DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT IN MODERN CONDITIONS OF THE RUSSIA*

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Abstract

Environmental management is considered as a tool to control the interplay and influence of human societies on the environment. It is not, as the phrase might imply, the management of the environment itself. The paper reveals environmental management development indicators at the macro level. The directions on activation of non-state sources for financing the activities of technological environmental management subjects in modern Russia have been determined based on the use of dialectical, phenomenological, formal-logical methods, in particular, such a direction as the popularization of technological creativity of economic agents as the basis of personal and cultural factors for technological environmental management development, support of benefits system for small businesses in obtaining access to financial resources and preserve the ecosystem, etc. The essence of environmental management in regions and directions of its development in relation to the laws of intellectual property realization has been determined.

Keywords: development, environmental management, regions, small businesses

1. Introduction

Modern technological entrepreneurship is not unambiguously interpreted in theory. Bailetti (2012) defined technological entrepreneurship as investment in a project that is developed and implemented by specialized individuals using various aspects in order to create and grow company value. The growth of successful economies around the world is largely driven by the
activities of medium and small scale entrepreneurial entities (Balashova and Gromova, 2016; Bailetti, 2012; Tursoy et al., 2008; Rjoub, 2012). The share of small and medium businesses in the Russian economy is estimated by the Federal State Statistics Service for 2018 at 21.9% (more than 20 trillion roubles). This is the first time when Rosstat (Federal Service of State Statistics) has published the small and medium businesses contribution to GDP. Previously, Rosstat and the Ministry of Economic Development conducted their own analysis of small and medium businesses' share of gross value added (Alhmoud and Rjoub, 2019; Alkhurshan an Rjoub, 2020; Arustamov et al., 2009). According to this data, the small and medium enterprise contribution to the economy was 19% in 2014, 19.9% in 2015, 21.6% in 2016 and 21.9% in 2017. At the same time, small and medium business share account for 50-60% of GDP in developed countries (for example, in the UK it is 51%, 53% in Germany, 60% in Finland and 63% in the Netherlands (data of Rosstat Institute for Economics 2018). So, potentially, increasing the contribution of small and medium enterprises to the volume of created goods and services is a domestic resource for the development of the Russian economy, and one of the instruments for stimulating economic growth. Moreover, the state, for its part, is interested in stimulating the development of the part of small and medium enterprises that has a significant technological component which is especially relevant given the increasing importance of digital technologies and increased international competition in the technological sphere. This means that most of the support may be related specifically to attempts to develop technological entrepreneurship in Russia.

At the end of November, the Russian government submitted to the State Duma a draft law on forms of state support for small and medium-sized businesses by the SME Corporation. Under the draft, the authorities plan to make the guarantee support of start-ups by the Corporation as a priority. The draft sets the limit for the provision of guarantees by the SME Corporation for 2019-2024 at 326.1 billion roubles. Thus, 44.1 billion roubles are allocated for 2019, while 46.8 billion roubles are provided for 2020 and 53.3 billion roubles for 2021.

The Federal Corporation for Small and Medium Enterprise Development (SME Corporation) already considers credit and guarantee support of new high-tech investment projects implemented by small and medium enterprises as a priority and is being actively developed. This year, the corporation has already developed a special product for start-ups, under which a guarantee of up to 100% of the loan amount can be obtained.

The importance of small and medium entrepreneurship development is underlined by state support measures defined by Federal Law No. 2093 (financial, property, consulting, information), as well as measures implemented by constituent entities of the Russian Federation and tax authorities (tax incentives for legal entities and individual entrepreneurs). In 2018, the National Project Small and Medium-Sized Entrepreneurship and Support for Individual Entrepreneurial Initiative was adopted, including a number of federal projects: Improving the business environment, Expanding small and medium enterprises' access to financial resources, including soft finance, Accelerating small and medium enterprises, Creating a support system for farmers and developing rural co-operation and Popularising entrepreneurship. The support of entrepreneurship at the federal level is certainly necessary, but there is, according to E. M. Buchwald and A. V. Vilensky, the need for its decentralization due to the localization of resources, markets, and the limited territory for carrying out small and medium business (Balashova and Gromova, 2016; Khairullahina, 2016).

