УДК 658.152

О. О. МОРОЗ, д.е.н., професор
Вінницький національний технічний університет
Т.М. ПІЛЯВОЗ
Вінницький національний технічний університет

УПРАВЛІННЯ ФІНАНСОВО-ІНВЕСТИЦІЙНИМ ЗАБЕЗПЕЧЕННЯМ ІННОВАЦІЙНОГО РОЗВИТКУ ПІДПРИЄМСТВ

Визначено особливості застосування венчурного інвестування як способу залучення інвестицій для інноваційного розвитку підприємства. Наведена порівняльна характеристика типів венчурних інвестицій. Досліджено способи участі підприємства у венчурному фінансуванні шляхом створення малих підприємств, створення дрібних венчурних підприємств або створення самостійно функціонуючих спеціалізованих інвестиційних підприємств венчурного капіталу. Сформований механізм функціонування корпоративного венчурного інвестування. Охарактеризовані стадії венчурного інвестування відповідно до стадій життєвого циклу підприємства.

Ключові слова: *інноваційний розвиток, венчурне інвестування, венчурний фонд, венчурний капітал, стадії венчурного інвестування.*

Е. Е. МОРОЗ, д.э.н., профессор
Винницкий национальный технический университет
Т.Н. ПИЛЯВОЗ
Винницкий национальный технический университет

УПРАВЛЕНИЕ ФИНАНСОВО-ИНВЕСТИЦИОННЫМ ОБЕСПЕЧЕНИЕМ ИННОВАЦИОННОГО РАЗВИТИЯ ПРЕДПРИЯТИЙ

Определены особенности использования венчурного инвестирования как способа привлечения инвестиций для инновационного развития предприятия. Приведена сравнительная характеристика типов венчурных инвестиций. Исследованы способы участия предприятия в венчурном финансировании путем создания малых предприятий, создания небольших венчурных предприятий или создания самостоятельно функционирующих специализированных инвестиционных предприятий венчурного капитала. Сформирован механизм функционирования корпоративного венчурного инвестирования. Охарактеризованы стадии венчурного инвестирования в соответствии стадиям жизненного цикла предприятия.

Ключевые слова: *инновационное развитие, венчурное инвестирование, венчурный фонд, венчурный капитал, стадии венчурного инвестирования.*

O. O. MOROZ, Doctor of Economics, professor
Vinnytsia National Technical University
T. M. PILIAVOZ
Vinnytsia National Technical University

MANAGEMENT OF FINANCIAL AND INVESTMENT ENSURING OF ENTERPRISES INNOVATIVE DEVELOPMENT

The features use venture capital as a way of attracting investments for innovative development. The comparative characteristics of the types of venture capital investments was defined. Investigated ways of participating companies in venture financing through the creation of small businesses, the creation of small business venture or creating their own operating specialized investment firms venture capital. Formed mechanism functioning corporate venture investment. Author examined stage venture capital according to the stages of the life cycle of the company.
Keywords: innovation development, venture investing, venture capital, venture stage investing.

Explanation of the problem. Normal functioning of a modern market economy which is based on the technical, technological and managerial innovations is impossible without a developed market of innovations. Unfortunately, market of innovations is still the weakest link of the Ukrainian economy. Therefore, Ukraine has to solve the problem of transformation of innovations and innovative policy into the engine of a qualitatively new stage of the market economy development. The state which has set a goal to promote the dynamic development of the country's economy through investment and innovation policy as a basis for raising the general population's welfare has to ensure the growth of expenditures for the development of scientific and technical progress and encouraging of the enterprises' innovative activity [4, p. 125-126]. But nowadays enterprises should rely only on the internal managerial mechanisms of innovative development financing, and, therefore, this problem should be solved by developing and implementing of their own internal mechanism model of management of financial and investment ensuring of enterprises innovative development.

