

# Entrepreneurship Development: Technology, Structure, Innovations



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**Abstract:** *The goal of the work is to analyze the essence of socio-economic environment of entrepreneurship and prospects for the interaction of socio-economic environment of entrepreneurship and business entities using the example of the North-Western region of Russia.*

*To achieve this goal, the method of statistical analysis was used to determine the dynamics of entrepreneurship development in the North-Western Federal District. The method of expert survey was used to identify priority areas for improvement of external business sustainability of small and medium-sized enterprises at the regional level.*

*The article justifies the relevance of the study of the socio-economic environment of entrepreneurship. The authors consider various scientific approaches to determining the nature and importance of business environment, which is understood as a set of conditions and factors that influence the business sector and become the basis for entrepreneurs' actions on the development of their activity.*

*The article provides statistical data characterizing the dynamics of the development of the business sector in the territory of the North-Western Federal District. It determines priority areas to increase small and medium-sized enterprises' external business sustainability at the regional level based on the institutional infrastructure of risk prevention and analyzes the effective infrastructure for support of the business activity.*

**Index Terms:** *entrepreneurship, small and medium-sized entrepreneurship, business environment, administrative unit, regional policy, sustainable development.*

## I. INTRODUCTION

The need to research a complex scientific problem of creating a favorable and effective business environment in the national economic space, as well as developing a justified policy for entrepreneurial potential development in Russia depends on a number of circumstances. First, the effective institutional organization and security of domestic business environment, which provides for creation of civilized conditions for stable and long-term activities of business entities, gains special importance due to strategic role of entrepreneurship in the country's socio-economic development, in particular, in addressing the problems of accelerating the economy restructuring, ensuring saturation of the market with goods and services, maintaining the competitive environment, budget replenishment, creation of additional jobs, emergence of middle class [1].

Second, the development of entrepreneurial potential as the main driver of modernization of domestic economic system is restrained by the absence of holistic conceptual approach and inconsistency of the state policy for the regulation of business activity, especially on simplification of regulatory, authorization and tax system. The solution to these problems is of primary importance for the promotion of entrepreneurial initiative in the country [2].

Third, if the transformation of the formal institutions for the formation of business environment occurred in Russia through the rapid import of mostly liberal norms, the creation of informal institutes of business ethics, socially responsible behavior, market and entrepreneurship culture needs to be developed and institutionalized. One of the prerequisites for optimization of the economic space and elimination of its institutional deformations, in view of increase in the importance of non-material factors of economic growth, related to the development of human, intellectual and social capital, is the activation of higher stage of entrepreneurship positioning in society – social partnership through the formation of the institute of socially oriented business environment [3].

The research of business environment gains particular relevance in the light of priority objectives of social and economic reform. In particular, the creation of a favorable regulatory environment for entrepreneurship is considered as one of the guiding tools for recovery of dynamic economic growth, modernization of the domestic economy and establishing the basis for improving the well-being of Russian population.

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This entails liberalization of conditions for doing business, the maximum decrease in the burdensomeness of procedures, practical introduction of clear responsibility of state regulatory and security agencies on adherence to the rights of businesspeople [4].

Along with this, it should be pointed out that there is no clear and integrated state policy for the formation of favorable business environment, which would encourage the

fulfilment of entrepreneurial potential towards implementation of priority goals of the socio-economic development and restructuring, ensure secure business climate through overcoming of its institutional deformations and reduction of systemic entrepreneurial risks.

### II. LITERATURE REVIEW

In Russian science, the development of the theoretical and methodological foundations of the formation of the business environment becomes relevant due to the appearance of new trends in the emergence of a post-industrial society, global competition and the importance of creating conditions for innovative entrepreneurship.

The importance of investigating the business environment was also seen by the representative of the new institutional direction of the modern economic thought, A.N. Oleinik. He argued that, from an institutional perspective, of interest was not a figure of the entrepreneur as much as external environment, institutional structure, in which they operate. In other words, the long-term economic growth becomes a function of special institutional and organizational conditions that create incentives for innovative activity of economic entities [5].

