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ASSESSMENT OF COMPETITIVENESS OF MOTOR COMPANIES AND TRANSPORT SERVICES

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The article describes the main approaches to the definition of "competitiveness", presents the analysis of the main methods of assessing the competitiveness of enterprises and the competitiveness of transport services.

Successful operation of the enterprise in the market environment involves determining its competitiveness. This allows enterprises to explore the market and identify areas of activity, to develop measures for improving productive capacity and competitiveness of products, to set prices and sales volumes.

Competitiveness as a term cannot be considered in isolation from the object. The scope of assessment may be products of a company, an industry, regions and countries. Competitiveness can be interpreted on several levels: the country's competitiveness, the competitiveness of the region (the industry), the company's competitiveness, the competitiveness of goods.

In economics competitiveness, in its most general form, is understood as an ability to compete with other similar properties in a particular market, using existing benefits [1, p. 24]. The term "competitiveness" is considered in works of numerous native and foreign researchers. All definitions of the competitiveness of enterprises proposed in literature do not contradict its understanding as a phenomenon and different clarifications introduced by various authors only reflect the direction of their research in this area.

The notion of "competitiveness of the enterprise" as a whole is used to determine its ability to resist competitors. At the same time there are many definitions of the concept. Variety of publications, their usage in a different conceptual framework and research methods indirectly show the complexity of the category "competitiveness of the enterprise". Faskhiev H.A. has analyzed publications in the field of competitiveness of enterprises. It was found that each author, depending on goals and objectives of the study, objects of study, requirements of market entities gives his own definition of competitiveness of the enterprise [2, p. 31].

For example, Seleznev A. defines competitiveness as economically, socially and politically conditioned position of a commodity producer in domestic and foreign markets, reflected through indicators, which adequately characterize this state and its dynamics [2, p. 31].

Mironov M.G. offers a definition of the company's competitiveness as the ability to profitably produce and sell their products at a price not higher and the quality not worse than any other counterparties in its market niche [2, p. 32].

According to Fatkhutdinov R.A., competitiveness is a property of an object, characterized by the degree of actual or potential satisfaction of its specific needs in comparison with similar objects represented in a given market [3, p. 56].

The problem of determining the competitiveness of transport companies is solved from different perspectives. The basis for the research in this area becomes the difference of transport activity from other activities.

The competitiveness of transport companies is the ability to meet the effective demand of customers in the transportation of a certain quantity and quality, which allows taking a leading position in the market of transport services and getting the most beneficial effect.

The analysis of the characteristics and features of a road transport on the basis of a general theoretical approach to the characterization of the conceptual apparatus has revealed their basic absolute competitive advantages [4, p. 64]:

– high road capabilities and maneuverability;
– promptness;
– low cost of infrastructure;
– existence of roads that can deliver goods to a particular consignee;
– cost-effectiveness during transportation of small consignments;
– the ability to deliver goods "door to door";
– the possibility of urgent delivery of valuable goods;
– the control of cargo location through the whole route (GPS navigation).

The aim of the design and modeling of transport company's competitiveness is the correct identification of a competitive strategy, consistent with the specific conditions of the transport industry, skills and capital, which a specific company has. The application of mathematical modeling, which allows revealing the features of

the functioning of an economic object and on this basis predicting the future behavior of the object if some parameters change, can serve as a methodology for the design and modeling. For any economic entity the ability to predict the situation is, first and foremost, to obtain better results or avoid losses. In the model, all the relationships of variables can be quantified to provide higher quality and a more reliable forecast. When building an economic model for the given economic category of "competitiveness of the enterprise", one can mark such structural elements as: the category of competitiveness of a firm and competitiveness of services that meet the goal and the identification of the most important quality characteristics of these elements. The categories of the competitiveness of an enterprise and competitive of services are interconnected. The main criteria for the competitiveness of enterprises are summarized in two evaluative categories: "the value of the produced services" and "the value of an enterprise as a business entity."

Changes in the external environment of enterprises stimulate the emergence of new methods, systems and approaches to competitiveness. The most common methods are the methods of assessment of competitors' possibilities by means of special expert studies and indirect calculations based on known data. To analyze competitors, a "method of reflection" is widely used in practice, which presupposes getting information about the targeted company from its customers or intermediate parties. Investigation of competitors should be directed to those areas that have been the subject of analysis of the potential of their own company. This can ensure the comparability of results. A convenient tool for comparing the capabilities of an enterprise and its main competitors is the construction of polygons of competitiveness which represent a graphic imaging of assessments of the company and its competitors on the most significant areas of activity, depicted in the form of vectors axes [5, p. 135].

The number of components of the competitiveness of a transport enterprise depends on the type and complexity of service provided and on the required accuracy assessment, research objectives, and other factors.

The possibility of a transport company to compete in the transport market is largely dependent on the competitiveness of combined transport and economic methods of production and financial activity, which impacts the results of competition.

For the analysis of the competitiveness of services, differentiated and combined methods are often used.

Differentiated method of evaluation of services is based on the use of single indicators. It gives answers to the following questions: whether the level of competitiveness is achieved as a whole; on what grounds it is not reached and which of them has the largest deviation.

Complex method allows, on the basis of individual, group and integral indicators, to obtain a generalized assessment of the competitiveness of services in general and at the expense of each factor. Currently, there are the following types of a complex method: analytical (Rosenberg's and ideal point models, based on sales and integral index methods) and graphical – BCG matrix, Porter's matrix, the model of market attractiveness, the model of a polygon of competitiveness.

To assess the competitiveness of transportation services a variation of a complex method, namely the calculation of integral index, is mainly used. The simplest of these is the method of the amount of seats. The implementation of the method involves the identification of the main factors in the formation of competitiveness and their ordinal rating on the set of objects being compared. The sum of ratings on all factors determines the overall rating, and hence the level of competitiveness of services. The disadvantages of this method are: subjectivism in substantiating factors and their ratings and lack of consideration of the importance of service attributes.

A more systematic list of factors of competitiveness of road transport services is used by N.V. Popova, who has offered the following groups of attributes:

– technical (parameters of correspondence to the purpose, e.g. of a rolling stock to the carried goods, regulatory parameters, environmental parameters, and others.);

– economic (tariffs, profitability);

– organizational (timely services, cargo safety, transport safety).

According to this approach calculation of individual and group indexes of services competitiveness is performed. However, it does not provide the identification of integrated assessment of services competitiveness.

In general, methods for assessing the competitiveness of road transport services depend on a combination of factors, on the basis of which the evaluation is performed, and a method of calculation of the integral index [6, p. 109].

The study of the competitiveness of services offered by an enterprise on the market must be continuous. This allows you to identify the point of declining of competitiveness and to make the decision on increasing the competitiveness of services or to determine the time of its withdrawal from production. From the economic point of view, to market a new service until the old one has not exhausted all the possibilities for its competitiveness is not appropriate.

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THE CONDITION OF TAXATION IN THE CONTEXT OF ECOLOGIZATION, DIFFERENT SYSTEMS AND WAYS OF ITS PROMOTION

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The article is devoted to emissions of polluting substances into the air in the Republic of Belarus. It also gives the information about costs in the field of environmental protection.

The primary purpose of the environmental tax is the environmental protection. All legal acts in the environmental field are aimed at maintaining the purity of air and nature in our country. All highly developed countries use an environmental tax in favor of environmental protection, but Belarus applies environmental tax without much impact on the environment. According to the given information, significant conclusions can be made on the impact of the Belarusian environmental tax.

From the table 1 we can conclude that, in general, the emission of harmful substances such as sulfur dioxide is being decreased, however, there is still no reduction of this emission for each year. For example, in 2009 the emissions have exceeded up to one hundred, but have twice exceeded the rate of 75,200 tons in 2005, this rate we are taking as the point of origin.

Table 1 – Emissions of sulfur dioxide into the air

Air emissions (thousand tons).	2005	2006	2007	2008	2009	2010	2011	2012
Stationary sources	73,9	87,7	80,6	63,8	139,5	51,7	44,4	63,7
Mobile sources	1,3	1,5	1,5	1,6	1,3	2,6	2,7	2,7
Total:	75,2	89,2	82,1	65,4	140,8	54,3	47,1	66,4

Source: [1].

The situation with nitrogen dioxide is more pernicious than with sulfur dioxide (Table 2). But, from the table, you can see that emissions from mobile sources are spoiling the statistics. According to the law, environmental tax does not apply mobile sources, if we take into account that every year mobile technology is improving, we can make a positive outlook for the future.

According to the table 3, we can see the benefits of the environmental tax. Since 1995, emissions have decreased and it is certainly a small victory for the environmental taxation, but the table 4 shows that we also have negative information on some given factors.

Table 2 – Emissions of nitrogen dioxide into the air

Air (thousand tons).	2005	2006	2007	2008	2009	2010	2011	2012
Stationary sources	59,1	61,1	55,2	54,1	55,7	57,1	52,8	52,8
Mobile sources	94,2	107,1	106,6	116,4	109,7	99,9	104,9	105,7
Total:	153,3	168,2	161,8	170,5	165,4	157	157,7	158,5

Source: [1].

Table 3 – Emissions of polluting substances into the air from stationary sources of individual cities (thousand tons)

	1995	2006	2007	2008	2009	2010	2011	2012	2013
Minsk	58,4	40,4	33,2	37,1	49,4	30,9	25,7	26,6	25,1
Vitebsk	15,6	5,6	4,5	4,3	6,9	3,7	4,9	4,8	3,8
Novopolotsk	81,6	64,0	80,0	58,6	63,9	50,3	51,2	67,8	53,5
Mogilev	29,3	7,9	7,1	7,2	12,0	6,5	6,9	6,8	6,5
Brest	4,0	3,5	3,2	3,0	401	2,9	3,0	3,5	3,7
Gomel	15,4	15,2	12,2	13,4	17,4	11,3	8,8	9,2	7,2
Grodno	16,2	13,7	12,2	12,3	16,4	11,5	10,7	11,9	10,6

Source: [1].

Table 4 – The concentration of nitrates in the river water

	2005	2006	2007	2008	2009	2010	2011	2012
The Berezina	5,22	4,56	5,31	5,66	4,60	4,91	3,72	5,54
The Western Dvina	1,19	1,28	1,06	1,06	0,79	0,88	1,24	2,92
The Dnieper	4,16	5,18	5,35	5,40	3,98	3,98	4,60	4,21
The Neman	2,48	2,17	4,47	4,87	5,22	6,46	5,40	4,34
The Western Bug	4,16	5,53	6,86	5,75	4,78	4,78	5,45	3,90
The Sozh	3,23	3,85	3,98	3,85	3,27	2,65	3,59	3,28

Source: [1].

The environmental tax, as was shown from the table 4, does not affect the concentration of nitrates in the river water. Moreover, the amount of pollution is not only reduced, but, as shown, has been slowly but surely growing in the recent years. Taking into account how many funds are being spent in this field (Table 5), this fact upsets and gives the cause for the concern. It turns out that there are gaps in the environmental policy. In practice, it is prepared and used not right and with mistakes or faults.

From the table 5 we can see the results of the environmental taxation in our country. We spend more and more each year, but the result in some branches is barely noticed, and sometimes has even negative forms. The positive effect of the environmental tax is presented by the amount of funds that have been invested in this area. Perhaps, we should use the experience of Scandinavian and Western European countries, that is (experience) very successfully implemented not only in their countries, but also in Eastern Europe. In Belarus, in my opinion, it is possible to take advantage of this knowledge, and apply this environmental policy in our country. That means, environmental tax in the EU encourages different enterprises not only to the limitation of emissions of harmful substances into the atmosphere, but also to the modernization of existing equipment, ecologization of different technology with its production and evaluation. Partly, due to the environmental taxation, the rejection of dangerous nuclear energy has begun in European countries, and the usage of solar energy, which is inexhaustible and effective, is being carefully and rapidly studied. Our country is far from this success, but nothing is impossible. Of course, the mentality of people affects greatly the various environmental reforms. While in other developed countries the view on the topic about the profitability of the environmental protection and the usage of resource activities for human society and the state prevails, it all happens because there is a stereotype attitude to the environment as the extra cost in Belarus. It leads to the isolation of the economy and the environment from managing, and provokes the increase of environmental problems. An important reason for the negative environmental trends is also underestimated from real economic value of natural resources and services. At the same time environmentally balanced option is lost in comparison to traditional solutions.

The perspective direction for promotion the environmentally friendly behavior on various enterprises is the introduction of specific environmental taxes on production, on usage of harmful environmental products, on dangerous technologies, and preferential taxation of environmentally friendly products and services should be applied. Special environmental taxes can be taken from producers or consumers as the percentage ratio from products, technologies, materials, that are potentially harmful, or are causing contamination in the recycling process (fuel and petroleum products, lubricants), consumption (leaded gasoline, pesticides, fertilizers). To increase their effectiveness, the accumulation of funds, subsequently intended on environmental measures in the framework of environmental programs, must be used.

Table 5 – Costs on environmental protection (in billions of rubles)

	1995	2007	2008	2009	2010	2011	2012	2013
Total cost of environmental protection	2.132	1.253	1.519	1.744	2.002	3.467	6.117	7 134
including:								
Current costs of environmental protection	1.564	971	1.178	1.296	1.587	2.720	5.234	6 171
that includes:								
costs on environmental protection	1.381	818	991	1.117	1.363	2.386	4.659	5 527
that includes:								
the protection and rational use of water resources	1.019	532	623	719	889	1.607	3.247	3 723
air protection	273	137	186	176	219	378	691	847
environmental protection from industrial waste	63	133	163	193	217	357	614	792
costs on renewals of basic assets, aimed at environmental protection	153	36	41	30	37	45	114	119
costs on maintaining reserves and national parks, biotechnical measures for the conservation, and reproduction of wild animals	28	61	72	58	95	140	270	288
investments in fixed assets aimed at environmental protection and rational use of natural resources	568	282	341	448	415	748	883	964
that includes:								
the protection and rational use of water resources	383	97	135	177	221	241	337	422
air protection	111	93	91	177	93	188	231	330
the protection and rational use of land (without land reclamation)	68	75	101	81	83	104	241	148

Source: [1].

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OUTDOOR ADVERTISING IN NOVOPOLOTSK

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It is known that advertising is an integral part of the market economy, encouraging the development of economic potential as an individual city, and the country as a whole. In this article, we consider one of the types of advertising - outdoor advertising.

Outdoor advertising – this is a natural tool of the economy and an important regulator of the market system. Today, outdoor advertising has become not only an integral part of urban design, being one of the most flexible and convenient ways of advertising, which allows to establish contact with the consumer and convey to him the specific information about the product and its brand [1].

The features of outdoor advertising are:

1. The potential audience is millions of metropolis or town residents, the proportion of potential buyers is comparable only to that of the consumers of television advertising. Grassroots is an obvious advantage of the outdoor advertising.

2. Outdoor advertising often does not have the annoying factor, as the same ads on TV, in most cases it is a jewel of the city (especially when it comes to beautiful and colorful LED displays stylish designs). In addition, the outdoor advertising funds are used only for their intended purposes, unlike other communication media, they are not used for anything else but just advertising. Outdoor advertising is competitive in cost, especially in comparison with television advertising [2].

The advantages of outdoor advertising are:

1. Good visibility. Due to the large size of advertising structures, outdoor advertising is very well marked. It is perfectly visible not only for motorists but also for pedestrians and people standing at bus stops or travel in public transport.

