An important property of the window also has its tightness. Especially in energy-efficient buildings where the air intake is regulated by the aerator or air intakes.

The lowest temperature observed from the outside of the building at night, when the window as the light source are not required. Nevertheless, it is possible to limit heat loss by using additional insulation on the windows at night only in the form of blinds, blinds and shutters.

After the closing of the shutters should create a tight barrier that even when a strong gust of wind did not let the cold air. Exterior shutters reduce heat loss at night to 40 %, furthermore, to protect against noise.

The balcony slab is conventionally continuation slabs that leads to rupture of the outer wall of the insulating layer. There is, therefore, the heat leak. But such solutions are not acceptable for energy-efficient home.

The best solution would be a balcony, set on its own design (columns or struts), coupled with the design of the building only single reinforcement bars placed at several points. Also, the best solution is to use special items consisting of outer fastening steel parts and connecting balcony slabs with slab floors [4].

In the smart houses the whole system works for Heat, and each person can regulate the temperature in the apartment, and the comfort of home, include standby heating. According to experts, it gives only 15 % energy savings. In addition, the house has an increased heat protection, installed windows are of a new design, the effect of which is twice the traditional windows. Savings are of up to 30 kilowatt-hours of electricity per square meter of housing. And it's important to say that such houses are the houses of future.

REFERENCES

1. Умный дом [Электронный ресурс]. – Режим доступа: https://ru.wikipedia.org/wiki/%D3%EC%ED%FB%E9_%E4%EE%EC. – Дата доступа: 10.03.2015.
2. Экономическая эффективность строительства умного дома [Электронный ресурс]. – Режим доступа: http://gisee.ru/articles/flat_house/20135/. – Дата доступа: 10.03.2015.
3. Экономическая эффективность строительства умного дома [Электронный ресурс]. – Режим доступа: http://www.muratordom.com.ua/glavnaya-stranitsa/bolee-teplyj-dom-eto-okupaetsya/izmeryaem-ekonomicheskij-effekt-umnogo-doma,295_27680.html?page=0. – Дата доступа: 10.03.2015.
4. Энергосберегающий дом [Электронный ресурс]. – Режим доступа: http://saman.ucoz.ru/index/ehnergosberegajushhij_dom_perspektivnyj_dom/0-21. – Дата доступа:10.03.2015.

UDC 330.001.76(476/430)=111

COMPARATIVE ANALYSIS OF INNOVATIVE ACTIVITY IN THE REPUBLIC OF BELARUS AND GERMANY

YANA POTOYALO, OLGA SKUMATOVA, ELENA KOLESOVA
Polotsk State University, Belarus

Today innovation is an important factor in ensuring economic competitiveness and sustainable growth. It is necessary to study the experience of the leading countries in this field, in order to increase the innovative development of the Republic of Belarus.

Innovation activity needs a new understanding of innovation. Not only new products but also business models, services are the focus of research and development organizations. Therefore, innovation should not focus only on technological innovation.

The Austrian economist Joseph Schumpeter defined innovation as the basis of scientific and technical progress [3, p. 15].

Among such Russian scientists as: Dorofeev V.D., Dresvyannikov V.A., Zharikov V.V., Sergeev V.A., Kipcharskaya E.V. and German: Schomberg, Rene , Kirner, Eva; Som, Oliver; Dreher, Carsten; Wiesenmaier, Victoria has not developed a unified approach to the definition of "innovative activities". However, in the broad sense, innovation is the use of scientific and technical knowledge to convert various aspects of social life. In a narrow sense the activity that is aimed at obtaining new scientific and technical knowledge and their implementation in the manufacturing sector in order to create a competitive product (service) [4, p. 8].

Today, innovation should be considered as an important factor in ensuring the competitiveness of the economy and its sustainable growth. Innovations have a significant impact on the volume of production and sales, on its quality indicators and operational characteristics, production costs, the profitability of enterprises.

International indicators of innovation are becoming an important tool for evaluating the effectiveness of innovation policy.

In recent years, the practice has expanded comparisons of innovation on an international scale based on composite indices [5]. The most well-known indexes are shown in the Table 1.

Table 1 – Composite indices of innovative activity

Index	The aim of Index
Global Innovation Index (INSEAD)	Measurement of the multidimensional aspects of innovative development of the country is in their comparison with other countries. 2 sub indexes: – Assessment of the resources of innovation; – Evaluation of the results of innovation.
The Summary Innovation Index (European Commission)	Comparison of the innovative aspects of the country with the European Union.
The Technology Readiness Index (World Economic Forum)	Assessed the country's competitiveness.
The Knowledge Index (World Bank)	Determines the level of economic development based on knowledge, in countries and regions of the world.

