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Digital Trends in Strategic Management and Existing IT-Risks

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ABSTRACT

The aim of the study is to examine the existing problems of strategic planning and management in the context of digital transformation. The authors reviewed the theoretical and legal foundations of strategic management, described the approach to management based on big data, considered the main digital trends, and justified the need for digital development of public administration. Much attention is paid to the issues of information security, taking into account geopolitical realities and the need to manage IT risks in the context of current changes. The methods of research include the content analysis of regulatory legal acts, comparative analysis and synthesis of the information obtained. The practical significance of the results lies in the theoretical justification of the need for state regulation of strategic development in order to minimize IT risks in the context of digital technological change, as well as the growing influence of digital technology.

Keywords: digital transformation; digital economy; digital public administration; strategic development; big data technology; platform approach to management; data-based management; information security; IT risk management

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INTRODUCTION

Modern economic and social realities force the state to react flexibly to various types of changes, as well as to actively use innovative methods, introducing them into the process of state and municipal administration. The value and significance of digital technologies and the approach to management through the analysis of big data (Big Data) lies in the possibility to perform predictive analytics.

State strategic management is a complex concept that covers and affects all spheres of public life in the long term.

According to the results of the authors' content analysis of the legal framework, the term "strategic management" is found only in the Federal Law of 28.06.2014 No. 172-FL "On Strategic Planning in the Russian Federation".[1] However, it is not conceptually disclosed. Contextually, strategic management can be defined as a set of measures aimed at achieving the strategic goal of development and consists of goal — setting, planning, and forecasting, as well as the implementation of measures aimed at solving the set tasks and their monitoring.

In Russia today various instruments of strategic management are being implemented, but, as a rule, they all relate to the normative process: national projects, concepts of long-term socio-economic development, forecasts and strategies, targeted integrated programmes.

PECULIARITIES OF THE REGULATORY FRAMEWORK

One of the most significant legislative limitations is the absence in any regulatory legal act (RLA) of the Russian legislation of a legal enshrinement not only of the term "strategic management", but also of the main provisions disclosing this concept, as well as of the methodology for the introduction and implementation of this type of public administration and criteria for assessing the activities carried out. Since only "strategic planning" is present in the legal field, the procedure of rulemaking is relatively well established, while the process of direct implementation of strategic management is not regulated. Such problems can also include insufficient consideration of the existing disparities in socio-economic development of the regions (and limited attention to them), which affects the quality of implementation of the federal strategy, since at the initial stage the regions' situations are different, and it is difficult to build a unified and, most importantly, uniform modernisation policy. Other issues related to the legal framework include the lack of interaction between the federal centre and administrative-territorial entities at the first and second stages of strategic management, namely at the planning stage. In some cases, federal and regional level documents lack interconnection and coherence and do not represent a coherent hierarchical management system.

ISSUES OF NECESSARY CONTINUOUS MONITORING IN THE AREA OF STRATEGIC MANAGEMENT

Within the framework of the implementation of a strategic document, there is a lack of transparency in the implementation of a regional strategy or programme; consequently, it is difficult to identify the moment when it is necessary to adjust and adapt the targets due to changes in the environment. As a rule, the inability to adapt to external conditions becomes one of the reasons for the non-implementation or ineffectiveness of some strategic documents. There is a tendency for existing strategies and programmes not to be implemented due to a lack of continuous monitoring and control, and new ones to be created when their implementation period expires.

[1] Federal Law of 28.06.2014 No. 172-FL "On Strategic Planning in the Russian Federation". URL: http://www.consultant.ru/document/cons_doc_LAW_164841/ (accessed on 12.02.2021).

METHODOLOGICAL AND ANALYTICAL CHALLENGES

To date, due to the insufficiently developed and clearly structured methodology of drafting strategic documents at the regional level, there is no single "template" for their design — they can differ radically from each other both in terms of volume, content and disclosure of the main provisions. A standardised model could contribute to more effective strategic management by providing certain evaluation criteria and transparency of reports. In the field of strategy development, there is absolute fragmentation, which, due to the lack of a unified structure of the document (e.g., a list of sections and a number of mandatory paragraphs) hinders the uniform and gradual process of modernisation of the country. Moreover, sometimes the boundary of understanding what constitutes strategic planning is blurred. Due to the lack of a defined methodology, there is a risk of substitution of concepts and transition to operational activities rather than strategic management.

In some entities, at the stage of analysing the existing socio-economic situation, there is an insufficient level of analysis of macroeconomic indicators, which distorts the understanding of the current level of development, making it difficult to build a correct system of cause-and-effect relationships and define specific quantitative targets. The presence of only qualitative factors "blurs" the boundaries of performance and complicates monitoring and evaluation of effectiveness.

Based on the analysis of foreign experience, we can formulate some recommendations to improve the strategic approach to public and governmental administration in the Russian Federation, as follows:

1. Including stakeholders in strategic planning and management

In this case, the US experience of private or expert project and budget initiation can be taken as a basis. The form of civil society feedback can increase the efficiency of public administration, as attention will be drawn directly to the most significant projects. In Russia, a country with a low (compared to European countries) level of civic activity, this recommendation will be a serious challenge not only for government structures, but also for the business community.

2. Alignment of budgeting and strategic planning cycles

Unfortunately, in the Russian Federation, as in a number of other states, there is a lack of synchronisation between strategic management documents and regional ones. An example is the Presidential Decree of 07.05.2018 No. 204 "On National Goals and Strategic Objectives of Development of the Russian Federation for the period until 2024", which became invalid in 2020,[2] and which, at the time of its promulgation, was not coordinated and linked to existing state programmes, priority projects, the current situation of the regions, etc. Accordingly, much of the efforts were aimed at synchronising the new regulatory legal act (RLA) and the existing strategic management documents.

3. Development of strategic audit

Singapore's experience in the implementation of independent expert evaluation in strategic planning is interesting. Continuous monitoring of processes and evaluation of the results of both strategic management and operational activities increases the efficiency of the former, as well as increases the responsibility of the state apparatus to the society. Participation of more independent experts from different spheres of activity in strategic planning can also increase the level of civic engagement.

[2] On national goals and strategic objectives for the development of the Russian Federation until 2024: Decree of the President of the Russian Federation of 07.05.2017 No. 204 (lost its validity. — Decree of the President of the Russian Federation of 21.07.2020 No. 474). URL: https://bazanpa.ru/prezident-rf-ukaz-n204-ot07052018-h4039057/

DIGITAL TRANSFORMATION OF PUBLIC ADMINISTRATION

According to J. Schumpeter's theory, the key aspect of economic development is the introduction of innovations [1]. In practice, in public administration this can be implemented through the optimisation of existing business processes, automation of repetitive actions (for example, the use of standard responses to citizens' appeals), as well as through the introduction of digital technologies in the production processes of different sectors of the economy. Moreover, digital transformation can become one of the tools for solving existing problems of strategic management, as it promotes transparency at different levels, as well as citizen engagement (through feedback, performance evaluation, participation in hearings and voting, etc.).

"Digital transformation", "digital economy" are phrases that are constantly heard in speeches of the country's leadership, news, contained in media materials, and in documents of various levels. In addition, society is experiencing the transition to digital industry 4.0, using smartphones, gadgets, and other digital products on a daily basis to optimise and simplify certain actions, communication methods and access to information.

Approaches to the digital economy in the scientific literature are ambiguous; there are many points of view of different researchers. The very term "digital economy" is inextricably linked with the concept of "fourth industrial revolution" or "industry 4.0", which first appeared not so long ago.

The fundamental provisions of the digital economy were formulated in the works of such scientists as D. Tapscott [2], H. Dong [3], N. Negroponte [4], H. Kagermann [5], who considered various technological aspects and consequences of the development of digital technologies that led to the formation of a "digital society". Shcherbakov A. G. [6], Valieva O.V. [7], Ivanov V.V. [8] emphasise the fact that in digital development the central place is occupied by innovation and IT industry.

There are also works of modern domestic scientific figures touching on narrower areas. For example, S.A. Izmalkova, T.A. Golovina [9] consider the significance and explain the rationality of working with big data, emphasising its relevance and role in making managerial decisions. From the point of view of microeconomic approach, Vasant Dhar [10], for example, described Big Data as the central problem of the digital economy, and Bill Gates [11] spoke about the unlimited possibilities of ensuring high profitability of business due to the achievements of digitalisation.

There is currently no unified approach to understanding the meaning of the term "digital economy", as it was first used only in 1995 at the University of Massachusetts to describe how the economy would change with the widespread introduction of information and communication technologies. The concept of digital development is therefore quite young but promising. A more detailed definition was offered in 2016 by the World Bank, which defined the **digital economy** as a new stage of development that emerged as a result of the fourth industrial revolution. This above-mentioned economic structure is based on the prevalence of intellectual property, knowledge, and digital technologies, while at the same time forming completely new skills in the population and opening up previously unknown opportunities for the development of society, private and public sectors.

In the same year 2016, Russian President V.V. Putin in his address to the Federal Assembly called the digital economy "the economy of the new technological generation",[3] and in 2017 at the SPIEF (St. Petersburg

[3] The Address of the President of the Russian Federation to the Federal Assembly of 01.12.2016. URL: http://www.consultant.ru/document/cons_doc_LAW_207978/ (accessed on 20.10.2022).

International Economic Forum) he outlined the key areas that are important to develop in our country in order to have an advantage including in the digital economy.[4] Already in 2019, the transition to it was identified as one of the main directions of Russia's strategic development until 2025. State programmes[5] and federal projects contain references to the need to implement end-to-end technologies and other digital solutions in sectors such as the economy, education, and healthcare to ensure the sustainable development of the Russian Federation.

The Decree of the President of the Russian Federation defines the tasks, first of all, to create the necessary and accessible for organisations and households sustainable and predominantly secure infrastructure for unimpeded work with large volumes of data (circulation, storage and processing).[6] The Decree also sets out the priority use of domestic specialised software by state and regional authorities, which is becoming increasingly important, including in connection with the escalating geopolitical situation. Given the different levels of socio-economic and digital development of Russian regions, it is important to prioritise the provision of equal broadband access to the Internet for them (and especially for socially important facilities) as a priority task.

The problem of digitalisation and the general trend towards digital public administration are of a strategic nature because they imply the creation of a long-term foundation for the transition to a new economic structure. The use of digital products and solutions is considered an innovative approach to development, without which, unfortunately, it is impossible to build a competitive economy. It should be considered as one of the tools to reduce the differentiation of the constituent entities of the Russian Federation.

The digital economy is characterised not only by tangible digital products. One of its directions is the modernisation of relational systems, both socio-economic and cultural. All current business processes are being reviewed and analysed for optimisation, including those related to public administration. The main goal of digital transformation in this area is to create a customer-oriented digital government [by simplifying procedures for obtaining public services, reducing administrative barriers, and reducing the distance between the state and society, involving business through consulting services in public administration processes (for example, the development and implementation of digital platforms, as well as their maintenance can be delegated to private information companies)].

PLATFORM-BASED MANAGEMENT APPROACH

A general trend in the system of digitalisation of public administration is the formation of a platform model that allows to increase the efficiency of management by creating the necessary complex information and telecommunication infrastructure for interagency interaction and accelerated service delivery. Such solutions allow to automate the process of collection and processing of statistical reporting and accelerate the procedure of its transfer to other sectoral departmental structures, contribute to reducing the burden on personnel, thereby increasing the productivity of labour in the public authority and the level of its efficiency in the system of public administration.

Digital platforms as a form of interaction between participants and/or subjects of governance are aimed at minimising different

[4] Plenary session of the St. Petersburg International Economic Forum. URL: http://www.kremlin.ru/events/president/news/54667 (accessed on 20.10.2022).

[5] Decree of the President of the Russian Federation of 07.05.2018 No. 204. URL: http://www.kremlin.ru/events/president/news/57425 (accessed on 20.10.2022).

[6] Presidential Decree No. 474 of 21.07.2020 "On the national development goals of the Russian Federation for the period up to 2030". URL: http://www.kremlin.ru/events/president/news/63728 (accessed on 20.10.2022).

types of costs. In the sphere of public administration, a gradual transition to platform solutions is already noticeable, including the Unified Portal of Public Services (Gosuslugi), the "Work of Russia" portal (developed by the Federal Service for Labour and Employment), the Public Service and Management Personnel Portal, the Unified Medical Information and Analytical System, and others.

The most appropriate example that fits the description of a digital platform is the State Information System for Public Procurement, because, in addition to collecting and processing data, it allows to make a choice in favour of the most competitive solution, while exercising control functions at all stages of bidding and procurement procedures. In this case, digitalisation not only reduces costs, but also reduces the impact of subjective factors (human factor) on the procurement process.

DIGITAL REALITY AND THE FUTURE OF PUBLIC ADMINISTRATION

Nowadays, as a result of the fourth industrial revolution, big data and methods of working with it are becoming more and more important. This is due to the need to analyse a significant flow of unstructured information when building competent and effective strategic planning and management. Big Data is important both at the stages of goal-setting and formation of end-to-end management in the development of a unified state policy; it is also important to monitor implementation and evaluate results. Data-based management will allow to:

- develop objective measures to maintain and accelerate the pace of economic development, presenting constructive solutions in an automated mode;
- at the national level, to form a single vector of strategic development in the future, taking into account regional specifics, eliminating the human factor in analyses and scenario development.

At a mature stage of development of this process, automated platform solutions are used to route data and accumulate them in the form of expert-analytical materials with the results of their processing summarised and consolidated into a single form.

The introduction of methods and tools for working with Big Data is one of the directions of such a strategic document as the national programme "Digital Economy of the Russian Federation", which includes, in particular, the following federal projects: "Digital Public Administration" (concerns the use of Big Data for a faster and more accurate response to any social changes in order to improve the efficiency of government decisions), "Digital Technologies" (involves the use of Big Data technology to develop analytical approaches at all levels of government). The process of Big Data implementation is touched upon not only in federal and national, but also in regional strategic projects.

As for the foreign experience of management based on big data, it is possible to highlight the system created to eliminate the consequences of emergency situations (e.g., the USA and Australia). State authorities use information from various video surveillance cameras, while processing a large flow of unstructured (or partially structured) data, which helps in promptly identifying the source of an emergency or an intruder, as well as facilitates the implementation of preventive measures to minimise further risk.

Another positive example is the way Big Data analytics is actively used in municipal government in Chicago: sensor detectors located on the streets of the city record and analyse data on the ecological state of the environment online, processing it on the basis of certain indicators and converting it into "analytical materials": noise level, carbon dioxide concentration, wind speed. In addition, pedestrian flows and the movement of citizens'

smartphones are tracked and analysed, which, in turn, helps synchronise information on traffic congestion and traffic light operation modes.

Various systems are also actively operating on the basis of big data, providing information on various areas at the international level. One example is the "Green Button" platform developed in the USA to monitor and manage resource consumption, which operates on the basis of smart meter data and offers an analytical report on the level and efficiency of consumption of energy and a number of other utility resources, as well as generates proposals for reducing and optimising their costs.

On the basis of the analysis of foreign experience of data-driven public administration, it can be concluded that this direction allows the transition to preventive policy and analytics based on accurate automated forecasts, and can also be useful in the framework of public service delivery due to preventive nature. To date, the procedure of service provision consists of filling out an application by a citizen, reviewing it by public authorities, approving or rejecting it, entering the data into all relevant information systems of each of the concerned public authorities and receiving the result. With data-based public administration, there is no need to fill in an application and its interdepartmental routing, and the service is provided on the basis of information continuously updated in the unified National Management System, mainly in the form of a register entry.

Unfortunately, the current level of readiness for the transition to data-driven management depends, among other things, on the professional level of the relevant specialists, which is far from being perfect. Currently, there are several training and professional development programmes for civil servants in this area, for example, the platform of the Centre for Training of Digital Transformation Leaders and Teams of the Russian Academy of National Economy and Public Administration (RANEPA).

Due to the complicated geopolitical situation, we may once again face such a problem as "staff shortage", which is caused by the "leakage" (brain drain) of qualified personnel. We can speak about it on the basis of statistical data on young people who have left abroad, the majority of whom are IT specialists. One of the reasons for this is the demand for professionals in this sector in European countries that put innovations and digital technologies at the centre of development. In this case, it is extremely important to ensure the formation of a competent state policy in the field of staffing by increasing interest in such specialities through incentive payments, formation of privileges and social guarantees.

IT RISKS: REASONS FOR THEIR OCCURRENCE AND OPPORTUNITIES TO REDUCE THE PROBABILITY OF THEIR OCCURRENCE

Due to the accelerated introduction of digital technologies and products, the issue of IT risks and their prevention is of increasing interest. According to GOST R ISO 31000, risk is the impact of uncertainty on the objectives.[7] Based on this, we will consider that IT risk is the impact of uncertainty associated with the use of information technology on the organisation's objectives.

The main IT risk is caused by the leakage of confidential data and its subsequent use for selfish purposes, and it may arise due to the following factors:

- **lack of basic email security.** Most government agencies do not use specialised tools to analyse and filter incoming electronic correspondence, which makes it easy to send a malicious file to a network folder and obtain the necessary data;

[7] GOST R ISO 31000–2019. National Standard of the Russian Federation "Risk Management. Principles and Guidelines". URL: https://docs.cntd.ru/document/1200170125 (accessed on 20.10.2022).

• **lack of timely equipment upgrades.** Because the infrastructure remains without renewal for many years, serious systemic vulnerabilities are formed:

• **the absence of secure connections.** For this reason, the data is not encrypted and can be intercepted at any location;

• **incorrect process of working with contractors, frequent turnover of information security contractors**;

• **human factors** in the form of lack of awareness of cyber hygiene and security issues.

In view of the large number of IT risks and the constant development of information technologies, important elements in information security are both the issues of eliminating the consequences of the occurrence of such risks and their impact on the activities of a public body, their minimisation, and preventive auditing of weaknesses and vulnerabilities, i.e., risk management. The purpose of this process can be defined as *increasing the level of security of IT systems specialising in the storage, processing, and transmission of information, attracting sufficient funding, and reducing the time of use of systems and equipment* (or increasing the number of inspections of the degree of their wear and tear).

In order to formulate recommendations and suggest possible steps to manage risks, it is necessary to assess the constraints that prevent risk mitigation: temporal (e.g., time to update servers and workstations) and physical (number of staff involved in the activity — the more people involved, the faster inventory and manual system updates can be carried out).

Financial constraints are related to ensuring that the optimal number of employees involved in the information security of a public body is paid, as well as the timely purchase of equipment (to replace failed equipment) and ensuring its efficient operation by monitoring system wear and tear.

Technical and operational constraints are also not always based solely on the feasibility and availability of all necessary information security components. Sometimes, in order to save money, important security components of the network are neglected and/or secure communication channels are not established.

Cultural and ethical constraints can be explained by different perceptions of the availability of information and the need to protect it, as well as the willingness of civil servants themselves to be guided in their daily routine by the principles of information security and personal "cyber hygiene".

Legal limitations are due to the recent emergence of the digital economy and insufficiently objective assessment of its importance for public administration and development; lack of consolidation in the legal framework of related concepts, rules of use and management of its specific manifestations; lack of liability for allowing cybersecurity threats and data leaks to take place, etc.

The process of successfully minimising IT risk exposures should be continuous, so their assessment, as well as the updating of risk management plans and strategies, should be carried out at certain intervals, e.g., quarterly. But of primary importance should be the analysis of key business processes to identify the most vulnerable points in the current operations of a particular public body. Business processes are any operations within the organisation that help to solve current tasks [12], and their optimisation involves improving activities to reduce the time to perform an operation (for example, responding to a citizen's appeal), increasing citizen satisfaction with the services provided, increasing the internal transparency of the organisation's activities, strengthening control over information and data. Without absolute understanding of the current situation, qualitative optimisation of work is impossible.

Next, it is necessary to identify the existing risks and carefully consider their classification to streamline and automate the process of their

identification. Also, regular recording of risk events (realised risks) occurring in IT activities allows you to identify pain points requiring special attention as accurately as possible. Taking into account the events in the past, it is possible to build more accurate forecasts of their occurrence in the future and apply the necessary response measures in a timely manner. One of the solutions for managing classified risks would be to create a typology of counteraction to emerging threats and risk events. It is also worth paying attention to the procedures for dealing with force majeure events and disseminating them among the organisation's employees.

RESULTS OF THE RESEARCH

In this article, the authors consider the issues of global trends in digital transformation of public administration and related IT risks. The authors describe the types of the latter related to the public sector.

In the course of the study, the authors concluded that one of the main ways to minimise IT risks is timely updating of equipment and systems, and adequate attention and state-of-the-art level of information security in the public sector.

In the current geopolitical environment of increasing sanctions pressure, the problems of import substitution in order to ensure information security, which mainly applies to critical information infrastructure objects, are becoming urgent. With the emergence of the Presidential Decree "On measures to ensure technological independence and security of the critical information infrastructure of the Russian Federation",[8] the topic of domestic developments in the field of information technologies and software, which, unfortunately, are currently very scarce, has gained relevance, which may also cause IT risks. One of the key problems is the lack of aspiration and capabilities of domestic IT companies to create software and hardware complexes (and their components) capable of fully replacing foreign analogues without harming the activities of the organisation and/or public authorities.

The practical significance of the results lies in the theoretical justification of the need for state regulation to minimise IT risks in the context of digital technological change, as well as the growing influence of digital technologies on strategic management. The recommendations made based on the results of the analysis can be useful in improving the strategic planning management system.

[8] Presidential Decree No. 166 of 30.03.2022 "On Measures to Ensure Technological Independence and Security of the Critical Information Infrastructure of the Russian Federation". URL: http://www.kremlin.ru/acts/bank/47688 (accessed on 20.10.2022).

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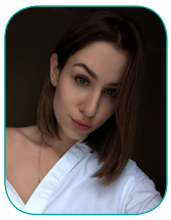

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Macroeconomic Determinants of Accumulated M&A Transaction Values within the U.S. Market

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ABSTRACT

The corporate wisdom propounds mergers and acquisitions (M&A) as a notable strategy for extensive (non-organic) growth in the market and, as a result, gaining financial advantage and strategic superiority and ascendancy along the way. Hence, this instrument undeniably occupies the highest ranks of instruments for corporate management. Considering all aforementioned, the work object is to research to which extend the macroeconomic indicators have an effect on the annually aggregated volume of mergers and acquisitions, entered within the United States of America in the historical period of 1985–2021. The subject of the study is defined as U.S. mergers and acquisitions market. By employing the ordinary least square method of a multiple linear regression equation, it was determined that logarithmic GDP growth together with the discount rate had a significant positive effect on the explanation of the dependent variable, while the 10-year US Treasury bond yield had a negative relationship. Further, several statistical tests were conducted to ensure the authenticity of results obtained and potential for utilization of the model for the purpose of estimation forward values. The practical significance of the research is recognized as uncovering econometric model for the purpose of forecasting mergers and acquisitions volumes, resulting in effective corporate management decisions with regard to timing and market sentiment.

Keywords: mergers and acquisitions; macroeconomic determinants; econometric model; multiple regression; hypothesis testing; model construction

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INTRODUCTION

Mergers and Acquisitions (M&A) are seen as a well-established device in reference to achievement of strategic objectives amidst multinational corporation executive management [1]. Considering the other options and techniques, this calibrated mechanism is highly rated for its strong potential to create the value for shareholders. For another, the decision-making process regarding M&A transactions is habitually referred to as interdisciplinary, due to application of knowledge, channeled from finance, accounting, law, management, and other fields involved. Besides, the macroeconomics is widely recognized to have a strong impact on an extensive range of corporate actions are built over financing costs, risk appetite, etc. Granted, it is apparently unlikely to omit that factor in mergers and acquisitions.

Provided facts underpin the utmost importance M&As plays in corporate finance. These circumstances presuppose the particular stimulus to investigate the macro-level drivers of these transactions. The future findings may provide deeper understanding of the processes, enable with sufficient accuracy forecast and estimate the level of dealings on the market. For the purpose of this research, the author restricts himself to the M&A market of the United States — one of the most sophisticated economies, with substantial track record of dealings and authentic statistical data.

LITERATURE OVERVIEW

In several studies, the macroeconomic indicators are repeatedly reaffirmed as critical determinants for the aggregate M&A values. Article, authored by Ralph Nelson in 1959, is conventionally recognized as the groundbreaking work for this hypothesis, where he displayed the interconnection between activity level of mergers and acquisitions and stock market. Subsequently, scholars concur with these findings, narrowing down the focus to the relationship between the macroeconomic environment and M&A dealings [2].

To begin, researches frequently invoke aggregate commercial activity as another possible determinant for fluctuations in M&A volumes [3]. This concept is built on a foundation of ideas, produced by the envoys of economic prosperity theory. Corporations construe an increasing economic activity as the indication of right time to open up fresh opportunities. The over quarter century period of UK history firmly endorses one thesis, when the straight causation between M&A market activity and GDP was stated [4]. For another, credit market theory posited that the sector faces substantial influence from interest rates [5]. Scholars, explaining the phenomenon, underscore the fact that corporations, following the tendency to largely engage leverage in large-scale projects, strive to improve profitability and gain strategic edge [6]. Against that backdrop, firms are likely to pare back the activities in takeovers, should the borrowed funds become expensive or not readily obtainable. Ultimately, the leverage materially facilitates deals through diminished financial cost and higher net present value attainment [7]. Thirdly, the interrelation between actual and potential output is remarked as one another driver of M&A activity. Noting the neoclassical position, we will rather underscore the explication of another rationale for mergers and acquisitions being the obtainment of capacity, imperative for the operations development in the period of overall optimism [8].

Another subfield, which came under extensive review, is the theoretical rationale underlying the M&A transactions as a corporate instrument. On the one side, some academicians described the market timing theory, which posits that market participants might erroneously evaluate company shares — an oversight, opportunistic executives may take advantage of through buyout of rivals with mediocre valuation utilizing their own overvalued shares (especially in pure stock-for-stock deals) [9, 10]. On the other side, dissenting scholars lay out industry shock theory. It asserts that M&A activity shifts occur in the events of sweeping industrial, legal and technological transformations [11]. Alternative theory covered by the authors is q-theory, which implies that incompetent managers are demoted or dismissed by skilled ones through mergers and acquisitions process. Alternatively, other researchers developed unorthodox theory (in the matter of two previous), which purports that certain transactions are driven by more personal interests. The major one that was selected is "empire building", translating in buying companies beyond the reasonable limits or need of the firm. This destroys the value for shareholders and results in unnecessary expenditures and buyer's remorse [12]. At the same time, the rationale to be accounted for bidder in a rallying interest, according to the work of Kiymaz, is a financial stability as a condition to smooth business environment. Taking over another firm may provide the acquirer with necessary resources to get a firmer footing in financing company operations, reinforce leverage positions, and even more [13].

MODEL PREMISES

The phenomenon we will consider in the study may be conventionally also called "M&A waves", describes the certain expansions and contractions in the aggregate deal values throughout the time period. We might incline to utilize this term further as a synonym to the object of our research for the purpose of scientific consistency and reader convenience. Next, the research, inter

Table 1

Explanatory Variable Specification

Symbol	Explanatory Variable	Dimension	Units	Frequency
S&P500	Return on float-adjusted Standard and Poor's 500 Index	Stock Market	per cent	Annual, Year End
DJIA	Return on price-weighted Dow Jones Industrial Average Index	Stock Market	per cent	Annual, Year End
GDP	Logarithmized change in real gross domestic product of the USA	Economic Activity	per cent	Annual, Year End
10s	10-year U.S. Treasury Notes Par Yield to Maturity	Credit Market	per cent	Annual, Average
PR	U.S. Policy rate	Credit Market	per cent	Annual, Average
CU	Capacity utilization ratio	Actual/Potential	per cent	Annual, Average

Source: compiled by authors from [15, 16] and predicated on [2–13].

alia, employ hypothesis testing considering discerning the nexus between explained and explanatory variables. Acknowledging the object of study, the explained variable is defined as annual aggregate volume of mergers and acquisition dealings in the United States of America in current US dollars (corresponding symbol is "M&A_Volume"). Besides, pursuing authenticity of findings, explanatory variable is recognized to demonstrate significance in terms of explained variable, should the probability value of standardized coefficient not surpass the confidence level of 5 per cent.

In the wake of extensive literature review, the definitive list of potential explanatory variables was compiled. Especially, several dimensions encompass two indicators to provide precise representation regarding potential over- or underestimation issues. For instance, the stock market is unveiled by two of US equity indexes, notably, S&P500 and DJIA, lest the substantial difference in calculation methodology noting free-float adjustments, just like contemporaneous changes in PR affecting exclusively long-term 10s [14]. The full specification with explanatory and explained variables is presented above (*Table 1*).

The further investigation is estimated to be established as examination of the relationship between annual aggregate value of mergers and acquisitions and several factors. Given the academic background, it would appear reasonable to use cross-sectional multiple ordinary-least-square linear regression model as an instrument for upcoming discoveries. The general form of multiple regression equation is defined as:

$$Y_i = a_0 + \sum_{k=1}^{n} a_n x_{ik} + \varepsilon_i, \quad (1)$$

where: Y_i — explained variable for i-th observation;

x_{ik} — explanatory variables for i-th observation;

a_0 — constant term;

a_n — slope coefficient for explanatory variable;

ε_i — disturbance term.

Ultimately, the following set of hypotheses was created with a focus on further investigation, according reference to previous studies analyzed and conventional wisdom (*Table 2*).

MODEL CONSTRUCTION

The analyzed sample incorporates the annual monetary volumes of mergers and acquisitions transactions, which eighter were transpired in the United States of America or by one of the U.S. firms were involved. The data acquired relates to the events of study period, specifically, within 1985 and 2021 (*Table 3*). It provides us with possibility to observe the high-level sensitivity of mergers and acquisitions activity

Table 2

Hypotheses Representation

H1. There is a negative association between M&A_Volume and S&P500 variables.
H2. There is a negative association between M&A_Volume and DJIA variables.
H3. There is a positive association between M&A_Volume and GDP variables.
H4. There is a negative association between M&A_Volume and 10s variables.
H5. There is a positive association between M&A_Volume and PR variables.
H6. There is a positive association between M&A_Volume and CU variables.

Source: Prepared by authors and predicated on [2–13].

to developments in the national economy, with values edging up with the periods of economic prosperity, and repeatedly falling in time of economic downturns (e.g. 2001 crisis, Great Resection, 2020 COVID turmoil, etc.).

Most notably, this very study follows the postulate to perform initial dissection of draws obtained. This is majorly manifested in preferential construction of bivariate correlation matrix for the explanatory variables. Described technique is seen as suitable, due to the limited number of observations and variables engaged in the study, offsetting the risk of omitting valuable relationships [18]. Besides, this instruments aids in else area — to explore of the potential issue of multicollinearity between variables. Considering assessment of correlation magnitude, the procedure to categorize them was established. Namely, association is perceived to be insignificant, provided that the absolute value of Spearman correlation coefficient is less than 0.4; moderate — greater or equal than 0.4, but less than 0.6; strong — greater or equal than 0.6, but less than 0.8; very strong — greater or equal 0.8. Inherently, diagonal values consistently and unambiguously imply the perfect correlation, thus they will not receive special consideration (see *Table 4*).

As can be noted, the one pair of explanatory variables showed extremely high level of correlation (S&P500 and DJIA), whilst the same

Table 3

Initial Data for M&A_Volume Variable

Year	M&A_Volume	Year	M&A_Volume
1985	305.6	2003	668.9
1986	353.5	2004	1,006.4
1987	373.2	2005	1,342.1
1988	586.1	2006	1,843.9
1989	466.1	2007	1,967.1
1990	254.2	2008	1,215.1
1991	177.0	2009	877.6
1992	185.1	2010	981.8
1993	317.6	2011	1,247.0
1994	414.7	2012	995.7
1995	666.6	2013	1,214.8
1996	750.4	2014	2,153.8
1997	1,116.2	2015	2,417.4
1998	1,816.4	2016	1,784.8
1999	2,138.2	2017	1,761.5
2000	1,965.8	2018	1,931.8
2001	1,010.6	2019	1,883.0
2002	520.5	2020	1,172.2

Source: Authors compiled from [17].

Note: Deal values are presented in million US dollars to avoid the bias of different orders of magnitude.

number depicted strong nexus (10s and CU, PR and CU). We may wish to go into further details on this issue in future works, shall any pair make to the final list of explanatory variables.

The hypothesis testing method assumes that certain theses may be inconsequential, resulting in potential explanatory variables if not to bias other coefficients, then provide with no insightful information, being entered into the model. By calculating p-values of the regression coefficients, the meaningful explanatory variables can be decoupled from the original list. However, the size effect has a potential to distort the results of significance treatment, requiring to employ the beta weights [20] (*Table 5*). To account for this, the original dataset was transformed to standardize the explanatory variables.