The analysis of recent researches and publications. Problems of enterprises innovative development financing are being investigated in the works of native and foreign scientists: R. Lucas, R. Harrod, J. Shumpeter, D. Clark, Y. Bazhal, S. Onyshko, T. Pecherska, V. Boreyko, M. Korinko, S. Shumska and others. Although the problem of financial and investment ensuring of innovative development are being investigated quite sufficiently certain aspects of this process haven’t got the proper solution and remain little investigated.

The purpose of the publication is to develop an internal mechanism of management of financial and investment ensuring of enterprises innovative development.

The exposition of the main material. Taking into the account the international experience it is necessary to determine what most effective management instruments to use under the specific conditions of enterprises functioning and focus on those resources that may be available to these enterprises. In fact, it means that it is necessary to determine those managerial measures which will put an enterprise on the path of innovative development with the lowest expenses of scarce financial resources. So, nowadays the following universal managerial innovative operations are identified:

- development of venture mechanisms of innovations settlement;
- creation of favorable conditions for own investments into the sphere of SRRCW and development of new technologies;
- alignment (upward) of the region’s innovative potential by enhancing available scientific and technical resources;
- extensive use of technological transfers possibilities in national and international scale [11, p. 60].

Selection of mechanism of processes improvement of enterprises financing is substantiated from the standpoint that the main feature which defines the benefits of innovative and investment mechanisms is merging under the only control in a single center of innovations functions (creation of new industries and complexes) and investments functions which are necessary to create innovations. This will ensure the efficient production of high-tech innovative and investment services based on its own current capital. Such innovative infrastructure is searching for the most efficient orders and projects and ensures their implementation at the expense of current capital with further (based on the results) investments in new projects [2, p. 133]. Thus, in our opinion, the course of native enterprises development should be to create innovative and investment network of regional infrastructure which will use a mechanism that is best suited to consider the conditions of modern economy of Ukraine, will allow enterprises to be competitive in the desire to "capture" and implementation of native large projects. Taking into account the fact that the investment potential is the material basis for the dynamics ensuring of enterprises social and economic development, in our opinion, the creation of new assets as long-term innovative and technological systems should become the result of the investment potential usage of industrial enterprises. Accordingly, let’s consider the financial mechanism to stimulate enterprises innovative activity as a corporate venture investment of the enterprises innovative development.

The experience of the most successful countries in the sphere of innovations shows that venture entrepreneurship is an important form of innovative projects financing that not only stimulates innovative processes at a particular enterprise, but also has a positive impact on innovations market in general: it increases the level of competition, stimulates the growth of staff professionalism and increase of scientific and industrial and technical level. Recent decades convincingly show that existence of a coordinated chain of "science – technology – production – market" is necessary for efficient operation of the economy of any country. And it’s almost impossible to achieve this without the use of venture business industry, i. e. without establishing private investment companies whose activities are supported by state and public funds [10, p. 292].

Corporate venture investments in modern scientific economic literature is defined as the activities of the corporation to create a corporate venture fund, the main purpose of which is to find interesting investment projects both in the internal and external environments of a corporation.

According to the paragraph 4 of the Law of Ukraine "On Collective Investment Institutions (individual and corporate investment funds)" venture fund is an undiversified collective investment institution of a closed type if it (or a company that controls its assets) assumes no obligations to purchase securities issued by this collective investment institution (or a company that controls its assets) until its termination and carries exclusively private (closed) placement of collective investment institution securities among enterprises and individuals and whose assets may include securities issued by related parties of the company that control assets of such a fund. An individual may be a member of the venture fund only in the case of securities acquisition of the fund in an amount not less than 1500 minimum wages [1].

Thus, recent publications confirm the view that venture capital may be regarded as one of the main sources of financing of enterprises innovative activity. Venture investments should be carried out in two main ways: by purchasing shares of new companies or by providing various credits. Venture capital is a source of long-term investments into the spheres with a high degree of risk in a new business that is expanding or changing. It is available in several (3, 5, 7) years without warranty or security [3].

So, venture funds operate mainly due to corporations funding, but these funds also may be replenished by sources of outside investors. It is also possible to finance innovative projects through direct corporate venture investments without creating a special investment structure.

