

FEATURES OF BUSINESS PLANNING OF INNOVATION ACTIVITIES IN SCIENTIFIC AND EDUCATIONAL ORGANIZATIONS

CARACTERÍSTICAS DO PLANEJAMENTO DE NEGÓCIOS DAS ATIVIDADES DE INOVAÇÃO EM ORGANIZAÇÕES CIENTÍFICAS E EDUCACIONAIS

CARACTERÍSTICAS DE LA PLANIFICACIÓN EMPRESARIAL DE ACTIVIDADES DE INNOVACIÓN EN ORGANIZACIONES CIENTÍFICAS Y EDUCATIVAS

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ABSTRACT: The purpose of the article is to summarize existing approaches to business planning, to define the structure of the business plan, to emphasize the difference between business planning of scientific organizations in higher education institutions and the corresponding process in commercial organizations, and Make recommendations on the organization and implementation of the planning procedure for the Russian education and scientific development sector. The article presents the main stages of the innovation process, the specificity of the innovation process, and its two-stage nature (where the first stage is completed with the creation of «novation» and the second - «innovation»). The authors present a business planning process and emphasize the peculiarities of its development in institutions scientific and educational organizations. Based on such analysis, the authors make recommendations for business plan developing for such types of organizations.

KEYWORDS: Business plan. Innovation. Intellectual property rights. Results of intellectual activity. Mean of identifications.

RESUMO: *O objetivo do artigo é resumir as abordagens existentes para o planejamento de negócios, para definir a estrutura do plano de negócios, para enfatizar a diferença entre o planejamento de negócios de organizações científicas em instituições de ensino superior e o processo correspondente em organizações comerciais, e fazer recomendações sobre a organização e implementação do procedimento de planejamento para o setor de educação e desenvolvimento científico russo. O artigo apresenta as principais fases do processo de*

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inovação, a especificidade deste e a sua natureza em duas fases (em que a primeira fase se completa com a criação da «novação» e a segunda - «inovação»). Os autores apresentam um processo de planeamento empresarial e enfatizam as peculiaridades de seu desenvolvimento em instituições científicas e organizações educacionais. Com base nessa análise, os autores fazem recomendações para o desenvolvimento de planos de negócios para esses tipos de organizações.

PALAVRAS-CHAVE: *Plano de negócios. Inovação. Direitos de propriedade intelectual. Resultados da atividade intelectual. Meio de identificações.*

RESUMEN: *El propósito del artículo es resumir los enfoques existentes para la planificación empresarial, definir la estructura del plan empresarial, enfatizar la diferencia entre la planificación empresarial de las organizaciones científicas en las instituciones de educación superior y el proceso correspondiente en las organizaciones comerciales, y Hacer recomendaciones sobre la organización e implementación del procedimiento de planificación para el sector de desarrollo científico y educativo de Rusia. El artículo presenta las principales etapas del proceso de innovación, la especificidad del proceso de innovación y su naturaleza de las etapas (donde la primera etapa se completa con la creación de la «novación» y la segunda - la «innovación»). Los autores presentan un proceso de planificación empresarial y enfatizan las peculiaridades de su desarrollo en las instituciones, organizaciones científicas y educativas. Con base en dicho análisis, los autores hacen recomendaciones para el desarrollo de planes de negocios para este tipo de organizaciones.*

PALABRAS CLAVE: *Plan de negocio. Innovación. Derechos de propiedad intelectual. Resultados de la actividad intelectual. Medio de identificaciones.*

Introduction

According to article 2 of the Federal Law of 23.08.1996 #127 (Rev. 08.12.2020) «About Science and State Science and Technology Policy» innovation activity is defined as activity (including scientific, technological, organizational, financial and commercial activities) aimed at the implementation of innovative projects, as well as the creation of innovative infrastructure and its maintenance. An innovation project is a set of cost-effective innovation activities, including the commercialization of scientific and (or) technological results.