2. Outdoor advertising is well remembered. On weekdays, during the week pedestrians and motorists mainly move along the same routes. This is the way to and from work. Therefore, the outdoor advertising affects the same people several times a day. A frequency of occurrence affects memorability of advertising.

3. Outdoor advertising is unobtrusive. A billboard man looks only if the information he is interested in, if not, he does not look at it. Outdoor advertising does not interrupt his favorite TV show like television does, and in any case does not force to pay attention to itself like radio advertising.

4. Outdoor advertising is mobile. Advertising can be placed anywhere you want. On a board next to the store, on the facade of the building, on the roof, on the wall, it all depends on your imagination and budget.

5. Outdoor advertising improves the image. This property is left from the past, when the outdoor advertising is widely used by banks and financial institutions. Now to advertise on the board for many companies is a question of image.

Among the disadvantages of such advertising is a lack of a clearly defined target audience and the inability to monitor the instant reaction of the target group. Difficulty in creating outdoor advertising is that the eye contact with the advertising message is not more than 2 or 3 seconds, this means that during this time the consumer should remember and understand the advertising message. Accordingly, the text should be short and memorable (not more than 5-6 words). Among the important features of the outdoor advertising are readability font, the correct color scheme, imagery and effectiveness of visual impact. The important factors for outdoor advertising can be the point of view and the so-called angle of view. The ideal one is the place with the highest number of points of view.

Light boxes, pointers to the lighting poles

This type of outdoor advertising enjoys the greatest popularity among advertisers, since such advertising can perform several functions at the same time – it allows you not only to declare or to remind customers and clients about itself, but also point the way to the store or office, if somebody is away from the road, in the yard or it is hard to reach places.

The undeniable advantage of this type of advertising is a wide coverage of the audience. It is unobtrusive, but original.

In the manufacture of the advertising structure the most commonly used materials are printing, appliqué self-adhesive films or large format printing. The structures themselves, which can have one, two, three or even four sides, are installed on urban lighting poles.

Today in Novopolotsk there are more than 50 units of advertising structures of this type, and in 2006 there were no data structure in the town, which once again confirms their uniqueness and popularity among advertisers. It is also noteworthy advantage of these advertising structures, they are light, which allows them to provide illumination mode of urban lighting.

Transparency necking (advertising banners)

One of the outdoor advertising media comes in various sizes. The design consists of cables that are attached to the posts. Advertising banner made of canvas and vinyl to be placed above the road is one of the most sought and popular types of advertising after outdoor advertising, it is ideal when informing about the advertising campaigns it can be both unilateral and bilateral, it is one of the most inexpensive forms of outdoor advertising, thus considered to be very effective and is in great demand.

In our town advertising banners do not only give information about the promotions, but also inform the residents and guests of Novopolotsk about town activities and social programs.

Wall panels (firewalls)

Wall panels are objects of outdoor advertising and information that are installed on the plane of the facade of the dominant buildings in the city, both residential and administrative. This type of advertising has many advantages in attracting new customers. Firstly, wall panels (firewalls) have impressive size (area of more than 100 m^2), which allows the potential consumer to present advertisements more effectively and colorfully, and secondly they are long-

term and effective means of outdoor advertising, as they have long service life, perfectly transfer the impact of various adverse weather conditions: rain, wind, snow, sunshine. And yet, most importantly, they serve as an additional element in the overall design of the city architectural ensemble of the urban environment.

In Novopolotsk wall panels are presented in the amount of more than 20 units, with sizes ranging from 2 m^2 to 210 m^2. Their design is provided with energy-saving lighting elements, which serves as an additional illumination of the town at night, performing the functions of architectural and aesthetic design of the urban environment.

Light-posters (city format 1,2h 1,8m) or stele

These are separate, vertically oriented design, traditionally installed in our town along Molodiezhnaya Street on the lawn median strip separating pedestrian zone and roadway, where they are still clearly visible to motorists as well as to pedestrians. They are mainly used for mobile advertising - advertising short-term fashion actions but in addition to this type of advertisement it is used to attract attention, help in identifying places and clarify the company's image and as information stands. The use of this option is extremely relevant at the gas stations, in exchange offices and mall entrances.

In Novopolotsk technical means of outdoor advertising of this type are installed in the area of cinema "Space" to the intersection of Kalinina and Molodiezhnaya streets. Traditionally, however, very popular design is used at gas stations to post information of special value of information services provision. Advertising and information steles mandatory contain light elements, which are placed inside in most cases.

Detached shield design (billboards)

Large billboards, which are attached to the support frame, upholstered plywood or steel sheets are usually installed along the busy streets and trails are the most effective and efficient type of outdoor advertising. They are often the best way, as can be equally well seen both by motorists and pedestrians. This is the ideal media for ensuring long-term advertising campaign. Compared to other options of outdoor advertising, billboards are vividly illustrated as the most noticeable ones. The most common format is the 3×6 boards. Due to the large size, a billboard attracts attention from afar. A billboard enables you to use all the opportunities offered by such outdoor advertising

According to the type of construction billboards may be unilateral, bilateral, trilateral and quadrilateral and even can be a variety of sizes – the most common, as noted above, is the size of 6×3 m, but other dimensions are also used for example 10 × 5 m, 9 × 4,5 m, 12 × 6 m, 15 × 5 m.

Billboards are often provided with impressive illumination for night-time, they can be allocated substantially on the dark background.

Focusing on the principle of standard size, in Novopolotsk there established exclusively shield design format 3 × 6 m., Novopolotsk today has more than 70 such advertising structures. However, installation of billboards in Novopolotsk shall be based on the aestheticization of the urban environment, taking into account the architectural features of the town, compliance with STB and SNIP planned comprehensive reconstruction of the urban area, the availability of utilities and the requirements of the traffic police.

Panel-mounting brackets on the lighting poles.

These lighting console lighting poles are mainly used as decoration elements of the urban environment. They can be light and not light (brackets without backlight), as well as using reflective films. Most often, they are located at the height of 3 meters, which improves their perception for drivers and passengers. They can be placed on a pedestrian street, a busy highway, near pedestrian crossings and bus stops. In any of these cases they will be effective enough.

This type of advertising structures in our town is represented in the form of the Lily-Emblem of Novopolotsk placed on light poles along the main streets of the town, creating a really beautiful and spectacular appearance, giving the town festivity and splendor. And these structures are arranged along the bridge over the Western Dvina River, as an additional entrance visas to Novopolotsk.

Announcement posts

They are used to place posters and ads, including ads private information about town events, announcements, and other cultural programs.

Today, the town has 7 announcement posts near shopping centers and stopping points.

Advertising signs

This advertising design in flat or three-dimensional form is located on the facade of the building, not far from the entrance. A sign informs about the company or organization, located in this building. Modern signboard performs two functions:

– informing potential clients;

– branding company.

As a hallmark of the building, a sign lets you know who or what is inside without going inside, as well as such design adds aesthetic appearance of the building and the street.

Depending on the method of manufacture, signs can be divided into:

– flat signs with text and graphics, for the night time where outdoor lighting spotlights can be used;

– volumetric signs, light boxes and large letters, both internal and with external illumination.

Light volume letters are able to work on the business owner at any time of the day, which is a very good investment.

The ability of the three-dimensional letters to transform buildings and premises is used by advertisers to draw attention and to inform potential customers. Aesthetic component of outdoor advertising design, in particular three-dimensional letters, today is a very important aspect in advertising.

Light boxes as one of the signs designs are one of the most affordable types of outdoor advertising thanks to their simple design and form an integral part of the facades of town buildings.

In Novopolotsk this type of construction is most common. Most of the advertisements in the town (over 80 %) are just advertising signs.

Pillar

Pillars are small billboards in the form of a small house with one or two sides, whose main advantage is the low price, compactness and mobility.

Pillars often set to draw attention to the cafes, eateries and shops. Pillars can be very useful if the company store or cafe are not in plain view, and require a pointer. Pillars also often act as guides in shopping centers and markets. Well, if they are set before the cafe, then we can use them as a menu.

In Novopolotsk there are more than 20 pillars. They are less disseminational technical tools of outdoor advertising in our town.

For outdoor advertising, there are five most important requirements [3]:

1. Be frequently in sight.
2. Attract attention.
3. Be brief.
4. Be easily readable on the go.
5. Be clear.

Of these requirements outdoor advertising can be effectively used only for goods (services) that can be represented by a concise summary of the text and images. You can use it to remind people about the merits of certain commodities and about where they can be purchased.

It can be concluded that outdoor advertising in spite of its flaws is still one of the most popular communication channels. Outdoor advertising gives a very good effect if properly placed and a good layout is made. Therefore, in the budget of many advertisers the column "outdoor advertising" is presented on an ongoing basis [4].

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UDC 657

THE PRACTICE OF MAKING REPORTS ON THE SUSTAINABLE DEVELOPMENT OF THE EUROPEAN UNION

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At the moment in the European Union there is a tendency, stimulated by the institutions of power, to use the practice of corporate social responsibility. There is a wide range of legal acts issued by the authority of the EU in the test industry. It is explained by the desire of supranational bodies of the EU to ensure a balanced development and strengthening of the Union and assure the unity of practical measures to disseminate the principles of CSR [1].

Previously, only a relatively small number of companies made reports on the sustainable development. They aimed at reducing the negative impact on the environment and promote the development of local communities. However nowadays this has become a common practice of organizations in different countries. Focusing on sustainable development helps companies to control their impact on the social and environmental surroundings, increase operational efficiency and rational use of natural resources. Sustainable development is one of the most important issues in cooperation of organizations with their shareholders, employees and other stakeholders.

Reporting in the field of sustainable development is becoming more common in different countries. The system proposed by the Global Reporting Initiative (System GRI) has become widely used as the basis for report making. GRI system is a set of regulations and documents appeared as a result of international consultations with various stakeholders.

Standards applied by companies in the process of report making in the field of sustainable development:

- GRI Guidelines (72 %).
- Using the basic principles of GRI Guidelines (18 %).
- Without using the GRI Guidelines (6 %).
- The standard which is different from the Guidelines GRI (4 %).

Reporting on sustainable development provides the following benefits:

- Strengthening of the goodwill.
- Correspondence with the employees' expectations.
- Facilitating access to capital.
- Improved management and waste reduction.

Reasons for reporting on sustainable development, depending on the type of company:

- Information transparency for stakeholders (78 % of respondents).
- Risk management (39 % of respondents).
- Influence of stakeholders (36 % of respondents).
- Competitive advantage (56 % of respondents).
- Brand and (or) goodwill (7 % of respondents).
- Corporate culture (8 % of respondents) [2].

There is strong evidence that the information openness provides a number of financial and social benefits which cover the costs, despite of the fact that the making of a report on sustainable development in accordance with the GRI principles or another standard requires serious work. Respondents from companies, making reports on the sustainable development, often pointed out the problem in terms of data collection, analysis and consolidation of data as the difficulties encountered in the process of report making.

To make a report on sustainable development is not only an internal problem for a large holding company. Proper management of sustainable development involves working with subsidiaries and suppliers. Suppliers of some organizations may not be sufficiently large or "advanced" in order to make sustainability reporting themselves. This sets some difficulties for reporting companies which may face the problem of the supply chain influence on their own activities [3].

Many supporters of reporting on sustainable development believe that their future development in the field of corporate reporting is the integration of its various types in a single report. One of the areas of standardization is connected with the proposal to integrate the annual reports of financial and non-financial information about the company's activity.

Benefits of what has been said go beyond the management of financial risks and opportunities of the company, allowing to conduct business in compliance with the principles of sustainable development for the so-called social license. Disclosure of information in the field of sustainable development becomes an important competitive advantage and helps to strengthen the confidence of investors and increase employee's loyalty. Analysts often consider the disclosure in the field of sustainable development in assessing the quality and effectiveness of management in companies. Reporting in this area helps organizations to gain access to funding sources.

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EVALUATION OF COMPETITIVE STRENGTH OF BUILDING COMPANIES BASED ON ORGANIZATION AND TECHNICAL INDICATORS

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There are different methods of evaluation of competitive ability of building organizations. We analyzed the main approaches to how assess the competitiveness of organizations and found out some flaws of existing approaches. The article deals with a method based on organizational and technical indicators.

Development of market economy and increased competition among building companies attracted our attention to the problem of competitiveness. Building enterprise competitiveness is largely determined by the amount won in a tender for the construction of buildings and structures. Under the President Decree of 17.11.2008 № 618 "About the government procurement in the Republic of Belarus" the winner of the tender is the participant who offers the best conditions for the execution of the contract. Today the main criterion for determining the best conditions of the contract is the price. In addition to the prices, according to p.p. 4.2. of the Decree № 618 of the same law, the criteria for assessing the applications for participation in the competition can be:

1) functional characteristics (consumer properties) or qualitative characteristics of the product;

1.1) the quality of work and services and (or) the qualifications of the participant who places an order for work and services;

2) the operating costs of the goods;

3) the maintenance cost of the goods;

4) time (periods) of delivery of goods, works and services;

5) the term of the quality assurance of goods, works and services;

6) the amount of quality assurance of goods, works and services;

In practice, it turns out that the only criterion for evaluating the bids is the price of the contract. This leads to the fact that the organization-participants deliberately understate the contract price, hoping to get more financial resources by compiling numerous additional agreements. Moreover, it often happens so that the contest wins an organization, which does not meet any of the required characteristics. As a result customers receive a building with a poor quality construction, numerous defects, and with failed terms of construction period, but the final value of the contract exceeds the original, sometimes in several times. That is why the issue of improving methods for assessing the competitiveness of construction companies is becoming an increasingly relevant.

There is currently no mechanism for collective evaluation of the organization level and development of production technologies in the enterprise, which would allow the organization to determine the winner according to the company's own organizational and technological indicators. This approach is most appropriate in the current market conditions. It is important to note that the development of this mechanism is equally necessary for both of the participants: the client and the contractor.

Nowadays there are various methods of assessing the competitiveness of enterprises and products, but not all of them are useful for assessing the competitiveness of building companies operating in the housing market, as many of the methods do not include the specifics of the construction industry.

1. Analysis of modern methods of assessing the competitiveness of building companies.

The methods of estimation of competitiveness used for construction companies.

Methods for assessing the competitiveness of construction enterprises are divided into two groups: analytical and graphical (Figure 1).

Let us consider the details of the methods used for construction companies.

Rosenberg's model: the essence of the model is that the investor estimates whether a particular house meets his needs. This model is based on the assumption that each characteristic is important, and thus, the higher the score, the better.

Integrated indicator of the goods competitiveness: the closer the value of the integral indicator to 1, to the greater extent the model corresponds to the house.

Evaluation of competitiveness of the goods on the basis of price and quality: the main factor determining the competitiveness of the goods – money.

A model with a perfect point: this method differs from the given above by the fact that it introduces an additional component - the ideal characteristics of the price of a product.

Rating assessment. Rating assessment is used for a special comparison of the companies in the industry and / or region. According to A.D. Sheremet and E.V. Nenashev, the company's competitiveness is characterized

by its financial condition, so the formation of methodology for assessing the financial condition is the most important task. Despite the fact that the authors suggest to use a methodology of rating assessment for the industrial enterprises, it can be used in the construction industry. This was made possible due to the introduction of a unified financial reporting system [6].

Assessment method, which is based on the results of the auction [4]. We can find the methods of estimating the competitiveness of enterprises, based on the results of the auction in the scientific researches of Gumba. He believes that the construction industry in Russia has already possessed the necessary prerequisites for the development and implementation of the competitive relations. Contractors dividing market of construction services are the most effective mechanism for creating a competitive environment.