After careful considerations and with the reference to the preceding established level of confidence, the intercept and merely three of six explanatory variables proved to be meaningful. Hence, there is ample proof to reject certain prior formulated hypotheses: H1, H2, and H6. Low impact of equity market conditions might be deciphered via the notion of M&A_Volume has been explanatory variable for S&P500 and DJIA, since the upcoming news and the results of transactions heavily alter the sentiments and financial position of firms, not vice versa [19]. Noting capitalization utilization, it seems to be isolated from the M&A and rather reflects the general macroeconomic environment. The further exploration is not intended to make allowance for otherwise variables, besides GDP, 10s and PR.

Finally, the initial database is adapted to the prevailing conclusions of explanatory variables analysis. The results of regression analysis are summarized (*Table 6*). Against this backdrop, all values proved to be significant, considering the critical value of t-test as 1.694.

GAUSS-MARKOVITZ THEOREM, ADEQUACY TESTING

Constructing our regression equation, it is convention to assume the Gauss-Markovitz theorem application ("G-M theory" henceforth for convenience purposes). Essentially, it formulates the ordinary least square to be the best linear unbiased estimator, provided residuals are uncorrelated, enfranchises homoscedasticity, and show expected value equaling zero [21].

Hence, some will find beneficial to present the results of the investigation in the following manner:

$$\begin{cases} \widehat{MA\_Volume}_t = 1{,}965.17 + 9{,}857.95 * GDP_t + 25{,}674.84 * PR_t - 39{,}948.38 * 10s_t + \varepsilon_t \\ (165.83)\quad (4{,}447.52) \qquad (6{,}098.92) \qquad (5{,}674.00) \qquad (414.11) \\ E(GDP_t) = E(PR_t) = E(10s_t) = 0 \rightarrow GM\ first\ premise \\ Var(GDP_t) = const; Var(PR_t) = const; Var(10s_t) = const \rightarrow GM\ second\ premise \end{cases} \quad (2)$$

Elaborating on the findings, the yield on 10-year Treasury bills is the principal contributor to variations in the aggregate annual volume of M&A transactions. As empirical explanation for the phenomenon shall serve the active exposure of the dealings to borrowed funds: circa 15% of all syndicated loan facilities in the United States were an issue in connection with takeovers on the time horizon of 1986–2003 [22]. In similar fashion, another peculiar characteristic of the 10s coefficient is explicated: inverse relationship with the explained variable. Policy rate is found to be positively correlated, opening the window of opportunity for the investors to go bottom fishing for firms in precarious circumstances. The GDP reported the largest p-value, essentially meaning the highest likelihood of results occurring under conjecture. Along with this, adjusted R^2 shows 61.5% of variance in the explained variable is

Table 4

Bivariate Correlation Matrix

	M&A_Volume	S&P500	DJIA	GDP	10s	PR	CU
M&A_Volume	1						
S&P500	(.057)	1					
DJIA	(.101)	.953[a]	1				
GDP	(.049)	.417[c]	.471[c]	1			
10s	(.639)[b]	.090	.179	.423[c]	1		
PR	.313	.160	.237	.379	.669[b]	1	
CU	(.138)	.118	.162	.541[c]	.657[b]	.747[b]	1

Source: Compiled by authors from [15, 16].

Note: The table reports Spearman correlation coefficients for the figures, given in Table 4. The [a], [b], and [c] terms indicate the very strong, strong, and moderate association, respectively.

Table 5

Explanatory Variables Analysis

	Beta Weights	Standard Error	t Stat	P-value	Significance
Intercept	1107.85	61.99	17.87	0.000	Yes
S&P500	– 122.31	215.71	– 0.57	0.575	No
DJIA	– 22.90	223.51	– 0.10	0.919	No
GDP	227.26	88.63	2.56	0.016	Yes
10s	– 1116.25	133.56	– 8.36	0.000	Yes
PR	675.94	152.74	4.43	0.000	Yes
CU	32.06	108.38	0.30	0.769	No

Source: Prepared by authors on [15, 16].

Table 6

Results of Regression Analysis

	Intercept	GDP	PR	10s
Coefficients	1,965.166	9,587.955	25,674.84	–39,948.382
Standard Error	165.828	4,447.518	6,098.916	5,674.003
t Stat	11.850	2.156	4.209739	–7.040
P-value	0.000	0.039	0.000	0.000
Multiple R	0.805			
R Square	0.648			
Adjusted R Square	0.615			
Standard Error	414.113			
F	19.665*			

Source: Prepared by authors and predicated on [15, 16].

Note: * – p-value < .01.

Table 7

Residual output

No.	Predicted	Residuals
1	(244.88)	550.52
2	1,203.58	(850.04)
3	496.78	(123.61)
4	385.18	200.87
5	614.39	(148.30)
6	400.13	(145.97)
7	335.70	(158.71)
8	419.85	(234.72)
9	640.46	(322.85)
10	450.68	(35.98)
11	888.68	(222.10)
12	1,105.28	(354.89)
13	1,142.46	(26.24)
14	1,593.86	222.55
15	1,356.70	781.48
16	1,306.29	659.52
17	851.63	158.95
18	615.72	(95.18)
Average 0.00		0.00 0.00
19	1,315.29	(646.43)
20	1,196.25	(189.83)
21	1,628.54	(286.44)
22	1,843.62	0.27
23	1,809.74	157.32
24	815.78	399.31
25	799.05	78.56
26	1,133.40	(151.60)
27	1,193.16	53.88
28	1,588.81	(593.16)
29	1,461.71	(246.92)
30	1,388.85	764.95
31	1,487.92	929.47
32	1,684.37	100.40
33	1,712.17	49.37
34	1,656.34	275.47
35	2,062.68	(179.70)
36	1542.43	(370.20)
Average		0.00

Source: Prepared by authors and predicated on [15, 16].

Table 8

Results of Goldfeld-Quandt Test

Category	Upper Set	Lower Set
Size	12	12
Residual SS	1,840,879.43	2,076,646.74
GQ statistic	**1.128**	
F crit (5%)	**3.438**	

Source: Compiled by authors.

Note: The GQ statistic was derived by dividing the larger of two Residual SS by the smaller one. The fact that FQ statistic is lower that F crit (5%) indicates homoscedasticity.

illustrated by explanatory variables through a linear regression model, while F-statistic evidences that adjusted R^2 reading holds non-random and the model specification quality is high.

Admittedly, acceptance of G-M theory "as it is" requires further test of validity. Thus, for the purpose named several tests were administered to refute or confirm priorly stated assertions, notably: average of residuals, Goldfeld-Quandt test, along with Durbin Watson. For the former, the predicted and observed values for each period were juxtaposed to derive the variance between them. Afterwards, the simple arithmetic mean of variances was calculated for the entire residual universe. The following sets forth the readings obtained. Since calculated simple average resulted in 0, the 1st premise of G-M theory in the matter of our model is affirmed (*Table 7*).

The Goldfeld-Quandt test was conducted following a universally recognized scheme of division sum-of-squares statistics for last and first out of three equal subsets[1]. These, in their place, were obtained by ranking the initial dataset, utilizing the factor of sum of independent variable values as a criterion. Subsequently, the F-test critical value for 5% per cent confidence level was computed and collated with statistic value. We

[1] Kennedy P. A. Guide to Econometrics: textbook. Malden, MA: Blackwell Publishing; 2008. 603 p.

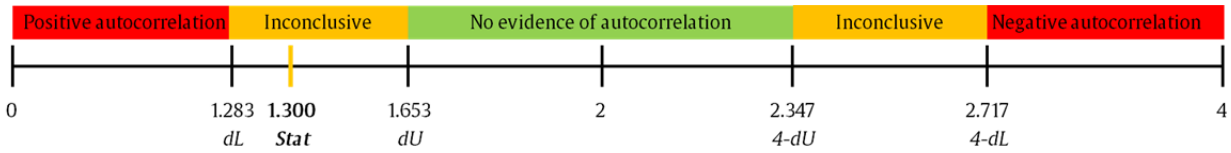

Fig. 1. **Durbin-Watson Critical Regions**

Source: Prepared by authors and predicated on [15, 16].

Fig. 2. **Adequacy Test Analysis**

Source: Prepared by authors and predicated on [15, 16].

would accept the homoscedasticity of residuals, should the statistic be lower than the critical value. The results of the test are set forth, again reinforcing applicability of G-M theory in terms of the data universe collected (*Table 8*).

Lastly, the Durbin-Watson was run to uncover the existence or absence of autocorrelation. The statistic computed was collated with the upper and lower limits for the sample with 3 explanatory variables and 5% critical level. In the aftermath, the *Fig. 1* illustrates the inconclusiveness of the outcomes, i.e. we have no justification to either identify or rebut the occurrence of autocorrelation [23].

Henceforth, we may suggest that the first 2 premises of G-M theory are fulfilled with no need to reject or accept the 3rd premise. Overall, the model satisfies the G-W theory. Thus, we have proved that the OLS-estimates of the coefficients of the linear regression model are unbiased, consistent, and effective.

Separately, the challenge of adequacy is a prerequisite for further conclusions to be made, owing to the fact that up to this point we have no foundation to state the forecast accuracy of the model to be satisfactory. First, we used our value from the time period 2021 (*Table 7*) as an empirical data to commence the investigation. Then, we took the two-tailed t-statistic for commensurate degrees of freedom multiplied by the standard error of regression [value — 843.52]. Next, the range was computed as the two-side corridor with the observed value in the middle [1244.29:2931.32]. Ultimately, the predicted value of the candidate model transpired within the limits of aforementioned corridor, resulting in conclusion of model adequacy (*Fig. 2*).

CONCLUSIONS

To draw a conclusion, in the capacity of conservative estimate, three contributions

emerge from the comprehensive analysis performed within current work. For one, granted that mergers and acquisitions are regarded as multidisciplinary activity, we consolidated, summarized, and integrated extensive list of explanatory variables, namely: annual returns in Standard and Poor's 500 alongside Dow Jones Industrial Average Indices, annual change in real gross domestic product, 10-year U.S. Treasury notes yield to maturity, policy rate, and, finally, capacity utilization ratio. Second of all, the research underscores that in the matter of U.S. market of 1985–2020, the stock returns and capital utilization did not report sufficient indications of explaining the M&A volumes. This could be perchance explained by reverse relationship and feeble connections with factor, respectively. In the third place, we summarized and determined the key drivers of M&A activity in the United States owing yield on 10-year Treasury notes to have the heaviest impact on the explanatory variables.

Further investigation directions may include more extensive set of variables to be tested upon their significance, considering stock performance in more nuanced way. Further, the issue of not being able to accept nor deny third Gauss — Markovitz theorem in current work might be a captivating field of research, employing more deep autocorrelation tools to unravel the state of things. Another significant future contribution may be derived by cross-checking of the results obtained by alternative methodology.

Special mention should be made of the fact that since our paper is a practically oriented examination of merger and acquisition activity in the Unites States, we believe the research to possess certain ability to be used as a compelling argument in the matter of advising corporate clients about strategic opportunities and undertaking management decisions of corporations.

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Emotional Intelligence as a Factor in the Development of the Intellectual Capital of the Organization

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ABSTRACT

There is a recent trend towards increasing the role of an organisation's intellectual capital as a critical resource, success factor and asset that contributes to added value creation and increased capitalisation. As an intangible value driver of potential benefits and competitive advantage, an organization's intellectual capital and its human, structural and relational components need multidimensional study to determine the drivers of its development. From the perspective of the resource-based approach, an organization's intellectual capital is a unique, non-borrowable resource that determines the attainability of a firm's competitive advantages. From the perspective of the knowledge theory of the firm, intellectual capital as the sum of relationships, management and knowledge, the bearers of which are employees, plays a crucial role in shaping the innovation capacity of the organisation, a source of invention and strategic innovation. The purpose of this study is to identify the factor of development of intellectual capital of the organisation from the perspective of social psychology. Due to the fact that human capital develops in the conditions of creative satisfaction, self-actualisation, self-accomplishment and self-fulfilment of the employees as well as in their communication in the process of interaction in a certain structural and functional environment, conducive to the development of new concepts, technologies, intellectual property and improvement of relations with all stakeholders of the organisation, the author analyses the personal characteristics of the organisation employees, in particular the emotional and cognitive competencies that form the ability to consciously evaluate and prioritise their goals, strengths and weaknesses, to effectively achieve professional growth by reflecting and regulating their thoughts and feelings in the process of professional interaction. The paper presents the results of a survey of consulting company employees to determine the importance of emotional competencies as the most important intangible asset of a consulting business. The author concludes that emotional intelligence, as a socio-psychological phenomenon, requires both the attention of the leaders of the organisation and further study, as emotional competencies of employees are a factor in the development of their creative, leadership and innovative initiatives, increasing the effectiveness of organisational culture and relationships with stakeholders.

Keywords: intellectual capital; structural capital; human capital; relational capital; emotional intelligence; emotional competences; knowledge firm

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INTRODUCTION

In retrospect, human society went through several stages of socio-economic development before entering the stage of post-industrial or information society. In the stages preceding the information society, the structure of factors of production included labour, capital, natural resources, and entrepreneurship. With the advent of the information society, priority shifted to a new factor paradigm consisting of knowledge, information, technology, and intellectual capital.

It is generally accepted in the academic literature that intellectual capital includes three constituent elements, such as human capital, structural capital, and relational capital [1–3]. Human capital is defined as the know-how that an organization loses with the departure of its employees. This includes employees' skills, their potential capabilities, experience, competencies, and expertise [4].

From the perspective of the theory of the firm, it is knowledge that is a critical strategic resource of the organisation, which significantly affects the performance of the firm [5, 6]. Intellectual capital as the sum of knowledge, the carriers of which are the organisation's employees, the system of relationships and the management system, i.e., human, relational

and structural capital, plays a crucial role in shaping the innovation capability of the organisation [7, 8]. From the perspective of the resource-based approach intellectual capital is presented as a rare, unique, non-borrowable resource that determines the attainability of competitive advantage of the firm. The economic and legal environment in which a firm develops affects its innovation and knowledge resources because this environment sets the expected outcomes and requirements as to what knowledge will be accumulated, how it will be acquired and used. Moreover, the institutional environment sets the incentives for knowledge creation, as well as its transfer and use [9].

In modern society, human capital, as the most important component of a firm's intellectual capital, is a company's information asset and a source of strategic innovation. Human capital, in turn, consists of such elements as education, competence, expertise, creativity, employee satisfaction and contentment [10–12].

THEORETICAL CONTRIBUTIONS AND APPROACHE

Developing solutions to organisational efficiency problems and ways to add value in the information society requires the consideration and construction of integrated interdisciplinary knowledge [13, 14]. The success of interdisciplinary research depends on the overall objectives and applicability of the results in management decision-making processes. All structural components of intellectual capital of an organisation are based in one way or another on the qualitative characteristics of employees, their communication in the process of functional interaction in the context of organisational structure, on their developed concepts, technologies, algorithms, intellectual property, as well as on the business relationships established by employees with all stakeholders of the organisation. Consequently, there is a need to analyse the factors that enhance an organisation's intellectual capital in terms of employee identity development, as well as his or her cognitive and emotional competencies. Employees entering the organisation have their individual identity and social identity as part of social groups. Employees have their own specific values and norms that are associated with their individuality, and define their own shared values based on their social identity. It should be emphasised that the more employees are able to adopt and uphold the organisation's values based on their social identity, the more they contribute to the development of the organisation's intellectual capital [15].

Emotional intelligence as a socio-psychological phenomenon has recently attracted more frequent attention of organisational leaders. They use the employee emotional intelligence factor for organisational development, improving management practices, leadership development, motivating employees to create a high-performance work culture, to be creative and innovative [16, 17].

D. Goleman [18] defined emotional intelligence as the ability to recognise one's own emotions and the emotions of others to enhance self-motivation and manage one's own emotions in the communication process. Emotional intelligence implies abilities that are distinct yet complementary to cognitive intelligence, or in other words, purely cognitive abilities as measured by IQ.

Emotionally intelligent goal-directed behaviour is the ability to consciously evaluate and prioritise one's goals. This requires the ability to simultaneously retain and hierarchically organise mental representations of different goals in the brain's working memory, to compare and rearrange them according to values and preferences, which is made possible through motivational correction. The involvement of emotional intelligence in these processes of goal prioritisation and balancing one's own and others' needs determines one's ability to be more goal-oriented and less random and impulsive in behavioural patterns [19]. People with these skills exhibit optimal goal-directed cognitive behaviour and have relevant ways of expressing emotional intelligence in appropriate business behaviours.

Emotional intelligence is related to knowing where and how to express emotions and how to control them. Goleman believed that emotional intelligence is a predictor of professional success and the basis for the

development of emotional competences and defined emotional competence as the personal and social skills that lead to high performance in professional life. But developing emotional competence at a high level requires a certain level of emotional intelligence. People who are able to accurately identify other people's emotions develop a specific competence such as influencing or affecting others. People who are able to handle their emotions can easily develop competencies such as initiative or goal-seeking, leadership. Such competencies should be identified and measured in order to predict employee performance in order to accumulate the intellectual capital of the organisation.

Emotional intelligence as an intrapersonal ability allows employees to understand themselves, assess their strengths and weaknesses, effectively formulate, and achieve professional growth goals by reflecting and regulating their thoughts and feelings. Consequently, emotional intelligence entails awareness of one's emotions and their adjustment, which ensures the success of employees' social interactions both among themselves within the organisation and with all participants in business processes outside the organisation. Emotional intelligence, as the ability to identify other people's feelings in the process of verbal communication and the ability to be empathetic, is of particular value for effective communication between employees and colleagues, subordinates and supervisors [20].

Such employees acquire the ability to be emotionally flexible and to consciously adapt their affective domain to changing conditions, which is reflected in the control and containment of impulsive behaviour that is a factor in the successful management of stressful situations that often arise in the workplace [21]. Adaptability includes skills to manage change or anticipate and handle stressful situations ahead of events.

THE IMPACT OF EMOTIONAL INTELLIGENCE ON THE DEVELOPMENT OF INTELLECTUAL CAPITAL

In the context of the information society and a paradigm shift in organisational resources, it is especially important to build an innovative institutional organisational culture and have a high level of development of emotional competencies of managers, which has a positive impact on organisational performance as a whole, as it ensures that all employees adopt shared values and innovative institutional culture of the organisation [22]. Even P. Drucker viewed innovation as the change and transformation of useful information into new professional qualities of employees [23]. Thus, it seems logical to conclude that positive perception and management of change is achievable only if there is a high level of emotional competence of employees in the organisation.

The capacity for creativity and the desire for research and innovation among employees is also largely determined by the level of development of their emotional intelligence. Research has shown that highly creative employees are broad-minded, have a positive attitude towards change, are imaginative, inquisitive, open to new ideas and appreciate unconventional solutions. These employees consciously control their affective states. In contrast, employees with low creativity are conservative, reject anything new, are most satisfied with their regular work, and are resistant to change [24]. The development of emotional intelligence leads to the development of employees' creative abilities if they have such qualities as initiativity and active lifestyle and attitudes. In particular, a propensity to be proactive, to identify and solve problems, a willingness to accept personal responsibility, persistence, perseverance, and a tolerance for instability. A focus on personal and professional development is a manifestation of a high level of emotional intelligence and a condition for the development of employees' creativity. In addition to the personal qualities of employees, to foster creativity and innovation processes in an organisation, it is necessary to create an innovative institutional culture of the organisation that creates an enabling environment for cooperation, inter-cluster and inter-level interaction with a sufficient degree of autonomy in the workplace, an atmosphere of involvement and commitment and an environment of trust. [22].

Moreover, emotional competencies and transformational leadership are interrelated personality

traits, with transformational leaders in the management being the key to organisational success [25]. In particular, employees led by transformational leaders are more productive, report a high degree of job satisfaction, exhibit behaviours that demonstrate commitment and acceptance of the organisation's values, and are highly creative [26].

In order to practically confirm the idea of the dependence of an organisation's intellectual capital on the level of employees' emotional intelligence development, a survey of employees of HIC Capital Group LLC — an investment hub in the international arena — was conducted. This LLC is a consulting firm that positions itself as an investment hub that brings together investors (funds, corporations, private investors) and startups to promote the venture capital industry in Russia and abroad [27]. Employees were asked to self-assess their emotional competencies according to three levels: "always", "often", "never".

The purpose of the survey was to determine how the emotional competencies of the firm's employees contribute to the organisation's intellectual capital as the most important intangible asset of the consulting business. This firm was chosen for the study because of the fact that the research and practice of capital attraction for newly established firms represents the involvement of an intangible resource (knowledge and information) in the business cycle, which confirms the penetration and integration of intangible and tangible resources. The HIC Capital Group firm is made up of young enterprising professionals with experience in venture capital and financial business and is, in fact, a start-up itself. The company's main resource is its intellectual capital, as this business is a knowledge firm where, in terms of firm strategy, the knowledge, experience and professionalism and expertise of its employees is the most significant factor of production.

The results of the employee survey confirm the idea of using emotional intelligence as a factor in the development of intellectual capital of the organisation. All participants consciously evaluate their emotional competencies and state that they have the ability to cope effectively with difficulties, manage impulsive behaviour, communicate effectively, accept innovations with interest, interact constructively, motivate employees to find non-conventional solutions and experience deep job satisfaction at the same time (*Table 1*).

How can emotional intelligence be used as a factor in the development of a company's intellectual capital? Real-world business situations require a series of decisions, each of which depends on links to potentially changing factors in the external and internal environment. For a better understanding of the processes that underlie dynamic decision-making, it is advisable to apply some of the methods of modelling complex systems, the best of which is the construction method of the mutual influence matrix, because it allows us to consider implicit quantitative relationships between the analysed variables [28]. It should be noted that this allows predicting the behaviour of several aspects in their interaction observed in empirical studies [29, 30]. For the matrix to be relevant, the following conditions must be met: a list of professional competences and emotional competences that have a mutual influence on each other must be formed and the degree of this influence must be determined; quantitative characteristics for the matrix of mutual influence of competences must be obtained from expert opinion and an Ishikawa diagram (fishbone diagram) that makes it possible to visually determine the most significant cause-effect relations between the assessed predictors must be constructed.

In order to analyse the mutual influence, the ten most significant, according to the author and experts, concepts were used — competences of human capital of a knowledge firm, including: ability to find and use information from various sources; ability to master new knowledge areas and skills; analytical skills; ability to think outside the box; communication skills, teamwork skills; proactivity; ability to express thoughts clearly; ability to use modern software products; ability to allocate time properly or time management skills; ability to use the Internet; ability to work in a multitasking environment. The degree of interaction among the variables was assessed using the scale presented in *Table 2*.

Table 1

Self-assessment of emotional competences by company employees

No.	Aspects of emotional intelligence	Personal traits and characteristics	Self-assessment of emotional competences	Always % of survey participants)	Often (% of survey participants)	Never % of survey participants)
1	Intrapersonal	self-esteem	I never raise my voice and resolve conflicts with respect for my colleagues	75	25	0
		emotional self-reflection	I am aware of my emotions when I provide a service to a client	100	0	0
		proactive stance	I have a persistent approach to overcoming obstacles to achieving professional goals	90	10	0
		self-actualisation	I am always inspired to complete a task in the best possible way	80	20	0
		innovative search	I accept innovations with interest and try to improve them	82	14	4
2	Interpersonal	empathy	I share my colleagues' feelings and try to help them in their difficult situation	19	81	0
		social responsibility	I always help my colleagues without expecting to receive benefits or privileges	67	27	6
		interpersonal communication	I understand how colleagues feel when I talk to them and express emotions that contribute to constructive interaction	70	20	10
		leadership initiatives	I can motivate others without coercion or intimidation	90	10	0
3	Adaptability	reality testing	I consider my options without preconceptions and do not make impulsive decisions	75	15	10
		flexibility	I respond easily to new inputs and enjoy this kind of communication or mode of operation	48	32	20
		attitude towards changes	I consciously assess events at work that may trigger my positive or negative emotions	100	0	0
		problem resolution	I solve a problem as soon as I encounter it, and that takes the worry out of my mind	48	52	0
4	Stress management	stress tolerance	I respond calmly to conflict and ambiguity	46	34	20
		impulsivity control	I don't let my impulsive emotions ruin my relationships with my colleagues	80	20	0
5	the mindset	optimism	An optimistic view of the problem allows me to see more possibilities for solutions	72	28	0
		job satisfaction	I get satisfaction from doing my job	100	0	0
		acceptance of the organisation's values	I share the basic beliefs on which the company's business is built	100	0	0

Source: developed by the author.

Table 2

Scale for assessing the degree of mutual influence of the variables analysed

Degree of influence of the factor (variable)	Characteristics	Degree of influence of the factor (variable)	Characteristics
(+0,1)–(+1)	Very little positive impact	0	Lack of impact
		0,1–(–1)	Very little negative impact
(+1,1)–(+2)	Weak positive impact	(–1,1)–(–2)	Weak negative impact
(+2,1)–(+3)	Moderate positive impact	(–2,1)–(–3)	Moderate negative impact
(+3,1)–(+4)	Strong positive impact	(–3,1)–(–4)	Severe negative impact
(+4,1)–(+5)	Very strong positive impact	(–4,1)–(–5)	Very strong negative impact

Source: compiled on the basis of data from [28, p. 383–394].

DISCUSSION

Based on the data obtained, a matrix of mutual influence of competences was obtained (*Table 3*). The study found that in 39 combinations out of 100 possible variations of mutual influence of competences there is no correlation (highlighted in blue).

The result of summarizing the expert assessment was the development of a fuzzy mutual influence matrix of intellectual capital development competencies based on the improvement of emotional competencies, which takes into account the degree of mutual influence of the factors. The intensity of the influence of variables was assessed based on the calculation of arithmetic mean values assigned by the experts for each predictor.

The matrix illustrated the most significant relationships between the variables, among which "Ability to learn new areas of knowledge and skills" and "Proactive attitude", "Ability to find and use information from different sources", "Analytical skills" and "Innovative search", "Communication skills, teamwork skills" and "Interpersonal communication" and "Acceptance of organisation values", assessed and awarded by experts with "5" points.

The matrix also allowed us to determine the number of combinations of mutual influence variables characterised as "very weak positive influence", "weak positive influence", "moderate positive influence", "strong positive influence" and "very strong positive influence":

The next step in determining the development of intellectual capital as a function depending on emotional competencies was to construct an Ishikawa diagram (Figure 1), allowing the most significant casual relationships between the assessed predictors to be clearly identified. The Ishikawa diagram was used in addition to the existing logical analysis techniques to visualise interrelated processes and to develop optimal solutions for managing them. The colour and size of the lines in the diagram highlight the relationships similar to those in the fuzzy mutual influence matrix of intellectual capital development competencies based on the development of emotional competencies. The diagram can be reinforced by factors directly affecting the analysed competences, as well as second-order factors [28].

For example, competence K4 "Thinking outside the box" should be formed with the following emotional competencies as second-order factors: increased emotional self-awareness (intrapersonal aspect of emotional intelligence), increased social responsibility and empathy (interpersonal aspects of emotional intelligence), definition of a clear position towards change (adaptability), increased control over impulsive behaviour (stress management), development of an optimistic attitude (mindset).

Thus, thanks to the information presented in the diagram, it is possible to assess the direction and degree of influence of the different variables (in our case, competences) on each other, the influence of first order and second-order factors on the analysed variables, depending on the task at hand.

Table 3

Matrix of mutual influence of competences

Variables/impact investigated		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	Variables investigated / mutual influence
		Self-esteem	A proactive stance	Self-actualisation	An innovative search	Interpersonal communication	Leadership initiatives	Reality testing	Problem solving	Resilience to stress	Acceptance of the organisation's values	
K1	Ability to find and use information from different sources	***	***	***	***				***			K1
K2	Ability to master new areas of knowledge and skills		***	***	***						***	K2
K3	Analytical skills	***	***	***	***			***	***	***		K3
K4	Ability to think outside the box	***	***	***	***		***	***	***	***		K4
K5	Communication and teamwork skills	***	***	***	***	***	***	***	***	***	***	K5
K6	Initiative and proactivity		***		***			***			***	K6
K7	The ability to articulate and communicate your thoughts clearly	***	***			***	***	***		***		K7
K8	Ability to use modern software products		***	***	***						***	K8
K9	The ability to allocate time properly		***					***	***	***	***	K9
K10	Ability to work in a multi-tasking environment		***	***	***		***	***	***	***	***	K10
Variables/Impact investigated		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	

Source: developed by the author.

CONCLUSIONS

Emotional intelligence is gaining increasing recognition as a criterion for overall organisational performance in various areas of the economy. Researchers conclude that a high level of emotional intelligence is necessary to meet the demands of success in today's information society. Recognising and managing emotions in social contexts is important both for the personal, professional and career development of individual employees and for the organisation as a whole. It is interesting to note that according to the results of research by scientists in the field of social psychology, the cause of failure and achievement is not so much cognitive abilities of

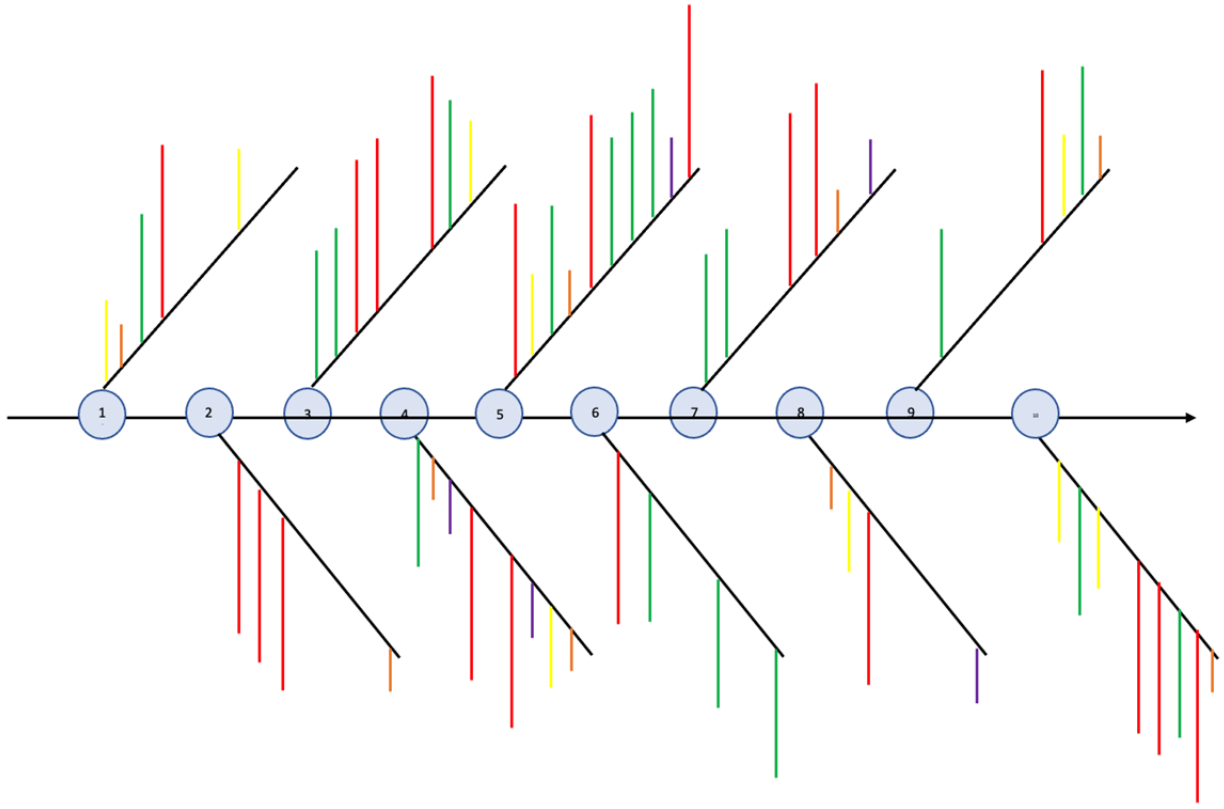

Fig. 1. **Ishikawa diagram for identifying casual relationships between the variables analysed**

Source: developed by the author.

employees, but rather their ability to maintain social interaction, create a positive image and manage the perception of their own personality by others. A high level of development of emotional competencies of employees in an organisation positively affects the quality of intellectual capital of the organisation, as it is a condition for the unlocking of their potential professional opportunities, innovative search, increase in professional competencies and expert knowledge.

In addition, the emotional intelligence of employees is a factor in the development of structural capital of the organisation due to the fact that management processes, technologies and methodologies aimed at the implementation of business strategies function most effectively in an environment of transformational leadership, team spirit, cooperation and search for innovative ways of organisational development. The high emotional intelligence of an organisation's staff is critical to building the relational capital of the organisation, as effective communication based on highly developed emotional competencies of staff is the key to sustainable market relationships, intra-organisational cross-functional relationships, and external relationships with suppliers, competitors, institutions, and customers. The use and development of the above-mentioned resources of an organisation — its human, structural and relational capital — depends to a large extent on the level of development of the emotional intelligence of the staff.