Speaking of mutually conditioned dependence of enterprise and conditions of its operation, Yu.V. Taranukha distinguishes economic, competitive and institutional environment of influence on business activity. He notes that, on the one hand, an enterprise is an active part of economic environment transformation. On the other hand, its behavior is formed under the influence of this environment. The scientist classifies the factors of formation by nature of origin (macroeconomic, mesoeconomic (sectoral), microeconomic and nanoeconomics) and by the method of impact (environmental reflect features of socio-economic conditions; social are revealed in sociocultural features of people's behavior; network ones influence through partnership relations). In turn, the institutional environment of economic management is viewed not only as infrastructure elements and regulatory sets but also as a prevailing type of interaction of its entities caused by the habits developed in the process of preliminary interaction. In the established environment, this type of interaction performs a complementary role in respect of its other structural elements, and in what should be formed – a defining role, as it affects the formation of its other elements [6].

R.I. Malikov and T.P. Klimina, when studying the business environment as the main determinant of economic growth, systematically analyzed the changes in the business environment under the influence of the world economy globalization processes and the strengthening integration of national economies. The researchers justified the component structure of the business environment as the integral system, developed mechanisms for adaptation of enterprises to dynamic changes under the impact of information and

computer technologies, scientific and technological achievements. The researchers proposed methods for business environment comprehensive analysis to develop the strategy for the sustainable economic development of production and justified the importance of transfer from functional to procedural management in entrepreneurship [7].

When assessing the business culture, P. Shikhirev placed the emphasis on the need to create a business environment, which he views in the context of producing entrepreneurs. In his view, economic and political freedoms provide an individual, especially an initiative one, with an opportunity to demonstrate their entrepreneurial attitude, guarantee the defense of rights enshrined in law. Combination of individual entrepreneurial attitude with economic freedom based on political protected private property is the environment that gives rise to entrepreneurs on a massive scale [8].

Thus, the business environment is a set of conditions and factors, which have an effect on the business sector and become the basis for actions of entrepreneurs on the development of their activities.

### III. PROPOSED METHODOLOGY

To achieve this goal, the statistical analysis method was used to determine the dynamics of the entrepreneurship development on the territory of the North-Western Federal District (NWFD). The expert survey method was used to determine priority areas for an increase of small and medium-sized enterprises' external business sustainability at the regional level.

Heads of small business (11 persons) and employees of small entrepreneurship support centers (14 persons), a total of 25 experts, were involved in the expert survey.

During the survey, the experts were asked to specify priority areas of regional policy for small and medium-sized enterprise support and sustainable development, as well as to characterize the infrastructure for entrepreneurship support.

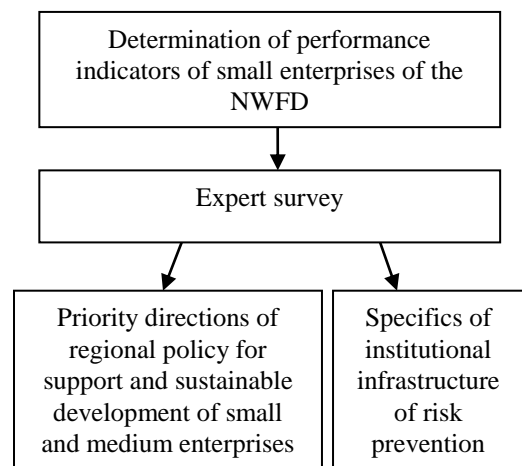


Fig. 1. Flow chart

### IV. RESULT ANALYSIS

The preliminary analysis of the dynamics of entrepreneurial development in the NWFD [9] showed the following.



The business sector of the NWFD includes both the enterprises of different economic and organizational types and forms of property (both private sector and public enterprises) and a significant number of individual entrepreneurs.

However, our research focuses on the small business sector, the quantitative indicators (number of enterprises) of which did not experience significant changes in the period of 2012-2017. At the same time, fluctuations in the number of employed workers are observed at small enterprises (maximum decline in the number of replaced workplaces in 2016 made up 15% compared with 2014) (Table I).

