

# *The financial planning and its tasks in modern models of enterprise management*

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**Abstract** — The current issues of increasing the efficiency of interaction between universities and enterprises in the context of the development of an innovative and digital economy are considered in the paper. The authors analyzed the possibilities of using digital technologies to enhance the integration between industry and educational organizations. The paper presents the characteristics of the innovative potential of entrepreneurship in terms of the use of digital technologies. The purpose of the research in this paper is to consider the basics of applying digital technologies to increase the efficiency of the integration processes of universities and industrial enterprises. Analyzed are the competitive advantages of the Volgograd region with the characteristics of the industry. The process of integration of universities and enterprises is considered, taking into account the role of the innovative potential of entrepreneurship. Identified are the criteria for the effectiveness of the integration of universities and enterprises. The process of promoting products for digital technologies and scientific and technical developments is characterized as a set of interrelated actions with a detailed list of features.

**Keywords:** *integration, digital technologies, innovative potential*

## I. INTRODUCTION

In the context of the need to ensure the country's transition to a digital economy, reflected in the Government Program of the Russian Federation approved in 2017, the coordination of the participation of expert and business communities in the planning, implementation, development and evaluation of the program's effectiveness, strengthening industry integration and education in this direction deserve special attention.

The ecosystem of the digital economy of the Russian Federation considers the achievement of the planned characteristics due to the achievement of the following

indicators by 2024: more than 10 leading companies competitive in the global markets; more than 10 successfully operating sectoral digital platforms for the main subject areas of the economy; over 500 successfully operating small and medium enterprises in the field of creating digital technologies and platforms and providing digital services [1].

A characteristic feature of modern production is the presence of a knowledge component in each product or service. The modern market and the market of the future is a market not of mass production, which makes it possible to reduce the cost price and price, but the market of the innovation economy associated with differentiated consumer demands and constantly updated offers [2]. The main economic criterion of a new production is not the reduction of production costs, but the satisfaction of consumer needs. New knowledge provides the flexibility and efficiency of organizational structures, a short time frame for the development and production of new products, the rapid improvement of quality and functionality.

The purpose of the research in this paper is to consider the basics of applying digital technologies to increase the efficiency of the integration processes of universities and industrial enterprises. In accordance with the goal, the article considers the following research tasks: consideration of the specifics of the formation of the digital economy in Russia; Characteristics of competitive advantages when using digital economy methods; analysis of the role of innovative entrepreneurship; selection of criteria for the effectiveness of the integration of universities and enterprises.

## II. MATERIALS AND METHODS (MODEL)

The financial planning's methodology creates a complex set of scientific ideas about its subject and method, the logical structure and interconnection of problems to be solved. It is also enriched and improved with the development of society.

The research methodology is based on applying the principles of a systematic approach, scientific comparison, retrospective and perspective analysis. Improving the efficiency of the integration processes of universities and industry, both at the level of an individual region and in relation to the country as a whole, is one of the key issues of strategic development. The system analysis of this issue allows us to emphasize that the direction of application of digital technologies in the economy deserves special attention. This study aims to justify the relevance and necessity of using digital methods in the interaction of research institutions and business structures.

### III. RESULTS AND DISCUSSION

In shaping Russia's economic policy, a strategic setting is currently playing a significant role, according to which ensuring the revitalization and effective use of the innovative potential of a country as a process can ensure the sustainable economic development of the country in the future, assuming the participation of foreign investors [3].

Speaking about the implementation of the innovation path of development of the digital Russian economy, we emphasize that it is necessary to consider activating two types of things: innovation and digital creativity, based on their interaction, a national innovation system with state support for these processes.

In the conditions of digitalization of the economy, the functioning of the national innovation system of Russia and the development of domestic science and technology, the widespread introduction and commercialization of scientific achievements, offer an increase in the efficiency of innovation activities of its direct and active participants - small and medium-sized innovation-oriented enterprises.

The creation of institutional and infrastructural conditions, the removal of existing obstacles and restrictions for the creation and development of high-tech businesses should be carried out in the following areas:

- personnel and education;
- information infrastructure;
- Information Security;
- formation of research competencies and technological groundwork;
- regulatory regulation.

Strategic directions are related to the effective implementation of the following processes:

- improving the education system to provide the digital economy with competent personnel;
- transformation of the labor market to meet the requirements of the digital economy;
- creating a system of motivation for the development of the necessary competencies and the participation of personnel in the development of the digital economy;

- development of communication networks, a system of Russian data processing centers;

- introduction of digital data processing platforms to meet the needs of citizens, business and government;

- achieving the state of security of the individual, society and the state from information threats of external and internal nature;

- ensuring more effective implementation of the constitutional rights and freedoms of a person and citizen, decent quality and standard of living of citizens, sovereignty and sustainable socio-economic development of the Russian Federation;

- creation of a support system for search and applied research in the field of digital economics, research infrastructure of digital platforms, to ensure technological independence in each of the areas of through digital technologies that are globally competitive, and also to maintain the required level of national security;

- the formation of a new regulatory environment, providing a favorable legal regime for the emergence and development of modern technologies, as well as for the implementation of economic activities related to their use.

