the management process. Such mechanisms reduce the risk of usurpation of power in decision-making.
- independent directors who protect the interests of shareholders, monitor the work of the corporation's management and act as intermediaries between them and the owners. The presence of truly independent directors is a clear indicator of an effective system of control over the quality of the corporate structure, and their entry into key committees and commissions makes it possible to effectively control corporate expenses.
- a transparent system for informing owners is one of the most difficult elements of control in organizing, since management is rarely interested in providing information to shareholders about the real state of affairs in the company. At the same time, if such a system is built, then the possibilities for overestimating costs, manipulating facts and reporting will be minimized, and the quality of the corporate business will significantly increase.
- an effective management remuneration system. An economic incentive can be considered one of the best to manage, if properly designed. For the purpose of controlling corporate costs, it is possible to include in the key performance indicators (KPIs) of the corporate top management structure the special ratios and indicators interconnected with various types of costs. Thus, there is an incentive to reduce costs by influencing the remuneration of management personnel. It is also possible to link the motivation of managers of the corporate structure to the value of shares, which is the final indicator of the corporation's performance.

The system of internal control over the activities of the corporate structure is formed using the following elements:

- concentration of funds in the hands of a small number of owners who are directly involved in the daily work of the corporate structure, in most cases, implement a clear coordination of their activities and develop a single strategy.
- concentration of power in the hands of owners based on concentration of shares or specific mechanisms of control over minority shareholders. In this case, external control over the corporate structure takes on a nominal character and is not a mechanism for managing corporate expenses and controlling the corresponding activities of the company's top management.
- possible involvement of the company's internal stakeholders in the operational management of the corporate structure, such as workers, employees, specialists, minority shareholders, government officials.
- formation of a system for securing top managers in their positions, limiting their mobility. A clear delineation of the management functionality in the corporate structure makes it possible to build an overall effective system for the control over corporate costs.
- annual meetings of the shareholders, at which the majority owners, using the main block of shares, make the decisions necessary for the corporation and monitor the progress of their implementation.
- permanent monitoring and audit of the corporate managers' work with the influence from the board of directors and the majority shareholders of the company. With a large number of minority shareholders holding small blocks of corporate securities, none of them will be interested in taking responsibility for managing the corporate structure and its costs. In general, when ownership concentration is low and shares are scattered,

it is very difficult to protect the interests of the corporation, and business development can quickly go out of control. Monitoring and control by the minority shareholders is associated with significant costs for obtaining and verifying information about the corporation's and top managers' work. A majority shareholder provides corporate control over business and costs much more efficiently.

- forming internal documents of corporate governance, which oblige the employees of the corporation to behave in a certain way, to act for the good of the company.

These systems of control over the activities of the corporation and its costs have their own shortcomings and risks (VELIKOROSSOV; BALAKHANOVA, GENKIN, 2019). For example, by reducing the transparency of the company's activities and distorting the facts, the management under external control can usurp power and unfairly enrich itself, inflating corporate costs and disguising them investments. Also, the top managers understand the constant threat of a transfer of shares from one hand to another, which leads to the fact that managers orient towards risky projects that can give a momentary impact on the growth of shares and lead to the payment of bonuses, but at the same time strategically can lead the corporation to the loss of markets and even bankruptcy (KORECHKOV, YABANZHI, 2015). The concentration of power in the hands of a small number of owners can lead to similar results. When management is overloaded with reporting, the opinion of the owners prevails over the management expertise, so public and state control is reduced due to corruption schemes (AKULININ, BRYUHANOV 2014).

Effective corporate governance mechanisms help to balance the above systems of corporate control over business and costs. Optimization of ownership concentration makes it possible to attract owners who are really interested in the development of the corporate structure, while protecting the rights of minority shareholders. Companies with a sufficiently large number of owners are better at attracting capital from financial markets, while managing their costs effectively (VELIKOROSSOV; KARYAKIN, IVANOVA, 2019). The transparency of the corporation's ownership structure and the availability of information on the majority shareholders make it possible to assume control over them, when the quality of the business reduces. One of the fundamental principles of the corporate governance is one share is equal to one vote. This reduces the possibility of manipulation in making management decisions. The board of directors form special committees and commissions that oversee the activities of management. The application of international financial reporting standards and the involvement of the largest independent auditors is one of the most effective ways to increase the transparency of the corporate structure and its costs.

In general, protecting the rights of shareholders and ensuring the transparency of the corporation and its management make it possible to effectively manage corporate costs. Therefore, it is important for each corporate structure to build optimally working mechanisms of corporate governance, to increase the transparency of its work, and to introduce analytical approaches to cost management.

The analytical approach to cost management is based on the data that the corporate management structure receives from the management accounting system. Scientists note (PORTER, 1998) that a prerequisite for the high-quality functioning of the corporate accounting system is its high adaptability, achieved through the development and implementation of corporate data warehouses, the use of OLAP technology and display pieces, distribution of computing power and building a chain of back-up servers to ensure data safety. It should be noted that corporate accounting systems must ensure cost accounting without errors, effective management of business processes, adjustments to operational and administrative expenses, operational assessment of the financial results of the corporation, especially in the context of the transfer of employees to remote work, the transfer of most of the business to online form, the need to control the restrictions established by the authorities and the complication of corporate relations.