Consequently, the intellectual capital of an organisation appears to be an emergent or generated intangible asset within the resources of the organisation, the development factor of which is the emotional intelligence of the employees, the importance of which for a successful organisation increases in the information society. The interrelation of intellectual capital development competencies with the emotional intelligence of employees is difficult to represent in the form of quantitative variables, so the interaction of

variables can be ranked using subjective information about the predictors obtained through the involvement of experts. Expert assessments allow identifying cause-effect relationships and patterns using the cognitive method and one of its components, the fuzzy mutual influence matrix of competencies.

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Questioning as a Tool in Social Adaptation and Manipulation

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ABSTRACT

This study explores the role of questioning in social adaptation and manipulation. The article considers how language plays a crucial role in shaping the way we ask and answer questions and whether intellectual growth can be driven by questioning. The impact of cultural diversity on questioning, including the ways in which different cultures approach questioning and whether this affects social adaptation and manipulation, is highlighted. Some teaching tools that can be used to help individuals develop their questioning skills are discussed, as well as the importance of grammar when asking different types of questions. There are references to the philosopher Socrates, who famously used questioning as a means of teaching, and the relevance of his approach in modern society is considered. Additionally, the author touches on the intersection of questioning and sociology and suggests techniques to be used by interviewees to answer tricky questions.

Keywords: language; English language; society; adaptation; manipulation; communication; information; culture; questioning; conversation; question types; intellectual development

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INTRODUCTION

Studying the art of questioning in the modern world is of utmost importance as effective questioning skills are essential for effective communication and problem-solving. In today's information-driven society, where misinformation and fake news are widespread, the ability to ask the right questions can help individuals navigate and make sense of the vast amounts of information available. The art of questioning also plays a crucial role in developing critical thinking skills and promoting intellectual growth. Moreover, in a world that is becoming increasingly diverse, understanding how different cultures approach questioning and the impact of cultural differences on social interactions is vital. Additionally, questioning is a crucial tool for individuals in positions of leadership and authority, enabling them to make informed decisions and address complex problems. As such, studying the art of questioning can be highly beneficial for individuals seeking to improve their communication skills, increase their social adaptability, and excel in their personal and professional lives.

WHAT ROLE DOES LANGUAGE PLAY?

Language is considered to be a symbolic representation of our thoughts, ideas, and experiences. It enables us to communicate with others, express our emotions, and convey our intentions. It also plays a role in shaping our perceptions, thoughts, and memory. No wonder, that the study of how we process, understand and generate language, is considered as a fundamental area of research in cognitive psychology. Language has a direct impact on our cognitive abilities, emotional expressions, and mental well-being. It can be used to influence and persuade us to adopt certain attitudes and behaviors in several ways:

1. Socialization. *Language is a key tool for socialization and is used to transmit cultural norms and values from one generation to the next. Through language, we learn the expectations of our society and internalize them as our own.*

2. Persuasion. *Language can be used to persuade and influence us to adopt certain attitudes and behaviours. Advertising, political speeches, and other forms of communication use language in a strategic way to appeal to our emotions and shape our beliefs*.

3. Power dynamics. *Language can be used to reinforce power dynamics and marginalize certain groups of people. For example, discriminatory language can be used to reinforce stereotypes and reinforce social hierarchies*.

4. Norms of communication. *Language also shapes our norms of communication, such as how we initiate and end conversations, how we indicate agreement or disagreement, and how we express emotion. These norms vary across cultures and*

if not understood can lead to miscommunication and difficulties in social interactions.

5. Access to information. *Language can also shape our access to information and knowledge, limiting our understanding of certain topics or issues if we don't have proficiency in the language, they are presented in*.

It is crucial to recognize the potential biases and power imbalances that language can reinforce and to actively question and challenge them. This is especially true when it comes to English, which is often considered the global language of business and commerce. As a result, many people feel pressure to be fluent or proficient in it to advance in their careers. This can lead individuals feeling strained to accept social norms that are dictated by the dominance of the English language.

- One way in which this can happen is through the pressure to conform to English-speaking norms in the workplace. *For example, an individual may feel pressure to speak English in order to be understood and to fit in with their colleagues, even if it is not their first language. This can lead to individuals feeling like they have to suppress their own cultural identity and conform to the dominant culture in order to succeed.*
- Another way in which the English language can be used to influence, and corner individuals is through the media and popular culture. *Many popular movies, television shows, and music are produced in English, and as such, they can be used to propagate certain values and norms that are associated with English-speaking cultures.*
- Additionally, English language education, especially in non-English-speaking countries, is often seen as a way to access a better future, more opportunities and better jobs. *This can create pressure on individuals to conform to the social norms and values that are associated with the English language in order to be seen as successful and upwardly mobile.*

Of course, being fluent in a language and adapting to different cultures can be beneficial for an individual, however, it's also important to recognise that this should not come at the cost of losing one's own identity or values.

IS INTELLECTUAL GROWTH DRIVEN BY QUESTIONING?

The best way to become aware of the potential pressures and influences that come with the use of a certain language is to ask questions to gain insight into culture, values, and beliefs, to understand institutions that shape the behaviour of individuals and groups within a society. Sociologists, for example, by asking questions,— which is a basis of research methods, such as surveys, interviews, and focus groups,— can identify patterns and trends within a society; thus, developing theories which explain social phenomena.

By asking questions, we can get a better sense of other people's perspectives, as we encourage individuals to express their thoughts and feelings freely. With this knowledge at hand, therapists and counsellors are able to gain a deeper understanding of their clients' experiences and perspectives; helping them identify patterns or behaviors which may contribute to current issues they are facing. Moreover, psychologists can identify and understand different experiences as well as challenges people face due to things such as discrimination, prejudice or social inequality. Question asking is a way to initiate and maintain conversations, as well as to indicate one's own lack of knowledge or uncertainty, convey and elicit information. In "Forms of Talk," Erving Goffman [1], a Canadian sociologist and social psychologist, notes that questions can be used to signal one's own intentions, such as when someone asks a question in order to indicate that they are interested in a topic or to show that they are paying attention. Herbert H. Clark, a cognitive scientist, and linguist, in his book "Using Language" [2] examines the role of language in social interactions and communication, with a focus on the ways in which people use language to coordinate their actions and achieve shared goals. He contends that question asking can be used to convey power dynamics, with those who ask questions often having more power and control in the interaction than those who are answering. This is because the person asking the questions is setting the agenda and directing the conversation, while the person answering is responding to the questions and providing information. For instance, in an interview or formal meeting, the person who asks questions is the one who is in charge of the conversation, and the one who is in control of the flow of the discussion. They can also use questions to elicit information or opinions that they want to know, or to signal that they are paying attention and engaged in the conversation. They are able to direct the conversation in a way that serves their own interests and can steer it away from topics that they don't want to discuss. Furthermore, in some cases, the person asking the questions may be able to use their questions to put the other person

on the defensive, or to pressure them into providing specific information or taking a particular position. For example, Steve Sackur,[1] the host of the BBC's «HardTalk», is known for his direct and challenging approach during interviews. He asks questions that are informative and thought-provoking. Trying to uncover new and interesting information, he is expected to remain impartial, to provide an unbiased approach and to let the interviewee speak their mind freely, providing space for different perspectives. Although, the interviewer has a certain angle, or an idea of the story he wants to tell. It's important to note that power dynamics in conversation are not always so clear cut, and they can shift and change depending on the context, the relationship between the speakers, and the goals of the conversation.

From the other side, the ability to ask questions is a key component in metacognition, which involves the ability to think about one's own thinking, and can be seen in the following ways:

- Metacognitive monitoring. *This refers to an individual's ability to monitor their own understanding and progress in learning. Asking oneself questions such as "Do I understand this concept?", "What do I know and what I don't know?" can help to identify areas of confusion or misunderstanding, and prompt the person to seek out additional information or clarification.*
- Metacognitive planning. *This refers to an individual's ability to plan and set goals for their own learning. Asking oneself questions such as "What do I want to learn?", "What do I need to do to achieve my learning goals?" can help to identify specific strategies and resources that can be used to reach those goals.*
- Metacognitive evaluating. *This refers to an individual's ability to evaluate their own understanding and performance. Asking oneself questions such as "How well did I perform on this task?", "What did I do well and what I need to improve?" can help to identify areas of strength and weakness, and to make adjustments for future learning.*
- Metacognitive regulation. *This refers to an individual's ability to regulate their own cognitive processes, such as by setting goals, monitoring progress, and making adjustments as needed. Asking oneself questions such as "What strategies can I use to stay focused?", "How can I stay motivated?" can help to identify the most effective methods for regulating one's own learning.*

Overall, by asking questions, individuals can monitor their own understanding, plan and set goals, evaluate their own performance, and regulate their own learning.

Asking questions is a fundamental aspect of critical thinking, as it enables individuals to clarify their thinking, scrutinize assumptions, and gain deeper understanding of a subject. The skill of asking questions helps people make informed decisions that align with their values and beliefs. Richard Paul, in his book "Critical Thinking: Tools for Taking Charge of Your Learning and Your Life" [3], identifies several types of questions that are essential for critical thinking, such as:

- Questions that challenge assumptions
- Questions that probe reasons and evidence
- Questions that examine the implications and consequences of a belief or action
- Questions that ask for the relationship between and among concepts
- Questions that ask for the purpose or the frame of reference of a statement or question
- Questions that ask for the evidence or criteria
- Questions that ask for the assumptions behind a statement or question

Asking questions is not just about having the right answer, but also about the questioning skills. By learning to ask the right questions, individuals can gain a deeper understanding of a matter, identify key issues, solve problems and make better choices. The form of the question can affect the nature of the conversation, for example, open-ended questions are typically used to encourage elaboration, while closed-ended questions are used to elicit specific, factual answers. By asking questions in a strategic and thoughtful way, a person can be led to consider new information and perspectives, challenge their existing beliefs, and develop deeper understanding and insights.

COULD YOU TELL WHETHER CULTURAL DIVERSITY MATTERS?

The types of questions used in any language-speaking culture can alter depending on a variety of factors such as context, the relationship between the speaker and the

[1] URL: https://www.bbc.co.uk/programmes/profiles/QrrcWR 1vSGDbwZ45JLhNg2/stephen-sackur; https://www.youtube.com/user/bbchardtalk

listener, and the topic being discussed. However, in English-speaking countries, it is common to use direct and open-ended questions. This means that questions are often phrased in a way that directly asks for information or an opinion and allows the respondent to give a detailed answer. For example, "What do you think about the current political situation?" In Russian-speaking countries, it is common to ask, "Could you tell me, how you feel about the current political situation?" instead. Answering more indirect and closed-ended questions, one could simply state their opinion or feeling in a brief sentence: "I am concerned about the current political situation." It's important to remember that when giving a short answer, it's not just about being brief, but about providing a clear and direct response that addresses the question being asked. Also, in some cultures, it's considered impolite to give a direct negative or critical answer, so in such situations, people might use words like "concerned" or "uncertain" instead of "displeased" or "disappointed". To understand and be understood, it's important to be aware of these cultural differences and adjust the language and phrasing of questions accordingly to avoid confusion or offense. It's crucial to keep in mind the cultural context and the different ways questions are phrased and answered to facilitate effective communication and understanding. For instance, idiomatic expressions and colloquial phrases in the English language can be difficult for a non-native speaker to comprehend. For example, "What's the 411?" This phrase is a slang way of asking for information or an update on something. It comes from dialling 411 for information. Idiomatic expressions and colloquial phrases are often used informally, but miscommunication can occur in formal or written language as well. Complex sentence structures, jargon, technical language, different accents, or dialects can all impact comprehension.

THERE ARE SOME TEACHING TOOLS, AREN'T THEY?

Teaching ESL (English as a Second Language) students how to ask proper questions can be challenging, but with the right approach and patience, it can be accomplished. Here are a few strategies that may be helpful:

1. Modelling. *One of the most effective ways to teach question-asking is by modelling. Show the student how to ask different types of questions in different situations. For example, you can demonstrate how to ask for directions, how to ask for clarification, and how to ask for information.*

2. Practice. *Encourage your students to practice asking questions in a variety of real-life scenarios through role-playing exercises. This can provide a safe and controlled environment for students to hone their questioning skills. By practicing in this way, students will better understand the context and purpose of their questions and will see the practical applications of the language they are learning.*

3. Feedback. *Give your student feedback on their question-asking skills. Point out any errors or mistakes they make and give them suggestions on how to improve.*

4. Vocabulary. *Ensure that your student has the vocabulary they need to ask proper questions. Teach them the appropriate question words (what, when, where, why, etc.) and other question-related vocabulary, such as "Can you help me understand…?" or "Could you explain…?"*

5. Use positive reinforcement. *Positively reinforce students who ask questions by acknowledging and praising their contributions. This will encourage them to continue asking questions in the future.*

6. Use humour. *Incorporating humour and making it fun to ask questions will help the student to relax and feel more comfortable asking questions.*

7. Use technology. *Use technology such as online forums, social media, or chat platforms to encourage students to ask questions. This can be less intimidating than asking in person, and it can also be done at the student's own pace.*

There are online forums and chat platforms that can be used to help ESL (English as a Second Language) students practice and improve their question-asking skills. Here are a few examples:

1. Quora. *Quora is a question-and-answer website where users can ask and answer questions on a wide variety of topics. This can be a great resource for students to practice asking questions in a real-world setting.*

2. Reddit. *Reddit is a website that features communities, or "subreddits," dedicated to specific topics. This can be a great resource for students to find discussion boards on topics that interest them, and to practice asking questions in a supportive and engaged community.*

3. Stack Exchange. *Stack Exchange is a network of question-and-answer websites on a variety of topics. This can*

be a great resource for students to practice asking technical questions and get answers from experts in a specific field.

4. Language exchange platforms. *There are a variety of online language exchange platforms that connect ESL students with native speakers of the language they are learning. This can be a great way for students to practice asking questions in a conversational setting and get immediate feedback.*

5. Online language learning communities. *There are several online language learning communities where students can connect with other learners and practice their language skills. These communities are designed to be supportive and encouraging, which is perfect for students who want to improve their question-asking skills.*

6. Online discussion forums. *Online discussion forums are a great way for students to participate in group discussions and practice asking questions. These forums can be found in many websites and they can be focused on different topics.*

7. Online chat platforms. *WhatsApp, Telegram, and WeChat are popular instant messaging app that can be used to communicate with native speakers in real-time.*

8. Video conferencing platforms. *Zoom, Google Meet, Skype, and alike can be used for language practice sessions with native speakers, where students can practice asking questions and having conversations.*

9. Discord. *Discord is a popular chat platform that is often used by communities, such as gaming communities, but it can also be used to create chat groups for language learning.*

To gain inspiration and enjoyment, students can be directed towards watching TV shows that feature hosts known for their skillful questioning techniques. Here are a few examples:

1. «The Tonight Show Starring Jimmy Fallon» (USA). *Jimmy Fallon is known for his ability to ask engaging and entertaining questions during his interviews with guests. He is known for his comedic approach to interviews and his ability to create a relaxed and fun atmosphere.*

2. "The Ellen DeGeneres Show" (USA). *Ellen DeGeneres is known for her ability to ask thoughtful and insightful questions during her interviews with guests. Her interviews often focus on personal stories and experiences, and she is known for her ability to connect with her guests on a personal level.*

3. "The Graham Norton Show" (UK). *Graham Norton is known for his ability to ask witty and humorous questions during his interviews with guests. His show often features a mix of celebrities and comedians, and he is known for his ability to create a fun and relaxed atmosphere.*

4. "The Howard Stern Show" (USA). *Howard Stern is known for his ability to ask controversial and personal questions during his interviews with guests. His interviews often focus on the personal lives and careers of his guests and he's known for being a very direct and straightforward interviewer.*

5. "The Oprah Winfrey Show" (USA). *Oprah Winfrey is known for her ability to ask thought-provoking and emotional questions during her interviews with guests. Her interviews often focus on personal stories and experiences, and she is known for her ability to connect with her guests on a personal level.*

6. "BBC Question Time" (UK). *It's a political debate show, where a panel of politicians and public figures answer questions from the audience, it's known for the quality of the questions asked by the audience, which are usually well informed, thought-provoking and challenging.*

By watching shows that feature interviews and questioning, students can observe and learn about effective asking skills. They can also see how the format of the show can impact the quality of the questions and answers received. Furthermore, they will realize the importance of ensuring the correct information is provided, as the wrong information can lead to inaccurate or misleading results.

CAN GRAMMAR BE NEGLECTED?

Proper grammar is essential for delivering information, effectively shaping words and constructing coherent sentences, paragraphs, and arguments. This includes knowledge and application of verb tenses, modal verbs, phrasal verbs, prepositions, subject-verb inversion, question tags, and conditional structures. It also plays a crucial role in asking and answering questions effectively.

Using a variety of question types [4] keeps the conversation interesting and allow to gather different types of information. For example:

1. Open-ended questions do not have a specific or limited set of answers:

• "Can you tell me about a time when you felt particularly proud of your work?"

• "What do you think are the biggest challenges facing our community today?"

• "How do you think the company can improve its customer service?"

2. Closed-ended questions are used to elicit specific, factual answers:

• "What is your gender? (male, female, other)"

3. Clarifying questions are a type of question used to seek more information or to gain a better understanding of a topic or statement:

• "Can you please explain what you mean by that?"

• "Can you give me an example of how that would work in practice?"

• "I'm sorry, I don't understand. Can you rephrase that for me?"

4. Leading questions are used to suggest a particular answer or lead the respondent in a certain direction:

• "Don't you think that this new policy will improve the company's profits?"

• "Have you stopped stealing office supplies?"

• "Isn't it true that you were at the scene of the crime?"

5. Hypothetical questions are a type of leading question. They also can help individuals to consider the potential consequences of different actions or decisions, encourage elaboration by creating a sense of curiosity and prompting imaginative thinking from the respondent:

• "What would you do if you had a time machine?"

• "If you could have any superpower, what would it be and why?"

• "What would the world look like if everyone had access to the same resources?"

6. Comparative questions are used to encourage elaboration by prompting the respondent to think deeply about how alternatives compare and contrast:

• "How do these two strategies differ?"

• "Which method produces the best results?"

• "What advantages does this approach offer compared to that one?"

7. Follow-up questions are used to gain more insights and explore a topic in greater depth. Unlike probing questions, which encourage the respondent to give more detailed and in-depth answers, follow-up questions are used to clarify any confusion or misunderstandings about a previous response. Both types of questions help provide further information and understanding about a certain subject:

• "Can you expand on that point?"

• "How does that relate to what we were discussing earlier?"

• "What made you come to that decision?"

8. Probing questions are used to gather more information or to delve deeper into a topic:

• "Can you tell me more about that?"

• "What led you to that conclusion?"

• "What specifically do you mean by that?"

9. Reverse questions can encourage elaboration by prompting the individual to think deeper about their response and provide more detail on the topic being discussed:

• Instead of asking a student "What makes you interested in this subject?", you could ask "What interested you in this subject first?" This gets them to think further about their initial motivations for taking the subject.

• Instead of asking "Why did you do that?" You could ask "What made you decide to do that?". This encourages them to explain the thought process behind their actions and provide more information on what drove them to take a particular course of action.

10. Scenario questions can encourage elaboration by providing a reader with a context to which they can relate, think about, and describe in detail:

• "Imagine you are invited to a dinner with your favourite celebrity. Describe the kind of atmosphere you would want to create at the dinner." This question gives a reader an opportunity to think deeply about how they would like the dinner to look, feel, and sound. They could imagine what kind of decorations they would select and the type of music they would like playing at the dinner. Furthermore, they could describe how they would interact with their guest of honour.

11. Funnel questions are often used by detectives taking a statement from a witness because the technique involves starting with general questions, and then drilling down to a more specific point in each:

• *"How many people were involved in the fight?"*

• *"About ten."*

• *"Were they kids or adults?"*

• *"Mostly kids."*

• *"What sort of ages were they?"*

• *"About fourteen or fifteen."*

- *"Were any of them wearing anything distinctive?"*
- *"Yes, several of them had red baseball caps on."*
- *"Can you remember if there was a logo on any of the caps?"*
- *"Now you come to mention it, yes, I remember seeing a big letter N."*

DON'T THEY KEEP SAYING ABOUT SOCRATES?

Many of us may not be aware that questioning is a skill. However, as Socrates famously stated, "The highest form of human excellence is to question oneself and others." Engaging in Socratic questioning [5] produces a thoughtful dialogue between two or more people. This type of conversing encourages deeper understanding and open-mindedness, making it an invaluable practice in any context. Socratic questions usually have the following attributes:

- Being specific. *Instead of asking a broad or general question, it's often more effective to ask a specific question that targets the information you're looking for.*
- Being clear. *Make sure your question is clear and easy to understand so that the person you're asking can give you a clear and accurate answer.*
- Being open-ended. *Open-ended questions allow the person you're asking to provide a more detailed and nuanced answer. Avoid asking yes/no questions.*
- Being respectful. *Ask questions in a respectful manner, avoid being confrontational or aggressive.*
- Being sensitive to cultural differences. *Be sensitive to cultural differences when asking questions. Avoid asking personal or sensitive questions unless it is necessary and appropriate to the conversation.*
- Being strategic. *Ask questions that are relevant to the conversation and the goal you're trying to achieve.*
- Being active listener. *Listen to the answer and respond appropriately, ask follow-up questions if needed.*
- Being appropriate. *Avoid asking personal or sensitive questions unless it is necessary and appropriate to the conversation.*

To be the ideal companion for Socratic questioning, apart from being genuinely curious, willing to take the time and energy to unpack beliefs, and able to logically and dispassionately review contradictions and inconsistencies, additional types of questions should be noted:

1. Empathetic questions. *These are questions that are used to show understanding and empathy for the partner's perspective. For example, "I can see how you would feel that way, can you tell me more about it?"*
2. Self-reflection questions. *These are questions that are used to encourage the person to reflect on their own behaviour or actions. For example, "What did I do to contribute to this argument?"*
3. Solution-focused questions. *These are questions that are used to explore potential solutions to the problem at hand. For example, "What can we do to resolve this issue?"*
4. Validation questions. *These are questions that are used to validate the partner's feelings and experiences. For example, "I understand that you feel upset, can you tell me more about why?"*
5. Perspective-taking questions. *These are questions that are used to encourage the person to consider the situation from the partner's point of view. For example, "How do you think I felt about that?"*
6. Apology questions. *These are questions that are used to express remorse and take responsibility for the actions that led to the argument. For example, "I'm sorry, can you forgive me?"*
7. Future-focused questions. *These are questions that are used to explore the future and how things can be better. For example, "What steps can we take to prevent this from happening again?"*

Thus, questions are a powerful way of learning and studying, relationship building, avoiding misunderstanding, managing and coaching, de-fusing a heated situation, persuading people and, unfortunately, for manipulation.

HOW ABOUT SOCIOLOGY?

There are several types of questions that can be used to manipulate and force others to accept a certain point of view [6]. The following types of questions can be used in an interview, a debate, or a conversation:

1. Leading questions: These are questions that suggest a certain answer or imply a certain viewpoint. *Examples include "Don't you think that this new policy is the best solution?" or "You agree that this will be the way to go, right?"*
2. Loaded questions: These are questions that contain hidden assumptions or biases. *Examples include "When are you going to stop being so lazy?" or "Why are you so sensitive?"*
3. Double-barrelled questions: These are questions that ask multiple things at once, making it difficult for the

interviewee to answer fully. *For example, instead of asking "What are your strengths and weaknesses?" an interviewer might ask "What are your strengths in working under pressure and your weaknesses in time management?"*

4. False dichotomy: These questions present a limited set of options and imply that those are the only options. *Examples include "Are you for or against this policy?"*

5. Ambiguity: These questions are phrased in such a way that they can be interpreted in multiple ways, leaving room for confusion and manipulation.

6. Native language: For example, an interviewer who is proficient in the interviewee's native language can use that proficiency to create a sense of rapport and trust with the interviewee, which can make the interviewee more likely to disclose personal information. Additionally, an interviewer who is proficient in the language can use more nuanced language and phrasing to probe for specific information or to convey certain messages.

The following types of questions can be used in advertising, political campaigns, or public relations:

1. Fear-based questions: *These are questions that appeal to people's fears and anxieties to influence their opinions or behaviours. Examples include "Are you scared of losing your job? Vote for this candidate." or "Do you want to protect your family? Support this policy."*

2. Emotion-based questions: *These are questions that appeal to people's emotions to influence their opinions or behaviours. Examples include "Do you want to be on the right side of history? Support this cause." or "Are you tired of feeling powerless? Join this movement."*

3. Repetition: *This method consists in repeating a certain message or question repeatedly, trying to make it stick to the mind of the audience.*

4. Framing: *This technique consists in presenting information in a specific way to influence the perspective of the audience. For example, instead of asking "Should we cut down the forest?" a different framing could be "Should we preserve the forest?"*

5. Appeal to authority: *These are questions that use the authority of a person or organization to influence the opinions or behaviours of the general public. Examples include "Experts say this is the best solution. Are you going to disagree?" or "The government has approved this product. Is it not good enough for you?"*

Being conscious of the potential for unethical use of questions can help people avoid obtaining inaccurate and dishonest information, enabling them to make their own informed decisions.

DO WE THINK THEY KNOW?

Although asking questions is an action, it is the **listener** who determines how they respond to a question. Questions often offer key information that can guide the response, so listeners should be mindful when interpreting a question and making decisions they are comfortable with accordingly [7]. To recognize the desired answer in a question, it is useful to use certain strategies and techniques:

1. Identify the key words and phrases
2. Understand the question's purpose
3. Break down the question
4. Use the information provided
5. Provide evidence and examples
6. Keep it Simple

For example:

Question: "What are the causes of deforestation in the Amazon rainforest?"

Answer: "Deforestation in the Amazon rainforest is caused by a variety of factors, including logging for commercial purposes, land conversion for agriculture and cattle ranching, and infrastructure development. One of the main causes is the logging for commercial purposes, as trees are cut down to produce wood products such as paper and furniture. Additionally, land conversion for agriculture and cattle ranching is also a major contributor to deforestation in the Amazon, as forests are cleared to make way for these activities. Another cause is the construction of roads and other infrastructure in the region, which can lead to increased access to previously remote areas and increased deforestation."

There are several linguistic techniques that can help ESL students to build a more elaborate and detailed answer to any question. These include:

1. Using a variety of vocabulary: Using a range of vocabulary, including synonyms and technical terms, can help to make an answer more precise and accurate.

2. Using linking words and phrases: Words such as "in addition," "furthermore," and "moreover" can help

connect different parts of an answer and make it more cohesive.

3. Using descriptive language: Using descriptive adjectives and adverbs can help to add colour and interest to an answer and make it more engaging.

4. Using comparisons and contrasts: Comparing and contrasting different ideas or concepts can help to make an answer more nuanced and sophisticated.

5. Elaborating on ideas: Providing specific examples, details, and explanations can help to illustrate and expand on the main points of an answer and make it more in-depth and concrete.

6. Using rhetorical questions: Asking a question as part of the answer can help to make the answer more engaging and thought-provoking.

7. Using quotes and references: Including quotes and references from credible sources can help to add credibility and authority to an answer.

8. Using anecdotes: Including a personal story or experience can help to make an answer more relatable and interesting.

9. Using complex sentence structures: Using a variety of sentence structures, such as compound and complex sentences, can help to make an answer more nuanced and sophisticated.

10. Summarizing: Summarizing the answer can help to make it more concise and easier to understand.

11. Chunking: involves breaking down the answer into smaller, manageable parts and focusing on one part at a time.

• One way to use this technique is to start with a sentence that introduces two or more key nouns related to the question and to elaborate on one of the nouns by providing specific examples, details, and explanations in the next sentence:

Question: "What are the advantages and disadvantages of solar energy?"

Answer: "The advantages of solar energy include its renewable nature and low maintenance costs. One advantage is that it is a renewable energy source, meaning it will never run out, and it does not produce emissions that contribute to climate change. Additionally, the maintenance costs for solar panels are relatively low compared to other forms of energy generation."

Another way to use this technique is to use conjunctions such as "and, but, or, yet" to connect the different parts of the answer and make it more cohesive:

Question: "What are the advantages and disadvantages of solar energy?"

Answer: "Solar energy has many advantages, such as being renewable and having low maintenance costs, but it also has some disadvantages, such as its high initial cost and dependence on weather conditions. The renewable nature of solar energy is a significant advantage as it does not have a limited supply and does not produce emissions that contribute to climate change. However, the high initial cost of installing solar panels can be a significant disadvantage for some individuals and companies."

Clear, concise, and accurate language is always better than complex and verbose. Quality communication is not only about the quantity of information but also the quality. Modern society is saturated with information, thus it's important to be mindful when answering questions in order to avoid being subject to power dynamics. Even though power dynamics between speakers may vary according to context, relationship, and goals — it's possible for the person being asked questions to regain control of the conversation and neutralize power dynamics. For example, the person answering:

• can use both active and reflective listening

• can use open-ended questions to reframe the conversation and guide it in a different direction.

• etc.

• can also use clarifying questions to ensure they understand the purpose and intent of the question and can use reflective listening to show they are actively listening and engaging with the conversation.

• can also use assertive communication to express their own opinions and perspectives and to establish their own positions in the conversation

• should be aware of their own rights and boundaries, and to not feel pressured to answer questions or provide information that they are not comfortable with.

• can also ask for more time to think about the question before answering.

Thus, questioning plays an essential role in facilitating meaningful learning and scientific exploration. According to Jean Piaget [8], [9], the renowned Swiss psychologist, asking questions is powerfully linked to intellectual development. He

highlighted that questions are the driving force of intellectual growth.

1. Questions involve analysing and challenging what is known, which enhances cognitive development.
2. Questions are an opportunity to explore complex topics or ideas.
3. Questions inspire curiosity and facilitate creative problem solving.
4. Questions promote independent thinking and stimulate mental processes like synthesis and analysis.
5. Questioning encourages students to take ownership of their learning and become more invested in it as a result.
6. Questions can help learners structure their thinking and better articulate what they know.

In conclusion, the importance of the skill of asking questions is growing as rapidly as neural networks are developing. This is evidenced by the increasing use of neural networks in scholarly publications, with 28% of these publications related to natural language processing. Additionally, a survey of college students showed that 25% have already used AI or natural language processing technology for writing or editing essays, and 39% are interested in using it in the future. Teaching students questioning is becoming critical in this technological age.

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The Role and Place of the Property of the Treasury of the Russian Federation and the State Treasury of the Subjects in the Management of the Public Sector of the Economy Both in the Regions and in the Country as a Whole

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ABSTRACT

The article is devoted to ways and means of solving the problem of organizing professional management of treasury facilities of the Russian Federation in the light of the goals and objectives defined by the State Program "Federal Property Management" approved by the Government of the Russian Federation, aimed at reducing treasury facilities not involved in economic turnover. The **purpose** of the work is to propose ways of organizing a management mechanism aimed at reducing the number of treasury facilities by involving these facilities in economic turnover, as well as assigning them to the profiles of enterprises and organizations of the core business. The ways and mechanisms of management presented by the authors include the methods permitting to reduce and prevent the further increase in the number of objects withdrawn from economic circulation or turnover and remaining outside the professional and specialized management within the existing regulatory and legislative rules and restrictions. The proposed ways and methods of management can allow the maximum number of treasury objects to be involved in economic turnover or assigned to specialized organizations in the shortest possible time. Federally owned objects that cannot be involved in economic turnover due to the loss of physical properties, have not aroused interest among the regions and for private investors, should be assigned to specialized organizations for write-off, disposal or professional conservation at the expense of federal budget funds completed. A number of the described methods are used in the implementation of the State Program "Federal Property Management".

Keywords: property of the state treasury of the Russian Federation; property of the state treasury of the subjects of the Russian Federation; management of the public sector of the economy; federal budget funds, transfer to another level of ownership; privatization; involvement in economic turnover

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INTRODUCTION

In accordance with Article 214 of the Civil Code of the Russian Federation, the treasury of the Russian Federation, the treasury of a republic within the Russian Federation, the treasury of a territory, region, city of federal significance, autonomous region, autonomous district represents the funds of the respective budgets and other state property not assigned to state enterprises and institutions.[1]

Annex No. 1 to the Resolution No. 3020–1 of the Supreme Council of the Russian Federation of 27.12.1991 defines the property constituting the treasury of the Russian Federation: these are the funds of the federal budget, the Pension Fund of the Russian Federation, the Social Insurance Fund and other state extra-budgetary funds of the Russian Federation, the Central Bank of the Russian Federation, the gold reserve, diamond, and currency funds.[2] The Federal Treasury of the Russian Federation, in accordance with its Regulations, organises and conducts operations to account for the state treasury of the Russian Federation.[3]

At the same time, based on the definition of the treasury given in the Civil Code of the Russian Federation and the Budget Code of the Russian Federation, in addition to the above-mentioned funds, the treasury includes movable and immovable property not assigned under the right of operational management to federal executive authorities, subordinate institutions, state-owned enterprises, as well as under the right of economic management to federal state unitary enterprises.[4]

This property is held in the treasury and is managed at the federal level by the Federal Agency for State Property Management,[5] and at the level of constituent entities by the relevant state structures. At the same time, certain federal executive bodies, such as the Ministry of Defence of the Russian Federation, the Office of the President of the Russian Federation, the Federal Agency for River and Sea Transport, and Rosreserve, are entrusted with the functions of managing the property of the Treasury for their respective functional purpose. The relevant ministries and departments also manage property constituting state secrets.