Estimation of competitiveness, which is based on the theory of effective competition [1]. According to this theory, the level of work of all departments and services of the enterprise directly influences its competitiveness. The effectiveness of the units is determined by the level of use of the various resources of the enterprise.

Estimation of competitiveness on the basis of the norms of consumer cost. The essence of this method is to estimate marketing, managerial and organizational decisions.

Boston Consulting Group matrix. The technique is based on the analysis of competitiveness with the account of the product life. To assess the competitiveness it is necessary to analyze the matrix built in the following way: horizontal – increase / decrease in the number of sales in a linear scale; vertical – the specific weight of commodities in the market.

Model "The attractiveness of the market - a competitive advantage". This model develops the above matrix. The main characteristics of the model are market attractiveness and competitive advantage. Attractiveness of the market is determined by its properties: quality, fundamentals of supply and so on. Competitive advantages are described according to the following indicators: the relative position of the potential product on the market, the research capacity and skills of managers and co-workers [2].

Matrix Porter. The basis for the construction of the matrix is the concept of competitive strategy, which means that the company should focus not only on customer satisfaction, but also on the competitive forces of the market.

Polygon competitiveness [6]. The essence of this method is to compare your own business with competitors' by plotting the polygon competitiveness. It shows the position of the company and the position of its competitors on the most important areas of activity, which are represented as vectors-axis (Figure 2).

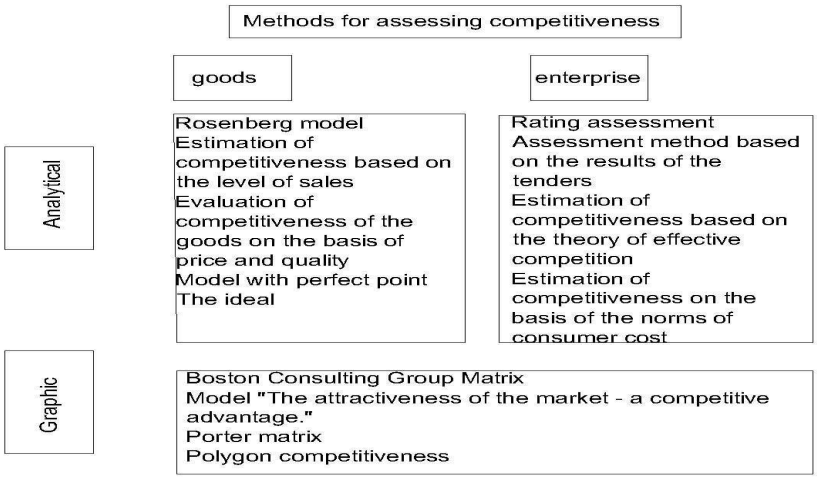

Fig. 1. Classification of methods to assess the competitiveness of goods and enterprises

It should be noted that the analyzed methods encompass not only the different parameters affecting the assessment of competitiveness, but also a variety of approaches to the assessment of the competitiveness of the enterprise as a whole.

Despite this, these methods have several disadvantages. The main disadvantage of all the above methods is their limitations: either the focus is only on one group of factors determining the competitiveness of companies, or the method is too complicated and time-consuming to use it in practice.

All the above methods of assessing competitiveness motionless in time, they estimate the company at some point in time, based on points obtained earlier.

The specificity of construction products is its tightness, stiffness, capital intensity, material consumption, duration of the construction, operation, and so on. These features characterize the relationship between the

participants of the investment process. The customer chooses the construction company which is able to meet the customer's specific needs. Superiority over competitors in meeting the customer's specific needs is expressed not only in a set of qualitative and cost characteristics of the construction products, but also in the organization level of the production.

In addition, in these disadvantages there were mentioned about the limitations of the methods that were used. It lies in the fact that, as a rule, focuses on the economic, managerial and consumer (price and quality) indicators of competitiveness. Organizational and technical indicators are not considered as the test, or indicated a small part of them. Although they largely determine and justify all the other indicators. This means the close relationship of economic, managerial and consumer with organizational and technical indicators of competitiveness of construction enterprises. And this, in turn, determines the management decisions aimed at achieving the goals in a timely manner with minimal cost of all kinds of resources.

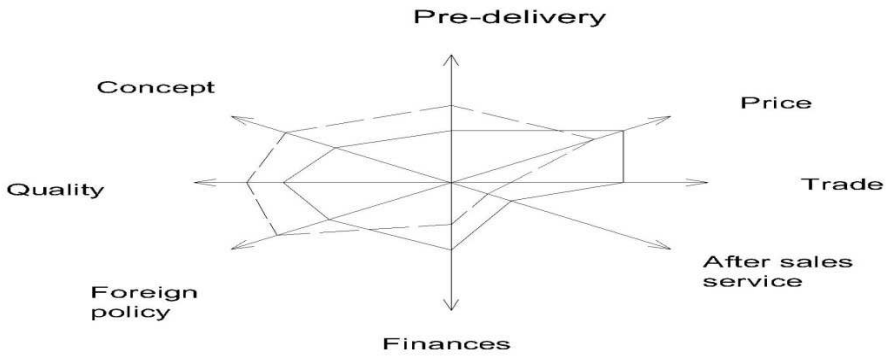

Fig. 2. Polygon competitiveness of the two companies

In order to overcome all these disadvantages it is advisable to assess the impact of organizational and technical performance of the company on its competitiveness.

2. Effect of organizational and technical activity indicators of the company on its competitiveness.

Based on the results of earlier studies on the evaluation of companies [1, 3, 5, 6], there were chosen and devided into groups the most significant indicators of competitiveness (Figure 3).

Fig. 3. Indicators of the competitiveness of the building enterprise

Let us describe each component in detail.

Performance management (planning, marketing, organization, control). Management quality of the enterprise is defined by the number of management personnel. Management personnel is number of employees with higher or two higher educations, who have work experience in the relevant administrative staff positions while working in the enterprise.

Financial performance. The current liquidity ratio (cover) characterizes the overall organization security of working capital for business activities and timely repayment term liabilities.

The coefficient of availability of internal funds characterizes the share of working capital in their total amount.

Autonomy ratio characterizes the company's independence from the borrowed funds and from the calculated ratio of the company's funds to the total funding sources.

Turnover ratio characterizes the efficiency of working capital. Corresponds to the time during which the current assets are held at each stage of production and circulation.

Return on sales characterizes the degree of profitability of the enterprise in the market price of the product is properly installed.

Product profitability characterizes the degree of profitability of production.

Indicators of competitiveness. An average price of the performed unit of work acts as an indicator of the price of goods.

That is, the higher the quality and lower the price of the product, the higher the level of organization of production in the company and its competitiveness.

Organizational and technical indicators. Possession of the inventory of workers can be determined by the amount of work performed by the mechanized method, which falls on one of the main production of the average worker.

Possession of the inventory says about the level of work organization, the level of equipment of the enterprise mechanisms. High level of possession of the inventory means the predominance of mechanized labor on hand, which, in turn, causes an increase in the quality of constructed buildings and structures. In addition, companies with high possession of the inventory become more attractive for employment.

Installed power of workers is defined as the ratio of the total capacity of all construction machines and mechanisms for the average number of workers employed in the production of work construction and installation.

High power is inherent for building enterprise, which is provided with modern and powerful machines and mechanisms. The consequence is a reduction in terms of erection and commissioning of buildings. This means a reduction in construction costs and increase of the company attractiveness for investors and potential employees.

The level of the rhythm of work production is needed to determine the extent to which the actual timing of works corresponds with the scheduled.

Rhythmic work production indicates a high level of organizational and technical discipline, sound planning, competent management and timely delivery of all types of resources.

The level of fixed production assets describes the effectiveness of the use of fixed assets and the determined capital productivity index, i.e. the ratio of the number of square meters built in a year to the average annual value of fixed assets.

Turnover ratio – the ratio of the number of laid-off employees, retired over a given period to the average number during the same period.

Staff turnover negatively affects the activity of the company. As a result the company has reduction in production figures (deadline, quality products, and so on), as well as inefficiency.

Continuous use of resources.

The index defines the duration of a relatively long process without interruption.

The uniformity of the use of resources. Uniform resource utilization rate is the ratio of resources used at a constant rate to the entire scope of work.

Continuity and uniformity of the use of resources as well as the level of the rhythm of work show the high level of organizational and technical discipline, sound planning, competent management and timely delivery of all types of resources.

Thus, summing up our analysis of the impact of organizational and technical performance of a construction company, we can conclude about the close relationship and the correlation of these parameters with other (administrative, financial, performance competitiveness). In addition, organizational and technical indicators directly relate to the competitiveness of enterprises. They largely determine the competitive advantages of the company and are an important tool for improving the competitiveness of enterprises in the construction market. The main perspective directions of the development of these prerequisites are the development of a methodology for assessing the competitiveness of the company on the basis of organizational and technical indicators, planning and staging of these indicators of the budget process in the construction company taking into account the increase of the level of organization of production.

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ANALYSIS OF THE LABOUR POTENTIAL OF THE REPUBLIC OF BELARUS

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In the article the analysis of the labour potential of the Republic of Belarus is given. The author presents the statistical data characterizing the potential of the Republic of Belarus, as well as the various authors' approaches to the definition of the labor potential.

General index of the process of formation and development of the person in the workforce is the labour potential of the society. Potential is a collection of opportunities in any field to achieve certain goals. As an economic category, labour potential reflects the relations of production over reproduction psychophysiological qualification, spiritual and social qualities of the working-age population. With the quantitative side of the labour potential represents the stock of labour, which are determined by the total number of labor resources, their age structure, educational level and possibilities of their use. In General, when determining the essence of the category "labor potential" there are three fundamentally different approaches: resource, factor and potential (Table 1).

Table 1 – Approaches to defining the essence of the category "labor potential"

The Approach	The Authors	Interpretation
Resourceful	A.A. Popov, M.S. Chizhov, G.P. Sergeev, L.E. Kudelski, L.I. Novik, V.G. Kostakov	the set of social resources of society, which has quantitative (gender, age, number) and qualitative (complex scientific and practical knowledge) certainty
Factorial	M.I. Skarzhynska, L.E. Yuferefa, Y.P. Odegov, E.A. Lutochin, R.P. Kolosov, S.I. Pies, T. I. Zaslavskaya	a special form of personal or human factor, as the public's ability to work, "generic (common)set of employment opportunities of the individual, team
Potential	The content is reduced to the potential of the work. Genetic basis of labour potential is associated not with the combined ability to work, and with a total employee	

Source: own elaboration on the basis of special economic literature [1-2].

Recently such a concept as "the index of human development" and "human capital" has been used for the characteristics of the labour potential of the country. Textbook, edited by C. M. Shimova follows that the index of human development (hereafter HDI), or the human development index (hereafter HDI), developed by experts of the United Nations Development Programme to compare individual countries by level of human resources development, namely, how the conditions of life in this country is close to the generally accepted criteria for the well-being of the individual citizen and the nation – the opportunity to live long, get an education and have a decent level of material well-being. The indicator takes into account the importance of both economic and social factors to human life [1, p. 79].

The concept of human development is one of the most famous intellectual products, developed by UNDP. Major programmatic elements of the project are: the concept of human development as such, together with

global, national and regional reports on this topic. In 1990, the UNDP published its first evaluation report on economic and social progress of the countries in which it was formulated the concept of human development: human development is the process of expanding the range of choice. The most important elements of the choice is to live a long and healthy life, to be educated and to enjoy a decent standard of living. Additional items choices include political freedom, guaranteed human rights and self-respect". This framework is aimed at improving the quality of life, expanding and improving its capabilities in all areas. The concept of human development was replaced by the so-called "classical" theory of economic development, which was based on the gross national product, considered man only as a driving force for economic development and proclaimed economic growth as the main goal of social progress. HDI countries are published by the Program for Development of the United Nations in their annual Reports on human development. If in 2002, our country development index was 62 place, at present Belarus took 50th place. This is the third position in the group of countries with high human development. The human development index is calculated on the basis of three indicators - life expectancy, average years of schooling and gross national income. There are some countries in the group with high levels of human development in addition to Belarus, Russia lags behind Belarus in five positions and ranks 55th place, Kazakhstan (69th place), Georgia (72nd place), Ukraine (78th place), Armenia (87th). In the group with an average level of development there are Turkmenistan, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan [2].

Human capital includes innate ability and talent, as well as the accumulation of knowledge, skills, experience, education, training, information, physical and psychological health, spiritual wealth, comprehensive mobility. It is not just a set of skills, knowledge, abilities possessed by people, and their accumulated stock. Recognized two main approaches to the estimation of accumulated human capital: cost and income (rent).The cost approach is based on the summation of total expenditures on education, vocational training, health and other costs to society, usually attributable to investments in human capital. The revenue principle is based on the assessment of income for the workers which reflects the return on the funds invested in appropriate educational and qualification level [1, p. 80].

Human resources – this is the part of the population, which owing to the totality of physical abilities, expertise and experience can participate in the process of reproduction, the creation of tangible and intangible goods and services. To human resources should be considered the working-age population (excluding non-working disabled persons of groups I and II and retired persons receiving a retirement pension on preferential terms), as well as those older and younger than working age, employed in the economy. For estimation and forecasting of labour resources is fundamental demographic potential of the country, the most important indicators are the number and duration of life of the population, fertility and mortality, age structure, population distribution by urban and rural areas. The population is determined by the results of the census and current estimates (in years between censuses). Current estimates are on the basis of the results of the population census, to which the number of births and arrivals and subtracted the number of deaths and emigrants is added every year. At the beginning of 2010 the population of the Republic of Belarus was 9480,2 thousand people. The urban population is 74.5 % and rural – 25,5 % 2. The population of Belarus occupies the fifth place among the CIS countries after Russia, Ukraine, Uzbekistan and Kazakhstan [3] (Table 2).

Table 2 – The population dynamics of Belarus, 1950-2010 (thousand people)

Indicator	1950	1960	1970	1980	1990	2000	2010
Entire population	7709,0	8147,4	8992,2	9591,8	10158,9	10019,5	9480,2
Urban population	1619,5	2605,1	3890,6	5361,5	6731,9	6985,4	7058,1
Rural population	6089,5	5542,3	5101,6	4230,3	3457,0	3034,1	2422,1
A General increase/decrease of population over 10 years	–	438,4	844,8	599,6	597,1	- 169,4	- 539,3

Source: own elaboration on the basis of special economic literature [4].

Depopulation, which we see in Belarus, is not a unique phenomenon in the world. It became a major demographic problem for most developed countries. This has led to a decline in population growth, and many countries have begun the process of depopulation. The main reason for this process was the increase in social and economic activity of women and their desire for social self-realization.

The formation of labor resources is determined by the dynamics of the population in working age, first of all number of generations, entering the working age and beyond. In the Republic of Belarus, Russian Federation and Ukraine, to the working-age population men aged 16 to 60 and women aged 16 to 55 are included. In the UK, Austria, Greece, Georgia upper limit of working age for men is 65, women 60 years; in Italy, respectively, 62 and 57; Kyrgyzstan 63 and 58; Portugal 65 and 62. In many countries the boundaries of working age for men and women is the same and the upper limit is, for example, in Denmark, Iceland, Norway is 67 years; in Belgium, Germany, Finland, Sweden, Canada, USA – 65 years; Estonia – 63; Latvia – 62; China and France – 60.

In 2001 – 2005, the number entered in the working age was 816 thousand people compared the performance of the number entering the working age and beyond shows that in the last five years, the inflow of labour potential 1.8 times more than its retirement. This caused the increase of population in working age by 185 thousand people.