Building a strategic cost management subsystem in the corporate governance system implies not only reliance on the above-mentioned high-tech solutions, but also a change in the approach to costs. Costs are beginning to be considered not only in the context of

management accounting, but also as a tool to ensure the tactical survival of the corporation and increase its strategic stability. When the corporation's management switches to a strategic cost management system, it recognizes that the cost of production and the value of the business is the result of the interaction of many factors that determine the fluctuations of costs (BLOCHER et al, 2015; MALLIN, 2016). Consideration of strategic cost management as a subsystem of corporate governance in the scientific literature follows from three main concepts:

- the concept of the value chain;
- the concept of strategic positioning;
- the concept of factor analysis.

First formulated by M. Porter, the concept of "value chain" (KANG, KIM, 2014) is a congruent set of business areas that form integral value for a corporation, from sources of resources to finished products and their after-sales services. In the context of the value chain concept, strategic cost management does not focus on internal processes, but goes beyond the individual business. Corporation manages costs in order to achieve corporate goals, taking into account the processes outside the corporation. Thus, here we can talk about the actual merger of corporate governance mechanisms and strategic cost management mechanisms, since they involve all stakeholders. Considering strategic cost management, considering the choice of a competitive strategy, we move on to the next concept - strategic positioning. Based on the provisions of M. Porter's theory, a corporation can compete either through leadership in terms of costs, or by offering products of higher quality than the competitors do (differentiation) (PORTER, 1998; STIGLBAUER; FISCHER, VELTE, 2012). These strategic competitive approaches imply different approaches to cost management:

- if a corporation strives to be a leader in terms of costs, then its management will focus on careful accounting of all costs and the development of effective tools for their optimization.
- if a corporation competes through product differentiation, then the cost management will focus on marketing, development of new product characteristics, etc.

The concept of factor analysis postulates that value is the result of the interaction of many factors. Therefore, the strategic cost management system should be aimed at determining the main factors in each specific situation, assessing their impact on costs and making appropriate management decisions. Within the framework of this concept, all factors can be divided into two large groups:

- structural factors (the amount of investments required for the production of goods; the level and reliability of the corporation's vertical integration; accumulated experience in terms of business processes and procedures; the efficiency of the used technologies; the completeness of the product line).
- functional factors (involvement of personnel in continuous improvement processes, implementation of kaizen, etc.; application of the TQM concept; combination of production capacities; organization of the cost chain).

Management must consider the following aspects to conduct a qualitative analysis of the factors that determine the costs of the enterprise:

- the costs variation of a corporation is often not determined by the size of production;
- one of the most important areas of the strategic costs analysis in the corporate structure is to determine their relationship with competitive advantages;

- the strategic position of the company in the market is situational, therefore, the study of costs should be based on a situational approach;
- strategic cost management involves the use of various scientific tools, which helps to make more balanced and objective management decisions.

So, strategic cost management is directly related to corporate governance and the quality of the corporation's business processes. Involving all stakeholders in strategic cost management in the context of the coronavirus pandemic requires expanding the traditional relationship between costs and quality of products or provided services. In our opinion, in relation to a corporation, it is necessary to introduce into scientific studies the category of "business quality", which will indicate the degree of the company's compliance with the demands of society, state, investors and other interested parties. And if the products produced by the corporate structure through the category "quality" give an idea of the compliance of the consumers' expectations with the production standards, then the category "business quality" is an integral characteristic of the entire corporate governance system. In the context of the economic crisis, the use of integral characteristics of corporate governance systems is one of the most relevant approaches to ensure adequate analysis and assessment of the corporation's stability.

The corporation's market capitalization is an integral quantitative characteristic of business quality. This is because only the market price of a share includes the impact of many factors, including the basis factor of the coronavirus COVID-19, and is an objective indicator of the attitude towards the corporation on the part of all stakeholders. Market capitalization is calculated as the product of the market value of one share in a corporation by their number. At a theoretical level, the relationship between business quality and strategic cost management is obvious. The more efficiently the corporation's management administers costs, the more sympathetic the stakeholders are to the company and the higher the corporation's capitalization is.

$$V_{corp} = P_e \times Q_e \quad (1)$$

where V_{corp} - the corporation's market capitalization;

P_e - market price per share;

Q_e - number of the corporation's shares in circulation.

Maintaining or insignificant decrease in relation to the leading market capitalization indices means for corporation a positive assessment by stakeholders of the sustainability of the corporate governance system during pandemic. The corporation receives a "credit of trust" in the form of the investors' funds in its securities in anticipation of the situation being rectified and receiving future income from a competitive business. The difference between product quality and business quality is manifested in a number of important strategic points presented in Table 1.

Table 1. Differences between product quality and business quality (compiled by the authors)

Parameter	Product quality	Business quality
Essence of the definition (corresponds to what)	Standards, the consumers' expectations	The interested parties' expectations
Main subjects of assessment	The structure of the corporation's quality control, consumers, regulatory authorities	All interested parties
Valuation horizon	Operative	Strategic
Assessment character	Consuming utility maximization	Utility maximization from investments
Key costs indicator	Revenue (sales volume)	Capitalization
Key driver of the influence	Demand	Share (investment) price
Linkage to production processes	High	Low

Source: Search data.