The development of a country or region in the direction of the digital economy involves the implementation of not only the mainstream digitalization process, but also as an addition - the formation of a system of those factors and conditions that are necessary for the successful implementation of this process, i.e. availability of relevant capacity. A prerequisite for strengthening the digital innovation potential is the socio-economic adaptation of the enterprise itself and its subjects to the processes of the need to develop and use sound innovative solutions for the development of the digital economy.

The destabilizing effect of various factors of external and internal environment on the process of achieving the goals of the enterprise requires from each participant of the technological chain an adequate and coordinated reaction. The need for further digital development requires the necessary adjustment of production functions and the coordination of objectively contradictory interests of the interacting subjects. Factors that impede the fulfillment of these requirements are uncertainties in functions, powers, responsibilities, interests of staff and the lack of necessary competence. As a result, about a quarter of the production resources, including equipment, when used does not bring benefits either to the owner of the capital or to the employees who provide production and innovation processes.

The main factors that determine the level of interaction of the subjects and the quality of their production functions, include: qualifications, powers, responsibility and motivation of staff. Each of these factors and their combination under certain conditions can have a destabilizing effect. So, weak motivation, being a narrow link in the production interaction of personnel, reduces the responsibility for the quality of the performance of the production function. Low responsibility in this case becomes the leading limitation of increasing the efficiency of the use of labor and equipment in the

technological process. With proper management, these same factors can become a means of increasing the innovative activity of the subjects of the enterprise and contributing to the growth of the innovative potential of the enterprise. With the expansion of the narrow link in the production cooperation by increasing motivation with the corresponding redistribution of personnel and resources, the leading constraint in the process of effective use of labor and capital is lifted due to the growth of functional and personal responsibility for the development and implementation of innovative solutions.

During this period of operation, it is proposed to carry out a prediction of the sustainability of the enterprise's activities using two key points:

- positioning of both the enterprise, and its divisions, and individual subjects of socio-economic relations in terms of the efficiency of performing functions in the digital process. This reveals the position in relation to the reference level - the best in world practice (industry, enterprise), technologically possible - established by the regulatory and technical documents of the enterprise, the average for the group of similar enterprises, the minimum - known in world practice (industry, enterprise);

- determination of the type of interaction between the subjects of the enterprise according to the principle of complementarity. Complementarity of relations in the process of interaction can be considered as actions of one subject, aimed at satisfying one's interests, at the same time contributing to satisfying the interests of other subjects of an enterprise that interact with it regarding the sharing of digital resources, labor and capital.

As the basic tasks for the development of the digital economic system from the point of view of applying the innovative potential, the authors propose to highlight:

- development of the research sphere, provision of processes for further digitalization of knowledge, creation of conditions and incentives for cooperation with the business environment;

- creation of conditions for digital and technological modernization of the economy and ensuring the functioning of an entrepreneurial competitive environment, the subjects of which must possess strategic thinking, readiness to learn, assimilate and use the tools of the digital economy;

- formation of knowledge transfer systems with the necessary feedbacks, their distribution and transformation into competitive technologies for entrepreneurship, with a focus on research and development to meet the needs of the development of production in the digital economy.

One of the urgent problems of strategic development of entrepreneurship in the region is the search for a rational number of quantitative indicators, because so far, the information held by statistical agencies does not fully meet the requirements of program developers [4].

The main competitive advantage of the technology business in the digital economy is the volume and timeliness of financing high-tech projects, while taking into account the increasing pace of market renewal, a high proportion of R & D

costs in the total investment volume prevails. Promotion of new products on the market is the process of introducing the results of scientific work - new knowledge as an economic resource on the Russian market as a whole and its individual segments.

For digital technologies and scientific and technical developments, this process can be characterized as a complex of interrelated actions, characterized by the following features:

- technical complexity requires the creation of a cost of qualified scientific work, any scientific knowledge is made once, but the potential of its use is multifaceted and unlimited in time, therefore it is necessary to take into account the use value of labor to create digital technology and the process of applying its technical knowledge;

- the uniqueness of products makes it difficult to accurately quantify the effect of scientific and technical products at the time of introduction;

- the presence of only qualitative differences between analogues;

- each type of knowledge carries with it special scientific information, therefore, scientific and technical products, embodying the original knowledge, are specific and unique in their content;

- varying degrees of readiness of a digital technology product for industrial development cause uncertainty in the costs of material, human, financial, informational, time resources necessary for the implementation of the innovation, and this, in turn, complicates the process of determining the price of products;

- the successful implementation of digital technology or technological innovation depends on the innovative capabilities of consumers.