Thus, innovation process involves two stages. The first stage ends when «novation» (result of intellectual activity) is created. In accordance with article 129, paragraph 4, of the Civil Code of the Russian Federation, result of intellectual activity as intangible assets and as equivalent means of identification (article 1225 of the Civil Code of the Russian Federation) cannot be used as goods.

The second phase (and innovation process in general) ends with the creation of innovations (novations embodied in a negotiable good).

It is necessary to emphasize the following peculiarity of innovation activities in scientific and educational organizations: they do not usually have a production base, end their innovation activity with the creation of innovations, that is, non-negotiable results of intellectual activity, which, while not a commodity, have no price as it is reflected in Repnikova' *et al.* (2020) article. Thus, in their another article is told scientific and educational organizations may only enter the market, generally with rights to protected results of intellectual activity and means of identification, since under article 129, paragraph 4, of the Civil Code of the Russian Federation, rights to intellectual property may be negotiable (i.e., goods), as well as material carriers in which they (i.e., corresponding results of intellectual activity and means of identification) are expressed (REPNIKOVA *et al.*, 2019).

The specific nature of the results of intellectual activity presented by scientific and educational organizations defines the specificities of planning and presenting the results of innovation process in a business plan (a document that reflects the cost of an innovative project, calculation the ratio of the project proponent's own funds) (RUSSIA, 2009) to the funds required for the project to be implemented, the efficiency of project implementation (inter alia, profitability, Net Present Value (NPV), Internal Rate of Return (IRR), Payback period (PBP) of the project, etc.).

The business plan is therefore a documented feature of the innovative project's forward-looking financial model; its structure follows the main stages of financial modelling (market assessment, sales planning and sales budget; production program and budget of costs; organizational planning and project scheduling; cost estimation and investment budget; evaluation of the financial performance of the project, its feasibility, the appropriateness of investing the funds and the time of their repayment) (BORISOVA; PYATAEVA; SKRYABIN, 2020). The main sections of the Business Plan are: «Summary», «Project Performance», «Enterprise Performance (Project Proponent)», «Marketing Plan», «Production Plan», «Financial Plan», «Investment Performance Assessment», «Risk Assessment».

The aim of the research was to study and expand theoretical and practical knowledge related to the organization of business planning procedure in scientific and educational organizations, as Savon D. and co-authors told (SAVON *et al.*, 2021). Defining the procedure for planning innovation activity of universities and scientific institutions from the traditional procedure used by commercial organizations.

Materials and methods

The materials of this research are based on data from 2018 to 2021, including data from methodological development carried out in the framework of research work «Commercialization of intellectual rights NII and universities: problems and solutions (3-G3-2021)». In preparing the material, methods of analysis, comparison, conclusion and generalization were used.

Results

Calculation and subsequent documentation of the above data in the format of a business plan is necessary, first of all, for the proponent of the project (scientific and educational organization) in order to make a decision on the advisability of its realization. Further, if the project meets the requirements (limitations) set for specific indicators (e.g., investor rate of return on project inputs), the resulting estimates and analyses are made available to external stakeholders in order to find and attract investments for the innovation initiative.

With regard to the most common forms of attracting investors to support entrepreneurial activities, particularly innovation, the list may include: a) financing (grants and grants); b) lending (refunds and refunds of support); c) investment (participation in the implementation of the project by providing money, equipment, intellectual rights and other investments, usually for profit, in the process and for the realization of the project).

As in the article by Mukhamedshin I. (2018; RUSSIA, 1996) in each of the cases presented above, the scientific or educational organization enters the market primarily with intellectual property rights, which entails the need to value such rights as a contribution to the implementation of an innovative project. Thus, the following options for the enforcement of intellectual property rights are considered:

1) Disposition of these rights by alienating or granting the right of use of the protected intellectual property to producers of the innovative product. The relevant rights are assessed on a contractual basis:

– between the right holder (a scientific or educational organization) and the right customer, in the case of a transfer of the right of use of the intellectual property under a contract of acquisition of an exclusive right;

– between the licensor (a scientific or educational organization) and the licensee, in the case of an appropriate transfer of the right under a license contract, etc.