However, the hypothesis should be justified in practice and there are several questions to answer. How strategic cost management determines the quality of the business? Is the business quality the detached from reality desire of the corporation during the pandemic, that would help to survive the drop in revenue and the crisis in payments? To the questions, it is necessary to collect statistics on the integral indicators characterizing both scientific categories, and compare the variation of these indicators. The CTI: Cost-to-Income indicator will be a complete characteristic of the corporate strategic cost management system effectiveness. We calculate this indicator as the ratio of gross operating expenses to operating income (revenue) (OREKHOV, ed, 2021):

$$CTI = \frac{OPEX}{R} \quad (2)$$

where OPEX - the corporation's operating expenses;

R - the corporation's revenue.

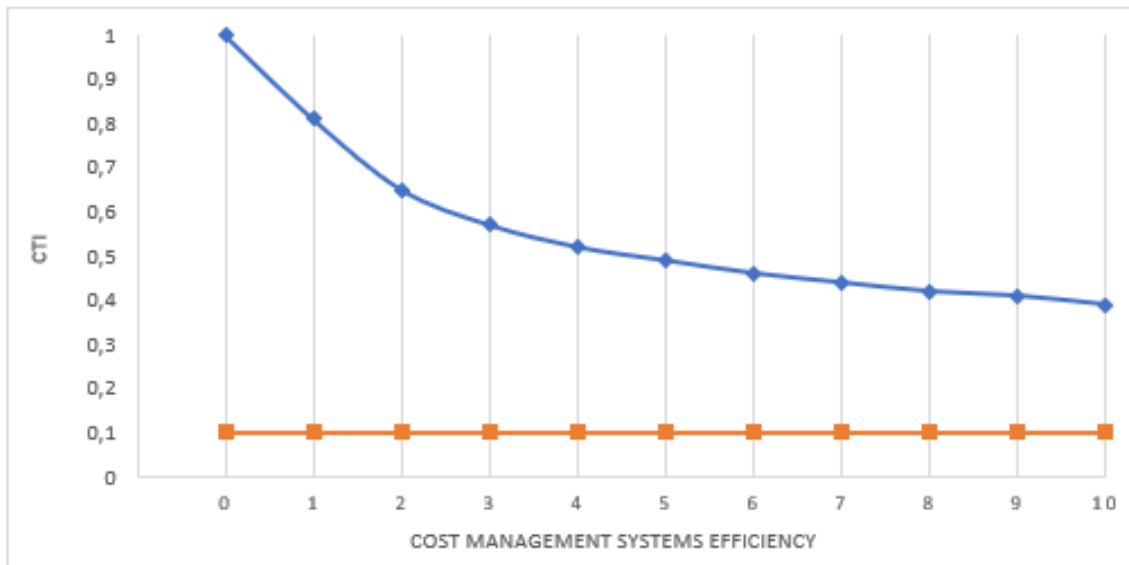
The CTI indicator characterizes the share of costs in one ruble of revenue. It is an additional opposite indicator of the profitability for operating activities, they compose 1 in the sum. The calculation of CTI in terms of operating profitability is shown in formula (3).

$$CTI = 1 - \frac{Pr}{R} \quad (3)$$

where Pr - operating profit.

The natural tendency of corporate management is to adjust corporate governance mechanisms so that the CTI indicator constantly decreases, which will increase business resilience during pandemic. However, a decrease in CTI is only possible to a certain level, below which it of the corporate governance system and a certain output of the corporation's products with the optimal operation of all business processes. cannot fall. This is the level of self-reproductionhis level is an unattainable ideal.

Figure 2. Form of dependence of CTI on the cost management systems efficiency



Source: Derived by authors.

Let us put forward a hypothesis about the presence of an inverse relationship between the CTI indicator, which characterizes the integral effectiveness of the strategic cost management system, and capitalization, which characterizes the business quality. To test our hypothesis, let us observe the two largest corporations in our country, the state-owned PJSC Gazprom and the private PJSC LUKOIL. These corporations show maximum openness to investors, their securities are traded on stock exchanges, and corporate governance mechanisms are transparent.

The annual reports of selected corporations highlight the specifics of strategic cost and investment management. The Boards of Directors from PJSC Gazprom and PJSC LUKOIL have independent directors who ensure control over cost management through a system of powers and committees (Table 2).

Table 2. System of strategic cost management in PJSC Gazprom and PJSC

Characteristics of the strategic cost management system	PJSC Gazprom [10]	PJSC LUKOIL [11]
Independent directors, people	3	4
Share of independent directors in the board of directors, %	27%	36%
Overall cost management	Audit Commission at the General Meeting of Shareholders; Audit Committee under the Board of Directors	Audit Committee under the Board of Directors
Private cost management	Internal Audit Department; Appointment and Remuneration Commission	Human Resources and Remuneration Committee

Source: Derived by authors.

It should be noted that the structure of the corporate governance system in PJSC Gazprom provides tighter control over costs than in PJSC LUKOIL. On the other hand, the share of independent directors in the PJSC LUKOIL board of directors is greater than in PJSC Gazprom, which gives the first-mentioned corporate structure greater independence for assessments by the corporate management.