Thus, enterprises may choose two types of venture investments and the detailed description of their substance is presented in table 1 [6, p. 46-51].

It should be mentioned that the attribution of venture funds to collective investment institutes at the present stage of economic development and current legislation is fairly conventional: "legislative standards on venture funds in the Law of Ukraine "On Collective Investment Institutions (individual and corporate investment funds)" [1] are provided as an exception to the general rules of collective investment institutions operation.

Table 1 - Comparison of corporate venture investments

Categories	Direct corporate venture investments	Investments by corporate venture funds
Investment type	Corporation invests through established projects (companies) through shareholding.	Corporation provides corporate venture fund that looks for interesting objects and invests them.
Investment mechanism	• Corporations investment committee. • Quazifund which is fully subordinated to senior managers of a corporation and controlled by them. • Spin-off company functioning. • Organization of strategic alliances with investment companies.	• Creation of an internal corporate organization that possess operational independence and has the corporation representatives in its board of directors. • Fund creation whose management provides existence of external managers. • Creation of a special professional fund that engages sources of outside investors.
Projects characteristics	• “Concretion” of companies, providing them with organizational, legal and technical assistance. • Involvement into the company the foreign venture investors sources under the condition of financial guarantees from corporations.	• Investing into small investment firms that operate in sectors which cause strategic interest for corporations. • Ability to establish partnerships between them and corporations.

Since the existing legislative environment does not stimulate directing of venture capital into innovative development or even the creation of new high-tech enterprises through venture funds, there is an urgent necessity to develop a legislative act on the activities of venture funds or to make changes in the current law" [5]. That’s why exactly the corporate type of venture investing should become more effective and independent means of attracting investments into innovative development of enterprises’ activity.

It is helpful to use the empirical results in the development of the venture investing concept of one of the Russian regions' territory whose economic reference was presented as an offensive strategy of market capture by innovative corporations [8, p. 90]. During the research it was proved that corporations participate in venture funding in three main ways.

First of all, they are directly funding the creation of small businesses. Venture operations in this case are not detached from the productive and cycle-functioning financial capital, but only temporarily diverted to the loan transactions. The technology of a new product creation which they have developed belongs, as a rule, to the major company that allows getting the most benefits in the case of its success on the innovations market. Mass production of the product is being established by a large enterprise on the basis of a small one, the existence of which in these cases is temporary.

Another way of venture financing which is stimulated by large corporations is to create not scientific and research small venture enterprises, but investment ones. In the form of investment venture enterprise a fund is being created which is used specifically for continued lending for inventions designing and development made outside the major companies. Usually these funds are formed by mutual efforts of several large corporations. Many of them create dozens of small investment firms that make up a network designed to check, select and use scientific ideas.

The third and the most advanced and effective way for a corporation to participate in risky financing is its activity of creation of self-functioning specialized investment enterprises of a venture capital. Such investment companies are created through pooling of different owners. In this case corporations are important, but they are the only participants. Corporations finance small businesses with the help of enterprises of venture capital. Moreover, entering the world of scientific and progressive small business corporations are not only the owners of capital who are interested in getting interests from lending operations, but rather as customers for new technological solutions that finance the costs for their development.

Thus, summing up the organizational aspects of corporate venture investments functioning we may conclude that venture investments are usually directed to new companies (units) that are growing rapidly. Typically, a venture investor invests directly in business rather than buying its shares on the secondary market which is typical for a portfolio investor. The most important feature of venture investing is the participation of a venture investor in the company’s economic activity, management bodies in order to help increase its value and further sale of its share [10, p. 294].

The analysis of the ensuring process of corporate venture investing which may be applied to native enterprises has shown that parties represented on the figure 1 are involved into the formation of a corporate venture company.