Source: own elaboration.

Over the past two years the Republic of Belarus has occupied 78 th place in the ranking of the Global Innovation Index of 141 countries in 2012, 77 th place out of 142 countries in 2013, i.e. the positioning of our country has not changed much.

Studying the experience of countries in the world of monitor indicators of innovation is of considerable interest, as this process is very changeable and is influenced by new developing trends: globalization, the formation of a knowledge economy, open innovation [2]. Positioning RB on the composite innovation index EU is shown in Figure 1.

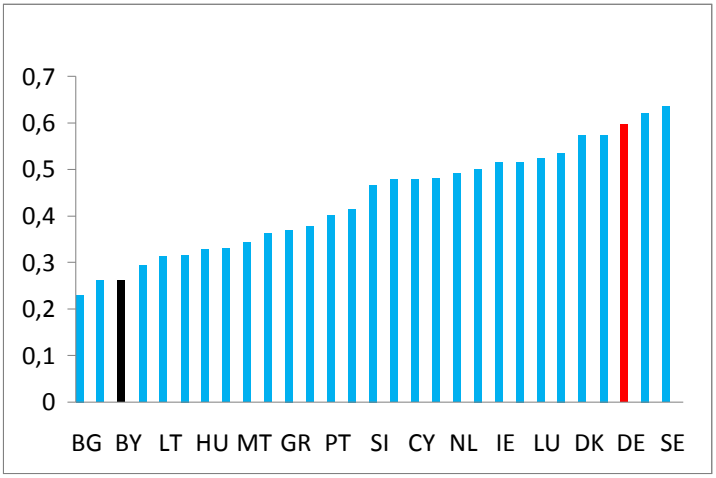

Fig. 1. Belarus in the context of summary indicators of innovative development of the EU:
EU – European Union, BE – Belgium, BG – Bulgaria, BY – Belarus, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, IE – Ireland, GR – Greece, ES – Spain, FR – France , IT – Italy, CY – Cyprus, LV – Latvia, LT – Lithuania, LU – Luxembourg, HU – Hungary, MT – Malta, NL – The Netherlands, AT – Austria, PL – Poland, PT – Portugal, RO – Romania, SI – Slovenia, SK – Slovakia, FI – Finland, SE – Sweden, UK – United Kingdom

The figure shows that the positioning of Belarus on the composite innovation index shows that our country is in the group of countries with low levels of innovation (Bulgaria, Latvia and Romania).

It is easy to note the leading countries in the field of innovation: Sweden, Finland, Denmark, Germany and United Kingdom. Consequently, our country needs to resolve a number of issues in the area of innovation and focus on leaders.

Germany is one of the group of leading countries in the field of innovation. In terms of sales of goods, is the technique of "high quality", Germany leads the world market (its share is 16.8 %), primarily due to industries such as mechanical engineering, electrical engineering, automotive and chemical industries. In the "technology of the highest quality" Germany occupies the third place after Japan and the United States. Germany also plays a significant role in the internal trade among EU countries.

Over the years, the shortage of researchers is considered one of the main obstacles to innovation for the German economy. This can be very important for cooperation and technological exchanges between industry research centers in Germany and the Republic of Belarus, for example, the probation of Belarusian scientists in German companies.

Today, Germany has produced such innovative products, which are used not only in the world, but without these innovations it is impossible to imagine modern life [3, p. 86].

All products manufactured in Germany are of high quality and this is the main feature of German manufacture.

The purpose of the state innovation policy in Belarus is to create favorable socio-economic, institutional and legal conditions for innovation and competitiveness of the national economy.

In recent years, special work has been carried out for the preservation and development of scientific, technological and innovative capacities in our country. The result is the improvement of quality indicators of the republic in the field of innovation, in particular the growth in the national economy of advanced manufacturing technologies.

Innovation activity in Belarus is being held actively in the following research areas:

– health;
– refining;
– software.

But today there are some problems that hinder the development of innovations in RB [1, p. 34]. Major problems are presented in the Table 2.

Table 2 – Group of barriers to innovation

Group of Faktors	Faktors
Economics	– Lack of own funds; – Lack of financial support from the state; – Low solvent demand for new products; – Long-term return on innovation.
Produktion	– Low innovation potential of the company; – The lack of qualification of the personnel; – Lack of information about new technologies; – The lack of market information; – Immunity businesses to innovate; – Lack of opportunities for cooperation with other companies.
Other	– Lack of legislative and legal documents, regulating and stimulating innovation; – Undeveloped innovation infrastructure (information, legal, banking, and other services); – Lack of development of the technology market.