Table 3. Selected indicators of the PJSC Gazprom financial statements

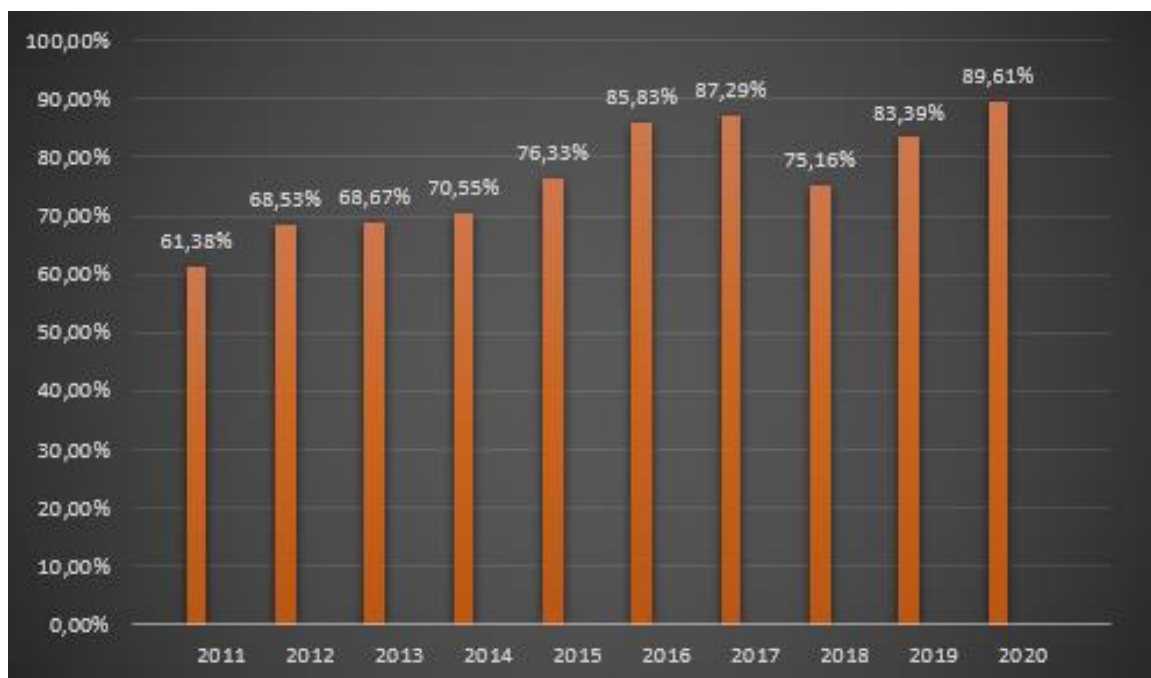
Year	PJSC Gazprom			
	Revenue, mln. RUB	OPEX, mln. RUB	Capitalization, mln. RUB	CTI
2011	4 735 822	2 907 021	4 079 000	61,38%
2012	5 002 902	3 428 321	3 390 000	68,53%
2013	5 247 300	3 603 425	3 295 000	68,67%
2014	5 589 811	3 943 669	3 062 000	70,55%
2015	6 073 318	4 635 502	3 222 000	76,33%
2016	6 111 051	5 244 983	3 659 000	85,83%
2017	6 546 143	5 714 090	3 089 000	87,29%
2018	8 224 177	6 181 191	3 634 000	75,16%
2019	7 659 623	6 387 071	6 070 000	83,39%
2020	6 321 153	5 666 319	6 204 000	89,61%

Source: GAZPROM (2021)

The data on PJSC Gazprom, collected from the official financial statements, are presented in Table 3. The depth of the data represents the last 10 years, which allows us to draw generally relevant conclusions about the presence or absence of the relationship between the CTI indicator and the capitalization of the corporate structures. The CTI is calculated using formula (2).

As follows from Table 3, PJSC Gazprom almost constantly increased the share of expenses in revenue, reducing its operating profit in the period 2010-2019. In 2018, there was a decrease in the indicator, but in 2019 it again showed significant growth. The average absolute increase in the CTI indicator, calculated for the studied period, amounted to 2.2 points over the year, the downward trend in the effectiveness of the strategic cost management system is almost linear (Figure 3).

Figure 3. CTI dynamics of PJSC Gazprom



Source: GAZPROM (2020)