Practice shows that the cooperation of small business structures with specialized research centers allows you to form local research and production associations, turning ideas into technological innovations, testing new technologies and introducing them into production. For the development of the digital economy in this process, an important step is that scientific research is integrated with practice and transformed into an applied form, and enterprises receive a database of scientific and technological achievements that improve the quality and competitiveness of products.

The peculiarity of Russian business comes down to the fact that, at the moment, investments in organizational and managerial innovations and streamlining of business processes are giving a big return. We emphasize that in order to form a digital economy, it is necessary to take into account the peculiarity of investments in management, which lead to greater cost savings than investments in traditionally understood innovations. The increase in labor productivity from the correct joining of subdivisions, from cost reduction, is obtained more than from investments in science, technology, and R & D.

The prerequisites for successful innovative development of the digital economy at the regional level are determined by the main conditions:

- technological and intellectual potential necessary and sufficient for launching the innovation process of the digital economy;
- the constant growth in the number of participants in the digital innovation “chain” with the involvement of new social groups in it;
- an institutional system focused on digital technology and innovative development, which includes formal and informal elements;
- the demand for digital economy products by business entities and the regional economy as a whole;
- formation of innovative infrastructure (technic parks, business incubators, technic polices) using digital tools;
- social and environmental problems of the digital economy;
- the regional nature of the digital development of small innovative entrepreneurship;
- social and legal issues of regulating the innovative activity of digital economy market participants;
- protection of intellectual property;
- the impact of foreign economic relations on innovation activity;
- staffing the digital economy, the quantitative and qualitative composition of employment;
- development of the university and scientific sector in the region as an intellectual prerequisite for raising the level of the innovative potential of the digital economy.

The most promising forms of stimulating innovative development of regions are based on the creation of new innovative structures using digital technologies, such as technology parks, technic polices, and free economic zones. By increasing the degree of complexity, technic park structures can be arranged as follows: incubators, technology parks, technic polices, regions of science and technology.

In the context of the involvement of Russian developers in the global technology market, a two-way flow of technologies should occur through the effective transfer structures. In the Russian context, the lack of demand for many innovative projects, technology transfer streams should be considered either when transferring them abroad, or, in the long term, as a means of implementing Russian innovative projects. Nevertheless, in the modern world of the global economy, international technology transfer and the organization of international cooperation are the basic basis for the rise and rapid growth of their economies. Technology transfer does not pursue the goal of effective implementation of the development, but is only a tool to achieve this goal. It is possible that the development is implemented by the developers themselves, but more often the development is

carried out by a team of researchers, engineers and inventors, and is commercialized in other enterprises [5].

Successful technology transfer up to the stage of product commercialization implies a constant multi-level exchange of information. The use of digital technologies simplifies and makes possible the process of exchange and perception by no means always shaped and formulated ideas.

To ensure technological independence in the areas of cross-cutting digital technologies that are competitive enough at the global level, as well as to strengthen national security, it is necessary to create a system to support search and applied research in the field of the digital economy.

In the direction of “Forming research competencies and technological groundwork” of the digital economy program in the Russian Federation, the main objectives are to achieve by 2024 a number of indicators on implemented projects in the digital economy with a volume of at least 100 million rubles, as well as the participation of Russian organizations in the implementation of large projects volume of \$ 3 million in priority areas of international scientific and technical cooperation in the field of digital economy.

As part of the development of the digital economy, “end-to-end” technologies are being considered. In this context, this term refers to promising technologies that radically change the situation in existing markets or contribute to the formation of new markets. Digital public administration as a key priority is the introduction of digital technologies and platform solutions in the areas of public administration and the provision of public services, including in the interests of the population and small and medium-sized businesses, including individual entrepreneurs.

When interacting with regional authorities and business, ANO Digital Economy created an effective case base for the development of the digital economy in the regions of the Russian Federation. This database contains two promising areas:

- projects that do not require financial expenses from the authorities, implemented at the expense of business or non-profit organizations;
- cases, the launch of which is carried out at the expense of budget funds or business funds with the achievement of a clear economic effect, increase in labor productivity, level and quality of management.

The developed cases are aimed at improving the quality of life of citizens, improving the efficiency of business and public administration. Their scaling is possible in the regions of Russia. In general, it is possible to distinguish three categories in large scale:

- improving the quality of life of citizens;
- improving business performance;
- improving the efficiency of public administration.

Volgograd region has a favorable geographical position, being the main gate to the south of Russia with access to Iran, the Caucasus, Ukraine and Kazakhstan. In the opposite direction to central Russia and the Volga region. Also in the area are connected through the Volga-Don Canal two major rivers of the European part of Russia, the Volga and the Don. It can be used to reach the following seas: the Caspian Sea, the White Sea, the Baltic Sea, the Black Sea and the Sea of Azov.