The impact of migration factors on the formation of labour potential in Belarus is not essential. 50 – 60's of the XX century have been a surplus of labor resources, which the economy of the Republic could not be fully utilized, thereby causing the relocation of residents to other regions of the former USSR. In addition, Belarus lost its population exchange with the Russian Federation, Ukraine and Kazakhstan (Table 3).

Table 3 – International migration (people)

Indicator	2000	2005	2009	2010
Arrived in the Republic of Belarus:	25943	13031	19892	17169
from CIS countries	23492	11426	15582	14303
from countries outside the CIS	2451	1605	4310	2866
Dropped out of the Republic of Belarus	13812	11082	7643	6866
including				
in the CIS countries	7249	7520	5313	5040
from CIS countries	6563	3562	2330	1826

Source: own elaboration on the basis of special economic literature [4].

Radical change in the external migration of the population decrease occurred in the 60's of the XX century, speaking of the XXI century, the minimum percentage of migration of citizens of the Republic of Belarus came in 2000, currently this figure is two times lower, which indicates stability in the economy and the improvement of working conditions, which fully allows you to find a job in our country.

Another source of labour potential is the population of younger and older working age, representing 4.3 % of the total workforce (against 4.9 % in 2000). The role of working adolescents in the structure of the labor force minor – 0,2 thousand people. It is a natural process to reduce teenage employment associated with the necessity of education. There has been a steady reduction and the number of working pensioners.

If we analyze the employment potential of our country, for the last 10 years the number of inhabitants in Belarus decreased to 540 thousand people, or 5 %, whereas migration was during this time only 85 thousand people. The main reason for the reduction in the number of residents of Belarus is the natural decline. In addition, the reason for the decline in population is also outflow of people for permanent residence abroad. Besides mainly people of working age go abroad. Against the background of declining population on the whole territory of Belarus continues to increase the number of residents of Minsk.

Thus, at the present time there is movement of labour in the service sector, which in 2010 were employed for 29.6% of all workers, whereas in 2000 of 26.5 %. At the same time, the number of workers employed in the sector of intellectual services (education) in the last 10 years has decreased by 0.9. The greatest reduction in the number of employees occurred in agriculture – 168 thousand (26.8 per cent) and industry – 64 thousand (5,2 %).At the same time, since 2001, there has been a growth in the number of people employed in the construction of 8.4 % over the five-year period [3]. The proportion and number of people employed in the manufacturing sector decreased, while the non-manufacturing sector is growing. Employment growth in the non-manufacturing sector does not compensate for the release of people employed in the manufacturing sector. The fall in employment in the manufacturing sector is more a consequence of the fall in output and investment and to a lesser extent the result of productivity growth. The increase in the number of people employed in the sphere of circulation is characterized, in particular, excessive growth of intermediary structures and inefficient forms of trade (for example, large flea markets). The increase in the number of people employed in non-material sectors due to the following reasons: housing and health: low level of organization of the industry; in the field of Finance and credit: low productivity, unnecessary proliferation of banking transactions where we can do without them, low-skilled workers; in higher education: expansion of the commercial sector, which aims to profit and, as a rule, are not able to provide an acceptable quality of education, not focused on the needs of the national economy. The increase in the number of employees with higher and secondary special education in the fields, which do not always correspond to the profile of their work and the level of training does not meet higher education.

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THE CONCEPT OF "URBAN MOBILITY" AND ITS INDICATORS OF STABILITY

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Transport service has got a huge economic importance in the life of a city. The interaction of industrial enterprises, service sector, consumer and commerce market is directly dependent on transport. Transport arteries of a city like blood vessels are braided with speed, accessibility and sociability. The country's economy is generally dependent on the ability of transport and industries meet the demands of internal and external market.

Various types of transport, namely surface, underground, water and air transport ensure the delivery of people to necessary destinations as soon as possible. The transport infrastructure of a city meets the needs of different social groups in the developing countries [1, p. 321].

A city is a territory used by the society for a living. People living on a city's territory should guarantee the observance of political, environmental, social and economic aspects of life.

In cities, there are two main types of flows: the movement of people and goods, as well as the concomitant information. This traffic, which is necessary for the proper functioning and development of the city, leads to overloading of transport network, which increases competition among consumers of the above mentioned flows for access to the network. This is largely due to the fact that this movement is not coordinated, what in its turn causes social conflicts [2, p. 295]. These problems are most acute in the cities in developing countries. In coming decades such countries will have growth of their population about 90 percent. These cities are already struggling to cope with the growing demand for investment in the transport systems. They have also faced with the problem of "transport poverty". Millions of people cannot use public or private transport because of the high cost of travel; disabled and elderly people often do not have access to transport because it is not suited for them; and the unsafety in a transport is a serious problem for many women, young people and minorities who are in a vulnerable position because of their religious or ethnic affiliation [3].

European cities have been making significant efforts trying to improve the conditions for the mobility of their residents over the past two decades. It should be noted that in the economic literature there are an insufficient number of approaches to the interpretation of the concept of "urban mobility". The results of the study interpretations of the term "urban mobility" are presented in table 1.

Table 1 – The interpretation of the concept of "urban mobility" in literature

Source	Definitions
Vardevanyan P.G.	"Urban mobility is the mobility of people measured by the amount of movement on foot or by transport in urban space throughout their life" [1, p. 321].
Yonkis A.	"Urban mobility is a set of management movement processes of people, cargo and logistics information system within the city in accordance with the needs and goals of its development, subject to the requirements of environmental protection, taking into account the fact that the city is a public organization which main goal is to satisfy the needs of its users" [2, p. 296].
Popov V.	"From a scientific point of view urban mobility is defined as the mobility and the ability to fast moving and action" [4, p. 156].

Source: own study based on the study of economic literature.

In our opinion, the concept of urban mobility is reflected more fully in the definition of A. Yonkis because it includes not only the movement of people, as well as the movement of goods and information within the logistics system of the city. Thus, under the urban mobility we understand the ability to meet the desires and needs of people for freedom of movement, access to communication, trade and other relations, without prejudice to other important social and environmental priorities of society in the present or in the future. A plan of a

sustainable urban mobility is a strategic document, which is a part of existing planning practices. It meets the needs of people in the movements today and in future in order to improve the quality of life in cities and their surroundings.

From the message of the UN Secretary General Ban Ki Moon "Urban Mobility" from October 7, 2013: «Mobility is provided not only by building a broader or longer road; convenient and effective system servings of people in the best and most equitable way are necessary. We should discourage people from using their private transport to travel on trains, buses and bicycles and improve illumination of sidewalks that they could be used by more pedestrians. People should be able to get to work, schools, hospitals and places of recreation safely and quickly. A proper growth of mobility can reinvigorate the urban centers, improve performance and increase the attractiveness of cities for all users - from investors to visitors and residents» [5, p. 272].

Achievement of sustainable mobility is a difficult task for cities in Belarus. Novopolotsk is the first town in the country, which is taking steps to develop new management instruments for urban mobility. "Belarusian Union of Transport Workers" supported the city by providing their own organizational resources and intellectual powers of domestic and foreign experts. Novopolotsk and "Belarusian Union of Transport Workers" are working on the concept of sustainable mobility in Novopolotsk called "Make the city comfortable for living" and have started to implement a new project.

The new project "Development of recommendations for the implementation of sustainable development principles in the plans of urban mobility" is carried out in the framework of the program SECTOR supported by the Government of Sweden.

Indicators of mobility or transport mobility are used to assess the level of satisfaction of the needs of the urban population in the urban passenger transport services and are necessary for the formation of the transport policy of the city. Let us consider evaluation indicators of logistics system of urban passenger transport in figure 1.

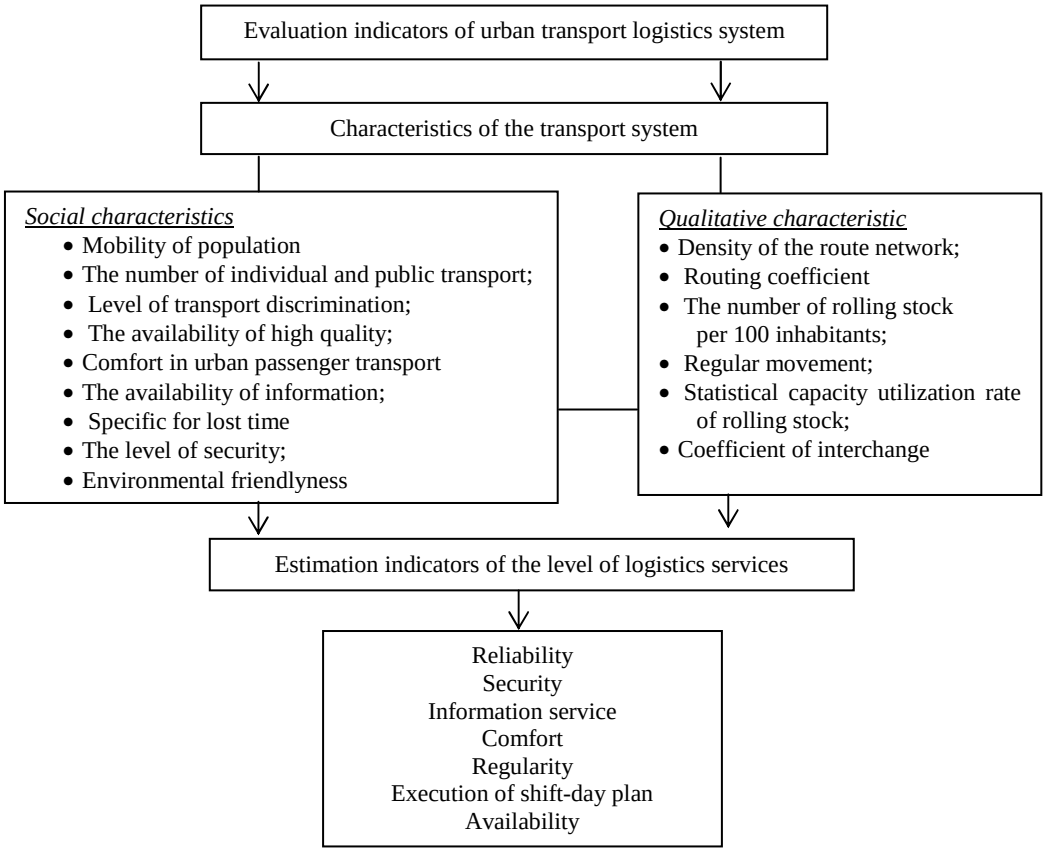

Fig. 1. Evaluation indicators of urban transport logistics system

Source: [6, p. 5].

In the literature on economics authors single out a system of indicators of urban mobility, which includes three groups of indicators: physical, servicing (safety, reliability, comfort, regularity) and financial. However, the achievement of sustainable mobility, including the required level of service indicators depends directly on funding. In this connection special attention should be paid to the financial performance of urban mobility. So, the financial indicators include: the proportion of public transport in a gross regional product, a

partial covering of the costs of urban transportation by the income of companies, the percentage of urban transportation subsidy from the state budget, the dynamics of renovation of the fleet of vehicles.

Thus, the aim of our further research is to study the financial aspects of urban mobility in Novopolotsk, compare our results with the situation in the leading European countries and to determine the optimal parameters of financial indicators for sustainable urban mobility and ways to achieve it in Novopolotsk.

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CITY LOGISTICS AS A SEPARATE SCIENCE

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In the article we investigate a new scientific and practical area which explains how to optimize the movement cargoes and people within the city called the City Logistics. On the basis of economic literature we picked out some approaches to the economic essence of the concept "urban logistics", and gave our own definition to this notion, according to which the city logistics is a complex logistics solutions and processes aimed at consolidation, coordination, optimization of human, material, information, and financial service flows in accordance with the market conditions of life safety of the metropolis.

Today transport is the blood of the economy and economic cycles depend on its effective functioning. Inhabitants of large cities spend from one hour to six a day in transport (it is a quarter of a person's life), and most of this time – on a road. To make the movement within the transport system easier logistics suggests the optimization of transport infrastructure under the transport streams. Nowadays the best practices and realized technologies that are capable of managing the country's transport network has Switzerland. Swiss Federal Institute of Technology (Zurich) in collaboration with the American partners is implementing a project "All Switzerland". Of course, technology is not a panacea. So a Latin American city which is not highly developed has a greater flux density due to the fast driving motorists. In Asian cities with a bad network of traffic-light and absence of traffic controllers, a density of urban stream of cars is also high. People have to pay for a traffic safety [15, p. 18]. However, the savings on security can lead to sad consequences.

Because of the growing number of cities and the increase in the number of consumers there is a problem of timely and quality cargoe deliveries in urban areas. We also want to mention the negative effects caused by the trucks on the roads. In fact trucking competes with the private public transport, carrying people for bandwidth on the streets and highways of the city and contributes significantly to traffic congestion on the roads and to other external effects of activities such as air pollution, exhaust gases, noise and traffic safety [6, p. 146].

Thus, the main reasons for the high inefficiency of transportation are: traffic jams in urban areas, which have to move vehicles intended for freight; lack of the necessary infrastructure and parking lots; a low load factor of vehicles; the policy of delivery "just in time" and e-commerce [6, p. 146].

As for the latter point, it is important to note that the distribution of "just in time" strategy and e-commerce are the reasons for a large number of flights performed with a small vehicle load for delivery to the same point of consumption. The linking transport solutions for the delivery of goods to the public transport and city life support system should be realized through a particular functional area - urban logistics [6, p. 146].

It should be noted that there are insufficient number of sources which deal with the notion of "urban logistics" in literature on economics.

Results of the study interpretations of the term "urban logistics" are presented in the table 1.

Table 1 – The interpretation of the concept of "urban logistics" in literature

Source	Definitions
Hubenko V.K., Lyamzin A.A.	«City Logistics is a new mechanism of flow control of objects in municipal area» [1].
Ionkis A.	«City Logistics it is a collection of management processes displaced person, cargo and information within the logistics system of the city in accordance with the needs and goals of its development, subject to the requirements of environmental protection, taking into account the fact that the city is a public organization which main goal is to satisfy the needs of its users» [2, c. 296].
Kizim A., Selezneva S.	«… under the urban logistics one should understand the practical organization of the functioning of the process flow of materials, vehicles, people, energy, finance and information, as well as the organization of the infrastructure (social, industrial, transport and logistics) within the urban agglomeration in the increasingly barter of economic entities» [3, c. 30].
Reitzen E.A., Kucherenko N.N.	«City logistics – it is a scientific – practical direction, the basic idea of which is to reduce the traffic load on the busiest part of the city (especially the central part), and the harmonization of flow distribution facilities (freight traffic, passenger traffic and associated streams) on time, geographical and environmental attributes of interaction with road safety» [4, c. 60].
Sayamova J.G.	«Logistics city (city logistics, municipal logistics) it is a complex logistics decisions, actions, processes aimed at optimizing the management decisions of the administration, flow of materials, vehicles, people, knowledge, energy, finance, information subsystems within the city and its infrastructure» [5, c.79].
Tyurin A.U.	«City logistics focuses on the planning, organization, control and coordination of urban traffic and related information flows» [6, c. 146].
Khmelev N.V.	«City or municipal logistics it is complex logistics decisions, actions, processes aimed at optimizing the management decisions of the administration, flow of materials, vehicles, people, knowledge, energy, finance, information subsystems within the city and its infrastructure» [7].
Churilova M.I.	«The essence of urban logistics is to consolidate, coordinate and optimize information, financial, service and commodity flows, aligning them with the market conditions of life safety metropolis, implementation of cargo in the loop life support of the city, reducing the ecological impact on the environment from the operation of trucks» [8, c. 42].
www.wikipedia.org.ru	«City logistics it is a complex logistics decisions, actions, processes aimed at optimizing the management decisions of the administration, flow of materials, vehicles, people, knowledge, energy, finance, information subsystems within the city and its infrastructure» [9].
www. transcontrol. ru	«City logistics it is a complex solutions and processes aimed at optimizing traffic flow» [10].
Crainic T, Ricciardi N, Storchi G.	«The term city logistic was coined by in order to highlight the need to consolidate different cargo shippers and carriers within the same means of delivery, as well as to coordinate the activities of freight traffic in the city» [11].
Ehmke J.	«City logistics it is a set of measures aimed at improving the efficiency of freight transport and reduce the number of empty runs of vehicles» [12].
Taniguchi E.	«City logistics it is a process that ensures the optimization of the transport activities of private companies with the support of advanced information systems, taking into account the safety and energy savings in a market economy» [13].
Witkowsky J, Kiba-Janiak M.	«City logistics can be defined as the planning, monitoring efficiency and effectiveness of the movement of people, goods and related information in order to improve the lives of citizens» [14, c. 3].