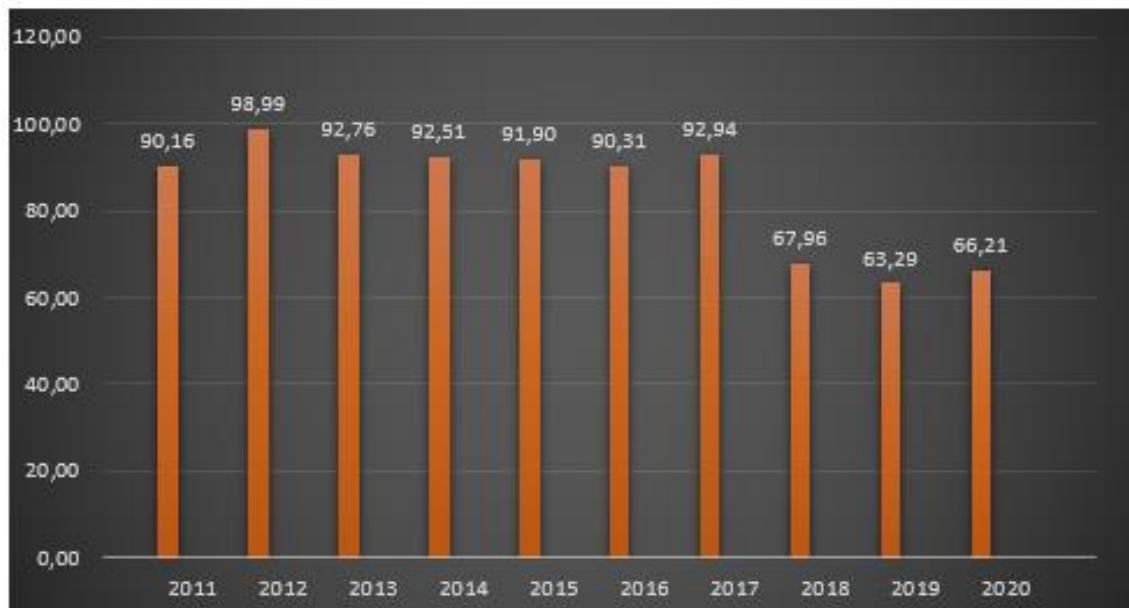
Let's calculate the Pearson correlation coefficient, which shows the closeness degree of the relationship between the two indicators, in our case, between CTI and the capitalization of PJSC Gazprom. Pearson's correlation coefficient is 6%, which indicates that there is no relationship between these indicators. Thus, our hypothesis that the effectiveness of the strategic cost management system and the quality of the business, expressed in capitalization, are inversely related, was not confirmed in this case. Let us further check our hypothesis using the example of PJSC LUKOIL. The data required for the calculation are summarized in Table 4.

Table 4. Selected indicators of the PJSC LUKOIL financial statements

Year	PJSC LUKOIL			
	Revenue, mln. RUB	OPEX, mln. RUB	Capitalization, mln. RUB	CTI
2011	3 927 974	3 541 348	1 455 000	90,16%
2012	4 324 043	4 280 327	1 695 000	98,99%
2013	4 512 319	4 185 440	1 740 000	92,76%
2014	5 504 856	5 092 522	1 893 000	92,51%
2015	5 749 050	5 283 321	1 995 000	91,90%
2016	5 227 045	4 720 529	2 934 000	90,31%
2017	5 936 705	5 517 562	2 836 000	92,94%
2018	8 035 889	5 461 297	3 748 000	67,96%
2019	7 841 246	4 962 955	4 028 000	63,29%
2020	5 639 401	3 733 788	3 885 000	66,21%

Source: LUKOIL (2021).

As we can see, there is no linear growth in the CTI indicator of PJSC LUKOIL, as we saw in PJSC Gazprom. The sharp decline in cost management efficiency that occurred in 2012 gave way to an improvement trend until 2016. Then the share of expenses in revenue increased again and in 2017 amounted to 93%.

Figure 4. CTI Dynamics of PJSC LUKOIL

Source: LUKOIL (2021).

The Pearson's correlation coefficient, which characterizes the relationship between CTI and capitalization, calculated from the data in Table 4, was 89%. This indicates a high relationship between CTI and the capitalization of PJSC LUKOIL. The effectiveness of the strategic cost management system significantly affects the market value of the corporate structure.

Thus, testing the hypothesis for the presence of a feedback between the CTI indicator and the corporation's capitalization at two corporate structures showed mixed results. The cost management system does not affect capitalization in PJSC Gazprom, while in PJSC LUKOIL this effect is obvious. Based on the results obtained in two examples, we cannot assume that the effectiveness of the strategic cost management system does not affect the quality of the business. This is because the concept of "business quality" is very capacious and largely subjective. Stakeholders can currently positively assess the decline in the effectiveness of strategic cost management, expecting that the corporation will recover from the effects of the pandemic and will generate high revenues in the future. Moreover, we carried out the assessment on data up to 2020, and the approach to consideration of cost management this year by investors and lenders, considering the crisis, may be significantly changed.

On the other hand, an external assessment of the strategic cost management system in the current crisis cannot be sufficiently objective. Stakeholders that are external to the corporate structure pay attention to the dividend policy in a pandemic, speculative aspects of securities and the level of state support for the corporation, etc. An internal assessment of the strategic cost management system, on the contrary, is more objective, so that positive operational result is laid down in the KPI of top management, therefore, both control and cost management in this focus are tied to the business quality in terms of internal corporate indicators of management reporting.

The above conclusion is confirmed in a survey made by ten experts, top managers of Russian corporations. It was carried out by the authors in March 2021 (Table 5). According to the data obtained from experts, the strategic cost management system is formalized by the internal regulations of the corporation in the form of certain business processes and procedures in 90% of cases. Also, in 90% of cases, if the strategic cost management system is formalized, there is an internal assessment system in the form of key performance indicators of divisions and/or specific corporation managers. In the overwhelming majority of cases, there is no external assessment of the strategic cost management system effectiveness.

Table 5. Results of the expert survey

Expert No.	Availability of a formalized system for strategic cost management	Internal assessment of system performance	External assessment of system performance	Scoring assessment for the impact of the system on the business quality	
				Quality as an internal category (achievement of corporate KPI)	Quality as an external category (share value)
E1	Yes	management KPI	Absent	4	2
E2	Yes	management KPI	Absent	4	1
E3	Yes	management KPI	Absent	3	2
E4	No	Absent	Capitalization gain	4	2
E5	Yes	management KPI	Absent	3	3
E6	Yes	management KPI	Absent	4	3
E7	Yes	management KPI	Absent	4	2
E8	Yes	management KPI	Absent	3	3
E9	Yes	Absent	Absent	3	2
E10	Yes	management KPI	Absent	4	3

Source: Conducted and systematized by authors

Further, the experts were interviewed to assess the degree of the corporate cost management system impact on the quality of business in the context of the coronavirus pandemic. Number 1 meant no influence within the assessment and 5 - maximum influence. Let's calculate the average score for each grade column:

- on average, according to experts, the system of strategic cost management affects quite strongly the quality as an internal category (3.6 points).
- on average, based on expert assessments, the strategic cost management system has little effect on quality as an external category (2.3 points).