It should be noted that the Russian Federation has not adopted unified legislative and regulatory legal acts defining the procedure for attributing its objects and subjects to the treasury, there is no procedure for: mandatory assignment of the property of the treasury to state executive authorities or to enterprises and institutions subordinate to them; mandatory transfer of the property to another regional level of executive authority; budget financing of maintenance and management of the property of the treasury, its retirement, write-off and disposal.

This leads to the fact that, for example, the treasury of the Russian Federation holds property that, by its functional purpose, should be assigned to the relevant executive authorities and, accordingly, cannot be professionally managed. The property does not receive the necessary and sufficient budget financing, so the executive authorities

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[1] Civil Code of the Russian Federation (CC RF) from 30.11.1994 No. 51-FL. Part 1, Chapter II, Section 13, Article 214. URL: https://www.consultant.ru/document/cons_doc_LAW_5142/c1923b21971e5b9356fe86b94d3beef0a1747f7c/?ysclid=lgurxjfbt2601786127

[2] Annex 1 to the Decree of the Supreme Council of the Russian Federation of 27.12.1991 No. 3020–1. URL: https://www.consultant.ru/document/cons_doc_LAW_208/5eba4eb5882a9057edfb1ccbda86eb416140fe87/

[3] Provisions on the Federal Treasury. URL: https://roskazna.gov.ru/o-kaznachejstve/polozhenie-o-federalnom-kaznachejstve/?ysclid=lgxtee9wsh349783412

[4] Budget Code of the Russian Federation (BC RF). URL: https://www.consultant.ru/document/cons_doc_LAW_19702/?ysclid=lgxu5s7mrn204974327

[5] Federal Agency for State Property Management (Rosimushchestvo). URL: https://rosim.gov.ru/?ysclid=lgusgsbdwl182158849

try to avoid its assignment under all sorts of pretexts.

For a significant number of treasury objects, court decisions have been taken or orders of the prosecutor's office have been received regarding the restoration of their (for example, civil defence facilities) consumer properties, repair, preservation. An illustration may be the ruling of the Arbitration Court of St. Petersburg and the Leningrad Region dated 26.04.2018 in case No. A56 61688/2010, which satisfied the claims of the bankruptcy trustee (insolvency practitioner) of JSC "Leningradslanets" to oblige the interregional territorial department of the Federal Property Management Agency in St. Petersburg and the Leningrad Region to take into federal ownership from the bankruptcy trustee the objects of JSC "Leningradslanets", which are part of the mine "Leningradskaya" (40 items), which were previously held in private ownership.

Under such conditions, sufficient funding is not allocated, and the management of property management bodies face heavy fines or even criminal prosecution for failure to comply with court decisions and prosecutor's orders, although they are only hostages of the prevailing circumstances. The situation is aggravated by the fact that these properties often belong to different hazard classes and require professional management work to prevent environmental and man-made disasters.

The situation begins to change dramatically when the relevant instructions are issued and control is established by the President of the Russian Federation, as was the case in Usolye-Sibirskoye in the Irkutsk Region in 2020, when all regional and federal authorities, relevant enterprises and institutions were involved in preventing an environmental disaster.

It should be noted that a number of constituent entities: the Altay, Krasnodar, Krasnoyarsk and Primorsky Territories, the Sverdlovsk and Chelyabinsk Regions and the city of Moscow have adopted regional laws on the treasury.[6] Moreover, the list of property that belongs to the treasury of the constituent entity is contained in only five legislative acts. In the Orel Region there is a resolution of the Collegium of Administration of 17.03.2003 No. 43 "On Creation of the Treasury of the Orel Region"[7] [1, 2].

O. I. Korotkova notes that "the treasury of the Orel region consists of regional budget funds, other movable and immovable property not assigned to regional enterprises and institutions on the right of economic management or operational management, land plots not assigned under the contract of lease, permanent perpetual use, which belong to the Orel region on the right of ownership" [2].

From our point of view, we cannot agree with such a definition with regard to land plots, because when they are leased or transferred for permanent perpetual use, they are not withdrawn from the treasury, as they are not assigned to the right of operational management or economic management, as required by Article 214 of the Civil Code of the Russian Federation. We believe that in this case it is appropriate to follow the examples when leased or donated

[6] Law of 12.11.1997 No. 62-LS "On the Treasury of the Altai Region". Collection of Legislation of the Altai Region. 1997;19(39):94; Law of 11.10.2005 No. 930-KL "On the Treasury of Krasnodar Region". Informational bulletin of the Krasnodar Region Law Council. 2005;(35); Law of 10.10.1996 No. 11–341 "On the State Treasury of Krasnoyarsk Region". Krasnoyarsk Worker. 1996;(209–210); Law of 22.11.1999 No. 31–03 "On the state treasury of the Sverdlovsk region". Collection of Legislation of the Sverdlovsk Region. 1999;(11); Law of 07.05.2002 № 80–30 "On the property in the state treasury of the Chelyabinsk region". Bulletin of the Law Council of the Chelyabinsk region. 2002;(5).

[7] Resolution of the Board of Administration of the Oryol Region of 17.03.2003 No. 43 "On the Creation of the Treasury of the Oryol Region". URL: https://docs.cntd.ru/document/974205296?ysclid=lguwg9b4k2433702309

real estate objects are not withdrawn from the treasury.

According to the data of the open part of the Register of Federal Property, maintained in accordance with the Resolution of the Government of the Russian Federation of 16.07.2007 No. 447 "On Improvement of Federal Property Accounting", there are about one hundred thousand objects in the treasury of the Russian Federation.[8] As of the beginning of 2021, about 30% of them were the objects of civil defence protective structures, 11% — subsoil use, 7% — cultural heritage, including religious, 5% — housing stock, 1.3% — hydraulic structures, 0.3% — objects of unfinished construction, confiscated marine vessels, especially dangerous objects. More than 20 per cent are under lease, free-of-charge use or trust management.

Based on economic state interests, it is obvious that the number of treasury objects should be reduced by assigning property to the relevant federal executive authorities and their subordinate organisations; in case of the need of the constituent entities of the Russian Federation — through transfer to another level of ownership, sale of property for which there is no state demand, write-off and disposal of property that cannot be used due to complete moral and physical wear and tear, obsolescence, depreciation and so on.

The largest part of the treasury consists of civil defence facilities, both free-standing structures and basements of residential buildings. A significant number of them have long lost their consumer properties, many of them have orders from the prosecutor's office and court decisions to bring them to a standard condition. Protection of the population in emergency situations is the most important state task, therefore the existing system of management of this real estate needs to be revised.

First of all, the current legislation assigns the function of sheltering the population in emergency situations to territorial authorities; it also provides for the housing stock to be in regional ownership. Therefore, it is logical that all protective facilities located in residential buildings should be automatically transferred to the level of the entities.

For each region there are standards for providing the population with protective facilities, so the latter, which are in the treasury, should be transferred to another level of ownership in order to achieve the established standard. This does not happen because regional authorities are afraid of increasing the burden on their budgets by spending both on putting protective facilities on cadastral registration and on bringing them into a normative condition. At the same time, we should expect positive developments in this direction, as the President of the Russian Federation issued an instruction to ensure the transfer of protective facilities to the regional level of ownership in 2022.

It is not expedient to carry out cadastral works for them, since all the necessary information is contained in the relevant object passports and additional budget expenditures are unnecessary. In 2021, the current legislation was amended to enshrine this approach, which will save both federal and regional budget funds.

As for the restoration of consumer properties, since sheltering the population is the most important national task, these works should be carried out as soon as possible with the involvement of federal and regional budget funds, as well as extra-budgetary funds of organisations, including those operating protective structures for commercial needs.

A number of facilities should be assigned to federal executive authorities for the

[8] URL: https://base.garant.ru/12155220/?ysclid=lguwhqi9kf779616020

organisation and maintenance of emergency control points, and to federal institutions and enterprises — for the possibility of sheltering personnel in case of emergencies. Structures that have completely lost their consumer properties without the possibility of their restoration or in cases of inexpediency of the latter may be removed from the register by decision of the interdepartmental commission.

The remaining facilities should, of course, find a right holder in the person of the Ministry of Emergency Situations or subordinate organisations to carry out professional management and maintenance in a normative condition. This is the purpose of the relevant instruction of the President of the Russian Federation.

A significant share of the treasury consists of subsoil use objects: water, gas and oil wells that were cycled out, mines, which, from our point of view, cannot be in the treasury. Their condition is subject to constant professional monitoring, and many of them must be properly mothballed. Water wells require constant operation and water intake [21–25].

According to clause 8.1. of Article 22 of the Federal Law No. 2395–1 dated 21.02.1992 "On Subsoil", subsoil users ensure the safety of all production facilities in the licence area, therefore all wells and mines should be assigned to those of them who hold licences to develop the respective areas regardless of the fact that many facilities may have been decommissioned prior to the entry into force of the said Law.[9] Water wells are required to have an operator, and the rest should be assigned to organisations under the jurisdiction of the Ministry of Natural Resources, "Rosnedra", or transferred to PJSC "Rosgeologiya" to organise professional management of the said facilities and to carry out continuous monitoring.

Coal mines in the treasury should be assigned to the enterprises of the Ministry of Energy or transferred to another level of ownership for conservation and monitoring of their condition, even if they have ended up in the treasury on the basis of court decisions after exploitation by private organisations that, due to predatory and unprofessional exploitation, have brought the adjacent territories to the brink of ecological disaster.

For example, the previously mentioned ruling of the Arbitration Court of St. Petersburg and the Leningrad Region of 26.04.2018 satisfied the claims of the bankruptcy trustee of JSC "Leningradslanets" on the obligation to accept into federal ownership from the bankruptcy trustee the facilities of JSC "Leningradslanets", which are part of the mine "Leningradskaya", decommissioned by the private owner by flooding with water, which threatens nearby areas.

The problem can be solved in two ways. The first way is to assign the property to a federal budgetary institution of the Ministry of Energy specialising in reclamation of mine territories. But this raises the issue of budget financing of this work, which is quite problematic. The second way is to transfer the facilities to another level of ownership and assign them to a regional organisation in order to reclaim them within the framework of the federal project "Clean Country" implemented through the mechanism of granting subsidies for co-financing of relevant environmental protection measures to the constituent entities of the Russian Federation.

A significant place in the treasury is occupied by objects of the housing fund: flats, residential buildings and premises, hostels, which (except for service housing) in accordance with Russian legislation should be

[9] Federal Law of 21.02. 1992 No. 2395–1 "On Subsoil". Paragraph 8.1., Article 22. URL: https://www.zakonrf.info/zakon-o-nedrah/?ysclid=lguy1i0xa987417191

in regional ownership. However, their transfer does not take place automatically, as there are clarifications of the Supreme Court that it is carried out taking into account the opinion of regional authorities. Since the maintenance of the housing stock is a burden on local budgets, opinions from the local authorities are usually negative. In addition, many residential premises are occupied without legal grounds, and appropriate work is required to vacate them. Nevertheless, the process of transfer to the regional level has been successful, including in court, as both positive and negative opinions of local authorities can be taken into account.

According to the Register of Federal Property, in 2021 the treasury of the Russian Federation held more than 7.5 thousand objects of cultural heritage; more than 3 thousand of them were of religious purpose. More than 2.5 thousand were transferred for free use to religious organisations of various Confessions in order to transfer these objects into ownership at the next stage in accordance with the legislation. Unfortunately, religious organisations are reluctant to accept buildings that require restoration and repair costs. Preference is given to those that are in satisfactory condition, even though they house various state organisations and the transfer is based on court decisions. At the same time, if the funds from charitable foundations currently being channelled into the construction of new buildings are used for restoration, a large number of historical monuments could be reacquired.

The remaining cultural heritage objects should be unconditionally transferred to the regional level if the territories are ready to accept them (for example, in 2020, 906 federally owned cultural heritage objects in the territory of the Republic of Ingushetia were transferred to the Jeyrakh-Assin Museum-Reserve for free use) or assigned to organisations of the Ministry of Culture, which has both thematic institutions and those that lease cultural heritage objects and have extra-budgetary funds.

A special place in the treasury is occupied by confiscated and repossessed vessels — both sea-going and inland vessels arrested for illegal fishing in the economic zone of the Russian Federation. As a rule, they were moored to mooring walls leased from private entrepreneurs. The latter received more than 200 million roubles annually from the budget through a judicial procedure for the protection of the vessels, the level of which can be judged by non-unique facts of theft of both property and the vessels themselves. By the Resolution of the Government of the Russian Federation No. 1486 of 18.09.2020 "On disposal of sea-going vessels and inland waterway vessels repossessed by the Russian Federation", as real estate objects, they were subject to the realisation procedure provided for movable property objects.[10] This makes it possible to hold an auction for the sale of the vessel after a surveyor's inspection, the procedure for removing the foreign flag, and an independent assessment of the vessel's value. Even the first months of application of the procedure stipulated by the above mentioned decree made it possible to involve into economic turnover objects burdensome for the budget and thereby significantly reduce the number of such objects.

As of 2020, the open part of the Register contained data on 550 construction in progress (CIP) objects in the state treasury of the Russian Federation (193 of them had ceased construction before 2000), 518 objects

[10] Resolution of the Government of the Russian Federation No. 1486 of 18.09.2020 "On disposal of sea vessels and inland waterway vessels repossessed by the Russian Federation". URL: https://base.garant.ru/74662052/?ysclid=lgw7gwne6j674944853

are of non-residential type, 32 of them are of residential type.

In the current environment, the priority task is to reduce the number of CIPs the construction of which is financed from the federal budget. It can be solved by completing construction financed both from the budget and internal sources of federal state unitary enterprises, state-owned enterprises, and federal state institutions, or as a result of transferring the facilities to another level of ownership (if the entities are interested in CIPs), writing them off, disposing of them and further using the vacated site. Another possible option is the privatisation of CIPs through their inclusion in the Forecast Plan (Programme) or privatisation lists of the Ministry of Finance of the Russian Federation with their subsequent sale at an auction, as well as at auctions by public offer or without announcing the price; in this case, the burden of construction completion is placed on private owners. However, there are still concerns that, having been acquired by private investors for relatively insignificant funds, the objects will remain as they are, i.e., will not be completed or utilised.

Separately, there are a number of CIPs that are completely illiquid and will still require significant budgetary resources for their decommissioning and utilisation, such as those built on border areas and therefore their further use is strictly limited, or industrial facilities that are in a high state of readiness but built on sites remote from urban and rural infrastructure. It is unprofitable for private investors to operate them. Finally, almost completed infrastructure facilities, some of which, if completed, can only be owned by the federal government and their disposal is costly, so their commercial use is ruled out [3].

About one per cent of the treasury consists of hydraulic structures (HS): quay walls, dams, barrages, reservoirs, etc. Objects that are in an emergency condition pose a danger due to possible man-made disasters, so all of them should be assigned to the right holders by the relevant federal or territorial executive authorities for appropriate operation. A number of HS are used as structural elements of roads and railways and, accordingly, should be assigned to organisations ensuring safe operation of road infrastructure.

Finally, HS used for regional needs or those, the absence of the right holder of which may cause harm to the population of the region as a result of a possible technogenic accident or catastrophe, should be assigned to the relevant territorial organisations with mandatory financing of their maintenance and bringing them to a normative condition at the expense of regional and federal budgets.

Examples include the Sorochevskoye (Kronshtadskoye) and Perevalnenskoye reservoirs in Primorsky Region. Previously they were used for land reclamation purposes, but over time they have lost their functional purpose. In case of a breach due to the lack of a proper operator, flooding of neighbouring territories is possible. The way out of this situation could be controlled drainage of the HS, but this would require clearing of the old riverbeds downstream, on which all kinds of facilities have already been built. This work can be done by the constituent entity, but with appropriate funding. Further freezing of the problem may lead to a man-made disaster and significantly higher financial costs, not to mention possible casualties.

Another example: according to the court decision on the results of the bankruptcy case of CJSC "Nadeyevo", the dam in the Vologda Region was recognised as the property of the Russian Federation. The lack of its constant maintenance threatens several settlements with flooding. The reservoir is used both for their water supply and as a structural element of the motorway. However, neither the local

self-government authorities nor the road-transport institution — the immediate road operator are in a hurry to accept the facility into either regional ownership or operational management, respectively. Such an approach is fraught with serious consequences, and it cannot be called governmental in any way.

Another example: erosion control structures on the Lyuga River with a storage pond (Udmurt Republic). The facility was built under the federal target programme with the condition of transferring it to regional ownership, but it was built in violation of construction norms, so the constituent entity refuses to accept it until it is repaired, which no one is in a hurry to do.

More than 20% of the treasury of the Russian Federation consists of objects: leased from commercial and state structures, including small and medium-sized businesses, which bring annual income to the federal budget; transferred for free use, as a rule, to religious and public organisations, as well as in trust management.

About 1% of the treasury of the Russian Federation consists of shares and stocks in business entities formed in the process of privatisation of former state-owned enterprises. The problems of management of shares and stocks in business entities are described by the author in [4–9, 10–20].

A significant part of the treasury of the Russian Federation consists of real estate objects that have not been involved in economic turnover by being assigned under the right of economic management or operational management to state enterprises and institutions, contributed to the charter capitals of established business entities, leased out or transferred to free-of-charge use or trust management, as well as not transferred to another level of ownership and, finally, not privatised as treasury objects.

Their number is growing due to the refusal of federal government bodies and subordinate organisations to give up buildings and premises that are not in use but require ever-increasing expenditures of the federal budget for their maintenance. Therefore, their reduction is an important state task.

The State Programme of the Russian Federation "Management of Federal Property"[11] envisages as a target indicator — an annual increase in the ratio of treasury assets involved in economic turnover to the total number of such assets. This indicator can be achieved both by increasing the number of the former by leasing them out, transferring them to free-of-charge use and trust management, and by reducing their total number by assigning them to federal authorities and their organisations under the rights of operational management and economic management.

For this purpose, it is necessary to promptly inform federal structures about vacant properties that can be transferred to them. If regional institutions need federal real estate, the latter can be transferred to them on a free-of-charge basis (with the possibility of transferring it to another level of ownership in the future).

It is necessary to continuously work on leasing facilities and premises (including preferential leasing to small businesses, public organisations, and movements), free-of-charge use and trust management.

The treasury objects that have not interested the right holders must be privatised, which is currently done by including them in the Forecast Plan (programme) of privatisation approved by

[11] Resolution of the Government of the Russian Federation of 15.04.2014 No. 327 "On Approval of the State Programme of the Russian Federation 'Management of Federal Property'" URL: https://www.garant.ru/products/ipo/prime/doc/70544258/?ysclid=lgxrht8sje389134508

the Government of the Russian Federation or on lists approved by the Ministry of Finance of Russia by such methods as auction (including on electronic platforms) or public offer, which provides for a gradual reduction of the price in the bidding process to half of its initial value in case of lack of demand and impossibility to sell the object at auction. Also, by the decision of the Government Commission, objects are sold by the joint-stock company "DOM.RF".

The legislation provides for realisation without announcing the initial price, and the object is considered to be sold to the person who has named the highest price among those offered by other participants. Unfortunately, the latter method is not widely used due to the fear of being accused of selling state property at "throwaway" prices. It seems expedient to use this method of sale more widely in order to involve the treasury objects in the economic turnover as soon as possible.

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Improving Control in the Digital Environment in the Field of Public Administration on the Example of the Republic of Mordovia

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ABSTRACT

The **purpose** of the work is to study the features of the implementation of control activities in the digital environment and the directions of its improvement. The authors consider the need to implement the transition to "smart" state financial control (electronic SMART control [controlling]), based on a risk-oriented approach aimed at improving the quality of the effectiveness of control measures, reducing the burden on the controlled environment, identifying significant violations and risks. The article analyzes the most common software products designed to automate the processes of drawing up, analyzing and executing budgets at all levels, providing the opportunity to work in the mode of no communication with the financial authority, providing detailed information, which makes it possible to simplify control and increase its efficiency. The main stages of the development of control activities in the context of digital transformation are considered, indicating the implementation of some areas of improving the quality of control of the budget process and the effectiveness of public finance management in 2022, the formation of an integrated and coherent program for the introduction and implementation of electronic control, designed for the period up to 2027. The expediency of using the State Integrated Information System "Electronic Budget" (SIIS "EB"), which is a subsystem of information and analytical provision and support of users with the necessary information and means of analysis and reporting, designed to make reasonable and informed management decisions, is substantiated. On the example of the Republic of Mordovia: the practical experience of carrying out control and audit activities with the help of SIIS "EB", the target of which is to increase the efficiency of financial and budgetary supervision, is considered; a plan for the implementation of control activities through the use of a single portal of the budgetary system, based on the compilation of electronic accounting documents and their subsequent transfer of the results to the audited object, is developed. The normative acts on internal and external state (municipal) financial control and financial audit are investigated. The following **methods** were used in the course of the work: synthesis, analysis, classification, detailing, comparison. The **practical significance of the results** lies in the theoretical justification of the need to improve control in the field of public administration, which provides the controllers (auditors) with the possibility of remote work with information about the functioning of facilities and obtaining detailed data. It is aimed at building and promoting more advanced preventive mechanisms in the field of public finance, contributing to the intensification of digital monitoring on the basis of a single electronic platform.

Keywords: financial control (audit); SMART control (controlling); audit activity; automated information system; digital transformation; control and accounting body; compliance; electronic budget

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INTRODUCTION

The target focus of the digital economy for the period from 2017 to 2030 is human resources and their professional development, the formation of research competences, information security, as well as regulatory control, the task of which is to create an environment adequate to modern digital technologies [1].

The latter, which determine the effectiveness of management of the activity of any subject and have firmly taken a place in modern society, are necessary for the transition to new models and methods of control [2, 3]. To date, its varieties are noted both at the federal and at the levels of constituent entities of the Russian Federation and municipalities, which contributes to the

entry of interaction between control (audit) bodies to a new level.

Purpose of the research: to study the peculiarities of the implementation and improvement of the effectiveness of control activities in the conditions of digital transformation.

Objectives of the research:

- to reveal the essence of electronic SMART-control (controlling) in the management of the budget process and public finances;
- to determine the necessity of application of SIIS "EB" in the implementation of financial control (audit);
- to consider the automated systems used for the purpose of ensuring control when carrying out operations with budget funds;
- to study normative acts regulating state (municipal) financial control (supervision) and audit.

In the process of the research the sources of information were analysed, in which the authors consider the issues of development of control (audit) in the financial and budgetary sphere in the conditions of digital transformation, implementation of transition to smart public financial control — electronic SMART-control (controlling), implementation of the system "Electronic Budget".

RESULTS

Automation of the process of financial control (audit)

Studying the control activity in the digital environment, the authors determined that it is carried out through the introduction of "*digital (online) control*", the development of "*risk-oriented preventive remote control*", the use of tools of "*financial and budgetary monitoring*" and "*financial and budgetary ruling*". The latter involve the use of the latest IT-technologies, artificial intelligence algorithms; expansion of forms and methods of *internal state (municipal) financial control* [IS(M)FC] (e.g., preventive/warning control aimed at identifying and preventing possible deviations); effective interaction (synergy) of business processes of bodies and objects of control through "invisible" analysis and identification of risk factors [4, 5].

Currently, there is a transition to "smart" state financial control based on the risk-oriented approach, which is aimed at eliminating duplication and improving the quality and efficiency of control activities, reducing their duration, reducing the burden on the controlled environment, identifying more significant violations and risks previously identified by the Federal Treasury together with the Ministry of Finance of Russia [6]. The Accounts Chamber of the Russian Federation applies a new approach to the automation of the process of financial control (audit), providing controllers (auditors) with the possibility of remote work with information (data) on the activities of objects of control [7, 8].

Implementation of the system of electronic SMART-control (controlling) in the management of the budget process and public finances and creation of its legal basis

Electronic SMART-control (controlling) is one of the innovations in management decision-making for prompt response to emerging risks and changes in the controlled environment. The integral programme of its introduction and development is designed for the period from 2022 to 2027 (the direction of the subprogramme "Improving the quality of budget process management and efficiency of public finance management"). *SMART-control* due to the invisible presence of a "digital" controller and building more advanced preventive mechanisms in the sphere of public finance contributes to reducing the administrative burden and is aimed at:

• construction of a new format for justification of budgetary allocations of the federal budget (FB) for the purpose of efficient planning of its expenditure part and timeliness of decisions on its execution;

• digital integration through consolidation of accounting and reporting data on public finances of the budgets of the budgetary system of the Russian Federation, ensuring transparency and accountability of public services;

• promotion of digital monitoring of the execution of the budget process and treasury support of funds provided from the budget;

• strengthening the activation of the controlling system on the basis of a unified digital platform [9].

The main role in the implementation of the SMART-control system belongs to the Ministry of Finance of Russia, the Federal Treasury, Rosimushchestvo (Rosproperty), and its users are bodies and units of internal state (municipal) financial control and audit; regions operating on the federal platform have the right not to connect to it.

To gain access to the "smart electronic system", the control body needs to enter into a contract (*smart contract*) with the audited institution, recorded in the form of a computer programme, which tracks the fulfilment of conditions and obligations. Smart contracts automatically process all tasks, eliminating errors in their fulfilment; save considerable time; and do not require human supervision (presence of controllers slowing down the transaction process). Thanks to the rapid development and improvement of electronic contracts, the digital environment is becoming safer and more secure [10].

SMART-control (controlling) can be carried out in the forms of:

• *expert-analytical activity*, providing for the improvement of the efficiency of financial and economic activities of the objects;

• *surveillance*, based on the prevention, collection and analysis of necessary data on the objects;

• *financial and budgetary controlling*, based on the assessment of the consequences of "future" operations, a special mode of interaction of the control body with its individual objects. Based on the results of the control actions performed, the following documents are formed [11]:

• *recommendations* for improving the efficiency of financial and economic activities of control objects;

• *motivated opinion* of the control and supervisory body on the subject of normative-legal regulation in the financial and budgetary sphere;

• *warning, premonition* about possible violations of regulatory legal acts and risks of their commission.

For SMART-control (controlling) from 2024 to 2027, it is planned to create its *legal framework*, as follows:

• approval of the Federal Law on Controlling by amending the current Budget Code and the Resolution of the Government of the Russian Federation on the regulation of financial and budgetary controlling;

• review and amendment of the IS(M)FC standards;

• establishment of general requirements of the Ministry of Finance of the Russian Federation for the implementation of controlling activities;

• adoption of an agreement between the Federal Treasury and the chief administrators of federal budget funds on the implementation of financial and budgetary monitoring [12].

Fig. 1 considers the main stages of development of control activity in the conditions of digital transformation from 01.07.2022 to 01.12.2027.

The analysis of the above diagram has shown that some areas of improving the

quality of control of the budget process and efficiency of public finance management have already been implemented in 2022, but the integral programme of introduction and development of electronic control is designed for the period until 2027.

Step-by-step implementation of financial control (audit) with the use of SIIS "Electronic Budget"

Special attention should be paid to *financial control* (audit) carried out with the use of the *State Integrated Information System (SIIS) "Electronic Budget"* within the framework of information and analytical provision of users with necessary information, means of analysis and reporting. SIIS is designed to make informed managerial decisions in the implementation of state budget (financial) planning and management of public finances [14].

Economic entities that are participants of the presented information system place information about the results of their activities in the public domain, and therefore the latter becomes more transparent [15]. The workflow of the "Electronic Budget" (EB) is presented in *Fig. 2*.

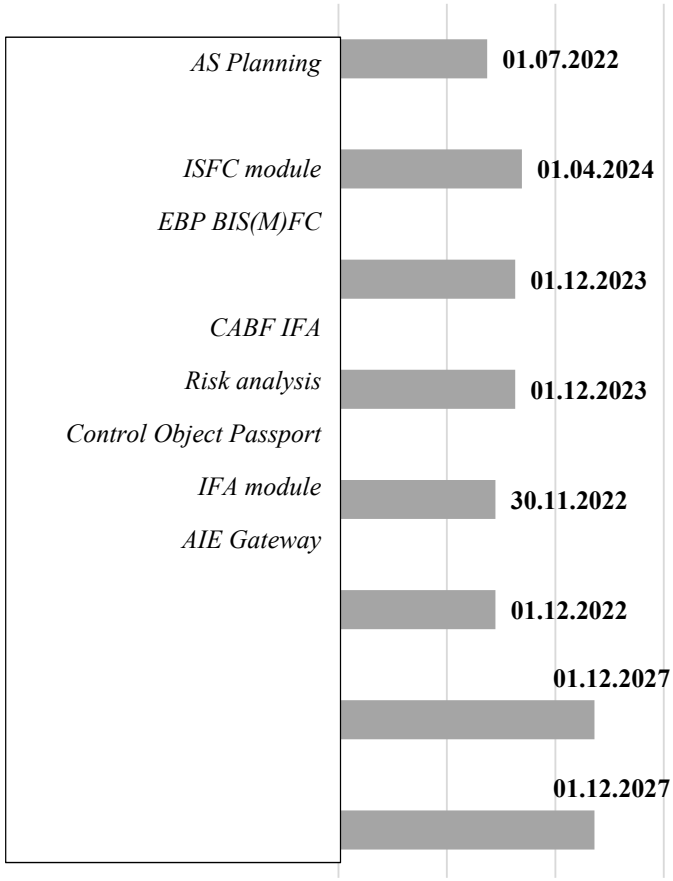
The IT landscape of the Federal Treasury consists of a set of interconnected and integrated systems and subsystems that realise multiple information flows. How does it work?

At the stage of delivery of approved budget data from the "Budget Planning" subsystem of the Ministry of Finance of the Russian Federation to the "Expenditure Management" subsystem of the Federal Treasury, the data of the Consolidated Budgetary Schedule (CBS) are received, on the basis of which treasury notices are formed, which are delivered to the agencies of the chief budgetary funds administrators (CABF) of budgetary allocations and limits of budgetary obligations. Transactions performed in the "Expenditure Management" Subsystem (EMS) are reflected in the personal accounts of the CABF and in budgetary accounting, in connection with which accounting records are created in the "Accounting and Reporting" Subsystem (ARS), as well as information on budget classification codes (BCCs) for expenditures to be transferred to the "Reference Information" Subsystem (RIS).

At the next stage of the budgeting process in EMS, budget commitments are formed, based on the information on agreements received from this subsystem and on government contracts received from the Unified Information System for Procurement (UIS).

At the stage of cash transactions for the execution of the Federal Budget, cash expenditures are made on the basis of payment documents submitted by clients through the available EB interfaces. The documents are authorised in the EMS. The Federal Treasury creates payment orders, which are transmitted to the Cash Management Subsystem (CMS) and then sent to the Bank of Russia unit for execution. After the payment is executed, information on execution is transferred first to the CMS and then to the EMS, where it is reflected in clients' personal accounts and in budgetary accounting (accounting records are generated in the ARS).

When considering the functioning of the revenue side of the budget, it should be noted that taxpayers pay taxes, fees, and duties at the Bank. Information on their crediting through the Bank of Russia's subdivision gets to the CMS, then — it goes to the subsystem "Revenue Management" (RMS), where it is processed in the modules of administration and distribution of revenues, and then reflected in the personal accounts of administrators (accounting records are formed in the ARS).



AS Planning — automated system for planning control and supervisory activities;
ISFC module — electronic module "Internal State Financial Control";
EBP BIS(M)FC — execution of budgetary powers of internal state (municipal) financial control bodies;
CABF IFA — chief administrator of budgetary funds of internal financial audit;
Risk analysis — automated calculation and analysis of the risk level of a control object;
Control Object Passport — a "digital twin" of the control object containing digitalised data on control objects;
IFA module — electronic module "Internal Financial Audit";
AIE Gateway — a device designed for automatic information exchange .

Fig. 1 **Stages in the transformation of control activity**

Source: developed by the authors based on data from the Russian Ministry of Finance. URL: https://minfin.gov.ru/common/upload/library/2022/08/main/Bychkov_S.S..pdf

Obtaining data on transactions on federal budget expenditures and revenues of the budgetary system of the Russian Federation from all subsystems of the EB makes it possible to monitor and analyse the situation with the movement of budgetary funds through the Federal Treasury in real time. The information can be analysed in a variety of ways and used for several purposes: to inform clients about the status of documents' passage, to monitor business process transactions and the operating day.