Source: [5].

As it can be seen from the Table 2, many factors hinder the development of innovative activity in the Republic of Belarus, because of these reasons; our country lags behind European countries.

Thus, the main reasons for the relatively low activity in the field of innovation are weak incentive mechanisms, reduction in the number of researchers, the lack of cooperation between the scientific and technical sphere and industry, the growth of high-tech imports and dominance of low-tech sectors in the economy.

We can use the following offers to stimulate innovation:

– to support initiatives to reform vocational education and invite highly qualified foreign specialists;
– to establish cooperation and technological exchanges between research centers and industry in Germany and the Republic of Belarus;
– to perform optimization of specialized secondary and higher education in the direction of greater awareness of new technologies, modernization of the university system of education and vocational training;
– the creation of a close relationship between science and industry;
– an increase in research funding;
– motivation of scientific personnel;
– support of small entrepreneurship.

Today, innovation should be understood to meet social and global challenges of the future. This approach should work together with business (the connection between science and production).

REFERENCES

1. Наука и инновационная активность в Республике Беларусь : статистический сборник / Национальный статистический комитет Республики Беларусь. – Минск, 2012. – 156 с.
2. Официальный сайт Национального статистического комитета [Электронный ресурс]. – Режим доступа: http://www.belstat.gov.by/. – Дата доступа: 8.04.2014.
3. Forschung und Innovation für Deutschland Bilanz und Perspektive // Bundesministerium für Bildung und Forschung (BMBF) . – Berlin. – 116 p.
4. Deutsche Stars – 50 Innovationen, die jeder kennen sollte / Initiative «Partner für Innovation». – Berlin. – 106 p.
5. Innovationsdruck an der Spitze nimmt zu [Electronic resource]. – Mode of access: http://www.innovationsindikator.de/gesamtindikator.html. – Date of access: 5.04.2014.

UDC 330.332

THE ECONOMIC SUBSTANCE OF THE VENTURE CAPITAL AND PROBLEMS OF ITS FORMATION

YULIYA SALAKHOVA, VALENTINA BAHATUAROVA
Polotsk State University, Belarus

The article considers the theoretical aspects of the concept of "venture capital", analyzes the approach to the formation of venture capital, the role of the state in the formation of venture capital.

At the modern stages of economic development, innovation and the level of scientific and technological development of countries, regions and the world as a whole have largely come to define the capacity of national and regional economies to the introduction of new technologies and innovative products. These processes take place in modern conditions of globalization of production and cross-border capital movements. Therefore, any measures to improve socio-economic development should be focused on the adaptation of national economies to the dynamism and flexibility in terms of expansion of innovations and innovation.

Therefore, a speedy transition from science and technology policy to innovation policy will increase the innovative potential of the Republic of Belarus and to get more value from innovations that, in the future, will stimulate the emergence of new types of companies and their respective types of financing, including venture.

The formation and use of venture capital, as the capital which is invested in projects due to their novelty are particularly of high risk degree and are unable to finance through traditional means of external financing being a common international practice, which was developed in the 50-ies of XX century in the United States.

Mainly venture capital is invested in new or reorganized companies, including small companies with high development potential, or in risky stocks.

Like any other economic category, there are several approaches to the definition of "venture capital". Let's analyze some of them (Table 1).

Table 1 – The main approaches to the definition of "venture capital"

Author	The approach to determining
M. Bunchuk	Venture capital is a long - term, risk capital invested in the promotion of new and fast-growing companies with the aim of obtaining high profits after the registration of the shares of these companies on the stock market.
R. Lerman	Venture capital is equity or equity invested in the company is a small or medium business, implementing an innovative project related to the development of new technologies and/or release of a fundamentally new product.
M. Mnean	Venture capital is investment in new, fast-growing technology companies, as well as funding the restructuring of the company through the purchase of shares by a team of managers (of their own or third-party).
I. Komarova	Venture capital is a long - term, high-risk capital - a combination of financial and intellectual capital invested in small high-tech companies with high growth potential, the shares are not quoted on the stock exchange, in exchange for a stake in their share capital.
A. Folomeev, M. Neubert	Venture capital is a special resource that represents the unity of the financial and human capital, and therefore have a synergistic effect on business activity in the economic systems through the development of innovative and investment activity.
A. Zhestkov	Venture capital is a special investment share, representing an aggregate of funds, social capital in the form of cooperation, mutual respect and trust between the investor and the entrepreneur, as well as human capital in the form of knowledge, skills, managerial and entrepreneurial competencies of the investor.

Source: own elaboration on the basis of special economic literature [1-5].