Our results show that, first of all, the system of strategic cost management in the context of the crisis caused by the COVID-19 pandemic is aimed at the business quality in terms of internal corporate communications.

CONCLUSIONS

Summing up the results of the study, we can state that in the context of the COVID-19 pandemic, corporate structures are obliged to improve the business quality, which is an integral indicator of the corporation's work stability at the background of falling revenues, increasing uncertainty, and a crisis of non-payments. Unlike product quality, business quality does not reveal product potential (demand, sales, customer satisfaction), but the potential of the corporate governance system in a specific crisis environment.

The business quality has two components that make it possible to give a comprehensive description based on the criterion of attitude to the mechanisms of corporate governance. First is that internal mechanisms of corporate governance form an objective approach to the business quality, expressed in the corporation's management KPI. Second is that external mechanisms of corporate governance form a subjective approach to the business quality, manifested in the volatility of securities and the capitalization dynamics of the corporate structure.

The strategic cost management system is an integral part of the corporate governance mechanisms of every modern corporate structure, which requires constant attention from management, especially in the current context of the COVID-19 pandemic. The strategic cost management system affects the business quality, but this impact is manifested mainly in the framework of internal assessments and criteria. External mechanisms of corporate governance are subjective and do not react in a relevant way to the effectiveness of the corporate strategic cost management system.

To improve the corporation's business quality, develop strategic cost management system, it is imperative to develop internal regulatory documents that establish KPIs for managers and departments, to form and maintain internal corporate mechanisms of cost control at the level of the owners, the board of directors and operational management. Moreover, as the practice during the current coronavirus crisis shows, it is necessary to carry out the above-mentioned actions in advance and preview several scenarios of the crisis development.

REFERENCES

AKULININ, F.V. and BRYUHANOV, Yu. M. "Statistical connection between the level of corruption and the legalization of income obtained by criminal means", *Modern Aspects of economics*, 2014, no. 12 (208). p. 6-12. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

AMRAM, M. B., & DAVIDOVICH, N. "Atitudes dos professores em relação ao e-learning durante o COVID-19", *Laplage Em Revista*, 2021, vol. 7 (2), p.13-32. Available at: <https://doi.org/10.24115/S2446-6220202172678p.13-32/>. Access: Feb.10, 2021.

BALAKHANOVA, D.K. and TLEUDERGENOV, A.A. "DEVELOPMENT OF CORPORATE GOVERNANCE, in the collection: *Tools and methods of commercialization of innovations in the modern concept of management*, Moscow, 2019, p. 83-86. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

BANK OF RUSSIA. Medium-term forecast of the Bank of Russia, 2020. Available at: https://www.cbr.ru/Collection/Collection/File/27833/forecast_200424.pdf. Access: Feb.10, 2021.

BLOCHER, E., STOUT, D., JURAS, P. and COKINS, G. *Cost Management: A Strategic Emphasis*, McGraw-Hill Education, 2015. Available at: <https://www.amazon.com/Cost-Management-Strategic-Edward-Blochier/dp/0077733770>. Access: Feb.11, 2021.

BYTOV, A.V. "Evaluating the effectiveness of corporate integration". In the collection: *Sustainable development of the Russian economy". Materials of the III International Scientific and Practical Conference*. Moscow, 2016, p. 15-19. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

DONG, ZH, VELIKOROSSOV, V.V., MAKSIMOV, M.I., KALYAKINA, I.M., GENKIN, E.V. and PONOMAREV, M.A. "The nature of crisis: can COVID-19 reveal the deficiencies in global economy governance?", *International Journal of Applied Exercise Physiology*, 2021, vol. 10, № 1, p. 212-216. Available at: <http://www.ijaep.com/index.php/IJAE/issue/view/39>. Access: Feb.11, 2021.

FILIN, S.A., VELIKOROSSOV, V.V., AKULININ, F.V. and KOLESNIKOV, A.V. "small business: recession, stagnation and pandemic-trends and problems". In the collection: *Innovations in the management of socio-economic systems (RCIMSS-2020). Materials of the national (All-Russian) scientific and practical conference "Innovations in the management of socio-economic systems"*, Moscow, 2020, p. 268-275. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

GAZPROM, 2021. Available at: <http://www.gazprom.ru/about>. Access: Feb.11, 2021.

GENKIN E.V., BALAKHANOVA D.K. and VELIKOROSSOV V.V. (), "The virus is small - the consequences are great. economic consequences of the pandemic", 2020. *Materials of the international scientific-practical conference "Innovations in the management of socio-economic systems (ICIMSS-2020)*, p. 112-120. Available at: <https://www.elibrary.ru>. Access: Feb. 11, 2021.