Source: own study based on the study of economic literature.

Having studied the concept of city logistics in the literature on economics we decided to single out some common features expressed by many of the authors. Let us generalize the views of the authors in the table 2.

Table 2 – Scientists' views on the essence of the concept of "urban logistics"

Source	Views on the essence of the concept of city logistics			
	City logistics as a controlling mechanism of different streams.	City logistics as a set of processes of movement of goods, people within the logistics system of the city.	City logistics as a scientific and practical direction, aiming at reducing the traffic load and the harmonization of flow distribution.	City logistics as complex logistics solutions aimed at optimizing the various flows.
Hubenko V.K., Lyamzin A.A.	+			
Ionkis A.		+		
Kizim A., Selezneva S.			+	
Reitzen E.A., Kucherenko N.N.			+	
Sayamova J.G.				+
Tyurin A.U.	+			
Khmelev N.V.				+
Churilova M.I.	+			
www.wikipedia.org.ru				+
www. transcontrol. ru				+
Crainic T, Ricciardi N, Storchi G.		+		
Ehmke J.		+		
Taniguchi E.		+		
Witkowsky J, Kiba – Janiak M.	+			
In total:	**4**	**4**	**2**	**4**

Sourse: own study based on the study of economic literature.

According to the data in tables 1 and 2, there are four approaches to the interpretation of the concept "city logistics".

The first approach (Hubenko V.K., Lyamzin A.A., Tyurin A.U., Churilova M.I. J. Witkowsky, M. Kiba-Janiak) considers the concept of "urban logistics", as a mechanism used to control various flows. According to this approach city logistics is necessary to consolidate, coordinate and optimization of financial, service, trade, information and other streams according to their market conditions.

The second approach (Ionkis A., T.Crainic, N. Ricciardi, G. Storchi, J. Ehmke, E. Taniguchi) understands the concept "urban logistics" as a set of processes used to ensure the movement of people, goods and information within the logistics system of a city considering safety and saving energy of a market economy.

The third approach (Kizim A., Selezneva S, Reitzen E.A., Kucherenko N.N.) examines city logistics as scientific and practical direction. The basic idea is to organize the process of functioning of the material flow of people, vehicles, finance and information as well as the distribution of these flows on the basis of geographical and environmental in conjunction with road safety.

The fourth approach (Sayamova J.G., Khmelev N.V., www. wikipedia. org. ru, www. transcontrol. ru) involves consideration of the concept of "city logistics" as a complex logistical decisions, actions, processes aimed at optimizing the flow of materials , energy, finance, information and knowledge within the subsystems of the city and its infrastructure in order to improve the lives of citizens.

Based on this study, we propose the following definition of "city logistics". It is a set of solutions and processes aimed at consolidation, coordination, optimization of human, material, information, and financial service flows in accordance with the market conditions of life safety of the metropolis. In contrast to existing concepts our definition more fully covers all the components necessary to ensure the rapid movement of different types of flows in the city, business development while respecting environmental requirements.

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CLASSIFICATION AND CONTENT OF COPYRIGHTS AS OBJECTS OF ACCOUNTING

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Classification – a "division of a set of objects into subsets according to their similarities or differences in accordance with accepted methods." Classification captures natural connections between classes of objects in order to determine the location of the object in the system, which indicates its properties. An object is any object, process, phenomenon which has tangible or intangible nature [1, p.35]. In accounting classification system allows you to group objects and highlight certain classes that will be characterized by a number of common properties and will help to build an analytical accounting.

Often there are difficulties with copyright protection. For a better understanding of the economic and legal aspects of this issue, it is necessary to classify a copyright. Copyright is considered to be a set of individual rights, which can be combined in several groups, so we can offer the following classification of a copyright (Table 1).

Table 1 – Classification of the types of copyright

Classification	Type	Characteristics
By forms of copyright	Moral rights	the right to a name, the right to the inviolability of the work, the right to a publication, the right to a review
	Exclusive Rights	to distribute, import, reproduce, demonstrate in public, broadcast, transfer, and others
	Special property rights to a fee	
	Special rights given to authors or, in some cases, to other people	
According to the objects of copyright	Literature works	1) literary works; 2) scenario; 3) song lyrics; 4) derivative works of literature 5) collections; 6) oral presentations 7) private documents 8) computer programs. 9) other similar works.
	Scientific works	1) scientific and literary work; 2) discovery; 3) scientific and literary work with elements of scientific discovery
	Artworks	1) musical creations; 2) works of fine art (painting); 3) cinema (films, videos, cartoons, etc.); 4) graphic and photographic works of art; 5) sculpture; 6) other works of art.

It is also very important to distinguish between the features of moral and exclusive rights.

Moral rights of authors in the civil law of the Republic of Belarus are formally recognized as inalienable and non-transferable. Their main purpose is to ensure recognition of the author to be the creator of his own works; provide an opportunity to require indication of his name when using the product, and so on. Abroad, such rights are often called moral rights [2, p. 48].

Moral rights always belong to the author, independently of his economic rights and even in case of any transference of any property rights. Moral rights are indefinite, that is they must be observed even after the expiry of copyright property when the work is used freely by any interested people. After the death of the author, the defense of his moral rights may exercise his successors, especially their assigned person or an authorized state body [3, p. 87].

The main purpose of property rights is generally considered to provide the author and his successors with opportunities to collect revenue from the use of the product. That property rights (with some exceptions) can be transmitted to others by the author or passed to them on other grounds (inheritance, transfer of the rights to the employee's work).

We can single out two main groups of property rights: exclusive rights (allow you to control various ways of using the product, authorize or prohibit this use) and the right to compensation (the right to additional compensation) (the right to get a statutory or in some cases a special reward) [4, p. 126].

In some cases the law allows the usage of works without the agreement of right holders, without entering into contracts with them, but with payment of fees for them. In such cases, we speak about the specific rights of right holders to compensation (or the right to additional compensation, "compensation fee"). In this case, the right to compensation is opposed to exclusive rights, since it is implied that the right holders can get compensation for the usage, but they have no power to prevent the usage. In copyright the exclusive right can be defined as the property, allowing the authors or their heirs to carry out, authorize or prohibit certain acts in respect of works.

The Law "On Copyright and Related Rights" contains a list of different types of exclusive rights relating to the use of works in different occasions.

It should be noted that are not subjected to copyright:

– official documents (legal documents, court orders and other documents of the administrative and judicial character, the constituent documents of organizations), as well as their official translations;

– the state symbols of the Republic of Belarus (The national flag of the Republic of Belarus, the State Emblem of the Republic of Belarus, National Anthem of the Republic of Belarus), symbols of state awards of the Republic of Belarus (medals), public signs (banknotes of the Republic of Belarus, stamps and other signs), Heraldic symbols (flags, emblems of administrative-territorial units of the Republic of Belarus, heraldic signs, banners, badges, emblems and other public bodies.);

– works of folk art, which authors are unknown [5].

Copyright is not applied to the ideas, methods, processes, systems, means, concepts, principles, discoveries and facts, even if they are expressed, reflected, explained or embodied in the work.

Based on the said above, it can be concluded that the proposed classification and structure of copyright will enable an accurate accounting of copyright and its effective use. We want to note that while classifying and accounting one should distinguish between copyright and related rights. It is commonly believed that copyright should protect works (the results of creative activity of authors) and the related rights should adjoin the copyright, but the latter protect absolutely other objects.

We have to bear in mind that such division in some cases is quite relative.

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DEVELOPMENT OF GLOBAL LOGISTICS

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This article reveals the essence of global logistics, its concept, the role of global logistics in the implementation of international trade, problems of its implementation and its development prospects. The article also presents the benchmarking of the implementation of global logistics in real companies.

The modern world cannot be imagined without globalization. The desire for unity has become one of the most important priorities for the development of society. Globalization has an impact on virtually all aspects of our lives, including the business sector, which leads to the formation of a large number of transnational companies using global supply chains. Their development is encouraged by international freight forwarding and insurance companies, global telecommunications networks and other structures.

The appearance of the term "global logistics" reflects the growing trend in the global economy, which is characterized by the movement of business from its specialization in individual countries and regions to organized world multi-market economy. Global logistics is a strategy and tactics to build sustainable macrologistic systems at the international level. At its core it is based on the continuous growth of the world economy, the expansion of new technologies and the formation of global supply chains, as well as accelerating and reducing the cost of promotion of material flows [1, p. 8].

The role of global logistics in the implementation of international trade cannot be overestimated. Logistics costs in the final price of products sold abroad reach an average of 25 – 30 %, which is about 15 % higher than for the sale of products within the country. This is primarily due to customs costs, but also more complex and expensive transportation, a large number of intermediaries, without which it is difficult to arrange delivery, increased requirements for logistics service, better qualified carriers, etc. Companies engaged in international business attach special strategic importance to enhancing the effectiveness of logistics systems, knowing that the correct solution of these questions will enable them to gain a competitive advantage in fierce competition [2, p. 90].

The modern reality is that only large international logistics companies with offices in many countries, with a wide network of intermediaries and advanced technical and technological resources, as well as various

associations of logistics companies are able to function effectively in the modern world. Today, one of the characteristic trends is the growing number of large logistics companies due to the concentration of ownership, including the so-called "mergers and acquisitions".

Global economic processes (in particular, the formation of global markets) require the globalization of logistics. Global logistics is based on the use of modern communications, including information technology developments. The development of global logistics to a large extent is related to the formation of virtual ("empty") corporations, which has recently become the main trend of the global economy. Transnational corporations realize their global logistic strategies by creating specialized enterprises, centralized inventory, as well as by using the deferral method.

Transport problems of global logistics are solved by specialized logistics companies –integrators, delivering cargo in an optimal way, "door to door". The structure of the global logistics organization as a whole is associated with increased centralization. However, this strategy does not preclude the application of the principle of vertical-horizontal constructions in the governance structure of the global logistics system.

The need for global coordination is increasing with the development of virtual companies. The main driving forces of contemporary globalization of logistics management are:

- permanent intensification of the process variability of the global economy;
- expansion of new technologies in all areas of operation of the global market;
- development and integration of macro-regional economic structures;
- implementation of the deregulation procedures undertaken by many countries to improve the efficiency of materials management.

The examples of successful macrologistic formation of regional structures in the EU, Southeast Asia, North America are widely known. Their experience clearly demonstrates the natural tendency of countries to regional integration. This is facilitated by the similarity of the political systems, ways of life of the population, the traditions, the proximity of historical roots, the practice to use a single source of energy and natural resources, contingency communications, lack of trade and customs barriers. However, the search for new reserves of growth and increased competition cause the desire of many companies to seek new markets, sources of raw materials and cheap labor resources beyond national borders of their countries.

We have conducted the analysis of integration of JLLC "Belwest" in the international logistics network. JLLC "Belwest" is a Belarusian-Russian joint company with limited liability. It was established in June 1988 on the basis of Vitebsk factory "Red October" with the participation of German company «Salamander» and became one of the first joint ventures in the territory of the former USSR. Since late 2002 the company has been Belarusian-Russian. It carries out the production and marketing of footwear [3].

The capacities of "Belwest" are located in Vitebsk and China. In Belarus, the production was organized by German experts using «Salamander» technology. China's production is carried out under the control of Belarusian specialists. The opening of additional production in China relieved the main production in Belarus, which reduced production twice (from 6 mln. pairs per year to 3 mln). At the moment, negotiations are under way to organize the production on the basis of Vitebsk JSC "KIM".

The company is the largest exporter of footwear in Belarus. About 70 % of Belwest products is exported to Russia and Latvia. For the implementation of more productive export activities a subsidiary group of companies "Belwest-retail" was created in 2014, the Russian company co-founder was reorganized.

JLLC "Belwest" strives to meet modern international standards in production and trade, develops its own internal and external sales network, and uses international division of labor.

For a comparative analysis we have chosen "Nike, Inc." as a reference company. This company is not a direct competitor of the previously reviewed "Belwest". The choice of "Nike" can be explained by the fact that it is an excellent example of a successful company that effectively applies global logistics and high-tech means in its activities. Besides, it is continuously improving its business processes.

The company named "Blue Ribbon Sports" was founded January 25, 1964, and officially became "Nike, Inc." May 30, 1978. In addition to clothing and footwear, the company runs retail stores called "Niketown". According to analysts, the share of Nike accounts for almost 95 % of the market of basketball shoes in the United States [4].

"Nike" has become one of the first "companies with no production" in the world. This means that since its formation the company has gradually transferred production functions to contractors from developing countries on a contract basis. Currently "Nike" has completely abandoned property on the means of production. It sees itself primarily as a research, design and marketing organization. In addition, much attention of specialists is paid to logistics. The company uses a number of proprietary large logistics centers (European, American, etc.). It should be noted that the European logistics center (ELC), located in Belgium, supplies "Nike" products not only in Europe but also in the Middle East and Africa.

If you draw a parallel between "Belwest" and "Nike", the disadvantages of the former and the advantages of the latter become apparent. Namely:

1. "Belwest" pays insufficient attention to high-tech solutions.

Information system SAP ERP has been implemented by "Belwest" only recently, while "Nike, Inc." has used it for a long time. Despite the positive effect of the introduction of this system, it is not enough for the most effective optimization of economic activities of the organization. "Nike" uses a number of high-tech solutions to ensure the most efficient operation of various departments of the company.

2. The company is not seeking to transfer the production part of the company in outsourcing, while "Nike" did it shortly after its founding. Recently, part of "Belwest" production has been made by a third party in China, but this was done only because of the fact that the Belarusian industry could not cope with the volume of production, grown in times due to good marketing policy.

As the experience of "Nike" shows, the transfer of production of the company to a third-party organization leads to benefits only.

3. "Belwest" does not extend sales geography.

The main directions of foreign economic activity of the company are the CIS countries (Russia, Latvia). "Nike", in its turn, takes full advantage of the globalization of the world economy and trade almost all over the world.

4. Insufficient use of the World Wide Web by "Belwest."

Online buying of the company's products is available only on the territory of the Republic of Belarus [http://belwest.com/]. There is no possibility to customize the product before buying. "Nike" has actively used online sales for a long time and the geography of online-shopping for consumers of this brand is much broader. Moreover, on the official website of the manufacturer "Nike" [http://www.nike.com/] it is possible to customize the goods before buying, i.e. to create a unique product from standard components using various combinations thereof. This is primarily due to well-organized logistics and flexible production (pull type).