**Table I. Quantitative Performance Indicators Of Small Enterprises Of The NWFD.**

Indicator	2012	2013	2014	2015	2016	2017
Number of small enterprises, thous.	33.4	32.5	33.4	33.9	26.1	34.0
Number of small enterprises, % to total in Russia	14.0	13.9	14.2	14.0	15.1	13.3
Number of replaced workplaces (workers), thous.	798.8	806.5	798.3	784.9	688.8	746.2
Number of replaced workplaces (workers), % to total in Russia	11.7	11.6	11.7	11.8	12.8	11.1

The analysis of statistical data of the financial performance of small enterprises in the NWFD (Table II) suggests that investments in capital assets, after reduction in 2013-2016, in 2017 exceeded the indicator for 2012 by 8%. Meanwhile, turnover of small enterprises for the period under

review tend to a minor growth, except for 2017, when reduction vs. previous year was due to a decline in real estate and leasing transactions.

**Table I. Financial Performance Of Small Entrepreneurs Of The Nwfd.**

Indicator	2012	2013	2014	2015	2016	2017
Investments in capital assets, RUR mln	21,585.7	17,759.5	16,809.5	14,528.7	17,434.3	23,373.1
Investments in capital assets, % to total in Russia	5.9	4.6	3.9	3.5	4.2	6.8
Turnover of small enterprises – total, RUR bln., of them:	1,761.6	1,841.0	1,951.0	2,017.0	2,246.6	2,147.5
Manufacturing	185.3	199.9	248.6	249.6	274.1	248.3
Construction	214.8	221.7	222.1	229.7	268.9	227.7
Wholesale and retail trade; repair of vehicles, household goods, etc.	1,031.5	1,070.7	1,083.9	1,122.1	1,233.2	1,189.0
Transport and communication	61.6	68.6	72.7	81.5	94.2	99.2
Real estate transactions, lease, services	155.2	165.6	190.4	191.2	217.3	104.3

In accordance with the results of the carried out analysis that showed lack of distinct positive trends in the activation of the activities of the region’s small enterprises, the experts were tasked to determine the main areas for adaptation of small enterprises for prevention of their operational risks.

Understanding the defining role of entrepreneurship in the regional economic and social development, the experts defined the following main objectives of this policy:

removing obstacles to the development of entrepreneurship as a guarantee of support of private initiative and self-employment in the regions;

promoting the interests of entrepreneurs in the public and private sector and in society as a whole;

encouragement of new businesses and support of existing ones based on market competition; promotion of regional economic development through long-term business support programs (for 10-15 years).

The experts determined priority areas for an increase of external business sustainability of small and medium-sized enterprises at the regional level that are provided in Table III.

**Table III. Priority Areas Of Regional Policy For Support And Sustainable Development Of Small And Medium-Sized Enterprises**

Efforts	Goals	Results
Monitor external business sustainability of small and medium-sized enterprises and communicate its results to entrepreneurs through the Internet websites of regional state administration	Determine the influence level of external factors on the small and medium-sized enterprise business sustainability level	Will help to reduce the risk of doing business under uncertainty

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Develop small and medium-sized enterprise sustainability classifier	Determine small and medium-sized enterprise business sustainability classes by types of activities, areas of region and building of classification in the space of possible states of small and medium-sized enterprise production facilities	Will help to improve the diagnostics of enterprise on business sustainability and to develop in a sustained fashion over a long period of time
Introduce government subsidies on the provision of consulting services to young entrepreneurs	Solve the issue of subsidizing the provided consulting services to enterprises in view of needs	Will help to raise the level of knowledge on proper doing of business
Create technological clusters by type small and medium-sized enterprises – local authorities – institutes according to Italian or Finnish model	Enable implementation of cluster mechanisms for small and medium-sized enterprise business sustainability	A great number of small enterprises in cluster preconditions flexible and equal right cooperation among participants, allows the interdisciplinary interaction to be maintained at the high level
Promotion of various forms of business networks	Retain competitive positions in a certain territory	Will allow the enterprises to increase the business sustainability level under conditions of competitiveness and uncertainty
Improve the mechanism for the establishment of business centers, business incubators on the innovative basis in the regions	Provide assistance not only on starting own business but also planning of enterprise business sustainability taking into account uncertainty in the first year of work to young entrepreneurs	Will help the entrepreneurs to introduce management flexibility on a scientific basis thanks to regulation and optimization of the business sustainability level
Develop passport for innovative developments of entrepreneurs and advertising during exhibitions	Boost small and medium-sized enterprise competitiveness and information about innovative enterprises and their capacity	Will help enterprises to increase the order portfolio and hence profitability