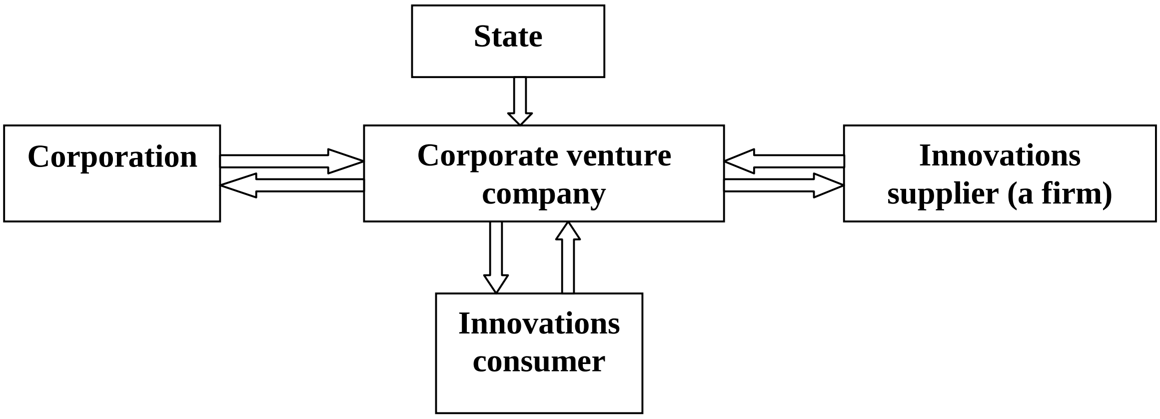

Figure 1 - The mechanism of functioning of corporate venture investing

The process of venture investing may be divided into certain stages. They roughly correspond to stages of the enterprise’s life cycle or investments that comprise five stages of the formation of venture capital cycle: seed, start-up, early stage or early growth, expansion, exit or liquidity stage (table 2) [7; 9].

Table 2 – Stages in the life cycle of venture investments

Stage	The main objective of investing	The source of venture capital	Previously calculated income	Risk size	Payback period
1. Seed	Realization of SRRCW, formulation of business plans and marketing researches	"Business angels", "family and friends"	More than 50% a year (and sometimes more than 100%)	Very high financial risk	Up to 10 years
2. Start-up	The organization of production, creation of a new product prototype	Venture funds, "business angels", state funds (grants)	Near 35% a year (up to 50%)	High financial risk	5-7 years on average
3. Early stage	Market entry, completion of scientific and research works, staff training, creation of advertising, marketing network	Venture funds, banks	Up to 30% annual	Reduction of financial risk	4-7 years on average
4. Expansion	Production and sales expanding, products renewal, increase of working capital, sales improvement	Banks, corporations	20% -30% annual	Low financial risk	2-5 years on average
5. Exit	Financing of enterprise’s exit on the stock market, purchase of an enterprise	Banks, public markets, large corporations	Up to 20-25% annual	Risk is low and is mainly due to external factors	Up to 1 year

Thus, our research of the mechanism of venture innovations financing has shown that it has certain characteristics which manifests itself at all stages of the life cycle of an enterprise. This should be considered when implementing the strategic objectives for innovative development of companies.

On the Seed stage a company is under construction, there is only a project or business idea, there exists the creation of the management team.

On the Start Up stage the company will set up soon, it has samples, it tries to organize production and product exit on the market.

On the Early stage the company issues and makes commercial realization of turn-off products, although it has no steady profit yet.

On the Expansion stage a company occupies certain positions on the market, it becomes profitable, it needs to expand production and sales, additional market researches, increase its fixed assets and capital.

The Exit stage is a development stage of an enterprise which is characterized by the sale of shares to a strategic investor or their initial placement on the stock market.

Let’s note that small innovative enterprises are a key area of venture capital investing since they are characterized by a high profitability at a very high risk. Based on this role played by venture investments in the technology process their development should be a priority of the state innovation policy in the support of small enterprises in scientific and technical sphere.