Volgograd region is one of the most economically developed regions of Russia with a balanced economic structure. Diversified agriculture is combined with a diverse industry, oil and gas reserves. The two largest navigable rivers, connected by the Volga-Don Canal, flow through the region. The Volga hydroelectric station is located on the territory of the region, the Volga-Akhtuba floodplain natural park is located.

The main industries are: mechanical engineering and metalworking (production of tractors, ships, tower cranes, bearings, equipment for the oil industry, electrical and food industries; production of drilling, storage, medical, commercial equipment); fuel (oil, gas), oil refining, chemical, petrochemical (including the production of caustic soda, chemical fiber), ferrous and nonferrous metallurgy. The region has a well-developed production of building materials, as well as the textile, woodworking and food industries.

Volgograd region is a monopolist in Russia for the production of 11 types of industrial products, including some types of bearings, sulfur dioxide, polyurethane filaments, gas pipes. The dominant position in the structure of commodity products belongs to products of the textile industry - up to 80% of the total value of commercial products [7].

Sunny dry climate ensures the development of agriculture in the region. Here is a large-scale production of high-quality grain, corn, cereal crops, oilseeds and vegetable oil, vegetables, fruits, melons and gourds. In the structure of agricultural production approx. 70% fall on crop production and 30% on livestock production (pig breeding, large horn livestock, poultry farming, sheep breeding) [8].

Industrial enterprises of the Volgograd region are expanding cooperation with large Russian companies, participating in the implementation of large-scale projects. Thus, more than one billion rubles amounted to the volume of cooperative supplies of the region to organizations of PJSC Gazprom following the results of 10 months of 2018.

According to the Industry and Commerce Committee of the Volgograd Region, the volume of supplies of industrial products of the region to Gazprom in January-October 2018 exceeded a billion rubles, which is ten times more than in 2014 [9].

If in 2014 only four enterprises of the region maintained cooperative ties with the corporation, then today more than 20 organizations cooperate with it. In the period from 2014 to October 2018, they delivered products worth more than seven billion rubles [10].

Cooperation with the Russian Transnational Energy Corporation allows enterprises of the Volgograd region to

obtain additional sales markets and increase production, in turn, PJSC Gazprom uses the industrial potential of the region to solve import substitution tasks.

For example, Volgogradneftemash manufactures technological equipment for a company - at present it is a block of stabilization columns, flare and candle separators for the Kovykta gas-condensate field. The products of the plant "Polyplastic Volga", which produces gas pipe polyethylene, are in demand. Gazprom also supplies pipeline fittings made by HSL, rubber products from the Aksios FM, metal constructions of the Akhtuba ZMK and other products [11].

Industry is a driver of economic growth in the Volgograd region, making a significant contribution to the achievement of a common goal - an increase in the region's GRP to one trillion rubles. Thanks to the modernization of production sites and the implementation of priority investment projects, the region is strengthening its status as a federal industrial center, which allows expanding cooperative ties and participating in government programs. Specialists of the industrial trade with the aim of promoting the products of enterprises in the region in the domestic and foreign markets, expanding the sales markets assist them in participating in various Russian and international exhibitions. For the development of industrial cooperation, the Internet site "Regional Portal of Subcontracting" has been created on the oblast industry merchandising page, where 280 enterprises of the region have already been registered.

Enterprises and organizations of the Volgograd region carry out the largest volume of export-import operations in the South of Russia. The region has the most progressive structure of exports in terms of deliveries to the export of machine-technical products. One of the development trends in the region is to replace the concept of providing international technical assistance with a focus on basing and managing projects from central offices with the concept of creating only small, pilot projects in the region.

The experience of investment cooperation and obtaining technical assistance to enterprises and organizations in the region shows that a relatively long period of preparation of enterprises and organizations for the development of foreign investment is needed. Stages of cooperation include three mandatory stages: trade (commercial and marketing) partnership - simple cooperation (assembly of components) - joint production and scientific research. Volgograd region is currently operating, focusing on the second stage of cooperation.

#### IV. CONCLUSION

The implementation of mechanisms to enhance regional innovation in the field of digital technologies is currently, according to the authors, an important priority in the direction of the integration of universities and enterprises, as well as the integrated socio-economic development of the region. The implementation of this process implies active interaction and coordination of efforts on the part of both the regional administration and scientific and educational organizations, production and commercial and financial firms, and private investors. The result of this interaction may be an increase in

the share of high-tech goods and services in the regional gross product, the promotion of regional products in the interregional and international markets, as well as economic incentives for effective regional interaction between the scientific sphere and business. Thus, enterprises with relatively small sizes have an advantage over large enterprises in the field of knowledge management and innovation activity using digital technologies.

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