2) Establishment structures where intellectual rights contribute to joint business or participate in existing organizations (e.g., small innovation enterprises (SME), public-private partnerships (innovation clusters, technology platforms, etc.).

In accordance with the specific characteristics of innovation activities of scientific and educational organizations the structure of its business plan could be changed (RUSSIA, 2020).

1. Marketing Plan.

Marketing studies provide the most complete answer to the question on possible enforcement options for intellectual property rights. They usually precede the development of a business plan or are implemented directly within it. The purpose of such research is to identify the demand for a product or service in which an innovative product can be produced or marketed).

2. Investment Plan.

The investment costs of a scientific or educational organization to establish and implement the results of intellectual activity should include: a) costs of developing a results of intellectual activity taking into account the production of a prototype or a prototype batch of a product or product, technology testing, etc.; b) costs of providing and maintaining legal protection. The estimated value of these costs will be included in the determination of the owner's price in transactions to dispose of intellectual property rights or grant the right to use it in negotiations with the receiving party.

3. Financial plan.

It was stated above that a transfer of intellectual property rights could take place under a license contract or under an exclusive disposition contract. The amounts expected to be received from such transactions should be included in the projected sales budget, which would be part of the business model of the project, partly reflected in the business plan.

Option 1. Where a transfer of the results of intellectual activity use right under a license contract is planned, the calculation of the license fee to be included in the income part of the project budget should consider:

- the type of use is granted by contract, for example: a) importation into the territory of the Russian Federation, b) manufacture, c) use, d) offer to sell, d) sale, e) other introduction into civil circulation or f) storage of a product for these purposes, in which an invention or a utility model is used;
- the area in which results of intellectual activity is permitted;
- the period for which the license contract is concluded;
- the type of license (simple or exceptional);

- whether the contract contains the elements of various contracts (for example, on the transfer of equipment, components, parts and raw materials necessary for the manufacture of products under license) according to art. 3. 421 Civil Code of the Russian Federation;
- about the transfer of technical documentation, its adaptation to the licensee's terms;
- about the provision of technical assistance;
- conditions for sharing improvements and improvements;
- the possibility of sub-licensing;
- the need and conditions for the training of the licensee's personnel, in particular the conditions for the secondment of the licensor's specialists if necessary;
- conditions for the collection of fees, taxes and other expenses related to the conclusion and execution of the contract;
- conditions of confidentiality;
- conditions of product advertising under license, etc.

In this case, royalties for the entire duration of the license contract may be included in the revenue part of the sales budget forecast (RUSSIA, 2009).

Option 2. If the transfer takes place based on a disposition (i.e., a «sale») of an exclusive right, the transfer is complete, i.e., the transferee acquires not only the exclusive right to use the results of intellectual activity, but also the power of exclusive jurisdiction. By entering a contract of exclusive disposition, the right holder is deprived of the right under the contract.

In this case, the revenue portion of the sales budget forecast represents the full cost of innovation, which is generally a one-time cost.

Option 3. If a budget scientific or educational organization initiates the creation of an innovative economic society (the so-called small innovative enterprise (SIE), in accordance with the Federal Act of 2 August 2009 No 217 «On the introduction of amendments to individual legislative acts of the Russian Federation on the establishment by budgetary scientific and educational institutions of economic societies for the practical application (introduction) of results of intellectual activity»), monetary evaluation of the right, the contribution to the charter capital of an economic society under a license contract is approved by the decision of the general meeting of founders (participants) of the economic society, which is accepted by all founders (participants) of the economic society unanimously (LAVINSKY, 2020). According to this document, if the nominal value (increase in nominal value) of the share or shares of a member of an economic society in the authorized capital of an economic society,

paid by such contribution, is more than 500 thousand rubles, such contribution must be evaluated by an independent valuer.

If scientific or educational organization establish of a small innovative enterprise, i.e., the transferor (owner, licensor, founder), is interested in maximizing the value of the transferred rights; the transferee (transferee, licensee, etc.) takes the opposite position in assessing the transferable right. The respective positions of the right holder and the acquiring party are based on the provisions of article 1235, paragraph 1, of the Civil Code of the Russian Federation, according to which the licensee may use the results of intellectual activity only to the extent of the rights and ways provided for in the license contract. The right of use not expressly stated in the license contract shall not be deemed to be granted to the licensee.