GENKIN, E.V. and ROMAN D.A. "STRATEGIC ASPECTS OF THE DEVELOPMENT OF THE POTENTIAL OF ORGANIZATIONS OF THE INVESTMENT AND CONSTRUCTION COMPLEX",

Vestnik universiteta, 2015, no. 9. p. 137-141. Available at: <https://www.elibrary.ru>. Access: Feb. 06.2021.

KANG, P. and KIM, Y. "South Korea's efforts for structural changes in corporate governance of large Korean business groups after the Asian financial crisis", *International Journal of Disclosure and Governance*, 2014, no 11, p. 211-230. Available at: <https://link.springer.com/article/10.1057/jdg.2013.3>. Access: Feb. 11, 2021.

KORECHKOV, Yu.V. and YABANZHI, V.I. "FINANCIAL STABILITY OF INTEGRATED CORPORATE STRUCTURES", *Online journal of Science Studies*, 2015, vol. 7, no. 5 (30), p. 60. Available at: <http://naukovedenie.ru/index.php?p=vol7-5>. Access: Feb. 06, 2021.

LUKOIL. "Financial Results", 2021. Available at: <http://www.lukoil.com/InvestorAndShareholderCenter/ReportsAndPresentations/FinancialReports>. Access: Feb. 11, 2021.

MAKSIMOV, M.I., and GORBATENKO D.N. "Analysis of the experience of Plekhanov Russian University of Economics on transition to distance forms of learning in the conditions of the Covid-19 pandemic", *Proceedings of the International Conference on Innovations in Management of Socio-economical Systems, ICIMSS-2020*, Moscow, 2020, p. 65-73. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

MAKSIMOV, M.I., and MATVEEV D.A. "On the impact of covid-19 on the economy and the relevant package of support measures for the most weakened industries of the economy and population in the framework of the Russian development strategy", *Proceedings of the National Conference on Innovations in Management of Socio-economical Systems, RCIMSS-2020*, p. 138-148. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

MAKSIMOV, M.I., PRODANOVA, N.A., KOLESNIKOV, A.V., MELNIKOV, A., RAKAUSKIENE, O.G., IGNASHOV, E.D., and KALYAKINA, I.M. "To the COVID-19 pandemic experience: a view from Russia", *Propositos y Representaciones*, 2021, vol. 9, № S3, e1134. Available at: <https://laplageemrevista.editorialaar.com/index.php/lpg1/article/view/810>. Access: Feb. 11, 2021.

MALLIN, C. *Corporate Governance*. Oxford University Press, 2016. Available at: <https://www.worldcat.org/title/corporate-governance/oclc/935196944>. Access: Feb. 11, 2021.

OREKHOV, S.A. (Ed). *Corporate governance*. Moscow: Yurayt Publishing House, 2021. Available at: <https://urait.ru/viewer/korporativnoe-upravlenie-472874#page/1>. Access: Feb. 06, 2021.

OREKHOV, S.A., VELIKOROSSOV, V.V., MAKSIMOV, M.I., HUSEYNOV, J.EK.OG., KHACHATURYAN, M.V. and KOLESNIKOV, A.V. "INTEGRATION AS A CORPORATE STRATEGY", *2nd International Conference on Pedagogy, Communication and Sociology (ICPCS 2020)*. 2020, p. 363-367. - DOI 10.12783/dtssehs/icpcs2020/3389. Available at: <https://www.elibrary.ru>. Access: March. 11.2021

PORTER, M.E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*". Free Press, 1998. Available at: <https://www.amazon.com/Competitive-Strategy-Techniques-Industries-Competitors/dp/0684841487>. Access: Feb. 06, 2021.

ROSSTAT. Physical volume indices of gross domestic product, 2021. Available at: <http://www.gks.ru/>. Access: Feb. 06.2021.

RYZHKOVA, E.YU. and KOLESNIKOV, A.V. ("which companies in Russia succeeded during the coronavirus crisis or how to survive a business in quarantine", *Proceedings of national (all-Russian) scientific and practical conference "Innovations in the management of socio-economic systems (RCIMSS-2020)"*, Moscow, 2020, p. 224-229. Available at: <https://www.elibrary.ru>. Access: Feb. 01, 2021.

STIGLBAUER, M., FISCHER, T. and VELTE, P. "Financial crisis and corporate governance in the financial sector: Regulatory changes and financial assistance in Germany and Europe", *International Journal of Disclosure and Governance*, 2012, no 9, 331-347. DOI: <https://doi.org/10.1057/jdg.2012.8>. Available at: <https://link.springer.com/article/10.1057%2Fjdg.2012.8> Access: Feb. 01, 2021.

VELIKOROSSOV, V.V. "FORMATION of CORPORATE GOVERNANCE in RUSSIA", *Proceedings of International scientific and practical conference "Problems of management of socio-economic development of the region: materials of the MNPK"*, MIU, Arkhangelsk, 2001, p. 54-57. Available at: <https://www.elibrary.ru>. Access: Feb. 04, 2021.

VELIKOROSSOV, V.V., BALAKHANOVA, D.K. and GENKIN, E.V. "Development of the corporate structure as a tool for strategic management and interstate integration", *In the collection: Innovative processes in education, science and sports*, Moscow, 2019. p. 32-41. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

VELIKOROSSOV, V.V., GENKIN, E.V., BALAKHANOVA, D.K., SIDOROV, M.N., MAKSIMOV, M.I., SULIMOVA, E.A. and LOSHKOV, B.D. *Strategic management*. KnoRus, Moscow, 2020b. Available at: <https://www.knorus.ru/catalog/menedzhment/583658-strategic-management-bakalavriat-magistratura-metodicheskoe-posobie/>. Access: Feb. 06, 2021.