The authors support the opinion of foreign scientists concerning the limited state intervention and autonomy in decision-making on the location of entrepreneurial business (Bailetti, 2012). At the same time, the state can and should support business by eradicating corruption and helping to bring enterprises out of the shadows. Thus, Bukhvald and Vilensky (2015), based on analysis of information from official sources, noted that corruption turnover in Russia is relatively stable and amounts to about 50% of GDP. This is one of the reasons why
foreign companies do not see Russian business as a threat. According to V. Kondratyev cited by Emelyanova and Kanishcheva (2019), only 2% of foreign corporations regard Russian companies as competitors, compared with 22% of Indian companies and 41% of Chinese companies. The competitiveness of entrepreneurial structures in the global practice is largely ensured by innovation.

Technological entrepreneurship faces a large number of risks in their operations, which can result in bankruptcy, especially in their early years. According to some research (Gu et al., 2018), in the USA between 1991 and 2000, only 36% of such companies survived the first four years; after five years, the survival rate had fallen to 21.9%. Studying newly formed enterprises in principle and without reference to innovation, some researchers (Timmons and Spinelli, 2004; Gu et al., 2018) found that about one in five new enterprises fail. According to Chaganti and Chaganti (2016), Piskun (2014a, 2014b), two out of three new enterprises die within seven years. Thus, the performance of firms based on innovation can be assessed on the basis of fuzzy sets (Piskun, 2014a, 2014b). Innovative entrepreneurial structures in Russia do not develop due to the lack of demand for innovation, the weak global nature of Russian industry, the underdeveloped institutional environment (Song et al., 2007; Semykin et al., 2015), the lack of internal integrity of enterprises, the unbalanced influence of major groups of production participants on the decisions taken, the weak consideration of the interests of economic entities' development when determining the economic policy of the state. This creates a low competitiveness and requires the formation of an effective organizational and economic mechanism to enhance strategic innovative entrepreneurship in enterprises (Timmons and Spinelli, 2004).

Under these circumstances, it is relevant to study the current state of technological entrepreneurship in Russia. In order to achieve this goal, it is necessary to solve the following tasks:

1. Identify the problems of small and medium enterprises in Russia;
2. Identify the key constraints to small and medium enterprise development in Russia.

2. Methods

A systematic approach, analysis and synthesis methods were used to identify retrospective and prospective trends in the development of entrepreneurial structures and the factors determining them.

3. Results

A significant problem for business entities is the lack of their own funds and low availability of credit financial resources for effective activities, as well as the high cost of servicing debt capital (Piskun and Brusnikin, 2019). One of the credit risk indicators for small and medium-sized enterprises is their credit portfolio volume in the banking sector. The dynamics of this indicator by types of assets is presented in Table 1. Based on Table 1, it can be concluded that in absolute terms the volume of credit received by small and medium enterprises grew from 2009 to 2014, followed by a rather sharp decline in lending in 2015 and 2016 and a return to the 2012 level in 2017. In 2018, there was a significant decline to 2015 levels compared to 2017. This decline in lending was facilitated by the increase in the Bank of Russia key rate, as evidenced by the data published on the bank's official website; the maximum interest rate of 17% was observed for the period analyzed in the Table from 16.12.2014 to 30.01.2015.

The growth rate indicates a slight annual increase in bank financing, with the exception of 2017, which is due to a decrease in interest rates. For example, the weighted average interest rate for long-term loans to entrepreneurs fell from 14.2% to 10.9% during the year and from 14.8% to
12.4% on short-term loans (to cover working capital). At the same time, the high cost of credit resources for entrepreneurs remains the main reason for their low interest in this source of financing (Rudakova and Strokov, 2016).

Table 1. Small and medium enterprises’ loan portfolio in the banking sector in the Russian Federation by asset type, 2009-2018, million RUB

<table>
<thead>
<tr>
<th>Years</th>
<th>Volume of loans provided</th>
<th></th>
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<tr>
<td></td>
<td>In roubles</td>
<td>In foreign currencies and precious metals</td>
</tr>
<tr>
<td></td>
<td>Small and medium enterprises</td>
<td>IEs</td>
</tr>
<tr>
<td>2009</td>
<td>14019671</td>
<td>993062</td>
</tr>
<tr>
<td>2010</td>
<td>24094778</td>
<td>2148357</td>
</tr>
<tr>
<td>2011</td>
<td>33450962</td>
<td>3157446</td>
</tr>
<tr>
<td>2012</td>
<td>40082667</td>
<td>3812985</td>
</tr>
<tr>
<td>2013</td>
<td>46145520</td>
<td>4186262</td>
</tr>
<tr>
<td>2014</td>
<td>47525138</td>
<td>3918818</td>
</tr>
<tr>
<td>2015</td>
<td>33340053</td>
<td>2158205</td>
</tr>
<tr>
<td>2016</td>
<td>31185926</td>
<td>1988146</td>
</tr>
<tr>
<td>2017</td>
<td>41890584</td>
<td>2897401</td>
</tr>
<tr>
<td>2018</td>
<td>33701606</td>
<td>2573843</td>
</tr>
</tbody>
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Source: (Hmieleski and Baron, 2009).