According to the experts, the region's competitive advantage should become the infrastructure for business support, which is a source of information and assistance for experienced and first-time entrepreneurs because the existence of organizations for small and medium-sized enterprise support needs special personnel training, business diagnostics and project appraisal tools, as well as access to electronic database. Priority in the development of such organizations, as argued by the experts, was and is the provision with modern technologies and infrastructure.

Based on assessment and judgement of the expert community, let us review the specifics of the institutional infrastructure of risk prevention that is an important component element of the regional innovation system and specializes on rendering a wide range of services to small and medium business.

Depending on the structure of these services (organization-management, information, consulting, logistics, etc.) all currently existing innovative centers are grouped by the experts as follows: business centers; technology transfer centers; business incubators, science and technology parks.

The main functions of business centers, in the opinion of the experts, are information support of new entrepreneurs, assistance in staff selection, the involvement of experts, consulting services and search of investors. Thus, their specialization is the support of small business at the initial stage of its emergence.

Business incubators, in addition to the aforementioned services, provide small enterprises with offices and premises equipped for the manufacture of new products under the lease. Companies applying for the opening in business incubators are selected on a competitive basis, because the services are relatively cheap here, which is attractive for many enterprises.

Small enterprises work in incubators for quite a limited time, as a rule, 2-4 years, after which their place is taken by others. [10].

The experts pointed out that under the framework of the programs for commercial and technological development by state and regional agencies with the share of private capital, technology transfer centers are established for close integration between research institutions and production enterprises. The main function of these centers is to ensure communication links between the spheres of science and industry.

However, the most large-scale institute of innovative infrastructure, in the opinion of experts, is the science and technology parks, which, in addition to the listed services, provide the optimum

conditions for the development and commissioning of scientific-technical innovative projects.

In the foreign sources, technopark is defined as a complex with developed infrastructure (social, production, information, etc.) located in a certain territory, which comprises scientific centers, higher education institutions, production enterprises [11, 12]. Foreign researchers identify the following main objectives of science and technology park: attraction of entrepreneurial structures (investors) on their territory that work in science-intensive areas; implementation of investment developments using the funds of involved companies, the basis of which is formed by research results of specialists from scientific centers; creation of effective mechanism for transfer of innovative product in industry; improving the prestige and popularity of research centers; creation of additional jobs [13, 14].

The main idea of technoparks, in the opinion of the experts, is the commercialization of the results of scientific studies of university, academic, other research centers, scientific products of which are brought to production structures with subsequent market launch using the innovative procedures.

Technoparks, being one of the most successful forms of innovative activity organization, are, as a rule, provided with benefits on profit taxation, various systems of tax discounts and preferential loans, accelerated cost recovery systems for equipment, benefits on lease of fixed assets, as well as the performance of customs operations [15].

However, as believed by the experts, the technoparks are most successful only when their activity coincides with the interests of only central government authorities but local authorities, enterprises and organizations aimed at the implementation of scientific developments in the interests of socio-economic development.

According to the experts, an essential condition for the emergence of the small business sphere is the creation of developed infrastructure, ensuring its sustainability, reproduction, development and support. It is the infrastructure support that enables small enterprises to get access to production factors, which is necessary for a satisfactory solution of the main objectives of any production nature.