The interrelated integration processes of the public financial sector using the digital technology platform are presented in *Fig. 3*.

It should be noted that SIIS "EB" makes it possible to manage the personnel structure (including accountable persons) by means of automatic control over: non-exceeding the limits of budgetary obligations for business trips; compliance with the business trip plan-schedule; absence of outstanding debts; reflection of deviations in the time sheet. The Information and Analytical Support Subsystem (IAS) performs operational monitoring of the delivery to final recipients of funds provided for by state support measures taken in connection with the spread of coronavirus infection, as well as daily monitoring of payments to medical workers who provide medical care to citizens diagnosed with such infection and to persons from groups at risk of infection [16].

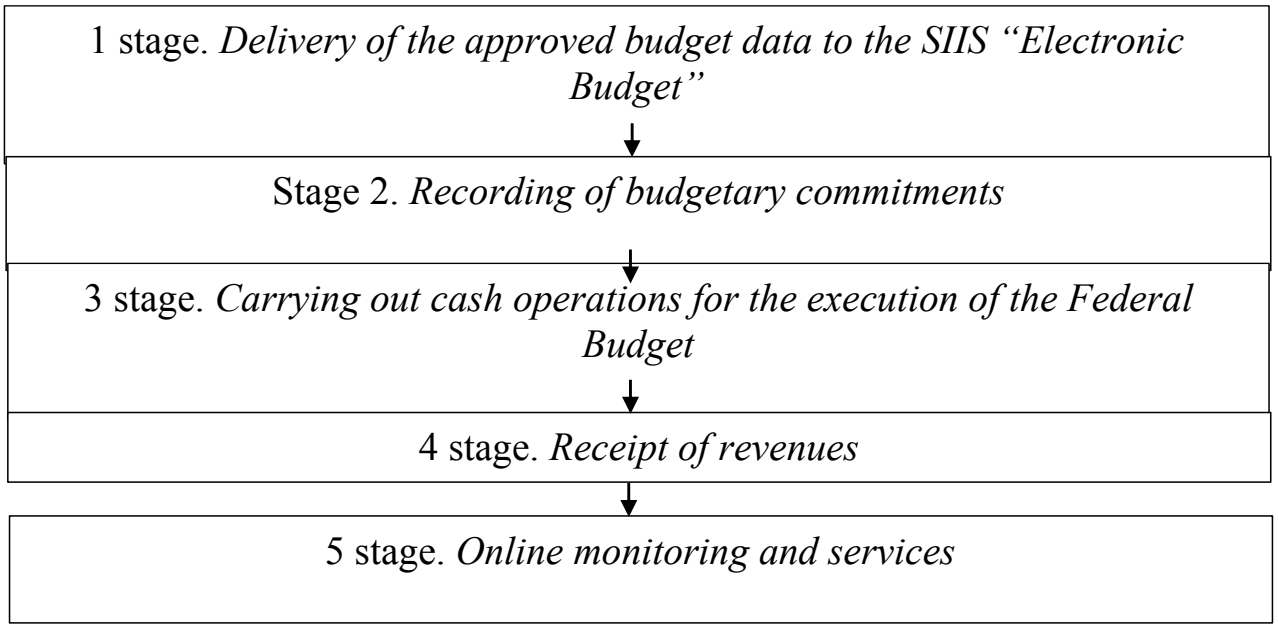


Fig. 2. **Step-by-step workflow of the "Electronic budget"**

Source: according to [14].

Experience of activity of control and accountancy bodies in the field of state development with the use of SIIS "EB" on the example of the Republic of Mordovia (RM)

Among the examples of successful use of **SIIS "EB"** are the following.

In Saransk, there is a *Department of the Federal Treasury* (DFT), the key areas of activity of which are: organisation of preliminary and current monitoring of operations with federal budget funds; preparation and conduct of internal control and audit; execution of powers to manage the property assigned to it on the right of operational management.

In 2021, the Head of the Federal Treasury R. E. Artyukhin and at that time the Acting Head of the Republic of Mordovia A.A. Zdunov opened an *Accounting Service Centre* in Saransk, the main task of which was to maintain accounting (budgetary) records of territorial bodies and customs services of the Volga Federal District using this unified electronic platform. In addition, the Centre was used to implement a pilot project of a centralised model of accounting (budgetary) accounting and reporting, accrual, and payment of salaries in the state bodies of the Republic of Mordovia.

The fact of creation in 2021 of the *Centre for Planning of Control Activities* to identify the need for expertise in the performance of control activities using the SIIS "Electronic Budget" with the assistance of the Head of the DFT of the Republic of Mordovia, O.V. Sokolova, is not without interest.

The republic is piloting the monitoring of the reliability and timeliness of posting information on the consolidated budget statement, budget commitments and their limits on the unified portal of the budget system EB.

In the subsystem "Expenditure Management" of the state integrated information system of public finance management "Electronic Budget" of the Republic of Mordovia, the tax authorities carry out legal expertise of executive documents and decisions that provide for enforcement against the funds of the

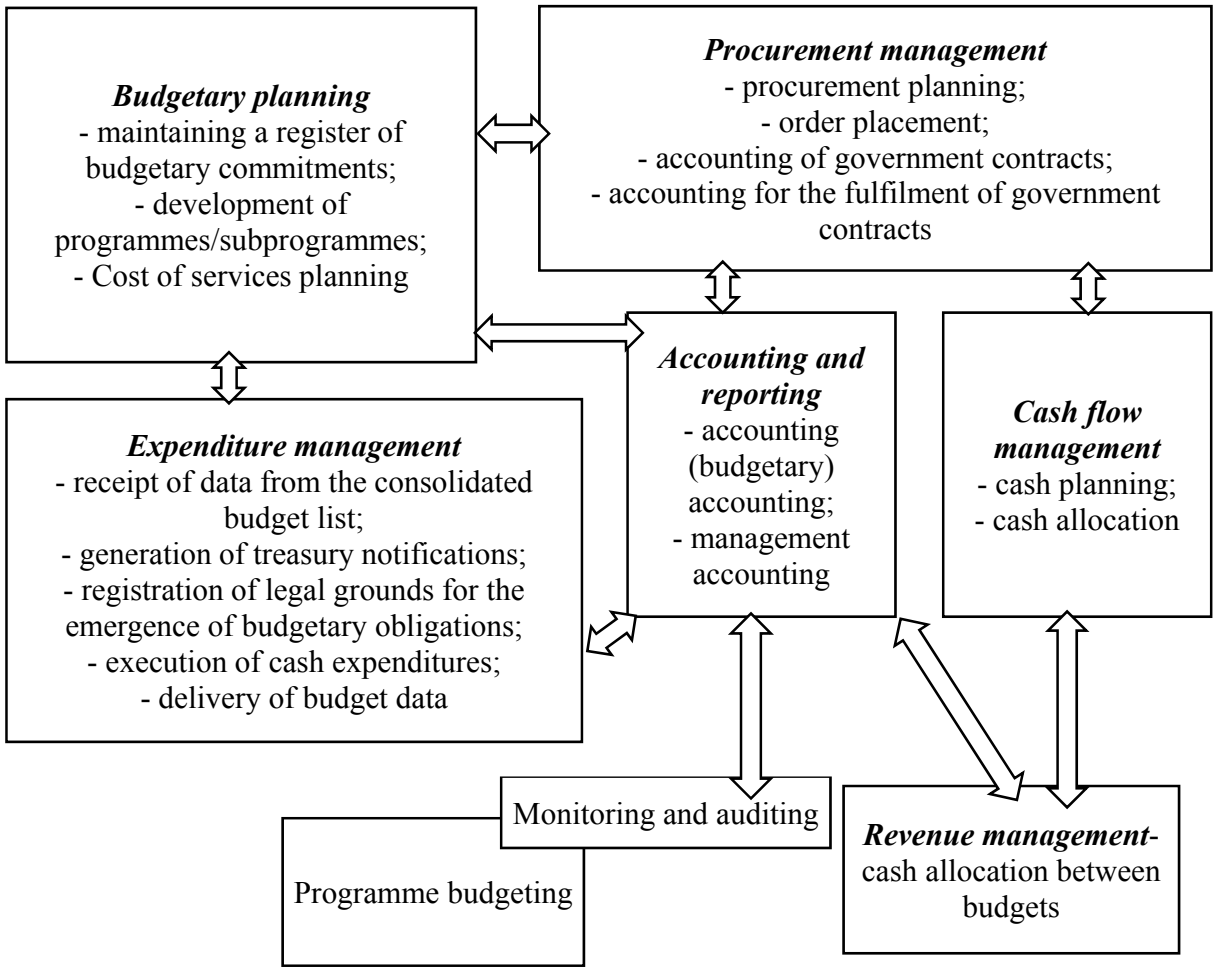


Fig. 3. **Integration of the processes in the field of state and municipal (public) finance management**

Source: developed by the authors

budgets of the budgetary system of the Russian Federation.

The cash planning module of the "Cash Management" subsystem of the SIIS "Electronic Budget" performs daily generation and presentation of information on receipts and transfers on the unified budget account.[1]

The accounting (budgetary) accounting module of the "Accounting and Reporting" subsystem of SIIS "EB" performs daily generation and uploading of data on accounting records reflecting the movement of funds on the accounts of recipients of federal budget funds, as well as generation of accounting (budgetary) registers "General Ledger" (form 0504072), "Journal of Operations" (form 0504071).

The Federal Treasury Department for the Republic of Mordovia, using the Electronic Budget SIIS, carries out audit activities to verify the reliability of annual accounting (budgetary) statements, compliance of the accounting (budgetary) accounting procedure with the unified accounting and reporting methodology in respect of centralised accounting entities.

On a quarterly basis, the reporting data on projects of socio-economic development of

[1] Order of the Federal Treasury of 31.03.2020 No. 13n "On the Procedure for Forecasting the Flow of Funds on the Single Treasury Account" (as amended on 22.12.2022). URL: https://docs.cntd.ru/document/564859616 (accessed on 16.02.2023).

the Republic of Mordovia are monitored in the subsystem of national projects management of the SIIS "Electronic Budget" and in the ARM "Regions" ("Monitoring of socio-economic development of the constituent entities of the Russian Federation") — the prototype of SAIS "Management" (state automated information system "Management"), the quality and accuracy of filling in the project passports are monitored.

In 2022, as part of the activities of the Interregional Territorial Department of the Federal Agency for State Property Management in the Republic of Mordovia and in other regions (the Republic of Mari El, the Chuvash Republic, the Penza Region), reconciliation of the property constituting the state treasury of the Russian Federation took place in the SIIS "Electronic Budget".

In addition, in 2022, functional tests were implemented in the SIIS "Electronic Budget" "PIAO.FC" in the part of "Passport of the object of control" in accordance with the programme and methodology provided by the Federal Treasury.

It should be noted that since 2022 the procedure of work in the unified information system in the field of procurement has been updated in the territory of the Republic of Mordovia:

- Regulations on the procedure for forming and placing information and documents in the Unified Information System and requirements to their forms, Regulations on the operation of the Unified Information System were approved;
- new Rules were introduced: registration of procurement participants in the Unified Information System (keeping registers); keeping a register of complaints, scheduled and unscheduled inspections, decisions taken on them and instructions issued, and submissions under the Contract System Law;
- Rules for maintaining a register of contracts concluded by customers have been established;
- The requirements for regional and municipal information systems in the area of procurement and the principles of monitoring the availability (operability) of the electronic platform have been significantly adjusted.[2]

The following plan of control (supervisory) and audit activities with the use of SIIS "Electronic Budget" is envisaged for 2023 by the DFT for the Republic of Mordovia (*Fig. 4*).

Automated financial transaction execution information systems for control purposes

To place the collected data on the portal "Electronic Budget", as well as to monitor the current status of receiving and sending information, the *Programme Complex "Interaction with the portal "Electronic Budget"* according to the order "243n" has been calculated.[3]

Various *automated systems* are used to ensure control in financial operations (operations with budgetary funds) [17, 18]:

a) *Budget-SMART, a multi-user system* designed to automate the processes of compiling, analysing and executing the budget of a constituent entity of the Russian Federation and budgets of municipalities,

[2] Resolution of the Government of the Russian Federation of 27.01.2022 No. 60 "On measures for information support of the contract system in the sphere of procurement of goods, works, services for state and municipal needs, on organisation of document flow in it, on amendments to some acts of the Government of the Russian Federation and invalidation of acts and certain provisions of acts of the Government of the Russian Federation" (as amended and supplemented). URL: https://base.garant.ru/403480268/?ysclid=lht2dkaqgy1339232 (accessed on 16.02.2023).

[3] Order of the Ministry of Finance of Russia dated 28.12.2016 No. 243n (ed. 05.10.2020) "On the composition and procedure for placing and providing information on the unified portal of the budgetary system of the Russian Federation" (Registered with the Ministry of Justice of Russia on 05.05.2017 No. 46620)). URL: https://base.garant.ru/71671076/?ysclid=lht2mko1qx165933415 (accessed on 18.02.2023).

Topic of the audit event

• 1. Verification of the reliability of the annual accounting (budgetary) statements, including compliance of the accounting (budgetary) accounting procedure with the unified accounting and reporting methodology.
• 2. Verification of the reliability of annual accounting (budgetary) reporting, including compliance of the accounting (budgetary) accounting procedure with the unified methodology of accounting and reporting in relation to the subject of centralised accounting: Interregional Territorial Department of the Federal Agency for State Property Management in the Republic of Mordovia; State Labour Inspectorate in the Republic of Mordovia; Territorial Body of the Federal Service for State Statistics in the Republic of Mordovia; Territorial Body of the Federal Service for Supervision of Health Care in the Republic of Mordovia; Office of the Federal Antitrust Service in the Republic of Mordovia; Office of the Federal Service for Supervision of Consumer Rights Protection and Human Welfare in the Republic of Mordovia; Office of the Federal Service for State Registration, Cadastre and Cartography in the Republic of Mordovia; Republican Tariff Service of the Republic of Mordovia; Ministry of Housing, Energy and Civil Protection of the Population of the Republic of Mordovia; Ministry of Social Protection, Labour and Employment of the Population of the Republic of Mordovia.
• 3. Assessment of the reliability of internal financial control in the implementation of budgetary procedures.

Name of object(s) of internal financial audit

• 1. Budgetary procedures for: preparation of primary accounting documents, which formalise the facts of economic life, and their transfer to the authorised organisation (the Interregional branch of the Federal State Institution "Treasury Support Center" in Kazan); transfer to the authorised organisation (the Interregional branch of the Federal State Institution "Treasury Support Center" in Kazan) of information and (or) documents (data) necessary for the exercise of centralised powers, including compliance with the completeness and neutrality of the data of the explanatory note to the budget reporting.
• 2. Budgetary procedures for: accounting (budgetary) reporting of the subjects of centralised accounting; compiling and ensuring the submission of accounting (budgetary) reporting of the subjects of centralised accounting.
• 3. Budgetary procedures for accounting, clarification and return of unexplained receipts credited to the federal budget.

Fig. 4. **The plan of auditing activities of the Federal Treasury Department in the Republic of Mordovia using the SIIS "Electronic budget"**

Source: developed by the authors.

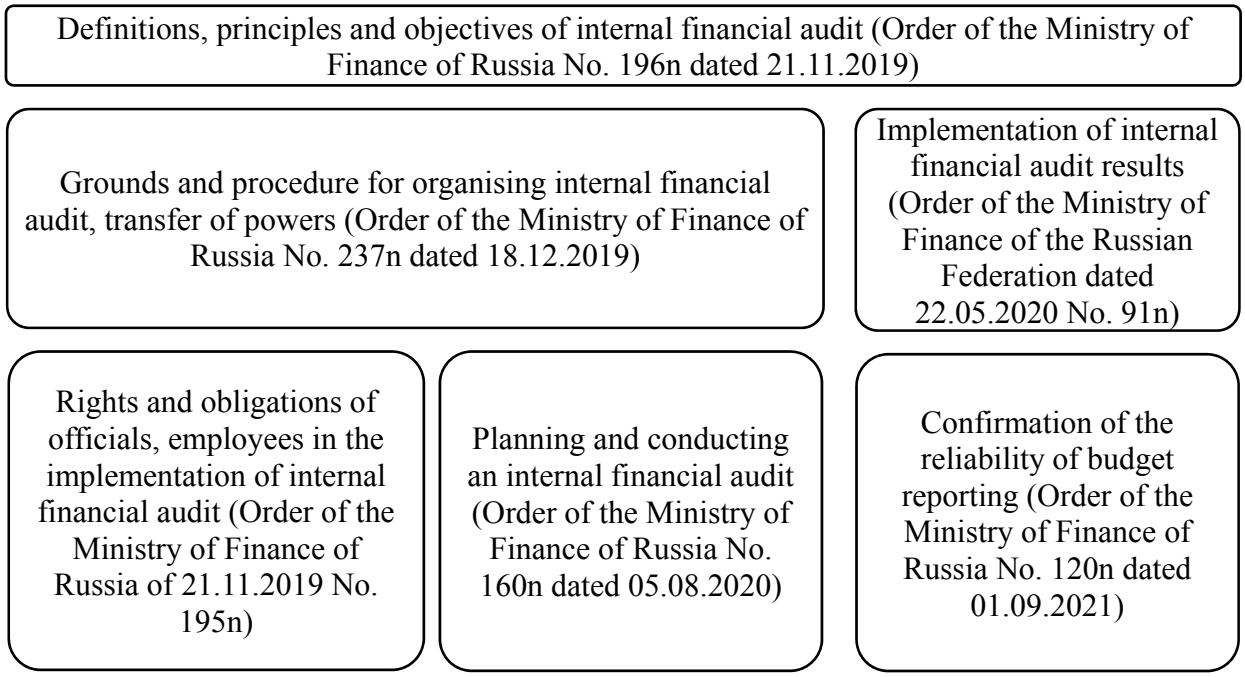


Fig. 5. **Federal Standards of Internal Financial Audit**

Source: developed by the authors.

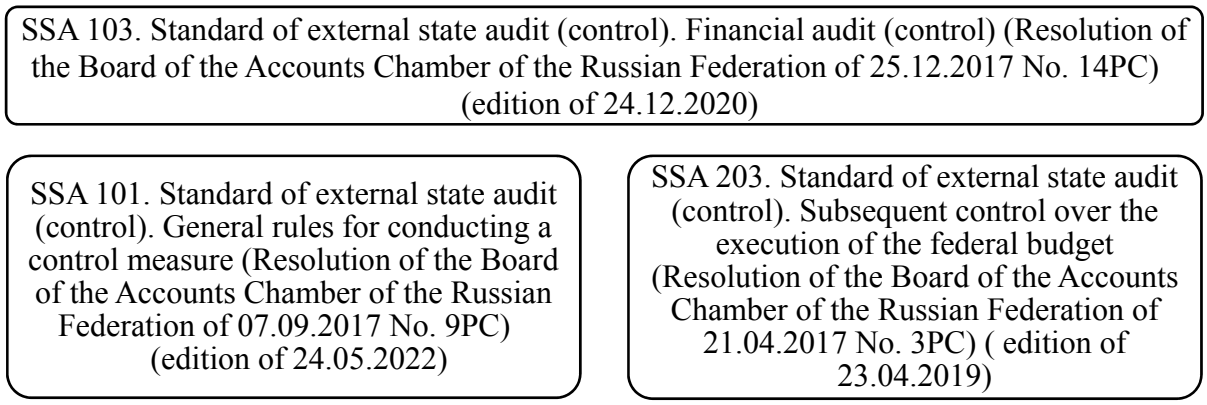


Fig. 6. **Standards of external State audit (control)**

Source: developed by the authors.

providing the ability to work in a mode of no communication with the financial authority and distributed in two versions ("Standard" and "Pro"):

• "*Budget-SMART Standard" programme complex* containing basic functionality for budget execution;

• *software complex "Budget-SMART Pro",* which has a number of additional capabilities to ensure tactical and strategic budgeting of revenues and expenditures, establishment of inter-budget relations, maintenance and evaluation of the effectiveness of state (municipal) programmes, tasks and plans of financial and economic activities. In addition, PC "Budget-SMART Pro" is equipped with a mode of detailing reports, providing specific

information, which allows to simplify control and improve its effectiveness;

b) *"Revizor-SMART", "Financial Control-SMART"*, involving automation of accounting of such control activities as planning, preparation for and conduct of the audit, resource management, formation of the result, monitoring of the elimination of identified violations.

Legislative acts regulating state (municipal) financial control and financial audit

Fundamentals of state (municipal) financial control (audit) are enshrined in the Budget Code of the Russian Federation.[4]

Internal state (municipal) financial control is carried out in accordance with federal standards approved by regulatory legal acts of the Government of the Russian Federation, departmental standards of internal state (municipal) financial control bodies [19].

Internal financial audit is regulated by departmental acts on internal financial audit, as well as by federal standards and methodological recommendations for their application (*Fig. 5*).

The most important regulatory documents governing external state (municipal) financial control are:

- Federal Law of 07.02.2011 No. 6-FL "On General Principles of Organisation and Activity of Control and Accounts Bodies of the Constituent Entities of the Russian Federation and Municipal Entities"[5];
- Federal Law of 05.04.2013 No. 41-FL "On the Accounts Chamber of the Russian Federation".[6]

The main documents establishing unified standards of external state audit (control) are presented in *Fig. 6*.

It is important to note that one of the elements of the compliance and risk management system is compliance, which is responsible for compliance with legislation, involving the setting of targets that require direct control and monitoring, which helps to ensure an effective verification process, improving executive discipline [20].

CONCLUSIONS

Summarising the above, it should be emphasised that in the conditions of digital transformation, "smart digital control" aimed at preventing possible deviations is necessary to improve the efficiency of control activities and timely detection of significant violations and risks. When carrying out control and auditing activities with the help of automated information systems, it is possible to work remotely with information on the functioning of objects and obtain detailed data, which greatly simplifies control and increases its effectiveness. Updating the procedure for performing control (supervisory) and audit activities using a single digital platform will significantly improve the quality and accuracy of verification of the reliability of annual accounting (budgetary) reporting, including compliance of the accounting (budgetary) accounting procedure with the unified methodology of accounting and reporting; improve budgetary procedures for the preparation of primary accounting documents and their transfer to authorised bodies.

[4] Budget Code of the Russian Federation of 31.07.1998 No. 145-FL (ed. of 28.12.2022) (with amendments and additions, effective from 01.01.2023). Chapter 26.URL: https://www.consultant.ru/document/cons_doc_LAW_19702/8874b00d014c71ae84ad90d1acdf6616c8bde5b9/?ysclid=lht3p4h49a870188288 (accessed on 20.02.2023).

[5] Federal Law of 07.02.2011 No. 6-FL "On General Principles of Organisation and Activity of Control and Accounts Bodies of the Subjects of the Russian Federation and Municipal Entities" (as amended). URL: https://base.garant.ru/12182695/ (accessed on 21.02.2023).

[6] Federal Law of 05.04.2013 No. 41-L "On the Accounts Chamber of the Russian Federation" (as amended). URL: https://base.garant.ru/70353474/ (accessed on 21.02.2023).

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Rethinking the Role of Universities in the Development of Clusters

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ABSTRACT

The purpose of the study is to examine the roles of universities in the development of the regional economy, namely in the formation of clusters, as well as to analyze the changes in these roles depending on various reasons. The authors used the methods of induction, analysis, synthesis, comparison, and document analysis. The study is based on the triple helix model, which assumes the interaction of the university, industry and public authorities. The conceptual framework has been applied to the analysis of the activities of one of the Russian universities. The final section presents factors explaining the transformation of the role played by higher education institutions in regional development. The results of the study show the conditions on which university participation in the development of regional clusters depends and how it can provide a basis for the sustainable functioning of the universities themselves.

Keywords: cluster; triple helix model; Astrakhan State University; regional system; knowledge capitalization; generative role

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INTRODUCTION

The role of universities has changed dramatically over the last 20 years. Having previously focused mainly on teaching and research within a universal community of knowledge-creating institutions, universities today assume an additional function due to the processes of globalisation, reaction to the massive increase in the number of students, changes in the forms of organisation of science, etc. [1]. This, in fact, additional role is recursive as well as transformational, reorienting universities into the main institutional spheres participating in economic regulation along with state structures [2]. And although there are numerous studies in foreign [3–5] and Russian literature [6–8] devoted to the role of universities in the development of clusters (more often —-innovative[1] [9, p. 20]) or innovation systems, the conceptual framework for analysing the role of universities in different regional conditions in both Russian and international practice is poorly presented. This article is devoted to the study of this problem, as well as the cause-and-effect relations of its occurrence. Astrakhan State University named after V.N. Tatishchev (ASU named after Tatishchev) is considered as an example and a case study.

APPROACHES TO THE ROLE OF UNIVERSITIES IN CLUSTER DEVELOPMENT

One of the first to attempt to explore how the role of universities is changing to meet the demands of society both economically and culturally was C. Kerr, having introduced the term "multiversity" [10]. K. Gunasekara [11] draws attention to the fact that works devoted to the study of the contribution of higher education organisations to the development of the territories where they are located, most often either investigate "what" universities do or "why" they do it, and, in his opinion, the literature answering the first question is presented quite widely, but, nevertheless, this issue is not studied deeply enough. S.V. Matyukin and A.B. Frolova note that universities may be interested in interaction with other participants of the region's clusters for such reasons as the inflow of knowledge in leading scientific developments, financial revenues for research activities and stimulation of entrepreneurial activity of their employees [7]. The importance of universities as providers of fundamental scientific knowledge and research results has been recognised by scientists for several decades already [12, 13].

Along with these, the authors of scientific works pay attention to such roles of universities in clusters as training and retraining of personnel [8], providing manufacturing companies with innovation and engineering infrastructure [14], providing consulting services and creating a small innovative enterprises zone [6].

Even neoclassical economic theory explained the production efficiency and competitive advantage of firms expressed in the relative endowment of resources [15]. In this approach, institutions involved in knowledge creation were considered as exogenous factors for the production system [16].

Regarding the significance of university activities for regional development, there are two dominant conceptualisation approaches (models), the 'triple helix' and the 'third mission', which emphasise that universities are becoming increasingly connected to their location.

The triple helix model focuses on the role of universities in multiplying resources

[1] Innovative territorial cluster, along with other features, is characterised by the presence of a scientific and production chain based on international scientific, technical and production cooperation, which implies that this type of clusters is based on a serious scientific and educational complex with the active involvement of universities as important centres of knowledge generation.

and accumulating capital in joint projects through an interactive process — an approach to innovation as recursive interaction and negotiation between the university, representatives of regional industry and government, which make up the three parts of the helix [17, p. 14]. The key point proposed by this model is the hybrid, inter-institutional nature of the relationship between them.

The spheres of state, university and industry were formerly separate entities that interacted across clearly defined boundaries based on their functions. Over time, however, individuals and organisations within the helix have increasingly taken on roles other than those traditionally assigned to them [2].

Thus, the academic entrepreneurship highlighted in this model, focused on knowledge capitalisation and other equity projects, can be seen as a generative role for universities, driving the development of the helix itself.

The second line of research ("third mission") [18–20] proclaims as the main role of universities their broader representation in various areas of life in the region, dictated by "meeting" the multiple needs of a wide group of regional consumers (local community), requiring the search for new forms of management and resources to meet them [21]. The universities fulfilling the third mission become a driving force of social, economic, and cultural development of the regions in which they operate by transferring knowledge and technologies to industry and society as a whole [22].

This model differs from the "triple helix" by emphasising the adaptive responses of universities that build a stronger regional focus into their teaching and research missions. It should be noted that some authors, for example, P. Larendo [23], R. Pineiro, P.V. Langa, A. Pausits [24]), are of the opinion that the term "third mission" as applied to universities is still rather ambiguous and there is no universal concept that would describe what functions can be included in it. Some researchers interpret it based on the 'quadruple helix' model (e.g., E.G. Karayannis, D.F.J. Campbell [25]), in which universities cooperate with industry, government and civil society to create social transformations in order to materialise sustainable development in a particular place (the model of the so-called "social" clusters). This approach does not avoid the formation of hybrid forms of cooperation with industry and public authorities, but rather requires a broader focus aimed at the development of the region as a whole, involving the application of various mechanisms of university interaction with "its" region, i.e., the use of its resource base (human resources and knowledge), which plays a major role in building regional networks and institutional capacity.

TRANSFORMATION OF THE UNIVERSITY ROLE IN THE DEVELOPMENT OF REGIONAL CLUSTERS: THE EXPERIENCE OF ASU NAMED AFTER V.N. TATISHCHEV

Further, we will offer possible explanations for the variability of the roles that universities fulfil in the development of regional systems, taking ASU named after Tatishchev as an example. The study is based on a detailed review of documents related to the strategic development of the region, its clusters, and the university itself (including annual reports on the results of self-inspection in different periods).

It should be reminded that the founder of the cluster concept, which is based on co-operation between the state, business, and public institutions, in its classical understanding is considered to be Harvard Business School professor M. Porter. Later, its effectiveness in the development of the regional economy was proved by many other studies.

The main interest in cluster policy in Russia began to develop in the 2000s, and the first

documents prescribing and regulating the development of clusters in our country were the Concept of long-term socio-economic development of the Russian Federation from 17.11.2008 No. 1662-r and Methodological Recommendations for the implementation of cluster policy in the subjects of the Russian Federation,[2] which define in detail the goals and objectives of cluster policy, the main directions of support for the development of clusters, as well as mechanisms of financial, organisational, methodological consulting and other support.

At that time ASU named after Tatishchev (formerly Astrakhan State University)[3] and its staff in the context of active research of this approach to the development of regional economy formed a training programme and conducted a series of courses for representatives of public authorities on competitiveness and cluster policy. Therefore, when in 2012 another competition was announced for the establishment and functioning of cluster development centres in the regions of the Russian Federation (specialised organisations created for the purpose of implementing cluster policy in the region, belonging to the infrastructure for supporting small and medium-sized enterprises, one of the founders of which is a territorial entity of the Russian Federation), Astrakhan region was among the winners, and Astrakhan State University, taking into account the existing experience,[4] has become the main institution of higher education in the region providing support to the cluster development centre for the implementation of educational initiatives (master classes, workshops) for employees of business structures, conducting foresight sessions for representatives of potential clusters in the region, analysis of competitive advantages of clusters, identification of obstacles to their development and development of priority action programmes for their elimination.

The aim of such events was to create an attractive image of the future of cluster at the intersection of market trends and industry potential. The foresight session allowed participants to find a vector for improving their business within the cluster and integrating into the general direction, leading to additional benefits by identifying new development opportunities; to master modern technologies for managing companies and organisations on the basis of the cluster approach; to form a new vision of the strategy for the development of activities within the network interaction.

As a result of the active work of the Astrakhan region cluster development centre and ASU named after Tatishchev, three clusters were identified — shipbuilding, aquaculture and fishery, and tourism (later an IT-cluster will also be formed in the region), and support was provided in forming a strategic direction for their development.

These efforts were in line with the agenda for the implementation of the cluster policy defined by the regional public authorities in the Strategy for socio-economic development of the Astrakhan region from 2010 to 2020. The innovation

[2] Order of the Government of the Russian Federation of 17.11.2008 No. 1662-r (ed. 28.09.2018) "On the Concept of long-term socio-economic development of the Russian Federation for the period until 2020" (together with "Concept of long-term socio-economic development of the Russian Federation for the period until 2020"). URL: https://www.consultant.ru/document/cons_doc_LAW_82134/?ysclid=limwbpw5vy532191024; Methodological Recommendations on the implementation of cluster policy in the constituent entities of the Russian Federation. (Ministry of Economic Development of the Russian Federation dated 26.12.2008 No. 20615-AK/D 19). URL: https:// www.consultant.ru/document/cons_doc_LAW_113283.

[3] ASU named after V.N. Tatishchev is located in the Southern Federal District of the Russian Federation and is the economic and cultural centre of the Caspian Sea. The region is dominated by agro-industrial and shipbuilding production, tourism, oil and gas complex and transport and logistics services.