Part of the problem presented in the high credit resource cost can be solved through the state programme *Expanding small and medium enterprises' access to financial resources, including concessional financing* under the National Project. In pursuance of this programme, the Ministry of Economic Development has approved a list of banks for preferential lending to small and medium enterprises at 8.5%. As of 2019, 70 banking entities in 29 regions of the Russian Federation will be involved in these matters, compared to 15 in 2018. Entrepreneurs will be able to take advantage of bank long-term loans (up to 10 years) of up to RUB 1 billion and short-term loans (up to 3 years) of up to RUB 100 million.

According to the World Bank's Ease of Doing Business rankings in 2017, Russia ranked 31st out of 190 countries surveyed. A number of items were taken into account and ranked in a comparative table: business registration - 31, construction permits - 48, electricity connections - 12, property registration - 12, loans - 22, protection of minority investors - 57, taxation - 53, international trade - 99, contract enforcement - 18, insolvency resolution - 55.

It can be stated that it is currently difficult for Russian entrepreneurs to enter foreign markets. The main reason for the difficulty of entering international markets is sanctions from Western countries, as well as the use of imported ingredients by domestic entrepreneurs in their activities to produce goods. Then the impact caused by the lack of raw materials is reduced due to the implementation of the import substitution programme and the ability to replace imported ingredients with Russian ones. Lack of equipment is less influential than worn-out or missing equipment, 9-12 and 26-16 points respectively. An important indicator worth considering in this aspect is the index of entrepreneurial confidence, which reflects the views of enterprise managers on the forecast of output, residuals and demand for it, allowing us to characterize the economic activity of organizations. Modernization of enterprises and transition to more high-tech productions requiring replacement of obsolete ones with more modern machines and installations...
is indicated by the factor reflecting depreciation and lack of equipment, the influence of which decreases gradually from 26 to 16 points over the period from 2006 to 2019 (Table 2).

Let us pay attention to the share of expenditures for technological innovation in the total volume of shipped goods, performed works and services. This indicator of innovation activity decreased by 17.2% in 2018 compared to 2014, indicating a suspension of expenditures for technological innovation. The reason for this could be the onset of the Currency Crisis at the end of 2014, and Russia's economic situation is currently in the recovery phase, so it is characterized by relative instability in terms of price increases and inflation.

Similarly, the share of organizations engaged in innovative activities declined by 14.1% by 2018 compared with 2014. As the practice of the currency crisis has shown, economic entities need to accumulate reserve capital (hold reserves) for less favorable times. In the banking sector, this practice is applied and has a set percentage of net profit allocated to the formation of reserves. The reason for the decline in innovation activity of organizations during the analyzed period could be that, after the crisis, economic entities try to remain in the market rather than to increase their volume and innovation potential.

According to the Federal State Statistics Service (Table 3), the depreciation degree for fixed assets in 2018 (47.4%) is 11.8 points higher than in 1990 (35.6%). Since 2009, the fixed assets depreciation has increased by 4.6% and there has been an increase for the whole period analysed in Table 3. The competitiveness of goods and services in the market and the ability of funds to transform themselves according to market demands depends to no lesser extent on the fixed assets. To renew fixed assets, which are almost 50% outdated, either own or borrowed funds are needed.

Table 2. Dynamics of innovation activity indicators in the Russian Federation in 2014-2018
(Piskun and Brusnikin, 2019)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>Share of innovative goods, works and services in the total volume of shipped goods, works and services of organizations, %</td>
<td>8.7</td>
<td>8.4</td>
<td>8.5</td>
<td>7.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Share of innovative goods, works and services in the total volume of shipped goods, works and services of industrial organizations, %</td>
<td>8.2</td>
<td>7.9</td>
<td>8.4</td>
<td>6.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Share of organizations implementing technological, organizational and marketing innovations in the reporting year in the total number of organizations surveyed, %</td>
<td>9.9</td>
<td>9.3</td>
<td>8.4</td>
<td>8.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Share of expenditures on technological innovations in the total volume of shipped goods, performed works, services, %</td>
<td>2.9</td>
<td>2.9</td>
<td>2.6</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Number of organizations that carried out research and development, pcs.</td>
<td>3 604</td>
<td>4 175</td>
<td>4 032</td>
<td>3 944</td>
<td>-</td>
</tr>
</tbody>
</table>