The following conclusion can be drawn from our analysis. In order to improve the integration of the company "Belwest" in the international logistics network, it is necessary to implement high-tech solutions actively to optimize all processes and a logistics system as a whole, to transfer the production to third parties throughout the world, to expand the geography of sales, as well as to develop online trade.

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INTRODUCTION OF THE JOURNEY MONITORING SYSTEM IN THE PUBLIC TRANSPORT

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The article describes the automated monitoring system of public transport. Here it comes about the device structure, functions and the principles of operation of the device, the advantages and disadvantages of its implementation in the motor activity of enterprises engaged in passenger transportation.

Motor transport enterprises occupy an important place in the economy of the state. Along with the shipping of cargoes the carriage of passengers, which are carried out by public transport is not in less demand. Functioning of trucking companies is now continuously improving through the introduction of information systems. One example of such systems is the automated control system of travel.

Automated control system of travel is a single set of hardware, software and administrative measures that can be divided into the following subsystems:

- travel documents;
- the sale and distribution of tickets;

- monitoring and redemption of tickets;
- collecting and processing information.

The purpose of the introduction of the automated control system of travel (ACST) in passenger transport is to increase the quality of service for passengers and reduce the load on the local budget without increasing the tariff fare.

Consider the structure ACST in more detail.

1. The travel documents

Subsystem travel documents are a basic subsystem, the effectiveness of which largely determines the overall efficiency of the system. The subsystem consists of travel documents:

- the range of media types of tickets (magnetic card, contactless smart cards);
- the range of types of tickets (tickets for the "number of trips", seasonal, free);
- mechanisms to protect against counterfeiting of tickets.

As the main carrier of tickets for ACST paper map of ISO with highly coercive magnetic stripe (Fig. 1) is used.

Fig. 1. Chart Appearance and free boarding pass printing with the validator about trips on the reverse side

Sourse: [1].

2. The sale and distribution of tickets.

Subsystem of the sale and distribution of tickets is a mechanism of fare pay. In ACST tickets are sold:

- at the tickets sale terminals;
- by the drivers at the transport cabins;
- through a network of agents, distributors.

Free boarding passes are issued in specialized outlets of discounted tickets.

3. Control and redemption of tickets

The maximum effect is achieved by collecting fare when combining control devices and redemption of tickets (validators) devices with limited runs in the interior of the vehicle – turnstiles. Validator is a quick-detachable device which a driver gets in the control room before going out on the line and gives it back to a dispatcher after the shift. In the vehicle validator is installed into the mounting sleeve, which is mounted on the technological rack. To keep the validator safe it is locked in the mounting sleeve with the help of a key. If the vehicle is operated without the validator assembly the basket is plugged.

Turnstile is mounted on specially installed handrails and, unlike the validator is present in the vehicle permanently. During a power failure (also in case of emergency) rod turnstile bar, obstructing the passage gets down automatically (free exit of passengers from the vehicle is provided). After turning on the power the rod is raised by hand and fixed in a horizontal position automatically.

Validator processes the information that is recorded on magnetic tickets. If the ticket is being checked, then the validator turns on green lights enabling signal, produces a melodic sound that makes a note on the ticket turnstile and gives permission to pass. If the ticket is not valid, then the validator notifies about that with the red light and sharp sound.

Layout of the validator, mounting basket and turnstile is presented in figure 2.

Fig. 2. Layout (left to right) of the validator, mounting basket and turnstile

Sourse: [1].

The print on the ticket is produced by burning of the applied thermal layers, making it impossible to cleanup the mark.

4. Collection and processing of information

Without a control center where the monitoring of turnover tickets, passenger traffic and operation of the devices is being carried out it is not possible to get the effect of the introduction of ACST.

Kernel of the subsystem is a single processing center serving the enterprises for collecting the income and all transport operators.

In the center of the processing the following procedures are carried out:

- collecting data on traveling, ticket sales, issuing free tickets;
- maintaining centralized databases of passengers carriage, ticket sales, holders of discount tickets;
- formation of statistics on the carriage of passengers, ticket and issue free tickets;
- control over circulation of tickets in order to identify "suspicious";
- automatic generation and distribution of a stop list transport operators ;
- maintenance and distribution of regulatory and reference and control information.

Traveling data come from the control (from management server) fleet once a day at the end of the operational day of a transport operator. These data include information about suitable tickets and the tickets canceled according to the stop-list, and tickets canceled by the validator.

Data on sales of the tickets at ticket sales terminal through a network of distributors and agents and on the issue of free tickets come from the control of the revenue collection enterprise once a day at the end of the operational day.

On the basis of data concerning made trips "suspicious" tickets, which are recorded in the stop list are detected.

Formed stop list and updated directory of tickets are sent to the server fleet management of a dispatching motor company for subsequent loading into validators once a day. According to the information about made trips, ticket issuance of free tickets is generated and statistical and analytical reports are printed [2].

Automated control system of travel allows:

– to determine on each route real hourly passengers' demand in the transport and change the number and schedule of buses on each route in accordance with the identified needs;

– to supervise the work of the drivers on the line, including the implementation and execution of flight schedules;

– to stimulate the transport organizations, to raise the level of services provided;

– to bring passenger transport on the modern technological level.

Automated inspection technology of passage solves the following problems connected with public transport:

1) to eliminate stowaway passengers;

2) to take into account the operational performance of transport work;

3) to determine the need of passengers in transport;

4) to accurately take into account the carriage of beneficiaries according to different categories and make out reasonable bills for compensation of "drop out" income;

5) to monitor the implementation of trips by drivers.

However, the automated control system of travel has several disadvantages. The main of them are: the operation of ACST requires significant additional costs; strong slowdown boarding. The latter is due to the limitation of the entrance only the by front door, the necessity to go through the turnstile and purchase tickets from the driver. Small space in front of the turnstile allows the driver to start moving without waiting passengers pass through the turnstile. Long lines to land, especially in bad weather and during peak hours are inconvenient for passengers. People with disabilities and passengers with prams can not cross the turnstile and still enter through the middle door (there is usually a ramp for arrival). Thus, the logic of the "front door" is violated [3].

The introduction of the automated control system will optimize the work of the motor transportation enterprise, improve the quality of services and automate accounting of data and their processing.

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UDC 658

RESEARCH OF MATERIAL FLOW WITHIN THE ECONOMIC ASSESSMENT OF THE SUPPLY CHAIN OF CHEMICAL PRODUCTS IN THE REGION

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In the article we offer the order of material flow research which is carried out within the framework of economic assessment of a supply chain. The offered order is approbated on the example of the supply chain of chemical products in Vitebsk region.

The importance of an effective product flow management is defined by the size and dynamics of the turnover of material and financial resources. It has an essential impact on economic results of business processes. Nowadays scientists-economists and enterprise experts pay much attention to the problems of improvement of a product flow management. However, for all its indisputable importance, the theoretical elaboration of this problem isn't completed. Therefore, the formation and approbation of research-and-development phases of material flow is important today.

The foundation of a supply chain is the material flow. It's formed by transportation, warehousing and other operations with raw materials, semi-processed products and finished products. Therefore, the material flow – material resources, semi-processed products and finished products apply logistics operations such as embarking, unloading, packaging, transportation, consolidation, etc. [1, p. 124].

The material flow can be a stock of material resources, unfinished production, finished products if it isn't in motion. We should notice that each financial and information flow corresponds to its material flow. There is no due attention to the research of material flow in the system of a supply chain management. Experts almost don't study the capacity of flow, analyze the origin of "bottlenecks", and calculate logistical costs. The author offers her own vision of research of material flow processes.

Considering that chemical production in the Republic of Belarus is one of the leading fields of economy, its manufacturing and sale is realized in a complicated supply chain, we choose it as the object for research of flow processes in the region. We propose to pursue research on the following stages:

1. Select products of chemical industry for research. Primarily we select strategically important products for the region, then a large percentage of products in the output, products with marketing difficulties and low-gain products.
2. Analyze material flow according to selected parameters. Considering that the component of the supply chain of chemical products is the manufacturing enterprise, we pursue our research specifically in reference to the manufacturing enterprise.
3. Conclusion.

The performance measures of import and export material flow are demonstrated in the table 1.

Table 1 – Measures of import and export material flow in reference to manufacturing enterprise

Import flow (raw material)	Export flow (finished product)
Rate of flow (tons per year)	Rate of flow (tons per year)
Functional characteristics	Functional characteristics
Package	Product usage
Type of transportation	Package
Driving directions	Type of transportation
Intensity of delivery	Driving directions
Carrier	Intensity of delivery
Carriage per unit (rub)	Carrier
Warehouse intermediary	Carriage per unit (rub)
Warehouse intermediary's service fee	Warehouse intermediary
Logistical costs (rub)	Logistical costs (rub)

Source: self-formulation.

Performance measures afford to pursue the complex research of the chosen material flow. The selected measures are quantitative (a rate of flow, an intensity of delivery) and qualitative (a type of transportation, a carrier).

The research of material flow of chemical products identifies special aspects of product distribution in chemical industry. It's necessary for building of a logic path.

We should mark that chemical company, as the object of research, is a total system of different complex-functioning chemical-engineering systems. Chemical-engineering systems consume a vast number of raw materials, fuel and energy resources, construction materials, water and air. The calculation and optimization of technology, certain chemical-engineering processes without their influence on other chemical-engineering processes can lead to non-optimum behavior of plants and loss of their productivity. Thus, planning of the supply chain should be started with the sustainable project management of manufacturing. If manufacturing is functioning hard, a lot of waste products will emerge, as a result finished products increase in price and become non-competitive. Consequently, we should examine the production flow in the supply chain as follows: 1) raw material flow for its output and in the sphere of purchasing; 2) product distribution.

Now we analyze the material flows of chemical products in Vitebsk region in more detail. This region was chosen because of the fact that there are over 70 large and small supply and consumer – enterprises there.

We selected major chemical enterprises in Vitebsk region: JSC "Polotsk – Steklovolokno" (glass yarns, rovings, chopped fiber), the plant "Polymir" JSC "Naftan" (polyethylene, acrylicfibers), LLC "Pride" (polymeric composition) and Private Unitary Enterprise "Belintex" (glassware net).

The raw material flow analysis demonstrated that chemical manufacturers and raw products suppliers work in close cooperation. These measures help to optimize logistical costs and organize a flexible process of raw material flow. Thus, "Naftan" is the major raw products supplier for the plant "Polymir"; enterprises are located in close proximity to each other and can use railway transportation for delivery raw materials. We should notice that transportation is low-price because of the huge rate of flow (over 100000 tons at a time). It reduces the cost of warehousing and enables to respond to changing customer demands quicker.

Small chemical producers have to cooperate with wholesale intermediaries. Small chemical producers purchase products in a small bulk so manufacturing enterprises do not cooperate with them. The only exception is small domestic enterprises such as LLC "Pride". It purchases necessary raw products on the domestic and Russian market.

Due to the analysis of finished chemical products in Vitebsk region we concluded that about 60 % of products are exported to the near-abroad and far-abroad countries. One of the main partners of the Republic of Belarus in this field is the Russian Federation. Within the country the leading directions of products and their quantity is defined by the description of production. For example, acrylic fiber is exported to Brest region because of a great number of carpet manufacturers there.

We should notice that basic mass of enterprise production in the region is for industrial consumption, not for private consumption. For that reason there is no necessity in promotion by retail intermediaries. Besides, the participation of wholesale intermediaries in delivery isn't necessary.

Truck shipment, maintenance by air and shipping can be used for delivery. The choice can be made according to the following criteria: a scope of delivery and convenience of communications arrangement. Multimodal transportation is preferred when its logistical cost is lower than the other certain form of transportation. Besides, multimodal transportation is irreplaceable when transportation is impossible to realize due to difficulties with locations of destination.

The party which accomplishes transportation of a material flow is defined by the minimum logistical cost and ability to conduct it. We should mark that manufacturers, as a matter of fact, deliver their products on the territory of Belarus and the nearest regions of the Russian Federation.

In the summary of the research of the supply chain of chemical products the following aspects are shown:

– the rate of the material flow of chemical products is defined by a large chemical enterprise, which dictates its terms on the market;

– in the process of the motion of the material flow of chemical products there are organizations "bottlenecks", which have the rate lower than the capacity of the flow, this factor leads to the loss of their productivity;

– the chemical enterprises in Vitebsk region are located in close proximity to each other, as they are suppliers and consumers of the chemical flow, so it helps to reduce logistical costs;

– the promotion of the material flow of chemical products is performed according to complex logistic schemes, however it tends to lead to minimization of intermediaries in its structure.

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THE AUTHOR'S METHOD OF THE ENSURING THE ECONOMIC SECURITY FOR THE SUPPLY CHAIN FUNCTIONING

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In the article it is determined that the economic security for the supply chains functioning in the long term comes from the necessity of constant enhancement of law-enforcement measures. It also reveals the necessity of constant supervision of the supply chain security through the state effort consolidation and private or public institutions on the basis of the standard ISO 28000 principles. The article contains the analysis and generalization of the researches on the theoretical approaches to supply chain management, which has allowed to develop the author's own methodology of the ensuring the economic security for the supply chain functioning.

The ensuring of the economic security for the supply chains functioning in the long term comes from the necessity of constant enhancement of law-enforcement measures to identify, prevent, intercept and disclose any encroachments on the property.

The application of the methodology for the ensuring the economic security for the supply chains functioning is especially actual in the developed countries, where there is an impressive industrial potential and high level of competition. For example, there exist many actively issued decrees, aimed at achieving the security of the society in the Russian Federation, including the economics, such as, the Decree of the Russian Federation President N537 from may the 12th, 2009 "National Security Strategy of the Russian Federation until 2020".

The situation is slightly different in the Republic of Belarus: there is not much competition between manufacturers, but still the country decrees, aiming at ensuring global security.

In the modern conditions fundamentally new relationship participants in the field of accessory cost creation are raised, chains and networks of the foodstuff deliveries are formed, as well as medical products and other things, which are all considered as separate systems, quality of which starts from raw production, finished products, transportation, consumption and up to recycling.

On the one hand there is a severe competition of manufacturers in the Republic of Belarus and as consequence, one can observe the insufficient efficiency of the ensuring the security of supply chains, while realizing the task "strategy of national security", and on the other hand, the organization (enterprise) should take measures to ensure security of their product more actively, owing to constantly changing market conditions.

In 2007, a new international standard on the security management of supply chains ISO 28000 was adopted, the use of its concept could strengthen the ensuring security of material flows. ISO 28001 discloses the best practice of concerning the security management of supply chains. In the modern conditions, when one can see the transition of the economy from the capitalization concept to the concept of stability, the conformation requirements of this standard for normal functioning of the organizations (enterprises) is extremely important. It is possible to say that the standard ISO 28000 is the integrating standard on management in the conditions of turbulent environment where the key purpose is stability [1].

The basic direction to the problem solving of the ensuring the security for supply chains is to consolidate the state efforts and private or public structures on the basis of ISO 28000 principles.

The Supply chain is a difficult object of management and demands all-round study of its conflict situations between the participant's interests, strategies, tactics, ensuring of security on the basis of the modern scientific concepts, new models, methods and international experience. The ensuring the security for supply chains should become one of the management tools.