Conclusions: Thus, on the one hand a way to finance innovative development for businesses will depend on the stage of the life cycle of an innovative enterprise and the source of funding should be chosen based on the cost of involved resources and the adequacy of their volume for the enterprise development. On the other hand, only some businesses need external financing at each stage of the life cycle. Moreover, in practice some venture investors are able to provide an enterprise with funding at all stages and in many cases the difference between the stages of venture investing is fairly arbitrary. Thus, the research has determined that the most optimal way for companies is to determine a strategy of innovative development which involves the creation of a special financial mechanism based on a creation of a corporate venture enterprise.

References

1. Law of Ukraine "On Collective Investment Institutions" (individual and corporate investment funds) from 15.03.2001 № 2299-III // [Electronic resource] – Access mode: zakon1.rada.gov.ua.

2. Antonenko I. V. Innovative aspects of transformation of Russian enterprises investment behavior / I. V. Antonenko // News of Volgograd State Technical University. – 2006. – № 7. – P. 133–136.

3. Ilchuk A. S. Venture capital as a source of financing of enterprises innovative activity / A. S. Ilchuk // The Fifth National Scientific Internet-conference "Modernity, science, time. Interaction and mutual influence" (25-27 November 2008) // [Electronic mode] – Access mode: intkonf.org.

4. Kobushko I. M. Ways to improve the financing of innovative development in Ukraine using the international experience / I. M. Kobushko, E. I. Huseynova // Marketing and Management of Innovations. – 2011. – № 2 – P. 124–130.

5. Moskvin S. O. Venture funds of innovative development : Current Economic Issues. № 2 (92) / S. O. Moskvin: [Electronic resource] – Access mode: http://www.nbuv.gov.ua/portal/Soc_Gum/APE/2009_2/89-96.pdf2009.

6. Rogova E. M. Corporate venture investing and its role in improving the innovation activity of companies / E. M. Rogova, A. V. Zolotaryov, E. A. Fiyaksel // Economy and management. – 2008. – № 3 (35). – P. 46–51.

7. Semenov A. S. Venture financing of innovation activity. / A. S. Semenov, A. I. Kashyrin // Innovations. – 2006. – № 1 (88). – P. 31 – 38.

8. Shyhverdiev A. P. Corporate management and innovative development of economy of the South / A. P. Shyhverdiev, I. K. Pronichev, A. A. Vishnyakov // The journal of scientific and research center of corporate law, management and venture investing of Syktyvkar State University. – 2007. – № 2. – P. 81–96.

9. Skoblyakova I. V. Innovative systems and venture financing / Skoblyakova I. V. – M.: "Mashynostroenie Publishing house – 1", 2006. – 210 p.

10. Venture investments as a way of realization of innovative and investment potential in the state / I. B. Homa, O. V. Voitkiv, H. V. Chepil, H. B. Demchuk // The Scientific Bulletin NLTU of Ukraine. – 2011. – Vol. 21.3 – P. 292 – 298.

11. Yermeyev A. A. The concept of innovative development of industry / A. A. Yermeyev // The Economic Journal. – 2011. – № 2 (22). – P. 55 – 63.

Довідка про авторів

Мороз Олена Омелянівна, д.е.н., проф., завідувач кафедри підготовки менеджерів Вінницького національного технічного університету (ВНТУ)

Службова адреса: 21021, Вінниця, вул. Хмельницьке шосе, 95, Вінницький національний технічний університет, кафедра ПМЕН

Домашня адреса: 21021, Вінниця, вул. Воїнів-інтернаціоналістів, буд. 9, кв. 27

тел. (роб.) 0(432) – 598265

тел. (моб) 097 – 9859225

Наукові інтереси: інституціональні зміни та їх вплив на розвиток економіки.

Пілявоз Тетяна Миколаївна, старший викладач кафедри підготовки менеджерів Вінницького національного технічного університету (ВНТУ)

Службова адреса: 21021, Вінниця, вул. Хмельницьке шосе, 95, Вінницький національний технічний університет, кафедра ПМЕН

Домашня адреса: 21032, Вінниця, вул. Київська, буд. 31, кв. 64

тел. (роб.) 0(432) – 598559

тел. (моб) 067 – 7914606

Наукові інтереси: інноваційний розвиток промислових підприємств.