[4] In 2010–2011, ASU became an institutional member of the Global Competitiveness Institute (TCI), and also became part of the affiliated structures of Harvard Business School for the implementation of M. Porter's course "Microeconomics of Competitiveness".

scenario contained in the document was based on large-scale technological modernisation, corporate and trade restructuring of markets, formation of new sectors of the regional economy, increasing the competitiveness of the Astrakhan region in the South of Russia and the Caspian macro-region, including through the "completion" of industrial territorial clusters, and the long-term goal of the regional policy was the development of competitive, innovation-oriented clusters in the economy.[5]

In addition to fulfilling the above described role of ASU in the development of clusters in the region, the university became a direct participant in each of them. Within the framework of the tourism cluster the university implemented the following activities:

- development and improvement of training programmes for tourism specialists in the areas of "Tourism" and "Hospitality" (in close cooperation with travel agencies and tour operators of the region) with maximum approximation of these documents to the needs of employers and the specifics inherent in this type of business (the cluster includes fishing, cultural and cognitive, business tourism, etc.);
- involvement of business in training students in relevant specialities (through seminars, trainings, round tables with representatives of the tourism sector);
- organising professional development courses for service personnel of hotels, inns, resorts, etc., including through the involvement of external experts.

Within the framework of the aquaculture and fishery cluster, the university acted as one of the partners in training personnel for the cluster and conducting research in the field of biotechnology and bioengineering in close cooperation with representatives of the private sector and manufacturers of end products. The main infrastructure for carrying out research work was both individual laboratories of the university and the specialised Technology park of ASU, on the basis of which small innovative enterprises created with the support of the Foundation for Assistance to Small Innovative Enterprises under the "UMNIK" (Smart Alec) and "START" programmes operated.[6]

Astrakhan State University was attracted to the shipbuilding cluster in order to solve personnel problems and increase the level of innovation and manufacturability of enterprises — the university carried out active research work in the field of development of new technologies of structural materials, as well as training of profile specialists.

Thus, the main roles of the university within the framework of interaction in the triple helix were as follows:

- Capitalisation of knowledge focused on the needs of key cluster companies through research and development activities.
- Integration of education and activities within the framework of knowledge capitalisation, in particular the formation of small innovative enterprises through the ASU Technology park.
- Development of training and professional development programmes to support and develop cluster companies.
- The role of a driver of regional innovation strategy, an "analyser" of strengths and weaknesses, combining the efforts of industry and government to develop an innovative scenario of economic development.
- Building and strengthening interconnections between the region's universities, industrial enterprises, and public authorities, including capitalisation of the former's knowledge (generative role).

[5] Resolution of the Government of the Astrakhan region of 24.02.2010 No. 54-P "On Approval of the Strategy of socio-economic development of the Astrakhan region until 2020". URL: https://base.garant.ru/9129040/

[6] Foundation for Assistance to Small Innovative Enterprises in Science and Technology. URL: https://fasie.ru/

• Providing information support for cluster policy through the publication and replication of scientific and applied research conducted by university staff in the field of cluster research and development in scientific journals, local press, ASU website and newsletters.

The analysis of the development strategy of Astrakhan State University has shown that from 2021 to 2030 its main strategic guidelines were and will be:

1) increasing the level of environmental safety and preservation of natural systems of the region;

2) development of marine robotic technologies in the Caspian region;

3) Caspian incubator of agro-biotechnologies;

4) digital platform of the North-South transport corridor;

5) development of a system of societal (integrated) security of the Caspian macro-region.

The change in the strategic goal of the university with a time horizon up to 2030, consisting in the formation of the university as the core of an innovative scientific and educational cluster, resource, and expert-analytical centre of the Caspian macro-region, has defined new thematic areas of research and laid the foundation for the ASU development programme for the next 10 years, based on three elements[7]:

1. ASU is a region-forming university, occupying a special, central place in the regional socio-economic system.

2. A university with a unique infrastructure at the level of the best world standards, using educational, scientific, technical and innovation potential of partners, developing new solutions to ensure socio-economic growth of the region.

3. ASU as a platform for prospecting activities oriented to promote the diversification of the Astrakhan region economy through the creation of new technological industries, region-forming clusters and ensuring the security of the geostrategic border area.

The change in the course defining the university's interaction with the external environment, as well as the key priorities of the university related to regional issues, was, firstly, dictated by the general national policy in the sphere of higher education, aimed at the formation of progressive universities in Russia — centres of scientific, technological and socio-economic development of the country within the "Priority 2030" Programme,[8] which will make it possible to concentrate the resources of Russian higher education institutions on achieving the national development goals of the Russian Federation and ensure a high degree of participation of higher education organisations in the socio-economic development of the country's territorial entities.

Secondly, it should be noted that the period from 2010 to 2020 was marked by the general popularity and demand for a new form of economic development of the territorial entities of the Russian Federation (based on the triple helix model), which, among other things, could qualify for subsidies for this activity.[9] Thus, 27 pilot innovative territorial clusters received funding on a competitive basis in 2013–2015 (RUB 5 billion); RUB 1 billion was allocated to 34 cluster development centres in 2010–2016 for support; since 2016, 12 innovative clusters — world leaders — have been supported; subsidies to industrial clusters from 2016 to 2022 amounted to RUB 3.4 billion, and from 1 January 2023 this practice was

[7] Development Programme of Astrakhan State University until 2030. URL: https://prioritet2030.asu.edu.ru/

[8] "Priority 2030". Official website of the programme. URL: https://priority2030.ru

[9] Law of the Astrakhan Region of 25.12.2020 № 115/2020-OL "On the Strategy of socio-economic development of the Astrakhan region for the period until 2035". URL: https://docs.cntd.ru/document/571051911

continued for those that produced import-substituting commodities.

However, since clusters in the Astrakhan region (compared to other clusters in the country) do not have sufficient potential to qualify for the above forms of support, the focus, in our opinion, has gradually shifted to other priorities for the development of the territory, which is indirectly confirmed by a comparative analysis of the number of references to the words "cluster" and "cluster-based" in the main programme documents of the region. Thus, the Strategy of socio-economic development of the Astrakhan region until 2020[10] mentions the word "cluster", "cluster-based" in 156 cases and has a separate section "Cluster Policy of the Astrakhan region", while in the current Regional Development Strategy (until 2035)[11] these words are used only 41 times, including within the phrase "cluster development centre" (not directly related to measures to improve clusters).

Thirdly, the development of clusters (and cluster policy) in the region, including the role of Astrakhan State University in this process, is affected by internal factors of their participants. For example, the analysis of the situation in the shipbuilding cluster created in the region in 2012 (which was confirmed by the relevant agreement) allowed us to draw the following conclusions. At that time, it included both shipbuilding and ship repair enterprises of the region and educational institutions, including the university in question, as well as the Ministry of Economic Development as a representative of state authorities. In 2018, the bankruptcy of JSC Shipyard "Krasnye Barrikady", one of the key participants of the cluster core, occurred, which had a significant impact on the functioning of the latter, including in terms of such important characteristics of the cluster agglomeration as cooperation, increased interaction, and trust. This event was accompanied by changes in the regional leadership (the governor of the Astrakhan region was changed twice), in the cluster development centre (several managers were appointed), in the ASU leadership, as well as by the relocation of key university faculty members involved in the development of the cluster concept to other territories. These changes could also affect the development of forms of co-operation, the vision of cluster development in the region and related projects, interaction of different partners. As a result, despite the fact that the cluster was already formed earlier, the Strategy of socio-economic development of the Astrakhan region from 2020 to 2035 still includes the task of its creation and development in relation to the shipbuilding cluster.[12]

It should be emphasised that the choice of transport and logistics and agro-industrial technology development as important priorities for the scientific and educational development of the university, although conditioned by the prerequisites lying in the Southern Federal District or even having the scale of the national level, at the same time also fits into the logic of regional development, where these industrial complexes are designated as promising for the formation of clusters.

Thus, as the analysis has shown, there are a number of institutional, political and economic factors shaping the role of universities in the development of regional clusters. The university (Astrakhan State University as an example) in different years focused on adapting its traditional roles — teaching and research —

[10] Resolution of the Government of the Astrakhan region of 24.02.2010 No. 54-R "On Approval of the Strategy of socio-economic development of the Astrakhan region until 2020". URL: https://base.garant.ru/9129040/

[11] Law of the Astrakhan region of 25.12.2020 № 115/2020-OL "On the Strategy of socio-economic development of the Astrakhan region for the period until 2035". URL: https://docs.cntd.ru/document/571051911

[12] See above.

to support regional and national needs rather than changing its role to stimulate industry and government bodies to develop relations towards capitalising its knowledge based on academic entrepreneurship.

However, if at the first stage of its participation in the "state-business-education/research" trinity the university developed its generative role (the university management considered it as a key factor in the future economic development of the region) and served as an important operator in the process of implementation of cluster policy in the region, then at the second stage, most likely, it focused on the local community and on the problem of regional economic growth without a noticeable link to the cluster form of co-operation and the concept of "cluster".

The factors that ensured the university's active participation in the development of the region's economy according to the triple helix model are as follows:

- traditions [as a university professing (cultivating) innovative approaches to the development of science and education, including through the adaptation of the best foreign experience and co-operation with leading universities of the world (ASU has agreements with universities from about 30 countries)];
- relations and scientific and educational networks (with Harvard Business School and directly with the founder of the cluster concept, Professor M. Porter, within the framework of studying the results of his research on the development of regional clusters, educational technology for teaching courses related to the development of competitiveness of the territory, including through the cluster approach; with the Institute of Competitiveness, which studies successful experience in the implementation of cluster policy in all countries of the world);
- close connection with regional authorities at the first stages of cluster policy formation in the region, where ASU was entrusted with an active role in identifying regional clusters through foresight sessions, interviewing potential cluster participants, etc.;
- availability of innovation potential and relevant infrastructure for research and development of products and technologies relevant for cluster participants.

It could be assumed that such a strong position of the university in the region is dictated by its historical heritage — a serious research base formed over decades (the university has existed since 1932), and, as a consequence, its connection with industry. At the same time, the analysis of the sectoral affiliation of universities in the region showed that there are four state universities in the territory of the Astrakhan region, which are under the authority of four different ministries: Health, Culture, Industry and Trade, and Science and Higher Education. At the same time, ASU became a classical university only in the early 2000s. Before that, it was a pedagogical university (formerly an institute). Thus, in less than a decade the university was able to create a powerful educational system with various training areas. In its turn, its role in the formation and development of the region's human capital further positively influenced its research activities.

At present, in our opinion, along with the above-mentioned factors indicating the potential of Astrakhan State University to develop clusters, this is hindered in the region by the following factors:

- low understanding by the representatives of small and medium-sized businesses of the benefits of innovation;
- weak demand for academic entrepreneurship among large companies that have their own resources for research and development;
- negative migration processes leading to the outflow of qualified personnel;

• lack of incentives for regional participation in competitive selection for subsidies;

• difficult geopolitical situation, which complicates practical benchmarking in the field of cluster policy;

• limitation of the research role of the university in the development of clusters in the region due to its reorientation to the interests of the national level in order to obtain funding (due to the lack of funding in the immediate regional environment of the university).

Thus, there are numerous explanations for the variability of the roles fulfilled by universities across the region. The limited ability of Astrakhan companies (members of the clusters) to fund joint research and the industry specificity of some of them, which implies poor use of technological innovations, has led to the fact that the university has to develop cooperation with companies and other organisations outside its region. On the other hand, the strong ties that the university has built with the local community and the non-profit sector over a long period of time have mitigated this need, transforming, and shaping a new perspective on the position (mission) that ASU currently occupies in the region. This line of development is supported by the university's focus on regional engagement, which is consistent with the position regarding the academic role of higher education institutions reflected in the literature that emphasises the historical significance and cultural factors that shape this role.

CONCLUSIONS

This article analyses the roles of universities in the development of regional systems.

In the course of the study, the authors, firstly, found that the management of Astrakhan State University named after Tatishchev modified the positioning and basic behaviour of the institution to better meet regional needs. Moreover, at the first stage the university has effectively partially took over the functions of the state, playing an important role in the identification and formation of clusters (the very blurring of boundaries between functions in the triple helix model), but at the second stage the focus shifted to the fulfilment of the third mission, which consists in a broader contribution to social development (which is also evident in the recent initiatives of the university and a number of research projects). These changes were due to social and political factors of regional significance, trends in science and education determined by federal authorities; peculiarities of the management's vision of priorities in management activities, etc.

Secondly, the study showed that, despite the fact that the university showed entrepreneurial initiatives (creation of SIEs — small innovative enterprises) and played a key role in regional management, the commercial benefits of the university within the cluster concept, especially at the second stage, were poorly realised (historically, Astrakhan State Technical University had a greater connection with the industrial sector of the region, specialising in the fishing industry and training specialists in shipbuilding and ship repair, i.e., in the sectors that are leading for the cluster). At the same time, the pursuit of more entrepreneurial activities associated with the implementation of strategic projects under the "Priority 2030" programme (the application for which was supported) may increase the sustainability and status of ASU.

In some respects, the research suggests that the choice between the importance of academic entrepreneurship and adaptive behaviour in relation to business needs may be a moot point. However, the self-capitalisation of knowledge within a region (or beyond its borders), arrangements for co-capitalisation with cluster members or with companies outside them — these and other issues may well be of increasing interest. They may also include

the question of how university participation in regional development can provide a basis for the sustainable functioning of universities themselves.

Although the paper used actual data related to the Astrakhan region, the scope of the systematic approach proposed in this paper is broader and it can be applied to analyse the contribution of other universities to regional development. In this regard, there are certain prerequisites for broadening the basis of the study and turning it into an interregional one.

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A Product-based Approach to the Formation of Human Capital in Entrepreneurial Organizations

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ANNOTATION

The subject of the study is human capital — the most significant resource in the business of organizations, both in terms of cost and value and in terms of impact on the result, and therefore having an increased risk factor due to the potential failures as a result of its changes. There are two principal ways of forming the human capital of an organization: *recruitment* — attracting candidates from the labor market with the required level of competencies; *development* — training (retraining) and improving the competencies and professional development of the existing employees. The author proposes to consider the possibility of using a product approach in the work of HR in general and in the process of the formation of the human capital of an organization in particular, to ensure the greatest efficiency and focus on the results through rapid adaptation in the face of sudden unpredictable changes. Considering the applicability of the product approach, the author compares it with the process and project approaches. The relevance of this work lies in the fact that despite a certain interest, of both theorists and practitioners, there is currently a lack of scientific research into the use of the application of the product approach specifically in the field of human capital formation. ***The purpose of the work*** is to investigate the possibility of applying the product approach to the process of forming the human capital of an organization from both the theoretical and practical sides, using the example of the largest FMCG (Fast Moving Consumer Goods) companies in the Russian market. Achieving this goal is possible by solving a number of tasks, such as: studying the theoretical base related to the description of the product approach; comparison of the product approach with the most common approaches in the organization of labor — process and project; studying the practical application of the product approach in business in general and in HR in particular. ***The research methodology*** is based on general scientific methods: synthesis, analysis, and comparison. The theoretical and methodological basis of this study is the understanding of the conditions of the application of the product approach and its attributes in various business areas. The empirical framework is based on a content analysis of publicly available literature, publications, and studies of consulting companies on the topic of the product approach, available in the public domain. ***Research results.*** The results obtained made it possible to explore the possibility of applying a product approach to the process of forming the human capital of an organization using the example of the largest FMCG companies in the Russian market, as well as to develop practical recommendations for transforming the structure and work of the HR department in accordance with the product approach.

Keywords: human capital; product approach; labor market; business organizations; FMCG companies; management approaches; formation of human capital

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INTRODUCTION

RUTP-world (English: rapid — unpredictable — paradoxical — tangled — [RUPT][1]) forces business to make changes in such industries and spheres, in which they used to occur either extremely rarely and for a long time or were not observed at all. One of the least flexible areas of business is personnel management and human capital formation. This is primarily due to the importance of this resource in business processes both in terms of cost (human resource is usually the most expensive) and its impact on the result — it is characterised by a higher risk factor due to potential failures because of its changes.

One of the topical areas of management concept development in modern conditions, when changes in the markets occur suddenly and their consequences are unpredictable, is the product approach and the development of the institution of product owners in organisations. Thus, over the last 3–5 years, the use of this approach in Russia has become the most widespread in the development of digital products. Its application in IT implies three key components: value creation at every stage (business value), clear and measurable goals (metrics system), strategic planning (product development roadmap) with the ability to quickly adjust goals based on metrics data and the emerging external and internal environment (product backlog — a list of tasks and flexible frameworks — implementation model).[2]

In this article, the author presents the results of the study of the possibility of applying the product approach to the process of formation of human capital of the organisation from the theoretical and practical sides on the example of the largest FMCG-companies on the Russian market.

THE PRODUCT-BASED APPROACH AND ITS ATTRIBUTES

Before considering the applicability of the product approach to the process of human capital formation, the author proposes to compare it with the two main existing approaches in management — process and project and describe its main attributes. Project and process management began to be widely developed and applied in practice in the late 20th century. Currently, most companies use both approaches both separately and combining them [1]. The basis of process management is a business process — a regularly repeated sequence of operations that consumes resources and creates a certain result that is valuable to the customer [2]. The **process approach** considers the organisation's activity as a set of processes undertaken to achieve its goals [3]. The main advantages of this approach are: clearly described processes, ensuring transparency of work, relative simplicity of perception, prevalence of strategic problems over operational ones, the possibility of scaling typical processes.

The company's transition to process management is costly — it is a huge work on identifying similar operations, their classification and presentation as working algorithms of business processes, as organisations rarely have quality control documents (templates) for this or that process [4]. In this type of management, the focus is not on the development of enterprises or individual operations, but on their successful functioning. This approach implies the presence of formal kpi (key performance indicators): fulfilment of the plan, solving the

[1] Navigating Disruption With RUPT: An Alternative to VUCA. URL: https://www.ccl.org/articles/leading-effectively-articles/navigating-disruption-vuca-alternative/ (accessed on 02.03.2023).

[2] Three pillars of the product approach in IT development. URL: https://trueengineering.ru/ru/cases/prod-podkhod (accessed on 04.03.2023).

task on time, execution of a certain number of forms.

Project management — is an activity during which project objectives are defined and achieved; at the same time, a balance between the scope of work, resources, time, quality and risks is observed [5]. The basis is the project — a one-time set of activities, limited in time, creating a final unique result [2]. The advantages of the project approach are a definite goal and criteria for project completion, flexibility in management and breadth of manager's authority in the course of work, increased efficiency of communication. The main disadvantages are related to the competition between projects both for all types of resources and due to the lack of a common understanding of the impact of each project on the final result (taking into account the parallelism of activities).

Modern conditions that require business to constantly develop and change have shown the insufficiency of using only the process and/or project approach. Thus, the former does not focus on development, and the latter only covers the issues of single changes, and when it is used to manage continuous development (or a series of changes), the result was influenced by the above-described shortcomings of the approach.

CEOs have paid attention to the product approach in the context of its application in organisational management to ensure the effectiveness of continuous development activities, because of its effectiveness in IT (where continuous development is required) and because of the widespread digital transformation in organisations. There are a few definitions that describe the **product approach:**

- a way of aligning the operation of an enterprise with a focus on managing the product creation chain in such a way as to maximise customer satisfaction[3];
- the task of making the right product [6];
- a way of organising activities, when business goals and user needs are the priority, and decisions are made based on the obtained data. That is, "let's introduce this because our company and employees need it" rather than "let's introduce it because it's trending now" [7];
- work with a focus on the practical usefulness of the service for business, as well as rapid response to changing requirements of the competitive market and adaptation to complex user behaviour [8];
- a method of working on a product or service that allows you to get the required result in an optimal way, without complicating the system and without performing unnecessary tasks [9].

In general, the above definitions are similar, but the author of the study emphasises different attributes of the approach. Based on the studied materials, the author offers his vision of the definition of product approach considering such attributes as "customer", "product", "business value", "product development strategy", "product metrics". Thus, according to the author, the **product approach** — is an organisation of work that allows to deliver business value iteratively, in accordance with the product development strategy to meet the true needs of the client by controlling the compliance of the product to pre-agreed metrics and the possibility of promptly changing the latter considering the emerging market conditions.

To demonstrate the differences between process, project and product approaches, the author of the study compares them according to the following parameters: scope

[3] What is a product-based approach? URL: https://leanvector.ru/blog-eksperta/chto-takoe-produktovyj-podhod (accessed on 05.03.2023).

of application, implementation, attitude to improvements/changes, result and team description (*Table 1*).

As can be seen from *Table 1*, the product approach is more oriented towards customer needs and is "open" to regular changes to achieve the strategic objectives of product development.

The author proposes to consider the transition to the product approach as a step towards an "evolution" in management. The first stage, or "foundation", is the *process approach*; it ensures that operations are carried out according to agreed company standards ("get it done right this way and on time"). The second stage is the project approach, where one-off/recurring improvements or adjustments are required (there is already a focus on change, but it is not systematic). The *product approach*, or third stage, focuses on continuous development/change. However, improving individual parts of the product at this stage can be done using a *project approach*, while managing successfully implemented changes that have been put into "regular operation" and documented can be done using a process approach.

As mentioned above, such attributes as "product", "customer", "business value", "product development strategy", "product metrics" are an integral part of the product approach. The author proposes to consider them in the context of human capital formation.

A product — is the totality of the results expected by the customer, as well as the chain of their creation. That is, what we produce — product, service, information, etc., and with the help of what we do it (people, equipment, information channels, etc.).[4]

The product of human capital formation, depending on the stage or activity as a whole, can be, for example, tools for automation of training, selection, personnel assessment (everything that makes it easier for employees to work, manage them and their development) [7]; attraction and selection of candidates (products of the recruitment department); department team, labour collective or human capital of the organisation formed to perform specific tasks and meet certain metrics.

Products that address issues within the same area can be grouped into **product groups**. They are characterised by similar objectives and can also complement each other.

A customer in the product approach is someone who uses the results of the product creation activity or receives the main benefits from the use of the product. Customers are divided into external, outside the perimeter of the company (buyer), and internal customers.[5] Depending on the scale of the enterprise, the client of the "human capital" product may be a small business owner who is himself involved in the process of forming this product, or a hired manager — the head of a mid-level organisation or a department/branch responsible for a specific function/direction, who is also a part of the human capital of the organisation, perhaps the most significant one, since he influences decision-making and determines the strategy, including in terms of work with personnel.

Since the product approach implies continuous product development/change, among its important attributes is the regular delivery of **business value** to the customer, which does not mean a specific product or commodity, but how successfully the customer's needs will be met by that product or its realised improvement within one of its development stages. Business value defines

[4] What is a product-based approach? URL: https://leanvector.ru/blog-eksperta/chto-takoe-produktovyj-podhod (accessed on 05.03.2023).

[5] What is a product-based approach? URL: https://leanvector.ru/blog-eksperta/chto-takoe-produktovyj-podhod (accessed on 05.03.2023).

Table 1

Comparison of product, process and project approaches

	Process approach	Project-based approach.	Product approach
Field of application	Management of homogeneous processes in accordance with the described standards	Managing the implementation of one-off project changes	Managing continuous change/ development within the strategy
Implementation	Implementation only after detection of homogeneous processes and their detailed description	Realisation of the request/idea in accordance with the obtained project goals and objectives	Implementation of the request/idea after research and according to the true need of the client
Modifications/refinements improvements	Changes are possible but require revising and rewriting the entire process. Labour-intensive procedure	Refinements are possible within the framework of a new project. Acceptance of the project takes place in accordance with the original project requirements	Flexible approach to change based on customer/ user feedback and metrics. Continuous improvement process
Result	Completion of homogeneous tasks in accordance with the described regulations. Compliance with formal process KPIs	Fulfilment of all items of the client's assignment considering the set deadlines, defined budget and specific project KPIs (project metrics)	Achievement of all product metrics (including strategic metrics) agreed with the client and the team prior to or during project implementation
Team and leader	Mainly teams/executives working steadily within a single function; process owner is distinguished from the team working on the described process	Cross-functional teams assembled for the duration of the project; project manager	Cross-functional teams working together in a stable manner; product owner

Source: developed by the author.

what is important at each stage of product development to improve the product. In turn, **regular value delivery** is a continuous improvement of product properties/quality/ characteristics, based not so much on the customer's desire to change something, but on real needs, due to which the product can help to achieve better business results.

To assess the effectiveness of delivered business value, the product approach uses **product metrics** — quantifiable indicators that allow to evaluate its effectiveness and the results that are achieved through its use. To assess product development, it is common to compare agreed-upon performance metrics at different stages of product development. Moreover, the main trigger for road — mapping is the desire or need to achieve certain metrics, among which we can distinguish between primary and secondary metrics. Thus,

the former is directly related to the goal or problem being addressed, such as "increase employee engagement in participating in educational programmes". The latter may reflect important but not critical aspects of implementation.

A set of metrics for each product is defined and agreed upon by the product team and the product owner. They perform **product management**, — a process aimed at bringing a new product to the market or developing an existing one [10]. It starts with the initial description (product idea), with which the customer will interact, ends with the evaluation of the product performance. Thus, according to a study conducted in 2021, effective product management can increase profits by 34.2%, which proves the importance of its implementation [10].

In the "digital world", product teams are small cross-functional groups working towards a common outcome — the creation of an exceptional digital product. They have little or no hierarchy, as each person contributes unique skills and perspectives that are essential to the process. Responsibility for the teams usually falls to the product owners.[6]

A product owner — is not a formal position. It is an employee responsible for the entire product life cycle; he/she may own several products at the same time or be the owner of a product group.

Most product development ideas/tasks are formed because of customer/company needs research. They are combined into a **product strategy**, or a roadmap, on the basis of which a **product backlog** is formed — a list of work tasks for the development team and product owner, arranged in order of importance [11]. HR-strategy of company development in terms of human capital formation can serve as a basis or limitation for its formation.

In practice, product approach and implementation of product strategy are achieved by following certain methods that help to organise the work process, the most popular and effective among which are**Scrum** and **Kanban**.

Scrum — is an agile project management methodology that helps teams' structure and manage work based on a set of values, principles, and practices.[7] When using it, a product is developed through a series of iterations called *sprints* (Engl. — sprint). In this way, complex and complex projects/tasks can be broken down into smaller parts that are easier and more flexible to manage, giving more opportunities to adapt to change. The team and the product owner have the right to determine the duration of sprints themselves (recommended — from 2 to 4 weeks).

To ensure the necessary level of discipline in the application of *scrum*, it is relevant to introduce the role of a *scrum-master* who will help to control and guide the teams and the product owner in practice. This can be one of the product team members who has been trained. This is especially true if the team has been working for several years with an unchanged composition and all processes are aligned.

Kanban, in turn, is a method of visualising activities, limiting work in progress and maximising efficiency (or speed). *Kanban — teams* strive to minimise the amount of time it takes to complete a project from start to finish.

Kanban — is based on the continuity of the labour process. Current tasks are represented by cards on a *Kanban* board and move from one column representing a particular work operation to another. In general terms, the

[6] Product Management: Main Stages and Product Manager Role. URL: https://www.altexsoft.com/blog/business/product-management-main-stages-and-product-manager-role/ (accessed on 01.03.2023).

[7] A guide to Scrum: what it is and how it works. URL: https://www.atlassian.com/ru/agile/scrum (accessed on 01.03.2023).

Table 2

Main Differences Between Scrum and Kanban Methodologies

	The main idea	Stages of work	Methods	Roles
SCRUM	Learn from experience, self-organise, and prioritise, analyse your wins and losses to continually improve yourself	Regular sprints of fixed duration (e.g. 2 weeks)	Sprint planning, sprint, daily Scrum — meeting, sprint review, sprint retrospective	Product owner, Scrum-master, development team
KANBAN	Improve the quality of the work performed with the help of visual materials	A continuous process	Visualising the work process, limiting work in progress, controlling the process, enabling feedback loops	There are no mandatory roles

Source: compiled by the author based on [12].

differences between *Scrum and Kanban* are summarised in *Table 2*.

Kanban is suitable for teams that receive multiple requests that vary in importance and workload. Unlike *Scrum* methodology, which requires strict control over the execution of tasks in a planned scope, Kanban allows the team to adapt processes to changes.

HUMAN CAPITAL FORMATION THROUGH THE PRODUCT APPROACH IN PRACTICE

The author of the study proposes to consider the stages of transformation of HR department work in terms of human capital formation on the example of one of the largest FMCG-companies in the Russian market in the field of food products.

In his article [13] he distinguishes three levels of human capital: employee, enterprise and state, each of which has certain features and mechanisms of formation. Thus, the human capital of the enterprise is a set of human capital of employees, attracted to achieve the objectives of the latter and belonging to it on the terms of employment. There are two fundamentally different mechanisms of formation of human capital of an enterprise:

- *recruitment* on the labour market of the required knowledge/competencies, including such stages as description of requirements and search for candidates, selection of employees, adaptation of newcomers.
- *training/development* to acquire the missing expertise. Two parallel processes should be distinguished here: *individual/employee* human capital development (a series of systematic procedures aimed at continuously improving the level of competence of employees) and *enterprise* human capital development (creating the conditions to maximise the return on all resources invested in building and retaining the existing human capital of employees).

Human capital formation is a set of activities that includes various stages and is aimed at continuous change to comply with existing trends (market challenges).

The author suggests that the transition to the product approach should be realised by means of 6 consecutive steps:

1. Identifying areas that require change.
2. Identifying products and the customers who use them.
3. Aligning the structure of the HR department (product teams), highlighting specific products and their owners.
4. Agreeing product strategy (product backlog), metrics and task backlog.
5. Alignment of work principles and methodology (*Scrum, Kanban, Less*).
6. Formation of the product team.

Before the transformation, the work in the HR department of the company under review was organised in a "classic way": there was a few described and agreed processes, and the focus of employees was on following them; changes and improvements were not systematic and depended on the vision of a particular employee responsible for the process. At the same time, the organisation's activity in attracting candidates from outside was assessed as quite successful on the labour market (based on the annual survey of HH.ru) and primarily since the company was able to offer attractive (relative to the industry average) conditions to job seekers. At the same time, the development of competences of existing employees was at a low level, which was confirmed by annual assessments and analyses at the industry level.

Stages of transition to the product approach:

Stage 1. Identifying areas that require change.

The transition to a product-based approach was designed to address several challenges in human capital formation, including:

- slow decision-making due to the large number of managements levels;
- reluctance to delegate authority;
- employees' focus on day-to-day tasks rather than on improvement;
- spontaneous development and unexpected changes, sometimes contradicting each other;
- ineffective training in the company (based on the principle of "taking the maximum from what is offered on the market").

Stage 2. Identification of products and customers.

First, the main product is defined at the corporate level — "Human Capital of the Organisation". Its client is the company's management, in this case,— the director of its representative office in Russia, as he is responsible for the results achieved by the formed human capital. At the same time, at the level of owners, the "Organisation's Human Capital" product itself is a top-level product group, as it consists of several products that contribute to its formation. Within this large group there are two areas of activity: "Attracting human capital" to the company and "Personnel development" aimed at forming human capital.

These are two product groups combining a number of products with related goals and objectives. For example, the first one includes the following products: "Candidate Recruitment" and "Employee Adaptation". The second includes "Personnel Assessment" and "Personnel Training". The clients of these products are managers of various levels who use them in their work to build human capital within their area of responsibility.

It is worth noting that at certain stages of development it is acceptable to separate products from the group, appoint a separate product owner and subordinate him/her to a higher level — for example, to the head of the HR department. Such a scenario is possible when a product is at an active stage of development and/or the authority of the product group owner is not sufficient to make quick decisions.

Thus, in the company cited as an example, the products "Training Portal" and "HR chatbot for new employees" were

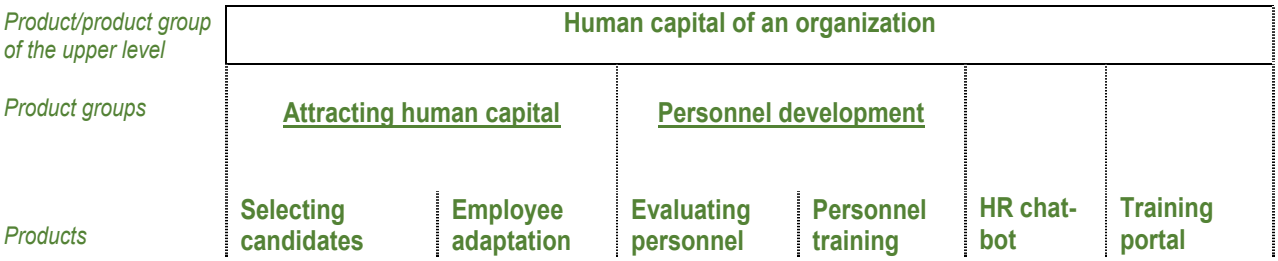

Fig. 1. **The company's product portfolio in terms of human capital formation**

Source: compiled by the author.

Table 3

Examples of key roles involved in the formation of the Human Capital

Product Role	Company HC	Attracting human capital	Staff development
Client	Owner of the company	Management of different levels	Management of different levels
Product owner	Head of HR	HR department manager responsible for recruitment of personnel	HR department manager responsible for training
Contractors	HR department / Line management	Recruitment Officer / Hiring Manager	Training and development officer/line managers

Source: compiled by the author.

selected from the product group "Personnel Development", as these were new strategic directions in the field of human capital formation for the whole organisation. In general, the company's product portfolio in terms of human capital formation is shown in *Fig. 1*.