The planning of the revenue side of the forecast budgets, in the above cases, can be done on the basis of a specific transfer option.

1) the value of the exclusivity or exclusive license contract should be included:

a) the full amount of the right holder's (scientific or educational) costs for the development of the results of intellectual activity;

b) the right holder's rate of profit should be included in the cost of the exclusive or exclusive license alienation contract.

2) The price of non-exclusive license agreements may not include the cost of developing the results of intellectual activity in its entirety but may be apportioned among the payments of the «non-exclusive» licensees.

3) In the case of the establishment of a small innovative enterprise (and the related results of intellectual activity or means of identification transfer contract), the cost of developing such products should be included in the calculation of the right holder's dividends, depending on the share of the value of the contribution in the total statutory (folding) amount capital.

4. Risk Assessment.

A number of features related to the assessment and forecasting of the risks of results of intellectual activity projects need to be identified.

Thus, the ownership of the rights to the results of intellectual activity being used by the project proponent must be determined and recorded in the business plan for innovation activities on a mandatory basis. A list of the measures he has taken to establish his rights (such as applying for a patent) should also be provided. It is equally important to define and provide guarantees of non-derogability in the implementation of the project of the rights of third parties, in

particular the assessment of the proprietary integrity of products, especially in the territories where they are manufactured and marketed.

Finally, the legal means of securing the performance of obligations (pledge, default, independent guarantee, surety, etc.) may serve as guarantees for the return of creditors and investors. It should be borne in mind that the subject of the bond may be exclusive rights.

Discussion

Research results are consistent with current knowledge on business planning. As Ö. Kuzu (2020) told in his article, the theoretical preconditions for studying the methodology of planning innovative projects had arisen with the advent of appropriate technologies. This will facilitate a more rapid and informed planning process. Of course, the processes of introducing new standards and methodologies require further in-depth study of both the theoretical and practical bases for analyzing and forecasting the innovation performance of universities and research organizations.

Conclusions

In conclusion, it is necessary to formulate some general recommendations about a business planning procedure for scientific and educational organizations:

1. The object of planning in organizations of this type is «innovation» - a non-negotiable result of intellectual activity; in organizations of the «full innovation cycle» innovation activity ends with the creation of «innovation».

2. Intellectual property rights are transferred to the host party (under a license contract; exclusive disposition (transfer) contract; investment treaty). The need to recover the cost of developing the results of intellectual activity, to reflect it appropriately and to plan it in the financial model of the project necessitates a change in the way in which this is done. In determining the estimated cost of the project, it is important to properly estimate the costs associated with the establishment of small innovative enterprise and their legal protection, as these should form a significant part of the cost of such value. The main business plan sections in which such changes are reflected are «Marketing Plan», «Investment Plan», «Financial Plan», «Risk Assessment».

It also appears that in each case where intellectual property rights have been developed by scientific and educational organizations, it is necessary to develop a business-plan for each

party to the exclusive right transaction, considering all the recommendations above, which will allow both to develop an optimal strategy for maximizing profits and to minimize legal and financial risks

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How to reference this article

MUKHAMEDSHIN, I. S.; PYATAEVA, O. A.; KORNEEV, P. S.; BORISOVA, M. S.; EVDOKIMOVA, M. I. Features of business planning of innovation activities in scientific and educational organizations. **Revista on line de Política e Gestão Educacional**, Araraquara, v. 25, n. esp. 5, p. 3112-3121, Dec. 2021. e-ISSN:1519-9029. DOI: <https://doi.org/10.22633/rpge.v25iesp.5.16000>

Submitted: 13/03/2021

Required revisions: 23/07/2021

Approved: 19/11/2021

Published: 30/12/2021

Processing and editing by Editora Ibero-Americana de Educação - EIAE.
Correction, formating, standardization and translation.