Therefore, we have identified the main problems for small and medium enterprise development in Russia based on an analysis of scientific sources:

1. High cost of debt capital (disclosed based on analysis of loan portfolio dynamics and rate dynamics)
2. Difficulties of entering the foreign market.
3. Depreciation of fixed assets (disclosed based on analysis of statistics of depreciation of fixed assets in the Russian Federation)
We consider the most significant constraints to small and medium enterprise development are to be as follows:

1. High tax base for small and medium enterprises in the Russian Federation, which serves as a barrier.

2. Supporting small and medium enterprises in research, innovation and training; eliminating irregularities in the functioning of a single market and competition in it that reduce the efficiency of small and medium enterprises; improving the competitiveness of small and medium enterprises, including in order to enter foreign markets.

4. Discussion

The high tax base for enterprises belonging to this category in the Russian Federation has been identified as a significant constraint to small business development and serves as a barrier. The authorities have proposed a solution to this problem by introducing a tax on the self-employed people. This tax is more focused on small businesses. Pilot regions such as the city of Moscow, the Moscow and Kaluga regions and the Republic of Tatarstan have already introduced a tax on the self-employed people in 2019.

Professional income tax can be imposed on persons who are engaged in certain activities and earn income, but do not employ additional workers. The interest rate for this tax is between 4% and 6%. A problem with the introduction of this tax is the possibility of the self-employed people engaging staff without employment contracts. In order to prevent this kind of hiding, the authorities should carry out on-site inspections on the territories of the self-employed people (www.nalog.ru). The next significant factor shows the necessary assistance to small and medium enterprises provided by the state: it is very diverse from carrying out technological modernization of production, assistance in the implementation of R&D, to protecting the interests of small and medium enterprises at all levels of government. To date, AMB is one of the largest government organizations specializing in supporting small and medium enterprises in the world: it has more than 100 representative offices in all regions of the country with a total staff of over four thousand employees. State support for small and medium enterprises is provided not only directly by the structural divisions of AMB or authorized companies, partner organizations and firms, but also by consulting centres, business centres, etc (www.nalog.ru).

Thus, despite the importance of the small and medium-scale entrepreneurial structure development in the economy of the Russian Federation, their participation is insignificant,
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reflected in an insignificant share in GDP, low provision of employment for the population. Thanks to government support measures, the number of small and medium-sized enterprises is growing, albeit insignificantly. A significant problem for business entities is the lack of their own funds and the low availability of credit financial resources for the implementation of effective activities.

The competitiveness of entrepreneurial structures is largely ensured by innovations. The international community positively assesses the ease of doing business in the Russian Federation through the comparative analysis of countries. At the same time, the entrepreneurship statistics shows that the index of entrepreneurial confidence, since 2008, has been negative, as well as the demand for products in the domestic and foreign markets. Assessing the factors limiting the growth of business activity of entrepreneurial structures, it should be noted that the greatest influence is exerted by: insufficient demand in the domestic market, high taxation level, lack of financial resources, uncertainty of the economic situation, and lack of qualified workers. Less significant impacts on production growth are: insufficient demand in the external market, competing imports, lack or imperfection of the regulatory framework, high percentage of commercial loans, deterioration and lack of equipment, lack of raw materials and consumables, lack of equipment. Influencing factors intensify in the post-crisis years.

6. Conclusions

Thus, the activities of small and medium-sized entrepreneurial structures are influenced by a combination of factors limiting the growth of their business activity and production.

At the same time, the innovative component of business, regardless of whether the enterprise is small, medium or large, the introduction of innovations contributes to an increase in the competitiveness of an economic entity, which will determine the market share and, as a result, profit. In connection with the introduction of innovations by small and medium enterprises in the process from the beginning of the emergence of an idea to the sale of finished goods and services, a new term technological entrepreneurship has appeared.

In the course of studying the materials of both domestic and foreign authors, the differences between technological entrepreneurship and other forms of entrepreneurship were identified. In addition to the studied components, the article analyzed statistical information taken from official sources. Based on the analysis, conclusions were drawn and investigative links with other processes related to the dynamics of the analyzed data were revealed.

Acknowledgements

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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