Stage 3. Changing the overall structure of the HR department in accordance with the product approach.

In contrast to the traditional approach, when the structure of the company as a whole and the HR department in particular is quite stable for many years (employee responsibilities change, but the structure remains in accordance with the staffing table), with the product approach it is recommended to determine the staff based on the specific needs for product development at a certain point in time.

In order to form the overall structure, the final number of products and the workload of the product owners must be determined so that they can devote sufficient attention to the development and maintenance of each product. At this stage, the structure should be refined only to the level of product/product group owners, as the rest of the team will be selected by them based on agreed metrics and product backlogs.

In the above example, the top-level product/product group ("Human Capital") is owned directly by the head of the HR department. His team are the owners of

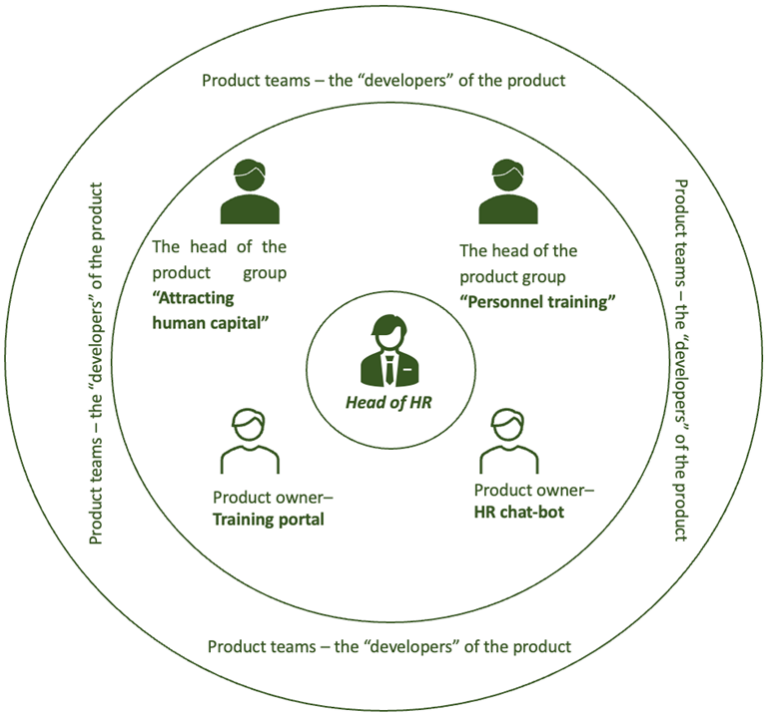

Fig. 2. **The structure of the HR department responsible for the formation of human capital**

Source: compiled by the author.

the product groups identified in the second stage — "Human Capital Attraction" and "Employee Development". Examples of key roles ("product owner", "performers" and "customer") involved in the formation of human capital of the organisation are given by the author in *Table 3*.

Owners of product groups and products (in case they are separated from product groups) are authorised to form a team based on the total budget of the product and the tasks set for its development. They have "direct" access to the head of the HR department and the teams involved in product development. Thus, the result is a simple organisational structure that does not have a large number of subordinate levels and managers making decisions (*Fig. 2*).

Its main advantages are as follows:

- **speed of decision-making**, as there is only one level between the strategic decision-maker and the team implementing the changes — the owner of the product group or product, who is directly involved in all aspects of its "life";
- **flexibility in the set of competences**, as in product teams it is possible not to allocate "formal" roles, but to attract qualified specialists at separate stages to solve specific tasks. The set of team competences is determined by the product group/product owner.

It is worth noting the importance of maintaining this level of hierarchy with 2–3 levels of subordination in order not to lose the advantages of the product approach. For this purpose, it is necessary to assess the level of load on the owner of the product group and, if it becomes high, to equalise it, revise the product development strategy or re-form the product teams; or separate the product by appointing a new owner and subordinate it to the level above it.

The disadvantage of such a structure is that participation in it can distract the HR

Table 4

Practical experience in organizing an employee training portal in two FMCG companies

	Company "B"	Company "M"
Company and business area	One of the leading positions in the non-food market	Leading position in the food products market
Task	**Organisation of a distance learning portal**	
Approach to implementation	Project-based	Product-based
Key metrics	Organisation of a training portal at a cost not exceeding RUR X million for 5 months. The purpose of creating a training portal is a popular method of personnel development in the market; it is already used in competitor companies	Implementation of the task in accordance with the agreed metrics: – portal cost — X million rubles, terms — up to 5 months; – 10% increase in the results of annual employee appraisal due to hard-skills training through courses on the portal; - user satisfaction with the portal at the level of 8–10 points (on a 10-point scale) based on a survey (NPS-indicator); The purpose of the portal organisation is to improve the quality and speed of training
Fulfillment of the task	A project manager and a cross-functional team were identified, who drew up and agreed the work plan, described the terms of reference in accordance with the project objectives and the capabilities of the selected vendor. The portal was organised in accordance with the project plan and terms of reference	The company selected a manager for the new product "Training Portal", who drew up a long-term product development plan (product road map). Users were interviewed and their experiences/ requests were considered (customer journey map). The product roadmap included objectives to achieve the metrics. The portal was organised through several iterations with adjustments based on feedback from users
Short-term results	The task was fulfilled in accordance with the project requirements. The training portal was organised within the allocated budget in 4.5 months on a turnkey basis and handed over to the employees of the department responsible for training	The task is fulfilled. The training portal (product) was organised with minimum requirements within the allocated budget in 2 months, the rest of the portal functionality was developed in the next 4 months as a result of adjustments.
Long-term result	The portal functioned successfully during the first 6 months — the users liked the new form of training. Then significant adjustments were required because part of the functionality was not taken into account, which was revealed during the operation of the portal. This work was delayed until the next year, as the training department staff did not have this workload built into their staffing plan for the current year. Employees stopped voluntarily using the portal on a regular basis and did so only at the manager's request	Product development follows a "product road map" and metrics are reviewed quarterly, and adjustments are made to the plan accordingly Employees use the portal on a regular basis as it is user-friendly, and updates are constantly added based on feedback.

Source: compiled by the author.

manager, who has a large number of contacts, from strategic work. This can be solved by empowering the most "mature" product owners, thereby reducing the number of issues "locked in" to one person.

Stage 4. Alignment of product development strategy (product backlog), metrics and tasks backlog.

At this stage, the work is carried out in parallel in two directions: "bottom-up" and "top-down". Thus, the company's management and the head of HR define the overall strategy for the development of the human capital formation department and determine the main goals, timelines, and budget.

On its basis, the product owner, in turn, forms a strategy for its development, taking into account the available resources, relevant plans for overlapping products and, most importantly, taking into account the needs of customers. It is worth noting that in practice, the approval of a product development strategy takes place through several iterations. For example, sufficient reasoning for its adjustment may emerge from a customer needs study, resulting in additional resources being allocated by management.

Forming a product development strategy includes a general vision of its transformation ("what is to be achieved"), defining metrics and compiling a backlog of tasks. In order to show the importance of using metrics, the author suggests comparing the implementation of the task of organising a training portal for employees, which is one of the key tasks in terms of human capital formation, by two companies (*Table 4*).

Based on the above example, we can conclude that implementing the same assignment through a product or project approach using certain metrics can lead to different results in the long term.

In practice, the principle of harmonising the HR department's overall strategy "from the bottom up" is also common — this is relevant when a company is actively developing, new products are allocated, and sufficient resources are invested in development. In this case, the client's needs, the desire to meet the highest standards in order to attract the best candidates, etc. are put at the centre of attention. The "bottom-up" scenario assumes that each product owner first determines what the latter should meet (metrics) and only after that the overall strategy of human capital formation is created.

Stage 5. Harmonisation of principles and methods of work (Scrum, Kanban, Less).

The author of the study, according to the comparative characterisation of the two methods — *Scrum u Kanban,* presented in *Table 3*, recommends working according to *Scrum* in teams where there is continuous product development that is consistent, i.e., tasks are homogeneous in nature. For example, in the area of improving learning tools. The use of *Kanban* will be most effective when changes are dependent on a number of extraneous factors and are not uniform in nature. For example, in the field of recruitment, where in addition to the company's "desire" there is a large number of parameters that influence the result: labour market conditions, socio-economic and geopolitical conditions, etc.

From the point of view of an HR manager, the most effective method is *LeSS* (Engl. large-scale scrum) [14]. *LeSS* — is *Scrum*, but it is applied to multiple teams working together on one product. Its key differences (on the example of the product group of the HR department responsible for the formation of human capital of the organisation) are:

- 1 product owner (in the described case — top-level product group) — the Head of HR department;
- 1 product (in the described case — top-level product group) — "Human capital of the organisation";

• 2 to 8 teams led by product owners and one scrum-master per 2–3 teams;
• common sprint of 2 weeks duration for all teams (included in the described case in the top-level product group);
• a single product development backlog and backlog for each sprint;
• business values delivered in the framework of a single sprint and aimed at the development of the product "Human Capital of the Organisation".

The existence of uniform rules, principles and guidelines for all teams working within *LeSS* allows the top-level product team leader to keep abreast of changes and control the work of the teams without wasting much effort. For employees, this means easier adaptation when moving to another team and ease of interaction between members of different teams.

Stage 6. Formation of the product team.

As practice shows, this stage is one of the key ones, as the success of the plans' implementation depends on it. First, it is recommended to form product teams from among existing staff. The main advantage of this scenario is that employees already know the area for which they should be responsible, and they will not need additional adaptation in the company. However, since they are not prepared for the product approach, consultants should be hired to train the product owners first and, if possible, to support the product teams for a period of 3 to 6 months.

In the example above, the management at the beginning of the product approach faced serious resistance from the staff, who were not ready for regular meetings and demonstration of the results of the work process (in accordance with the sprints in *Scrum*), as well as for flexibility in working on product changes. There were instances when product team members refused to implement critical changes for the client, attributing this to the fact that they had other plans for product development, forgetting that the client's needs should be put first. Thus, it was necessary to change the way of thinking of employees, which was done with the help of trainings, individual conversations, and inclusion of *scrum* — masters in regular activities.

The key objective of the product approach is to change both the patterns of staff work and the attitude of staff to work, but not themselves. And the changes should take place at all levels. For example, as already mentioned, in the product approach, product owners should be given more authority from the management, as they should understand the real needs of customers, as well as realise what needs to be changed in the product in the short and long term in accordance with the requests of the latter.

Excessive control can be avoided if the product owners have a certain maturity and experience, and their management has a sufficient level of trust, especially since the iterative changes applied in the product approach allow to correct mistakes in a fairly short time, and this is an additional "insurance".

As a result of the implementation of activities according to the six stages described above, the company made the transition to the product approach within 6 months. At the same time, a number of imperfect processes were identified, and at the initiative of the product owners, a part of the staff that did not meet the required new competences and did not want to change approaches was replaced. Thanks to this transformation, a few key problems were overcome or started to be solved, namely:

• reduce the speed of decision-making by reducing the number of structures levels;
• direct employee focus on product development and accountable processes

through the systematic work of product owners and invited consultants;

- streamline and structure product development and change processes.

CONCLUSIONS

Within the framework of the research all the set goals and tasks have been achieved, the author has considered the potential application of the product approach to the process of formation of human capital of the organisation on the example of the largest FMCG-companies in the Russian market.

The conclusion is that the product approach has a number of advantages over other, most applicable in organisations at the moment: project and process approaches, because it is *aimed at continuous development* (which is relevant in the conditions of fierce competition for human capital in the knowledge economy), as well as *allows you to quickly respond to market changes* due to flexible response, focus on a set of activities that allow to *meet the real needs of the customer through the use of the product*.

The achievement of the set goal became possible due to the solution of a number of tasks: the theoretical basis of the product approach (described in Russian and foreign sources) was studied; it was compared with the process and project approaches; the practical application of the product approach in business in general and in HR in particular was studied. The author of the study gives practical recommendations for transforming the structure and work of HR-department in accordance with the product approach.

Despite the objective merits of this approach, the results obtained, and the above recommendations should, in the author's opinion, be the subject of discussion in professional and academic circles on the following issues not addressed in this study:

1. How to plan the budget when moving to a product approach with the introduction of continuous change?
2. Is it necessary to transfer all departments of the company to the product approach, or should it be done iteratively?
3. What is the next step in transforming the HR department's activities after the transition to the product approach?

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Cross-Cultural analysis of Managerial and Cultural Values in Russia and China

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ABSTRACT

The subject of the study is the differences in managerial and cultural values that are important for mutual understanding and interaction between Russia and China, countries with significant influence on the world economy and international relations. The study is particularly relevant in the context of business negotiations and management, where respect for values and beliefs inherent in other cultures is critical to successful cooperation. **The purpose** of this analysis is to examine the methods of G. Hofstede, R. Lewis, P. Ghemawat and others in the field of cultural differences and to compare their findings and conclusions with the results of a survey of Russian managers to verify the cultural characteristics contained in the literature and to prove their viability in practice. The results of the work confirmed the conclusions made by the above-mentioned academicians. The authors of the study defined the Russian culture as multi-active, highlighting the similarities and differences between the cultures of Russia and China. In both countries, the younger generation prioritizes personal career goals and financial success, which significantly changes the work process in terms of shifting values and orientations. The findings could provide valuable information for businesses and policymakers in these countries. The need to identify the cultural characteristics of Chinese managers and to better understand the cultural differences between Russia and China necessitates further research.

Keywords: organizational behavior; Russia; China; organizational culture; cross-cultural analysis; national differences; Lewis; Hofstede; Ghemawat

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INTRODUCTION

Business culture has a significant impact on organisational behaviour, i.e., relationships (inter-ethnic, inter-national) within and outside the company, as well as on the methods and forms of communication between its employees.

When considering an organisation as part of a socio-economic system, the analysis of its internal elements allows us to realise that its most valuable and productive resource is a person who not only works according to a certain algorithm, but is also capable of self-development and bringing in fresh ideas and suggestions.

The purpose of our study is to review the works of leading scholars in the field of cultural differences and to compare their findings with the results of interviews with Russian managers.

The study of cultural differences between countries has always been relevant (especially in the context of globalisation); their role is very significant in the context of business negotiations and managerial decision-making, where successful cooperation requires an understanding of the values and beliefs inherent to other cultures.

This is particularly important with respect to Russia and China, as both countries have a notable influence on the world economy and global politics. Russia is a major oil and gas exporter and a member of BRICS, while China is the world's second largest economy and a major player in international trade. Moreover, when considering the current geopolitical environment, the particular significance of their union can be highlighted in the desire of both states to realise the format of a multipolar world. Therefore, understanding the cultural differences between these countries is important for successful co-operation in the spheres of business and international relations.

This paper attempts to evaluate and analyse current studies by G. Hofstede, R. Lewis, P. Ghemawat, etc.; as well as to assess the cultural characteristics described in them by interviewing Russian managers and investigating their satisfaction with their living standards. The results obtained can add to the knowledge about cultural differences between Russia and China and become valuable information for the enterprises of these countries, as well as be of interest to policy makers. Further research should focus on the cultural characteristics of Chinese managers in order to compare and contrast them with the data obtained in Russia. This would provide a better understanding of the differences between these countries and contribute to more effective international co-operation.

CULTURAL DIFFERENCES IN INTERNATIONAL BUSINESS IN THE FIELD OF MANAGEMENT

As mentioned above, this study was based on the works of Dutch sociologist G. Hofstede, who made a significant contribution to the formation of knowledge about cross-cultural differences between countries. His works are the basis of numerous scientific works and are an extremely important source in the study of cultural aspects. He identified six groups that differentiate a country's culture, known as Hofstede's dimensions of national culture [1]:

1. Power Distance. Characterises the degree to which members of society accept the hierarchical order (correlates with the analysis of the political system). Each member of the society occupies the place assigned to him, which generates different voting rights, and those who are in a lower position on the hierarchical ladder show respect and obedience towards the leader.

2. Individualism (versus collectivism) is a preference for a narrow or broad social

structure where either the individual goals of each member of society are prioritised or group goals take precedence over them and the value of group loyalty is promoted.

3. Masculinity versus femininity measures a preference for either a more competitive or co-operative society: contrasting material orientation, competitiveness, striving for success and solidarity, caring for the weak, modesty.

4. Uncertainty avoidance refers to the feeling of discomfort from ambiguity or uncertainty. This indicator determines the propensity to form clear rules and intolerance to broadcast deviant behaviour.

5. Long-term orientation, added by the author in 1991, represents Confucian thinking and has to do with how a society deals with its past and the problems of the future.

6. Indulgence of desires versus restraint — the sixth dimension, added in 2010 by M. Minkov [2], determines whether society allows free expression of feelings or not.

G. Hofstede's work continues to inspire researchers to analyse the impact of these dimensions on project management, for example in the field of communication. Some scholars, such as R. Muller and J.R. Turner [3] and R. Lewis [4], have used an empirical approach to investigate the importance of dimensions.

In his book, R. Lewis provides a classification of cultures, according to which the world can be divided into 3 components [4]:

1. A linear-active culture, represented by elements such as planning, scheduling, doing one task in one period of time and sequencing. It is characteristic of the Germans, Dutch and Swiss.

2. A multi-active culture is characterised by sociability, a lack of the habit of leaving conversations unfinished, an appreciation of the value of the present moment and a disregard for strict schedules. People of this culture form their priorities based on the attractiveness of tasks, prefer to perform them several at a time and get satisfaction from the number of tasks completed. This group includes Arabs, Hispanics, and Italians.

3. Reactive culture is characterised by respect and politeness in communications, lack of the habit of living according to a schedule, and actions depending on circumstances. Representatives of this culture are considered excellent listeners, as they are attentive to the interlocutor, respectfully wait for the moment when he or she finishes, and only then gently and delicately express their position. This group includes Chinese, Koreans, Japanese and Finns.

Despite possible problems of co-operation between different cultures, they have not only distinctive, but also common features (*Table 1*).

Lewis' model is designed so that each national culture is analysed in terms of four factors: **general facts** (geography, history, politics and economics), **culture** (general classification, values, cultural black holes, concept of time, concept of space, self-concept), **communication** (communication pattern, body language, listening habits, audience expectations) and **interaction** (concept of status, gender issues, leadership, management, motivation factors, meetings, negotiations, contracts and commitments, manners and taboos, how to empathise).

When using this model for stereotyping, the key factor to consider is cultural distance, which can be represented as the edge of a triangle. If the base category of stereotypes, represented by the apex of the triangle, shifts, the distance will change and managing cultural differences may be more challenging. Another model that allows analysing differences between countries and their impact on international business is

Table 1

Common features of linear-active, multi-active and reactive culture

Linear-active culture	Multi-active culture	Reactive culture
Introvert	Extravert	Introvert
Patient	Impatient	Patient
Does one thing at a time	Does several things simultaneously	Reacts to circumstances
Punctual	Unpunctual	Punctual
Quiet	Talkative	Silent
Likes privacy	Sociable	Good listener
Schedules prevail	Schedule is unpredictable	Responds to partner's schedule
Work – oriented	People-oriented	People-oriented
Sticks to plans	Changes plans	Makes small changes to plans
Sticks to facts	Juggles facts	Statements are promises
Limited body language	Unrestrained body language	Subtle body language
Separates social/professional	Intertwines social/professional	Connects social/professional
Does not like to lose face	Has ready-made justifications	Can't lose face

Source: compiled by the authors based on [4].

proposed by P. Ghemawat [5]. It takes into account four dimensions (distances): *cultural, administrative, geographical and economic*, which are denoted by the abbreviation CAGE.

The CAGE model has its origins in the works of such economists as P. Krugman [6] and M. Porter [7], who focused on the concept of "clusters" of industries in certain regions or countries. P. Ghemawat developed this idea by emphasising the importance of distance, i.e., the existing differences between countries, and how it affects trade and investment. He developed the CAGE system to help companies assess potential risks and opportunities to enter new markets.

The cultural dimension takes into account differences in language, ethnicity, religion and social norms that can cause communication barriers, misunderstandings and mismatches between reality and expectations in relation to business practices.

Administrative distance refers to differences in the legal and regulatory environment, including government policies, laws, and bureaucracy, which can lead to difficulties in complying with regulations and managing business operations.

Geographical distance is physical remoteness and differences in time zones, climate, and transport infrastructure. They

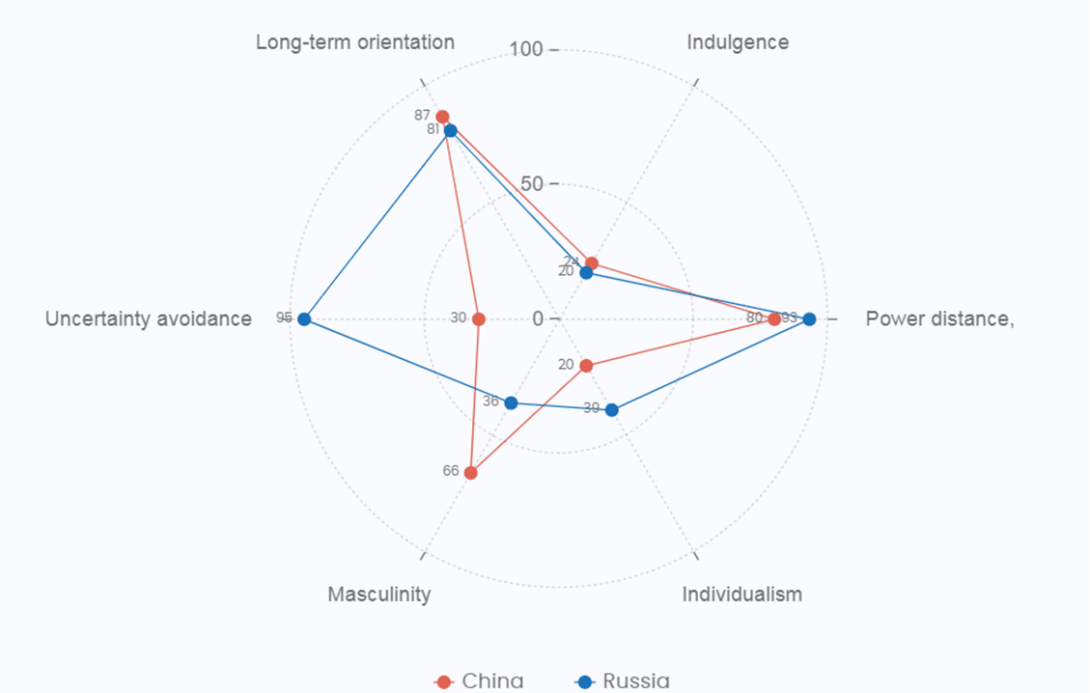

Fig. 1. **Cultural values of China and Russia by G. Hofstede**

Source: compiled by the authors based on [9].

can lead to logistical problems in supply chain management, distribution, and transport.

Economic distance is the difference in economic development, market size and wealth that can affect the attractiveness of foreign markets and the ability to compete in them.

The CAGE model suggests that the extent to which countries differ along these dimensions affects the level of competition and the potential for success in international business. The greater the distances, the greater are the difficulties faced by firms seeking to operate in these markets.

CULTURAL VALUES OF RUSSIA AND CHINA

Let us compare the cultural dimensions of Russia and China, two large countries with different histories, cultures, and political systems, using the cultural models of G. Hofstede, R. Lewis, and P. Ghemawat.

Despite some similarities, they also have significant differences — these are presented in *Fig. 1* using Hofstede's cultural dimensions.

China has higher masculinity, long-term orientation, and indulgence, although the latter two factors are only slightly ahead of Russia, which in turn scores high on power distance, individualism, and uncertainty avoidance.

Emerging problems in Russian culture include high power distance, a culture of fear, and low employee involvement in decision-making processes; it is also characterised by low employee awareness and the possibility that managers may use important information for their own purposes [8].

One reason for the high rate of masculinity in China is the traditional emphasis on male dominance and power. This is reflected in social norms such as the expectation of men to be strong, assertive, and competitive. For

example, studies have shown that they are more likely to use aggression to resolve conflicts than women, a trend influenced by traditional gender-role expectations [10]. In addition, Chinese culture places a high value on achieving success and status, which is consistent with masculine culture. Thus, Chinese employees have recently placed an increased emphasis on personal achievement and success, and have used more aggressive strategies to resolve conflicts (especially men). In most cases, leadership positions in China are held by men, asserting their dominant position in the organisation.

In terms of leniency, China's assessment reflects a shift in cultural values towards individualism and self-expression, especially among the younger generation. This is reflected in the growing popularity of individualistic values such as self-actualisation and creativity. For example, studies have shown that Chinese millennials are more likely to favour personal goals and interests rather than traditional values such as family, social harmony, and commitment to others [11]. Therefore, it can be assumed that it is these that the Chinese, especially the younger generation, place in the workplace above collective decisions and social harmony. Although Chinese people are traditionally known for their cohesion and collectivist culture, young people are moving towards individualism and self-expression. In addition, workers tend to challenge authority and express their opinions, which can lead to a more democratic and open organisational culture, but it is also likely to conflict with structures based on hierarchy and traditional norms of respect for authority characteristic of the People's Republic of China (PRC).

Russia's high score on individualism reflects the country's transition from a socialist to a capitalist economy, which has led to a greater emphasis on personal achievement and interests. This cultural shift is particularly evident among students, who now prioritise career goals and financial success [12].

Russians in the workplace are focused on their own goals and needs, resulting in a more competitive environment in which workers focus on outdoing each other rather than co-operating.

The focus on self-interest is also responsible for more transactional relationships between employees and their employers, where loyalty to the organisation is secondary to personal gain. Finally, the prioritisation of career goals and financial success leads to higher staff turnover, as they are more likely to leave their current activities for promotion and greater financial rewards elsewhere.

Russia's high score on uncertainty avoidance reflects the country's history of political and economic instability, which has led to an emphasis on the need for rules, regulations and formal procedures. Research has shown that Russian managers will generally be more willing to avoid risk than their Western counterparts, placing greater emphasis on bureaucratic procedures and control mechanisms [13]. Due to the increased emphasis on the need to comply with rules and regulations, Russian workers prefer clear instructions and procedures. This leads to a more structured and formal work environment with a strong emphasis on compliance with rules and regulations. In addition, Russian managers' tendency to avoid risk also affects organisational behaviour, as workers will behave more cautiously and avoid situations that could lead to negative consequences for themselves or the organisation. This is the reason for a more conservative approach to decision making and a slower pace of change and innovation in the organisation.

Fig. 2. **A triangle based on the R. Lewis model**

Source: Compiled by the authors based on [4].

So, according to N.V. Latov's ethnometric analysis of heterogeneity and homogeneity, the desire to avoid uncertainty was influenced by the socio-economic environment and long-term crises that began in 2014. It is heterogeneity that "indicates the presence of certain value contradictions in the public consciousness" of the population [14].

The power distance and long-term orientation of Russians and Chinese are similar, and the reason for this is their cultural values and historical background. Both countries have a history of strong centralised rule (which has contributed to a large power distance). In addition, their cultures value long-term planning and emphasise the importance of the past in shaping the future.

In Russia and China, significant power distance contributes to high levels of inequality in power distribution, which people tend to accept as the norm of life. For example, in Russia, the concept of "vertical power" is deeply entrenched, meaning that citizens are loyal to the granting of significant power to their leaders and the right of the latter to make decisions with little or no input from subordinates [15, 16]. A special place in Russian society is occupied by status, which is favoured over salary. Such a position is determined by respect and honour from subordinates, as well as the possibility of easier and more efficient resolution of issues [17]. Similarly, in China, the concept of "guanxi" (or personal connections) is crucial in business and politics, and people with a higher social status are often given preference [18].

In terms of long-term orientation, both countries scored highly, indicating an inherent desire for long-term planning and future-orientation in their cultures. For example, in Russia, the concept of "patrimony" or the accumulation of wealth

and property over time is highly valued, and the population often favours stability and continuity over immediate benefits [16]. In China, the influence of Confucianism has favoured a focus on long-term planning, and the idea of "face" or reputation is important for maintaining relationships and securing future opportunities [19].

Thus, the high scores of Russia and China on power distance and long-term orientation can be explained by their cultural values and historical backgrounds that emphasise centralised rule and long-term planning.

Next, another study by R. Lewis was considered, where he analysed countries using a combination of quantitative and qualitative methods (*Fig. 2*). He developed a questionnaire to collect quantitative data on cultural dimensions such as communication style, attitudes towards time and emotional expression, among others. In addition, the scholar carried out qualitative research through interviews and observation to gain a deeper understanding of the cultural nuances and behaviours of the respondents. For example, he interviewed executives and business-people from different cultures to explore their communication style and preferences, and observed interactions in different cultural contexts to identify patterns of nonverbal communication and social norms [4].

According to the R. Lewis model, China is closer to the reactive end of the spectrum, while Russia is closer to the multi-reactive end. This is due to various factors. Chinese culture highly values relationships and harmony, which can lead to a less direct style of communication and a desire to avoid confrontation [20]. In addition, patience and perseverance are respected in China, which is evident in the approach to business and negotiation [20]. These cultural traits are reflected in Chinese organisational behaviour, where hierarchy is important, and decisions are often made collectively.

In contrast, Russia's multi-active culture is characterised by a direct type of communication, and it is often perceived as straightforward, with less emphasis on avoiding confrontation. In addition, the high-power distance in Russia means that hierarchy is important, but here it is more flexible than in China. Russian organisations are often led by strong leaders who make decisions quickly and independently.

Comparing Russian business practices with the culture of the Asian cluster countries using T. Cottle's "Circles of Time" test, which determines the attitude of the country's residents to the future, present and past, it can be seen that Russia is among the countries oriented towards the past, while China belongs to the group of states with an even flow of time [21].

These cultural differences can have a significant impact on how companies operate in these countries: in China, for example, they need to adopt a more patient, relationship-orientated approach, while in Russia they need to prepare for more direct communication and work in a hierarchical environment.

Researcher D. Ralston and colleagues [22] argue that Russian and Chinese managers share more commonalities in their work values than differences: both value managerial authority and job security, reflecting their cultural emphasis on power distance, and place greater value on interpersonal relationships and personal loyalty to colleagues than do American or Japanese managers.

One possible reason for this similarity may be related to the similarities in the historical and political backgrounds of Russia and China, which has led to a similar cultural emphasis on power distance and personal relationships. In addition, both countries have undergone

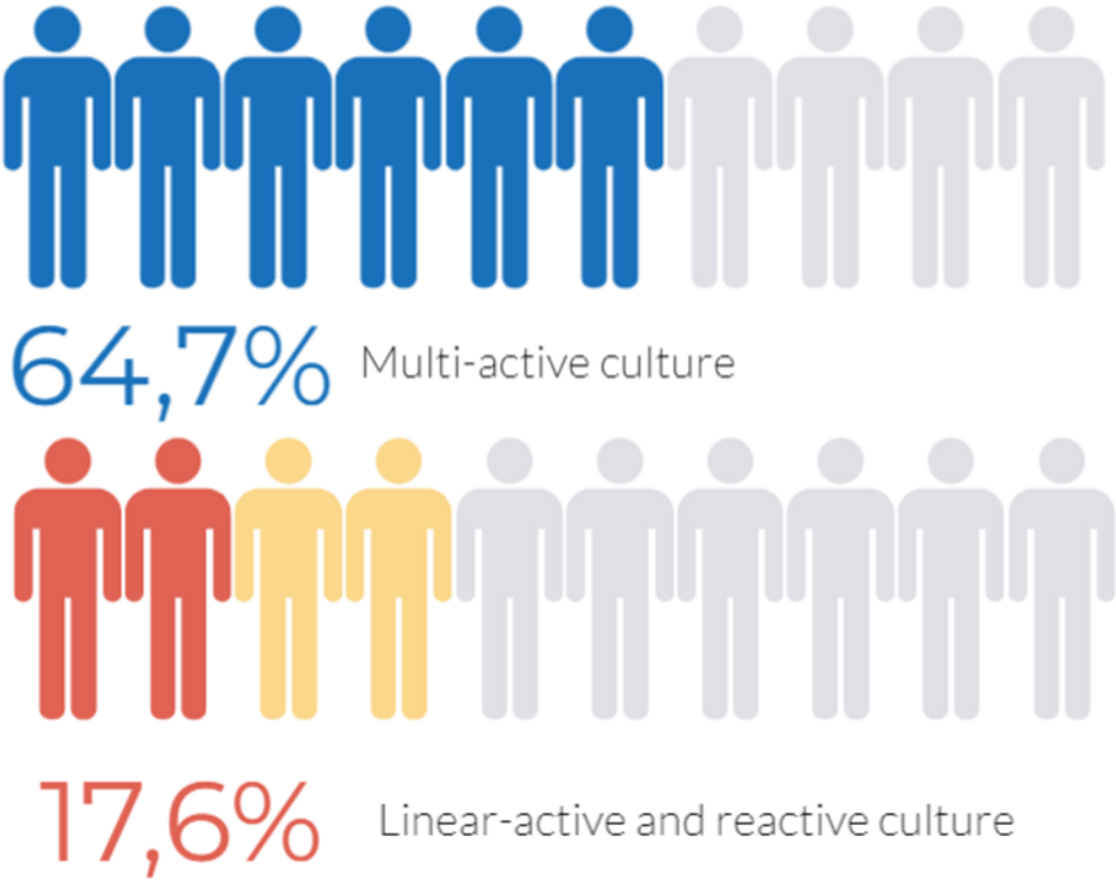

Fig. 3. **Results of the study of Russian managers**

Source: compiled by the authors.

similar economic reforms that have caused an increase in job insecurity and the need for personal ties to secure employment.