Real promotion of entrepreneurship development, as believed by the experts, provides for the formation of clear and economically justified prerequisites and rules for business activity. For this purpose, there should be formed a perfect infrastructure for support of business activity at the AU level, including five main blocks: 1) organizational-technical; 2) financial-credit; 3) educational-consulting; 4) resource; 5) information.

The purpose of organizational technical infrastructure, according to the experts, is to contribute to deregulation of business activity, removal of administrative and bureaucratic obstacles to the creation and support of small and medium-sized enterprises' activities. Particularly important for entrepreneurial structures is the support on behalf of innovative forms of regional and local economic development – business centers, business incubators and so on.

Financial and credit infrastructure, according to the expert society, provides the entrepreneurial structures with financial resources required for their activities. In this case, diversification of small and medium-sized enterprises' financial support sources is possible at the regional level through developing both the traditional entities of financial infrastructure – bank institutions and non-bank institutions [16]. Special role in infrastructure support of business activity, as believed by the experts, belongs to the venture business, the purpose of which is to facilitate the implementation of innovative projects.

Discussing an educational consulting network for business support in the region, the experts indicate that it is associated with a list of educational institutions, professional training and consulting network. Its goal is not only to perform a number of short-term objectives or projects, such as the provision of special knowledge or formation of professional skills. Educational activity, as clarified by the experts, is intended to address a set of long-term objectives, first of all, the formation of a favorable social environment for business activity as the basis of the effective economy. At the same

time, as pointed out by the experts, certain consulting services for small and medium-sized enterprises can be provided by existing institutions of organizational-technical infrastructure, for example, through the network of state employment service, agencies of local and regional development, etc.

The objective need for resource support to small and medium-sized enterprises, according to the experts, stems from the fact that the vast majority of them are created for the first time or as a result of enterprise restructuring and, therefore, have logistics problems. At the local level, the issue can be addressed partially through the use of the mechanism of lease and sales of communal property, first of all, construction in progress assets. The network of leasing, transport, franchising companies, commodity exchanges is also aimed at the improvement of resource provision of small and medium-sized enterprises [17].

Finally, the experts argue that infrastructure for information support of business activity should provide small and medium-sized enterprises with free access to regulatory and economic information, gain feedback from local authorities, promote integration into global information space. These objectives can be accomplished through joint use of state information resources and the creation of a market of information products and services with the involvement of the private sector.

Thus, institutional infrastructure for support of small and medium-sized enterprises includes a set of institutions, organizations, firms, structures that ensure the process of preparation, creation and development of small enterprises.

## V. CONCLUSION

The modern level of the development of economic science allows showing the business environment as a complex, multivariable, polyfunctional system. The business environment is a set of conditions and factors, which influence the business sector and become the basis for actions of entrepreneurs on the development of their activities. The specifics of the business environment are as follows:

- the business environment is part of the public sphere and ideally serves to raise the national wealth and well-being;
- the function of business environment quality is the effectiveness of economic processes in the country;
- the business environment has the properties of territorial integrity, within which it is formed by business people, nation and institutions (state, financial and credit, etc.) with their interactions and relations;
- the business environment is shaped by factors (of legal, political, social, economic nature), all of which create conditions for business operation of economic entities of a specific society, business relations and functions.

Ensuring the effective activity of business entities requires that they constantly analyze the business environment dynamics, changes in the structure of factors. However, this analysis is difficult to conduct due to the following circumstances: the structure of the factors is complex, they are numerous; the effect produced by each one on the business environment is different; some factors are characterized by constant influence,

others are of episodic nature; changes in the business environment are mobile and chaotic, which makes the process of their tracking difficult.

Over the last years, in the North-Western Federal District, a number of significant measures aimed at the development of the business environment were undertaken. Further actions should be aimed at simplification of business activity registration procedures, further improvement of taxation procedure, defense of property rights and investment protection.

Apart from recognized measures on the development of an effective business environment, the development of social partnership of business and authority becomes its important component as well. Social partnership in the sphere of entrepreneurship is associated with the implementation of regional business development programs.

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