It is necessary to notice that enterprises, importers and exporters of products, customs and freight brokers, carriers, operators of container terminals, railway stations, airports, sea and river ports, warehouse complexes, freight forwarders, distributors are specifically interested in having the certificate of management system security for supply chains ISO 28000:2007 [2, 3].

The international standard ISO 28000 was developed in reply to the requirement of the industry for the standard on security management. Its ultimate goal is to improve the security of supply chains. It is the management standard of the high level, that enables organizations to create a complete security management system of supply chain. In accordance with the requirements of the standard, the organization should estimate its working environment on the basis of the ensuring security, and it should also specify if the measures of the ensuring security are adequate and if special requirements to ensure the security of enterprise have already existed [2, 3].

Security management is connected with many other aspects of business management. These aspects include all types of activity and the system of balanced indicators which influence the security of the supply chain. All these elements should be considered from the direct place of the influence on security management, including transportation of these goods in the supply chain.

The international standard ISO 28000 can be applied to any enterprise, irrespective of its amount and type of activity, and if such an enterprise involves the supply chain in one way or another and wants to implement the system of security management, in order to ensure an adequate level of its security for the supply chain (or its parts).

The advantages that the organizations (enterprises) receive in the management systems should meet the following requirements of the international standard ISO 28000:2007 [3, 4, 5]:

• reduction of the number of security breaches, of the amount of damage from security breaches, of theft and smuggling on transport;

• realization of effective control and risk management in relation to the security threats, applicable to a type of activity;

• strengthening the image and reputation of the reliable partner in the market of the given goods (services);

• optimization of the expenses on the maintaining an adequate level of security for the supply chain (or its parts) due to the systematic usage of the internal resources, allocated for the security;

• alleviation in receiving the status of the requirement conformity of the security programs of different national customs organizations (for example, the status of the European authorized economic operator (AEO) or the partnership in the program C-TRAT);

• possibility to create the integrated management system, thanks to the exclusively high degree of harmonization of the standard ISO 28000 with standards ISO 9001 and ISO 14001 ;

• effective interaction with involved parties on security issues and their knowledge, including the choice activity in the contractor (the supplier).

The certification of the organization on requirements conformity of the international standard ISO 28000:2007 is consistent with the public authorities' actions, directed on realization of positions of the law "Transport security", which purpose is to ensure the security of transport infrastructure and vehicles objects.

Also, it is necessary to note the importance of carrying out the patent search for organizations (enterprises) which are aimed at producing new products, or having invented something new during their activity.

The patent researches are conducted:

- at development of scientific and technological long-term forecasts planning for science and technology;
- at application preparations for the product design and adoption;
- at creating objects for the technology (research and development);
- at exploration and production.

The purpose of the researches is to search and select objective data to ensure high technological level and competitiveness of technical objects, to use modern scientific and technological achievements and to except unjustified duplication of researches and developments.

Thus, the methodology of the ensuring economic security for supply chain functioning (Fig. 1) includes a number of related activities, such as partial or complete introduction to the organization (enterprise) the standards ISO 28000, ISO 9000 in practice, and others. The process of carrying out the patent research implies the subsequent actions.

Methodology of the ensuring the economic security for supply chains functioning
Partial or complete introduction to the organization (enterprise) the standards ISO 28000, ISO 9000 or other standards in practice
Conducting patent searches, if necessary, with all the ensuing follow-up actions (drawing up the patent for own invention, the industrial pattern, trade mark with the help of a specialist)
Monitoring the condition of industry (sphere) in which the organization (enterprise) operates, international practice in the field of ensuring the economic security for supply chains functioning
Increased level of technical equipment in the organization (enterprise), application of the licensed software products
Carrying out the activities that contribute to the best possible result in the field of ensuring the economic security for supply chains functioning (for example, lecture, seminars for suppliers, clients, personnel)

Fig. 1. Methodology of the ensuring the economic security for the supply chains functioning

Source: developed and compiled by the author.

However, it is important to understand that the clear methodology of the ensuring the economic security for the supply chain functioning in the organization (enterprise) does not exist. Certainly, there are standards that register substantive provisions of the ensuring the economic security, but each organization must constantly monitor not only its position in the markets (its competitors), but also it should be aware of international practice in this area, and, whenever possible, should adopt decisions to ensure economic security of the supply chain, which will be the most adapted for the organization (enterprise).

Thus, the standard ISO 28000:2007 is the international standard, developed by the International Organization for Standardization (ISO) in reply to the requirement of the global business community to strengthen the security of cargoes, vehicles and objects of the transport infrastructure from threats of terrorism, contraband and plunders. The main objective of this standard consists of strengthening of transport security and of unification of requirements for management systems of security (MSS).

Implementation and certification of management system of supply chains security allows to receive the organization (enterprise) assurance that its supply chain functions in safe conditions, and also to show the evidence of the reached level of security to all interested parties, including potential customers.

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REGIONAL PROBLEMS OF THE KNOWLEDGE ECONOMY DEVELOPMENT IN THE REPUBLIC OF BELARUS

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This article is presented the analysis of the preconditions of becoming the knowledge economy in the regions of the Republic of Belarus with the Knowledge Assessment Methodology developed by World Bank. Here is detected the main problems on the way to becoming the knowledge economy in the regions of the Republic of Belarus and proposed solutions of these problems.

At the moment, the economy of the Republic of Belarus is on the transformation period, the economy system of the country is being restructured. And now it is important to formulate the model that national economy should become. Note that the Republic of Belarus has no significant natural resource potential to compete with foreign countries in the world. At the same time, according to experts, it has a significant employment potential. Thus, the country's economy should be used the business model, which could realize this potential to the fullest. As such the model can be the knowledge economy.

Knowledge economy – is the highest stage of development of the post-industrial economy and the innovation economy [1]. It's the economy, where the main factors are the development of knowledge and human capital. The development process of this type of economy is to improve the quality of human capital, improve the quality of life and produce the knowledge, high technology, innovation and high-quality services.

According to experts, the Republic of Belarus has a significant research and innovation potential for the knowledge economy. However, the whole country and its regions as well as enterprises and organizations have significant drawbacks and barriers to transit to the knowledge economy.

In order to assess the readiness of countries to transition to the knowledge economy used Knowledge Assessment Methodology developed by World Bank. In accordance with this methodology are calculated:

1. KEI – Knowledge Economy Index – is an aggregate index that represents the overall level of development of a country or region in the Knowledge Economy. It is constructed as the simple average of following subindexes:

– economic incentive and institutional regime (EIIR);
– innovation;
– education;
– information and communication technologies.

2. KI – Knowledge Index – is an aggregate index that represents an ability to generate, accept and disseminate knowledge, and it is constructed as the simple average of three subindexes except subindex of economic incentive and institutional regime.

Let's use this methodology to assess the potential of the regions of the Republic of Belarus for the transition to the knowledge economy, which determines readiness of the country for the knowledge economy. To do this, let's analyze the data in table 1. It is presented the results of our earlier calculations subindexes and indexes of the knowledge economy made in accordance with the procedure KAM. On its basis it is possible to carry out a comparative analysis. Normalized value of economic incentive and institutional regime subindex is taken at a rate of 2.5 for all regions, as there are the same conditions for all administrative-territorial units of the Republic of Belarus.

Table 1 – Indicators of the knowledge economy by regions of the Republic of Belarus in 2013

Region	Rank	KEI	KI	EIIR	Innovation	Education	ICT
Minsk city	1	6,934	8,412	2,5	8,21	8,096	8,929
Minsk region	2	5,757	6,843	2,5	6,963	4,602	8,963
Gomel region	3	5,287	6,216	2,5	6,428	6,507	5,713
Vitebskregion	4	4,549	5,232	2,5	5,714	5,872	4,109
Brestregion	5	4,365	4,987	2,5	3,929	4,603	6,428
Grodno region	6	4,014	4,519	2,5	4,466	4,446	4,645
Mogilevregion	7	4,004	4,505	2,5	4,109	6,19	3,215

Source: author's own design using KAM [2].

As can be seen from Table 1, the leader of the knowledge economy index and knowledge index among the regions is Minsk city. It is no wonder because Minsk is a place of concentration of industrial, innovation, education and ICT areas. The second place has Minsk region that is inferior to other regions only education subindex. This is due to the lack of high schools in the region, and thus there are lower normalized values of many variables.

Vitebsk region is on the 4th place. Being higher in the ranking of the Brest region Vitebsk region inferior to it ICT subindex. Last place of this ranking is performed with Mogilev region. It is inferior to Grodno region in all variables except education subindex. Thus, it can be seen how much is difference in variables of region from the leader region and from each other. Analysis of these data enables a choice of the direction of development for each region.

There can be seen a significant variation in individual variables of KEI and KE for regions of the Republic of Belarus. Thus, a number of organizations engaged in R&D in Minsk exceeds almost 9 times a number of such organizations in other regions as well as there is the largest number of innovation-active organizations. The lowest value of this and the other variables is observed in Mogilev region that is why Mogilev region is on the last place among the regions in this subindex. Thus, there is a concentration of innovative potential only in one region, while the becoming of the knowledge economy should be carried out in all regions of the country in accordance with the policy of the Republic of Belarus in respect of their development in the direction of alignment of social and economic status.

In the Minsk city is concentrated the largest number of establishments of higher education and the largest number of students per 10,000 population of the region. It is noted the highest normalized value of the percentage of persons with higher education variable in the region. But its absolute value is not very high, what doesn't correspond to the concept of the knowledge economy. All of the above factors allow to carry out the effective preparation of high qualified specialists, which should be the core of the new economy, as acquired knowledge and skills ensure the growth and development of the state introduced and used the knowledge economy. The lowest values of the education subindex are observed in Minsk region, due to the presence of higher education establishments only in the Minsk city.

In the Minsk city values of ICT subindex exceeds many times the values of variables in other regions. Hence it can be seen that the other regions do not correspond to the concept of new economy and this fact will complicate the process of becoming of the knowledge economy in the regions of the Republic of Belarus, as the development of the ICT sector is the most important objective for countries in the transition to the knowledge economy. Because the accumulation and rapid exchange of knowledge and information are possible only using achievements of ICT.

The main problems that are common to all regions of the Republic of Belarus and reduce its capacity in the field of the knowledge economy are presented in the table 2.

Table 2 – Regional problems of Belarus on the elements of the knowledge economy in accordance with the procedure KAM

EIIR	Innovation	Education	ICT
a) an application of the strict policy of protectionism	a) a low degree of susceptibility of enterprises and organizations to innovate	a) reducing the budget funding for education	a) gap of the ICT sector level on the level of developed countries
b) excessive banking supervision	b) a low level of innovative entrepreneurship activity	b) discrepancy between the structure of specialist training and needs of society	b) lack of access to information support
c) bad conditions for investment attracting	c) lack of effectiveness of government innovation stimulation	c) lack of specialists with the skills	c) the use of obsolete software and hardware
d) legislative weaknesses	d) low interest of employees in the implementation of innovation	d) reduction in the quality of higher education	d) a low level of training in the field of ICT
e) unstable economic conditions	e) insufficient funding for research activities	e) lack of feedback from employers	
	f) weak infrastructure to support innovation		
	g) lack of development of intellectual property market		

Source: author's own design based [3, p. 20-24].

Presented in the table the problems of each area of the knowledge economy allow to identify the directions needed to take measures to remove obstacles to becoming a knowledge economy in the regions of the Republic of Belarus. There is needed a comprehensive solving of identified problems. Those are measures in all areas: economic incentive and institutional regime, innovation, education and ICT as they are closely linked.

Measures to overcome the obstacles on the way to becoming the knowledge economy in the regions of the Republic of Belarus can be represented by the elements of the KAM [4, p. 42-44]:

1. Economic incentive and institutional regime:
a) mitigate of tariff regulation;
b) the formation of the favorable investment climate;
c) self-banks control for their activities;
d) creation of adequate conditions for business.
2. Innovation:
a) establishment of small innovative enterprises and support their state;
b) the introduction of government and business partnership in innovation;
c) intraentrepreneur;
d) use of the CALS technologies;
e) the establishment of strategic alliances for the implementation and application of R&D;

f) use of venture capital;
g) innovative activities in the field of IT-technologies;
h) improvement of the legislation in the field of intellectual property.

3. Education:
a) the introduction of government and business partnership in education;
b) informatization of education;
c) revision of curricula;
d) conduction of internships on enterprises
e) preparation of elite specialists;
f) feedback from the employer.

4. ICT:
a) improving of equipment;
b) expansion of e-services;
c) improvement of the legislation in the field of ICT;
d) development of broadband access to the Internet;
e) creation of ICT development.

Thus, carrying out the above activities, creating a culture of knowledge will lead the organizations in the region and the country to economic growth and prosperity and that is possible only with mutual development of business and government.

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PHYSICAL-SPORTS FACILITIES: ECONOMIC ANALYSIS, PROBLEMS AND PERSPECTIVES OF DEVELOPMENT

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At present the issues of physical-sports facilities management for optimization of budget expenditures and the use of the given facilities in business activities on the terms of self-repayment are urgent. Proper organization of physical-sports facilities functions and effective planning of their activity will provide self-repayment of marginal facilities and allow to avoid construction of sports centers without conducting thorough analysis of their future cost effectiveness.

Physical education and sport are important factors of health promotion among the population and preservation of the gene pool of the nation in the Republic of Belarus. Priority guidelines of the social and economic development program in the Republic of Belarus are satisfaction of people's needs in systematic exercises, improvement of their health, provision of sportsmanship and health. One of the most important directions of the targeted goals is construction of physical-sports facilities and further development of their network providing arrange of sporting services and a developed infrastructure of commercial services. Sports service market has been growing rapidly over the last years: there are 238 stadiums, 41 sports arenas, 237 swimming-pools, 6619 sports clubs, more than 695 mini swimming pools in infant schools, the Olympic training bases "Stayki", "Raubitchi", "Ratomka", sports palaces, tennis courts, multifunctional ice stadiums, more than 10 000 outdoor sports areas, etc. The sports facilities are multifunctional, have modern design and comply with international standards.

Taking into account high profitability ratio and social significance of this business, it is possible to assume that it will be attractive for active economic players, including big investors. Considering the significance and applicability of Belorussian sports and health infrastructure, economic literature on the given issue was studied. A conclusion has been made that it lacks scientific research on economic aspects of physical-sports facilities management. That is why it is necessary to ground the methodology of assessment and revealing of physical-sports effective use factors, which allows to define their capacities and real need of the region in physical-sports facilities.

Economic analysis of physical-sports facilities is directed at revealing of opportunities to improve sports facilities management oriented on provision of economic sports sector competitiveness. Effectiveness of physical-sports facilities operation is determined by the choice of analytical procurement of sports facilities management and analytical work efficiency.

Analysis of sports facilities use has a two-fold character. Among the results of their activity we can single out economic and sports components, which are interconnected and inseparable. On the one hand, facilities are economic objects as they form part of non material sphere of national economy. Economic components presuppose commercial use of physical-sports facilities in order to derive a profit. On the other hand, their main activity is directed at development of sports. Sports components are aimed at training of sports men and sports reserve, i.e. at social effect, which provides improving of the country's image in the world sport community, high interest in physical education and sports among the people, health promotion.

The objects of the analysis are physical-sports facilities. Physical-sports facilities are objects designed for sports activities [1]. The most important functions of physical-sports facilities are: health promotion work among the people; training of sportsmen; organization of physical training activities; promotion and popularization of physical education and sports.