A study by Taiwanese scholar Tu Yu-Te shows that both Russian and Chinese representatives tend to build relationships and reach mutual understanding during negotiations, which is consistent with their high-context cultures [23] and prefer to use indirect communication styles and avoid confrontational tactics. However, the Chinese are more patient and willing to negotiate for longer periods of time, while the Russians are more assertive and competitive orientated.

CAGE model developer P. Ghemawat argues that many companies overlook the importance of the four distance measurement factors (cultural, administrative, geographic, and economic) in global expansion, which can lead to costly mistakes.

The first dimension,— cultural distance,— includes factors such as language, religion, social norms, and values. For example, in Russia, the culture is likely to be collectivist rather than individualistic [24], which may affect the way businesses operate and the success of certain types of products and services. As for China, the concept of maintaining "face" (reputation) and social status is important in establishing business relationships and negotiations.

The second dimension,— administrative distance,— involves factors such as political systems, legal frameworks, and bureaucratic

rules. In Russia, the legal system is often criticised for being opaque and inconsistent, which can create problems for foreign companies. China has complex rules regarding foreign investment and intellectual property that can be difficult to navigate.

The third dimension, — geographical remoteness, — includes factors such as time zones, infrastructure, and transport costs. For example, Russia's large territory and harsh climate can make travelling and logistics difficult, while China's rapidly developing transport infrastructure has facilitated access to remote parts of the country.

The fourth dimension, — economic distance, — which includes indicators such as income level, market scale and degree of development. In Russia, the economy is heavily dependent on natural resources such as oil and gas, which can cause instability and risks for businesses. In China, on the one hand, the size and growth potential of the market is attractive, but on the other hand, entry is challenging due to rather fierce competition.

To apply the CAGE model in practice, companies must first identify relevant factors for their industry and target market, and then use the model to assess potential risks and opportunities. For example, a Russian company planning to expand into China should consider the cultural characteristics of the country, as well as administrative and economic factors that may affect the business.

EMPIRICAL RESEARCH

In the autumn of 2022, the authors conducted a study to identify the characteristic features of organisational behaviour in Russia in order to identify the correspondence between its historically defined features and contemporary realities. Forty-five people were interviewed, including 34 women and 11 men.

Respondents were spoken to in private and answered all the questions frankly, first general, and then more specific (depending on the answers they received).

All interviews were recorded to ensure the accuracy of the data obtained for analysis.

According to the study, 64.7 per cent of Russian participants identified themselves as belonging to a multi-active culture, while the rest identified themselves as belonging to a linear or reactive culture (*Fig. 3*). This result indicates that Russian culture is indeed closer to a multi-active culture and, according to the R. Lewis model, emphasises high-context communication, a preference for personal interactions and a flexible approach to time management.

This conclusion is supported by other studies that have examined cultural aspects of Russia. Such arguments that Russians have a more high-context and indirect communication style, which is characteristic of multi-active cultures compared to other cultures, have been confirmed and analysed by many scholars. At the same time, the importance of emotions in communication is emphasised and it is assumed that the communication style of Russian citizens is more expressive [25, 26].

During the interviews, in addition to questions related to cultural orientation, participants were also asked about their overall life satisfaction. More than half of the respondents answered positively, while a third rated their life satisfaction as average.

Despite the current situation in Russia, characterised by economic and political problems, cultural factors and individual mechanisms contribute to their overcoming. Russian culture emphasises family, social relationships and community support, which can be an emotional support for people even in difficult times. In addition, research has shown that individuals are able to adapt to difficult circumstances by applying positive psychological strategies such as optimism, resilience and self-efficacy.

According to the above-mentioned study by R. Hofstede, there are some similarities (in Power Distance, Restraint and Long-Term Orientation) and differences (in Uncertainty Avoidance and Masculinity) between Chinese and Russians in cultural values. This suggests that absolute adaptation to each other's characteristics may not be possible up to the point of conflict. Therefore, it is not at all clear to what extent Russians are willing to co-operate with the workers from China, and how quickly the parties will be able to adapt to mutual cultural differences.

To avoid potential conflicts between workers from Russia and China, the authors of the study propose to:

1. Conduct more in-depth surveys/interviews with them to understand their cultural values, communication style and job expectations.
2. Analyse the historical and social contexts of each country to identify factors that shape their cultural values and norms.
3. By observing the behaviour and interactions of citizens of both countries in the workplace, identify potential areas of conflict and opportunities for collaboration.
4. Conduct cross-cultural education or training programmes to help Russian and Chinese representatives develop cultural intelligence and adapt to each other's work styles.
5. Analyse examples of successful and unsuccessful cooperation between workers in both countries to identify best practices and lessons learned.

Overall, the results show that, although the current situation in Russia is characterised by certain problems, cultural and individual factors may contribute to life satisfaction among part of the population. Nevertheless, further research is needed on cultural factors, their interaction and individual coping mechanisms to achieve life satisfaction in the Russian context.

CONCLUSIONS

The results of our study show that there are significant cultural differences between Russia and China, especially in terms of communication and working styles. Despite this, the cultures of the countries in question also share common characteristics due to their similar historical and political backgrounds.

Guided by the findings of G. Hofstede, R. Lewis, and P. Gemawat, the authors proved by conducting interviews and analysing their results that Russian managers are indeed closer to R. Lewis' multi-active culture. In addition, it was found that despite the current situation in Russia, the majority of respondents are satisfied with their lives.

However, it should be noted that Chinese employees were not interviewed during the study, which did not allow us to generalise the findings. Further work is needed to explore the cultural values and work ethics of Chinese managers to better understand the cultural differences between the two countries. In addition, the views of Russian managers only were analysed, and it would be useful to increase the sample size in the future to include representatives of different professions to ensure a wider coverage of the population.

The conducted study adds to the existing body of knowledge by providing information about Russian managers and identifying the priorities of the younger generation, such as achieving personal career goals and financial success. The findings can be useful for businessmen and politicians in both countries. However, further work is needed to identify the cultural characteristics of Chinese managers and to better understand the differences in this area between the two countries.

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Investment Analysis and Management

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ABSTRACT

The rate of economic growth is largely determined by the level of investment activity, as well as by the scale of investment activity, the expansion of which requires an increase in investment and its efficiency. Objective economic and statistical assessment of investment provides an opportunity to analyze the results of the process of management of this sphere of activity. The **purpose of the work** is to investigate changes in the composition and structure of investments, factors influencing and limiting the growth of their funding sources, as well as to analyze the dynamics of investment activity in the Russian Federation in recent years on the basis of data from the Federal State Statistics Service. The paper provides definitions of investments and considers their types. In the course of the study, the authors applied such scientific **methods** as structural and dynamic data analysis, theoretical research in the form of generalization, comparison and special analytical procedures. **The results obtained** can be used to prioritise investment management and management decisions

Keywords: investment management; investment in fixed assets; sources of financing for investment activities; results of investment activities; structure of investment by type of economic activity; budget funds; own funds of enterprises and organizations; share of investment in GDP

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INTRODUCTION

The Russian economy under sanctions needs high investment activity. Investments are necessary for the formation of the country's production potential on a modern scientific and technical basis, taking into account its competitiveness in the world markets. At the same time, they play an important role both at the macro- and microeconomic levels. Thus, investment resources are the leading factor in the development of the economy, ensuring sustainable rates of its growth. In this regard, the systematic analysis of indicators of the volume, dynamics, and sources of formation of investment resources is necessary for the effective management of investment activity, which is part of the state policy.

Over the period from 2018 to 2022, the volume of investment in fixed capital increased by 29%. At the same time, the share of investments in GDP remained almost unchanged — at the level of 20–22%. According to the World Bank, Russia ranks 27th in the rating of European countries by this indicator.

In the structure of investments in fixed assets by sources of financing, the main share falls on organisations' own funds — more than 50%. Budget funds and bank loans prevail in the structure of attracted funds. In the interval from 2018 to 2020 there was an increase in the share of the former by 3.7%, and in 2021 — a decline by 5.1% compared to the previous year. If we extend the time horizon of the analysis, we can note a significant decrease in the share of budget funds — from 21.9% in 2009 to 11.4% in 2021. The share of bank loans did not change significantly over the period under consideration and amounted to 12% in the first half of 2022.

The analysis of financial results of organisations and the banking sector shows the

growth of profit, which can be considered as a potential result of the expansion of investment in the economy.

The paper considers the factors limiting investment activity. The majority of organisations attributed the economic situation in the country (to the factors limiting investment activity) (74%), high inflation rate (71%), investment risks (65%), lack of own financial resources (63%) to such factors. In other words, unfavourable business conditions in the country and in the world become a cause of uncertainty, and, consequently, it becomes more and more risky to invest for the long-term perspective.

The analysis of the structure of investments shows that four types of economic activities in the total volume occupy more than 60%. A significant volume of investments in fixed capital was recorded in mining, transport and storage, processing industries, real estate operations. The industries that occupy a less prominent share in the structure of investments are construction (3.3% of the total volume), trade (3.1% of the total volume), agriculture (3.4% of the total volume), telecommunications (2% of the total volume).

The results of investment activity are characterised by gross capital formation. The growth of this indicator for the period under review gives grounds to expect an increase in investment activity in the coming years.

RESULTS OF THE ANALYSIS

The analysis carried out by the authors of the paper has shown that to date the rate of increase in the volume of investment in fixed capital is insufficient to have a significant impact on the development of the economy. Therefore, the task of investment management aimed at their growth and solved on the basis of expanding the number of sources of financing remains relevant and a priority one.

Despite the sanctions imposed on the Russian economy, a positive trend in this direction was observed in the analysed period. The positive growth dynamics was mainly due to government support measures in accordance with the Federal Targeted Investment Programme for 2022–2024. The Ministry of Economic Development[1] and the anti-crisis programme of preferential lending by the Central Bank together with the Government of the Russian Federation (Resolution of the Government of the Russian Federation No. 337 dated 10.03.2022[2]), aimed at stimulating the creation and acquisition of fixed assets of production, including for modernisation and technical re-equipment, as well as for reconstruction of capital construction facilities.

The ratio of investment in fixed capital to the amount of balance sheet profit of the Russian economy is one of the operational indicators characterising the propensity to invest, which is determined based not only on the above factors, but also on the demand for investment. Stimulation of investment activity is a key element of economic development management. In 2022, according to Rosstat, the main objectives of management in this area were to stabilise the economic situation in the country, reduce inflation and investment risks.

The increase in investment activity in Russia is primarily due to the processes of business restructuring due to the departure of foreign companies, the growing number of state funding sources, and the intensification of the defence industry. The Russian government's policy of stimulating import substitution will become the

[1] Federal Targeted Investment Programme. URL: https://faip.economy.gov.ru/cgi/uis/faip.cgi/G1/faip/2023?yover=2022

[2] Resolution of the Government of the Russian Federation No. 337 dated 10.03.2022 "On approval of the list of industries in which the borrower specified in part 1 of Article 7 of the Federal Law "On Amendments to the Federal Law "On the Central Bank of the Russian Federation (Bank of Russia)" and certain legislative acts of the Russian Federation with regard to the specifics of changing the terms of the loan agreement, credit agreement" and on invalidation of certain provisions of certain acts of the Government of the Russian Federation". URL: https://base.garant.ru/403688082/?ysclid=liejr25uu3614420534

basis for positive investment dynamics in the coming years.

Presidential Decree No. 474 of 21.07.2020 "On the National Development Goals of the Russian Federation for the period up to 2030"[3] sets the objectives of the Russian Federation to become one of the five largest economies in the world, to ensure economic growth rates above the global level. However, under the turbulence of global socio-economic and political processes, their fulfilment is difficult. From our point of view, the central tool for achieving the programme objectives is the investment cluster [1] — a flexible process should be organised to ensure the necessary level and structure of capital investment in the country's economy [1, 2].

ANALYSIS OF MACROECONOMIC INDICATORS AND STRUCTURE OF INVESTMENTS IN FIXED ASSETS

State statistics makes it possible to analyse the results of investment management at the macro level [3] (*Table 1*).

The most important are investments in fixed capital (these investments mean the costs of creation and reproduction of fixed assets[4]), as they are able to accelerate the process of import substitution, which is especially relevant today [4]. The data of *Table 1* show that in 2022 compared to 2018 these investments increased in absolute terms by 5163, billion roubles, outpacing GDP growth. Thus, in 2022 compared to 2018, the GDP rate increased by 9.6%, while investments increased by 29%. In 2021, the highest investment growth over the last five years was observed — by 7.7%, but in 2022 their dynamics was lower by 1.8%.

It should also be noted that the share of investment in GDP remains almost unchanged — at the level of 20–22%, which is associated with the payback time.

According to the World Bank, the average share of investment in GDP for 42 European countries in 2021 was 23.95%.[5] Russia ranks 27th in the ranking of these countries by this indicator; Finland has similar results — 23.96%, Belarus — 24.25%, Serbia — 25.0%, Sweden — 25.91%.

To increase the share of investments, their volume in fixed capital should be higher [5]. Thus, to date, the growth rate of investment in fixed capital is insufficient to have a significant impact on economic growth [6].

The priority task of investment management is to find sources of their financing. In modern conditions for Russia this problem remains relevant. The main sources of investment activity financing include budgetary funds, own funds of enterprises and organisations, loans and borrowed funds, leasing, rent[6] (*Table 2*).

The data show that the share of own funds of organisations in the total volume of investments is more than 50%, while in the first half of 2022 its value was 58.2%. In the structure of attracted funds, the largest share belongs to budgetary funds and bank loans; at that, the share of the former is slightly higher than the share of loans (except for 2021). Note also that in 2018–2020 the share of budgetary funds increased by 3.7%, while in 2021 it decreased by 5.1% compared to the previous year. If we extend the time horizon of the analysis, we can note its significant decrease from 21.9% in 2009 to 11.4% in 2021.

The share of bank loans did not change significantly over the period under review: at the end of 2021 it was 15.1% and increased by 3.9% compared to 2018. Obviously, loans

[3] Presidential Decree No. 474 of 21.07.2020 "On the national development goals of the Russian Federation for the period up to 2030". URL: https://base.garant.ru/74404210/#block_5

[4] Federal Targeted Investment Programme. URL: https://faip.economy.gov.ru/cgi/uis/faip.cgi/G1/faip/2023?yover=2022

[5] Capital investment, percentage of GDP. Classification of countries. URL: https://ru.theglobaleeconomy.com

[6] Federal Law No. 39-FL dated 25.02.1999 "On investment activities in the Russian Federation carried out in the form of capital investments" (latest edition). URL: https://www.consultant.ru/document/cons_doc_LAW_22142/?ysclid=liirbe7nqa457171560

Table 1

Macroeconomic indicators of investment activity for the period 2018–2022

Indicator	2018	2019	2020	2021	2022
Gross Domestic Product, RUB bln, in% of the previous year in constant prices	103 861.7 102.8	109 241.5 102.0	106 967.5 97.0	110 277.3 103.1	113 806.2 103.2
Investments in fixed capital, RUB bln, in% to the previous year in comparable prices as a% of GDP	17 782.0 105.4 20.0	19 329.0 102.1 20.6	20 118.4 104.1 21.8	21 667.5 107.7 19.5	22 945.9 105.9 20.2

Source: compiled by the authors on the basis of Rosstat data. URL: https://rosstat.gov.ru

Table 2

Structure of investments in fixed capital by sources of financing (in actual prices. excluding small businesses) for the period 2018–2022

Indicator	2018	2019	2020	2021	2022 (first half)
Investments in fixed capital. total. % including. %	100	100	100	100	100
own funds.	53.0	55.0	55.2	63.7	58.2
borrowed funds. % of which:	47.0	45.0	44.0	36.3	41.8
bank loans.	11.2	9.8	10.0	15.1	12.7
budgetary funds	15.3	16.2	19.0	11.4	15.6
Other. %	20.5	19.8	15.0	9.8	13.5

Source: compiled by the authors on the basis of Rosstat. URL: https://rosstat.gov.ru

have not become the main means of financing investments, and the management task is to expand lending in this area [7]. In addition, it is necessary to solve the problems of attracting foreign funds [8]. Thus, the expansion of budget financing and lending can become the basis for further investment growth.

ANALYSIS OF FINANCIAL RESULTS AND INDICATORS OF THE BANKING SECTOR

For SMEs, the task of expanding financing opportunities is also relevant [9]; at that, the growth of own funds of organisations as a source of investment depends on their financial results of their activities (*Table 3*).

Against the background of the pandemic, crisis phenomena associated with the shutdown of many industries, lower oil prices, there was a 23.7% decrease in the balance sheet profit of the economy in 2020 compared to 2019. However, in 2021, it increased by 2.2 times. There is also an increase in the share of profitable enterprises in general from 67.5% in 2019 to 76.1% in 2021.

According to Rosstat's operational data, in the first eight months of 2022 the balanced financial result (profit minus loss) of organisations [excluding small businesses, credit and non-

Table 3

Financial performance of organisations (excluding small businesses, in current prices) for the period 2019–2021

Indicator	2019	2020	2021
Balanced financial result (profit minus loss), RUB bln.	16 632.5	13 418.8	29 649.8
As a% of the previous year	127.7	76.3	220.9
Amount of profit, RUB billion	20 605.5	20 317.0	32 541.6
As a% of the previous year	116.6	98.6	160.2
Amount of loss, RUB billion	3973.0	6898.2	2891.8
As a% of the previous year	73.0	173.6	41.9
Share of profitable organisations, %	67.5	67.3	76.1
Share of loss-making organisations, %	32.5	32.7	24.9

Source: compiled by the authors on the basis of Rosstat data. URL: https://rosstat.gov.ru

credit financial organisations, state (municipal) institutions] in current prices amounted to RUB 20,884.5 billion, or 118.3% against the corresponding period of 2021.

The volumes of lending to the economy by the banking sector depend on the volume of own and attracted funds (*Table 4*).

By the beginning of 2023, the banking sector increased its own funds by RUB 1.8 trillion compared to 2019. In addition, there was a stable annual increase in capital relative to its level at the beginning of 2019 — from 6.9 to 17.5%. According to the analytical credit rating agency, total capital exceeded the minimum required own funds by RUB 2.8 trillion at the beginning of 2023.[7] At the same time, most banks exceeded capital adequacy ratios. For example, one of the most important ratios — own funds adequacy (N 1.0) — was 13.5% at Sberbank and 10.2% at VTB, while the Bank of Russia requires at least 8%.[8]

Lending growth is largely determined by the liquidity of the banking sector, which is calculated as the difference between the Bank of Russia's claims on credit institutions and their claims on the Bank of Russia (see *Table 5*).

Structural liquidity deficit of the banking sector (+) reflects the need of credit institutions in liquidity due to operations with the Central Bank, while the surplus (–) indicates the surplus of banks' funds and the need to place them with the Central Bank. As the data (*Table 5*) show, in 2019–2021 there was a reduction in the banks' surplus, however, a set of anti-crisis measures of the regulator led to an inflow of liquidity, and as of 01.07.2022 the structural liquidity surplus of

[7] Methodological Commentary to the Central Bank Survey, Credit Organisations Survey, Banking System Survey, Other Financial Organisations Survey, Financial Sector Survey. Bank of Russia. 2023. URL: https://cbr.ru/statistics/macro_itm/dkfs/Methodological_commentary_1

[8] ACRA Ratings Agency. URL: https://www.acra-ratings.ru/

Table 4

Key banking sector indicators (at the beginning of the year)

Indicator	2019	2020	2021	2022	2023
Own funds (capital) of the banking sector, RUB bln. In% to 2019	10 269 -	10 981 106.9	11 413 116.6	11 979 116.7	12 065 117.5
Accumulated profit, RUB bln. As a% of 2019	4447 -	4469 100.5	5406 121.6	4763 107.1	6857 154.2
Loans to legal entities, RUB bln. As a% of 2019	38 011 -	39 004 102.6	44 760 117.6	52 654 138.5	59 096 155.5

Source: compiled by the authors on the basis of data from the Bank of Russia. URL: https://cbr.ru

Table 5

Structural liquidity in the banking sector, RUB billion

Indicator	01.01.2019	01.01.2020	01.01.2021	01.01.2022
Structural deficit (+) Surplus (–)	–3016	–2761	–204	–1691

Source: compiled by the authors on the basis of data from the Bank of Russia. URL: https://cbr.ru

banks increased and amounted to 2.4 trillion roubles.[9]

One of the main factors of the banking sector's own funds (capital) growth is profit. In addition, the financial result of credit organisations is of particular importance for the reliability and sustainability of the banking system [10].

During the period under review, the accumulated profit grew (*Table 4*): at the beginning of 2023 — by RUB 2410 billion (or by 54.2%) compared to 01.01.2019. At the beginning of 2021 compared to the same period of 2020, the bank profit decreased by RUB 263 billion (or by 14.15%). Its growth rate reached its highest value as compared to the beginning of 2019 on 01.01.2022, amounting to 175.7%. According to the results of 2022, Russian banks received a profit of 203 billion rubles, which is a multiple less than in 2020 and 2021, but higher than the Central Bank's forecast, which expected a loss.[10] Cash injections into the state economy and the Central Bank's measures to support the banking sector helped.

According to the analysis of the dynamics of corporate lending, it shows quite rapid growth (*Table 4*). At the end of 2022, the corporate portfolio increased by 55.5% (or by 21 trillion roubles) compared to the beginning of 2019. The positive dynamics was mainly due to the state support measures.[11] The Central Bank together with the Government of the Russian Federation developed anti-crisis programmes of preferential lending (Resolution of the Government of the Russian Federation No. 337 dated

[9] Monetary Policy Report. Bank of Russia. 1(41). 2023. URL: https://cbr.ru/about_br/publ/ddkp/longread_1_41/

[10] Federal State Statistics Service of the Russian Federation. URL: https://rosstat.gov.ru.

[11] Federal Targeted Investment Programme. URL: https://faip.economy.gov.ru/cgi/uis/faip.cgi/G1/faip/2023?yover=2022

Table 6

Structure of overdue debt by banking sector, in %

Indicator	01.01.2019	01.01.2020	01.01.2021	01.01.2022
Share of overdue debt in the total volume of corporate portfolio	7.1	7.1	5.9	6.7

Source: compiled by the authors on the basis of data from the Bank of Russia. URL: https://cbr.ru

Table 7

Ratio of investment in fixed assets to balance sheet profit in %

Indicator	2019	2020	2021	2022
Ratio of investment and profit of the economy	116.0	149.9	73.1	109.9

Source: compiled by the authors on the basis of Rosstat data. URL: https://rosstat.gov.ru

10.03.2022),[12] aimed at stimulating the creation and acquisition of fixed assets of production, including for modernisation and technical re-equipment, as well as for reconstruction of capital construction projects.

In terms of overdue loans, it should be noted that while the volume of lending is growing, its share in the corporate loan portfolio has remained practically unchanged (*Table 6*).

In December 2022, the share of overdue debt according to the Central Bank's data was 4.9%.

Thus, the volume of accumulated credit mass in the non-financial sector of the economy and balance sheet profit for the period under study can be considered as potential sources of investment, and the ratio of investment in fixed capital and the amount of balance sheet profit of the economy — as one of the operational indicators characterising the propensity to invest in the Russian economy (*Table 7*).

The highest propensity to invest was observed in 2020 — the volume of investments was almost 1.5 times higher than the profit. In 2021, compared to 2020, this indicator decreased by 76.8% with a subsequent rise in 2022, i.e., its dynamics had a wave-like character. This indicator is determined not only by the amount of investment and profit, but also by the demand for investment [3], the determination and stimulation of which is the task of investment activity management. The Ministry of Economic Development in its versions of the medium-term forecast of economic development notes that the growth of the economy requires an increase in domestic demand — consumer and investment demand.[13]

[12] Resolution of the Government of the Russian Federation No. 337 dated 10.03.2022 "On approval of the list of industries in which the borrower specified in part 1 of Article 7 of the Federal Law "On Amendments to the Federal Law "On the Central Bank of the Russian Federation (Bank of Russia)" and certain legislative acts of the Russian Federation with regard to the specifics of changing the terms of the loan agreement, loan agreement" and on invalidation of certain provisions of certain acts of the Government of the Russian Federation". URL: https://base.garant.ru/403688082/?ysclid=liejr25uu3614420534

[13] Capital investment, percentage of GDP. Classification of countries. URL: https://ru.theglobaleconomy.com/

Table 8

Distribution of organisations according to their assessment of factors limiting investment activity in 2022 (in % of the total number of organisations)

Factor limiting investment activity	% of the total number of organisations
Economic situation on the world market	60
Complicated mechanism for obtaining loans for investment projects implementation	50
Exchange rate policy in the country	53
High interest rate of commercial credit	62
Investment risks	65
Lack of own financial resources	63
High inflation rate	71
Economic situation in the country	74

Source: compiled by the authors on the basis of Rosstat data. URL: https://rosstat.gov.ru

ANALYSING INVESTMENT ACTIVITY

As of 10 October 2022, Rosstat conducted a sample survey of investment activity of organisations engaged in mining, electricity, gas and steam supply, air conditioning, water supply, wastewater disposal, waste collection and disposal and pollution elimination, as well as manufacturing industry enterprises in 85 constituent entities of the Russian Federation.[14] The survey involved 23.6 thousand organisations, of which 9.0 thousand were non-small businesses and 14.6 thousand were small enterprises. According to the results of the survey, it was determined that in 2022, 95% of organisations that do not belong to small businesses and 47% of small enterprises were engaged in investment activities. When assessing the utilisation of investment in fixed capital, 40% of respondents indicated that this level was higher than in the previous year, and 28% indicated that it was lower. The balance — the difference between the shares of respondents who indicated that the use of investments in fixed assets was higher and lower than in the previous year — was +12%. We would also like to emphasise that, according to the survey data, 74% of heads of organisations expected investment activity to increase or remain at the same level in 2022; 12% expected a decrease in the volume of investment in fixed assets; 14% found it difficult to answer.

Investment process management is also aimed at identifying and analysing factors limiting investment activities (*Table 8*).

Among them 74% of the enterprises attributed internal economic situation, 71% — high inflation rate, 65% — investment risks, 63% — lack of own financial resources.

That is, unfavourable situation in the country and in the world leads to uncertainty of events in the future and, therefore, it becomes risky to invest for the long-term perspective. Therefore, the primary task of investment process management is to stabilise the economic situation in the country.

Important information for analysis is contained in the data on investments by types of economic activity (*Table 9*).

[14] Federal State Statistics Service of the Russian Federation. URL: https://rosstat.gov.ru.

Table 9

Breakdown of investment by economic activity, as a percentage of total investment

Indicator	2020	2021
Mineral extraction	16.4	14.8
Transport and storage	15.9	16.5
Manufacturing industries	14.7	14.8
Real estate operations	13.2	16.8

Source: compiled by the authors on the basis of Rosstat data. URL: https://rosstat.gov.ru

Based on the information provided in it, the four types of economic activities in the total volume of investments in 2020 occupied 60.2%, in 2021–62.9%. We can note a significant growth of investments in real estate operations — by 3.6%. The most significant share of investments in fixed assets at the end of 2020 was recorded in mining — 16.4%, but in 2021 this indicator decreased by 1.6%. As for manufacturing industries, their share increased slightly from 14.7% in 2020 to 14.8% in 2021. According to Rosstat, investment activity in the first nine months of 2022 was distributed very unevenly across industries. Thus, fixed capital investments in mining and quarrying increased by 10.6% compared to the same period of 2021 and account for a fifth of their total volume in the country (including 12.9% only for oil and gas); in transport and storage (another fifth of all investments) — increased by 11.1%. We should also note the sectors that occupy an insignificant share in the structure of investments: construction (3.3% of the total), trade (3.1%), agriculture (3.4%), telecommunications (2% of the total volume).

To assess the results of investment activity, Rosstat uses indicators of gross accumulation (which includes fixed capital accumulation, change in inventories of tangible current assets and net acquisition); gross fixed capital accumulation (acquisition less disposal of new and existing fixed assets); expenditures on major improvements of produced tangible assets; expenditures on improvements of non-produced tangible assets; expenditures in connection with the transfer of ownership, commissioning of fixed and tangible assets, buildings and manufacturing capacity, housing and social and cultural facilities, use of state capital investments (*Table 10*).

The analysis of the above data shows the growth of the main indicators characterising the results of investment activity in 2020–2022. [11].

Gross capital formation in 2022 compared to 2020 increased by RUB 2.2 trillion (or by 8.6%), gross fixed capital formation — by RUB 2.1 trillion accordingly (or by 9.2%). The share of gross fixed capital formation in GDP also increased — from 21.8% in 2020 to 22.3% in 2022. Commissioning of fixed assets in 2021 compared to 2020 increased by 25%, and the renewal rate was 4%.

The function of investment activity management includes forecasting of investment volumes. According to the Ministry of Economic Development's September 2022 forecast for 2023, a 1% reduction in fixed capital investment is expected as a result of lower demand.[15] The

[15] Ministry of Economic Development Federal investment programme for 2022–2024. URL: https://rg.ru/2021/12/08/minekonomrazvitiia-utverdilo-federalnuiu-investprogrammu-na-2022–2024-gody.html

Table 10

Key indicators characterising the results of investment activities

Indicator	2020	2021	2022
Gross accumulation, RUB bln. In % of previous year	25 659.3 98.0	26 913.7 104.9	27 872.0 103.6
Gross fixed capital formation, RUB bln. In % to the previous year	23 272.5 95.7	24 156.8 103.8	25 412.9 105.2
Change in inventories of tangible current assets billion roubles. In % to the previous year	2386.8 134.4	2756.9 115.5	2459.1 89.2
Share of gross fixed capital formation in GDP, in %	21.8	21.9	22.3
Commissioning of fixed assets, RUB billion. In % to the previous year	18 521.6 89.3	23 151.2 125.0	- -
Fixed assets renewal ratio (in constant prices), in %	3.4	4.0	-

Source: compiled by the authors on the basis of Rosstat data. URL: https://rosstat.gov.ru

Central Bank survey showed more optimistic results, with businesses estimating that investment in 2023 will remain at current year levels despite increased uncertainty and trade restrictions.[16] One third of companies reported an increase in capital expenditure in 2023 and 18% reported a decrease; 26% of surveyed companies planned to increase investment activities in 2023.

CONCLUSIONS

Based on official statistical data from Rosstat, the Bank of Russia, the Ministry of Finance and international statistical organisations, the authors of the study analysed the dynamics of macroeconomic indicators of investment activity in Russia and considered the composition of indicators that characterise the results of investment process management strategy implementation. Specialists of the Central Bank of the Russian Federation have identified factors that led to the growth of investment activity in Russia in 2022, which is not typical for crisis periods. Special attention should be paid to them when developing a strategy to manage the development of investment processes. First of all, it is business restructuring due to the departure of foreign companies, the growth of public investment; activity in the defence industry; the search for opportunities to exploit the resulting empty spaces in technological chains.

To date, the Government of the Russian Federation has taken a number of measures to stimulate import substitution (Government Resolution No. 522 of 31.03.2022[17]). The main task of the state

[16] Methodological commentary to the Central Bank Review, Credit Organisations Review, Banking System Review Bank of Russia. Capital 2023. URL: https://cbr.ru/statistics/macro_itm/dkfs/Methodological_commentary_1; Report on monetary policy. Bank of Russia. Issue No. 1(41). 2023. URL: https://cbr.ru/about_br/publ/ddkp/longread_1_41/

[17] Resolution of the Government of the Russian Federation No. 522 dated 31.03.2022 "On Amendments to the Rules for Granting Subsidies from the Federal Budget to the Autonomous Non-Profit Organisation "Agency for Technological Development" to Support Projects Involving the Development of Design Documentation for Components Required for Industries". URL: http://publication.pravo.gov.ru/Document/View/0001202204040037?ysclid=lik0uz6nwk456004480

policy in this direction is to activate all key areas of domestic production, which is the basis for the expected positive investment dynamics in the coming years.

Import substitution processes can accelerate those domestic producers that attract investments in fixed capital. The state is interested in increasing their volume [4].

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