VELIKOROSSOV, V.V., KARYAKIN, A.M. and IVANOVA, O.E. "Evaluation of the quality of corporate governance in the energy holding", *Ekonomika i upravlenie: problemy, perspektivy*, 2019, Vol. 6 (85).- № 1.- P. 63-73. Available at: <https://www.elibrary.ru>. Access: Feb. 06, 2021.

VELIKOROSSOV, V.V., MAKSIMOV, M.I., GENKIN, E.V., PRODANOVA, N.A., KOLESNIKOV, A.V. and RAKAUSKIENE, O.G. "The Russian COVID-19 pandemic takeaways: an artificial disaster, or a man-made crisis?", *International Journal of Pharmaceutical Research*, 2020a, vol. 12, no. 4, p. 4045-4048. DOI: <https://doi.org/10.31838/ijpr/2020.12.04.557>. Access: Feb. 01, 2021.

VELIKOROSSOV, V.V., MAKSIMOV, M.I., PRODANOVA, N.A., KORECHKOV, Yu.V., STAROSTIN, S.Yu. and RAKAUSKIENE, O.G. "On the evaluation of the effectiveness of states' measures to overcome the COVID-19 crisis: statistics and common sense", 2021, *International Journal of Applied Exercise Physiology*, 2021, vol. 10. no 1. p. 217-222. Available at: <http://www.ijaep.com/index.php/IJAE/issue/view/39>. Access: Feb. 10, 2021.

VELIKOROSSOV, V.V., GENKIN, E.V. and KOLESNIKOV, A.V. (2020), "impact of the coronavirus pandemic crisis on the economies of Russia and Kazakhstan", *Proceedings of International Conference on Innovative Development of Food, Light and Hospitality Industry*, 2020, Almaty, p. 6-16. Available at: <https://www.elibrary.ru>. Access: Feb. 06.2021.

On analysis of some factors of the sustainability of corporate business in the conditions of the covid-19 pandemic

Sobre a análise de alguns fatores da sustentabilidade dos negócios corporativos nas condições da pandemia covid-19

Sobre el análisis de algunos factores de la sostenibilidad de los negocios corporativos en las condiciones de la pandemia de covid-19

Resumo

O artigo apresentado tem como objetivo identificar os principais fatores que podem influenciar o sucesso da gestão sustentável das estruturas corporativas em um estado pandêmico e pós-pandemia do ambiente de negócios. Na esfera prática, os autores estabelecem tarefas para desenvolver métodos práticos que possam aumentar a eficiência da gestão de custos no horizonte estratégico e formar um sistema de indicadores-chave de desempenho que permita avaliar adequadamente os resultados das atividades da corporação. Segundo os autores, isso deve ser feito com antecedência e considerar as lições aprendidas com a gestão de custos no contexto da pandemia COVID-19. Os resultados foram obtidos ao testar a hipótese sobre a relação entre o sistema estratégico de gestão de custos e a qualidade dos negócios corporativos. Essa hipótese é rejeitada pela abordagem externa à qualidade dos negócios, mas confirmada pela abordagem interna da qualidade dos negócios.

Palavras-chave: Governança corporativa. Sistema estratégico de gestão de custos. Qualidade do negócio. Crise econômica, Covid-19.

Abstract

The presented article aims to identify the key factors that can influence the success of sustainable management of corporate structures in a pandemic and post-pandemic state of the business environment. In the practical sphere, the authors set tasks to develop practical methods that can increase the efficiency of cost management in the strategic horizon and form a system of key performance indicators that allows to adequately assess the results of the corporation's activities. According to the authors, this should be done in advance and consider the lessons learned from cost management in the context of the COVID-19 pandemic. The results were obtained while testing the hypothesis about the relationship between the strategic cost management system and the quality of corporate business. This hypothesis is rejected by the external approach to business quality but confirmed by the internal approach to business quality.

Keywords: Corporate governance. Strategic cost management system. Business quality. Economic crisis. Covid-19.

Resumen

El artículo presentado tiene como objetivo identificar los factores clave que pueden influir en el éxito de la gestión sostenible de las estructuras corporativas en un estado de pandemia y post-pandemia del entorno empresarial. En el ámbito práctico, los autores establecen tareas para desarrollar métodos prácticos que puedan aumentar la eficiencia de la gestión de costes en el horizonte estratégico y formar un sistema de indicadores clave de rendimiento que permita evaluar adecuadamente los resultados de las actividades de la corporación. Según los autores, esto debe hacerse con anticipación y considerar las lecciones aprendidas de la gestión de costos en el contexto de la pandemia de COVID-19. Los resultados se obtuvieron al probar la hipótesis sobre la relación entre el sistema de gestión estratégica de costos y la calidad de los negocios corporativos. Esta hipótesis es rechazada por el enfoque externo de la calidad empresarial, pero confirmada por el enfoque interno de la calidad empresarial.

Palabras-clave: Gobierno corporativo. Sistema de gestión estratégica de costes. Calidad empresarial. Crisis económica. Covid-19.