Physical-sports facilities form a unified system are divided into 6 sections according to their functions:

1) providing training according to the programs of infant schools; 2) providing training during working hours and after work; 3) providing training for service in Military Forces, keeping fit for special types of work (civil aviation, mounting, etc.); 4) providing health-promoting activities among the people (construction of polyclinics of physical therapy, holiday centers, recreation resorts); 5) providing physical education in rest mode; 6) providing training of top-rank sportsmen and organization of sports competitions.

Physical-sports facilities can be state (republican or municipal) and private. Objects fully owned by the government are capital facilities for training of national teams of the Republic of Belarus, sports reserves, top-rank sportsmen formed or bought at the expense of republican, local budgets and state legal entities [2].

Any organization possessing or managing physical-sports facilities presupposes their involvement into economic cycle in order to derive a profit. Retained profit from sports areas use can be further directed at financing of sports activities, expenses on operation and maintenance of sports facilities, creation of corresponding funds and reserves, payment of dividends to founders, etc.

Studying the activity of physical-sports facilities it is necessary to mention diversification of their services. A sports center aspires to occupy all market niches to maximize profit. Each type of services determines the specificity of sports area organization. The procedure of functional zonation of a sports object includes assessment and verification of rational space use considering separation of functional and spectators flows. As a result separate areas are singled out, which are aimed at organization of different kinds of activities, processes and procedures. The basis for zonation is a service with its most important consumer attributes. In that context, a physical-sports facility is considered as a territory divided into certain areas (rooms) according to the types of activity and physical load. In order to analyze the effectiveness of physical-sports facilities use all areas should be segmented according to their purposes:

1) main areas – they are designed for organization of training, health-promoting and entertainment events; 2) additional areas – include related services not connected with sports sphere (for example, selling of sports goods refer to retail trade; meal service for spectators refer to public catering); 3) secondary (technical) areas necessary for servicing of clients and provision of physical-sports facilities operation.

To provide physical-sports facilities management it is important to attract investments and create an effective mechanism of their accounting and control. A significant factor, which has impact on the process of formation and use of financial resources is the purpose of physical-sports facilities use: for training of sportsmen (sporting events); for health promotion among the people (provision of commercial services).

A specific feature of the economy of modern sports is its financing by the government as well as by private investors [3, p. 16]. Expenses of sports organizations are financed from three main sources: sponsor support; budget financing; money received from business activity of a sports organization (service lease, rent of sport equipment, selling of tickets and passes, advertising, etc.).

Additional sources of financing are facilities received from intragroup transactions, international and foreign sports organizations; loans, credit aid, etc.

According to the National Index of the Republic of Belarus OKRB 005-2006 "Types of Economic Activity" activity of sports organizations refers to section "O" – "Provision of Communal Public, Social and Personal Services" in two main directions [4]: 1) section 92 "Activity on Recreation and Entertainment, Physical Education and Sports Organization", subsection 926 "Activity in the Sports Sphere", subclass 9261 "Activity of Sports Objects"; 2) section 93, subsection 930 "Provision of Individual Services", subclass 9304 "Health Promoting Activity". Apart from this, physical-sports facilities can be let on lease to other organizations for carrying out sports events, training camps, exhibitions, concerts, conferences, etc. (subsection 702 "Leasing of Own Real Property" OKRB 005-2006). Sports organizations are also allowed to organize gambling games within sports facilities (betting houses, slot halls; lotteries, selling of lottery tickets, etc.).

Most physical-sports facilities in the Republic of Belarus are focused on training and provision of free health promoting services, so they are oriented on budget and sponsor financing, but not on acquisition of income by means of commercial services provision. That is why such important aspects as physical-sports facilities management, income planning, promotion of sports services are not taken into consideration, which leads to the necessity of additional budget financing of expenses on operation and maintenance of sports facilities. Therefore, further functioning of sports facilities without budget financing is problematic taking into account the existing practice of management and satisfaction of their needs in financial resources for current activity and development purposes. So, there is an endless circle – the less effective the use of a sports object is, the more expenses it demands.

Economists D. Pankov and S. Repkin analyzed the existing practice of sports organizations and singled out 6 main stages of their activity: 1) financing; 2) supply; 3) training process; 4) performance itself (game, competition); 5) selling of a competition as a special kind of goods and services; 6) formation, distribution and redistribution of financial results [5, p. 31].

Under conditions of budget and sponsor financing deficiency or its unstable receipt the importance of self-financing of all physical-sports facilities is increasing: profit derived from their use in business activity should at least cover expenses on their operation and maintenance. It is necessary for governmental authorities to take measures aimed at motivation of sports organizations to develop their business activity. It is also necessary for sports organizations to consider development plans presupposing increase of profit derived from business activity.

Nevertheless, business activity of sports organizations, sport clubs, specialized sports bases, training centers, Youth Sports Schools, Specialized Children and Youth Sports Schools of the Olympic Reserve is limited, because sports facilities can be used for provision of commercial services only at off-training time. Commercial activity is incidental and is formed on the basis of the opportunities to use sports facilities besides organization of training. That is why mainly private physical-sports facilities can be met among cost-efficient sports facilities in the Republic of Belarus. They have a developed conception of rendered services, which considers location and parameters of a sports object to the fullest extent. Their range of services is not limited only by sports and health promoting ones. The activity of these organizations is aimed at deriving profit and is carried out on a self-financing principle [6].

The most topical segment of social objects for which self-financing is most urgent is physical-sports facilities of local infant schools, comprehensive schools and grounds. Unprofitable activity of the given segment is determined by lack of finance and experience for appropriate treatment of modern sports facilities, making them cost-efficient, deriving profit for development of sport clubs, organization of different health-promoting events, etc.

Effectiveness of physical-sports facilities management is determined by efficiency of analytical work, including the choice of objects and methods of analysis. The objects of management and analysis are sports facilities of a certain kind divided into rooms, areas and sports sections.

The issues of sports facilities maintenance and development should be studied on the basis of the principles of economic expediency, assessment of effective supply and demand on sports goods and services. When the methodology of assessment of physical-sports facilities effectiveness is developed it is necessary to take into account such peculiarities as diversification of sports services rendered, visitor capacity of physical-sports facilities, frequency and duration of services accomplishment. Apart from that, sports services have an individual character, which determines certain specificity of a sports area organization. That is why the basis of the analysis should comprise the process of functional zonation of a sports object into main, additional and secondary areas as objects of profit, expenses and income.

So, as there is no well-defined strategy of sports development, budget financing is limited, new sources of income to cover expenses are being actively searched for, it has become necessary to create a system of sports facilities management, which will be responsible for organizational and operational work on their strategic development. A more perspective solution to cut expenses from republican and local budgets is the use of physical-sports facilities in business activity with its social components remained.

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THE INTEGRATION OF PROFESSIONAL SPORTS WITH ART AS A PROMISING TOOL FOR SPORTS MARKETING

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The article is devoted to marketing in the industry of professional sports, especially the integration with art. The authors analyzed a number of investigations on the problem of home and foreign scientists. They identified a number of problems connected with the development of professional sports and arts synthesis as the object of marketing communications. The complex approach to solving problems of integration of professional sports with art, which finds its place at the heart of programs and activities, which are developed in the framework and on the basis of the idea of marketing projects, is reviewed. The directions, which may strengthen the union of professional sports with art, are proposed.

The experts in the area of sports marketing suggest that the art will prevail over the professional sports as a primary form of entertainment and leisure consumers, especially among the older generation. Predicting the growing popularity of the art and the decline of interest to the industry of the professional sports, sports managers from countries with developed market economies, organize and implement in practice a variety of sports festivals – the symbiosis of professional sports and arts.

In connection with the foregoing to attract consumer behavior spectators, performances in figure skating, exhibitions of sports brands and logos are planned and conducted, and organizations that produce and sell sports products for the mass consumer, such as Nike and Reebok, attract professional first-class athletes to promote their brands.

Robert Lipsyte in 1970 noted that society must be changed before the sport can be changed, a professor of the University of California Harry Edwards also pointed out that without some massive changes in the value system of the American society Institute of sport cannot change its structure, function and cannot survive [12, p. 354].

Many investigations of various scholars, among which we can note the works of Arguel, [5], Arnold, [6], Best [7], Coubertin [9, 10], Daume [11], Green [13], Grys [14], Lambis [17], Marazov [18], Masterson [19], Nissiotis [20], Sala [21], Samaranch [22], Ward [24], Witt [25] and others, are devoted to the problem of synthesis of professional sports and art.

This problem was also touched upon at many international conferences, we can point out the following ones:

– 4th, 10th and 26th session of the IOA [20, 28];

– Olympic scientific Congress in the USA in 1984 [26];

– international conference "Art and sport" in Leipzig in 1983 [29];

– international conference on science, arts and sports in Paris in 1906 [9];

– at other congresses, conferences, symposia [15, 16].

The analysis of the discussions and published works on this problem reveals a very wide range of different and even opposing points of view. Particularly important thing in the work is given to the analysis of professional sports and arts integration. The necessity and the real possibility of this integration is shown, practical experience which is accumulated in this respect abroad is generalized and systematized.

According to Maureen Kovich, the definition of art should be expanded to include upscale sports performances. Eldon E. Snyder and Elmer A. Spreitzer consider professional sports as theatre, referring to well-developed Aristotle's theory of catharsis, called theatre [23, p. 20-22]. B. Lowe repeatedly compares professional sports with theatre, and an athlete with an actor [1]. Football is valued as art. Ex-president of FIFA Joao Havelange said in an interview that, in his opinion, "football is art". Similar thoughts were expressed by the coach of the Italian national team, World Cup champion 1982, Enzo Bearzot: "Football is the most exciting theatre of all existing in the world" [2, p. 73-74]. Geoffrey Green in his book "Football is a game of the whole planet" wrote: "If you want to learn to appreciate the opportunity of enjoying the sport, for example, simple and beautiful movements of the football players, you should pay attention to the visible proximity of the sport to the art" [13, p. 214]. According to Gunter Witt, sports reporters contribute to such an assessment of sports, celebrating the artistic merits of the performances of those or other athletes [25, p. 39].

Some researchers that analyze the problem under discussion noted difficulties in its solving, the existence of reasons for different responses to the question about the relationship between professional sports and arts and think that this is still an open issue [6, 7, 24]. Thus, the main argument to justify the conclusion that sports is art is a reference to the similarity, proximity, and common moments in professional sports with art.

Side by side with the traditional aspects of this problem in recent times, new questions are beginning to be affected. These include the question of the integration, professional sports and arts synthesis as two social and economic elements.

An important place in the world of marketing or professional sports is taken by its "decorative aspects" – bright design of playgrounds, shells, sports paraphernalia, athletes` costumes, etc. [9, 11, 22].

First of all, it is important to note that modern professional sports spectacular plays an important role. Under spectacular we usually understand the effect which is achieved by resolution clear enough for viewers to conflict with the help of active actions that are built according to the laws of the game plan and can be perceived by the audience directly in their development, and are accompanied by deep emotional experiences of participants and spectators.

On this basis, we can explain the emergence of the concept of professional sports as art, ideas, and identification of these two phenomena [1, p. 95-96; 6, p. 45; 7].

In this sense, before any professional sports game there is a very complex problem. One of the most important functions is entertainment. Sports fight should create a fascinating spectacle that will attract to the podium as much spectators as possible.

To improve marketing potential of professional sports is also required to activate Olympic education-information and outreach in order to develop in different population groups, particularly children and youth, knowledge about the values and ideals that can be implemented in professional sports and, through it, about the ideas of Olympism and the Olympic movement [3].

If you have a look at history, we can recall that Pythagoras, according to the testimony of Diogenes Laerte (Diogenos Laertius VIII, 47), was a winner at the Olympic games and a coach, Plato was successful at wrestling competition at the Isthmian games (Diogenos Laertius, III, 4), and Milon is the most famous athlete of antiquity who wrote a philosophical treatise on the nature, which, unfortunately, has not survived to our time.

You can present more modern facts indicating the possibility of combining active and successful practices of professional sports with creativity in arts. Let us mention, for example, the fact that Winaus (USA) in 1900 and 1908 was an Olympic champion in shooting, in 1912 he won the gold medal at one of art competitions; Hajos (Hungary) in 1896 was an Olympic champion in swimming, and in 1924 he won the silver medal for architectural design of the stadium. At themed art exhibition in Paris in 1957, which was dedicated to sport and numbered 100 famous artists and sculptors, 25 of the participants were actively involved in professional sports, and most of the others took part in sport competitions [21, p. 183-184].

Deep supporter of this idea was the founder of the modern Olympic movement, Pierre de Coubertin [20]. In his works [9], Coubertin repeatedly pointed at the need for complementarity and strengthening communication of professional sports with art. He emphasized that "The art must coexist with the sport", "It must be associated with the practice of the sport", "Sport should be considered as a source and as an occasion for the arts" and that "Between athletes, artists and spectators the Union must be entered into" [10, p. 17]. In Coubertin` view, the union of professional sports with art and science can serve as an important means of "gentrification" of sport and thereby raising not very high prestige in this period.

Active supporter of this idea is the former IOC President Juan Antonio Samaranch [22]. In his letter to the organizers of the exhibition "Sport in art of China", he, in particular, wrote: "In Ancient Greece, athletics and sports were closely united, especially in connection with the Olympic games. The greatest poets, orators, and artists participated in the ceremonies associated with these Games... The Idea of Coubertin to combine sport and art has become one of the fundamental principles of the Olympic movement [27, p. 7]. General of the United Nations educational, scientific and cultural organization (UNESCO) Federico Mayor Director also supported the idea of strengthening the connection of sport and art [4, p. 34].

To formulate and solve the question of professional sports with art integration a number of circumstances should be taken into account:

– first, professional sports and art have a number of important shared similar moments, such as commonality, which raises the question about the possibility of their closer union;

– secondly, theoretical analysis of professional sports art reveals their ability to effectively influence each other, to complement each other in addressing the diverse social and economic challenges.

Thus, a number of theoretical considerations lead to the formulation and solution of the problem of strengthening ties between professional sports and art. However, really important for this issue are not these theoretical considerations, but practical requirements to address more effectively a range of social, economic and marketing objectives based on the integrated use of professional sports and arts.

Such a comprehensive approach to solving the problems of professional sports to arts integration is based on programs which are developed in the framework and on the basis of this idea of marketing projects.

One of the specific actions in this regard is the use of art for marketing clearance, theatricality, additions to sporting events. We are talking about, for example, the opening or closing of these competitions, their music and song making, presenting them as sports and artistic performances, etc. [19, 22]. The tradition of sport with the association was established in Ancient Greece in the organization and holding of the Olympic games [5, 14, 17, 18].

Over the last years sport and art festivals were being increasingly practiced (Fig. 1), as cultural and sports event and other similar events, with the program, which along with the competition of athletes includes performances by artists: dancers, singers, musicians, etc.

Fig. 1. Logo "Festival of Art and Sport"

During the Olympic Games in 1972 in Germany the international children's competition called "Sport in my country" was organized, there were sent 18 thousand works from 67 countries. 700 works were presented at a specially organized exhibition. In 1988, the national Olympic Committee of Germany organized for students art competition titled: "The Olympic games – how I see them", in this competition 14425 students from 776 different schools of Germany took part. Similar contests are regularly arranged by the Olympic Committee of Romania.

To this activity art exhibition adjoins, the participants are professional athletes. International biennial "Athletes in art" – art exhibition – can serve an example of such exhibitions, which contains works done by former and current athletes. The experience creating and working in Germany "theatres of sport and movement" is interesting [8].

Directions which may strengthen the union of professional sports with art are as follows:

– various forms of enrichment of professional sports and arts. For example, on the one hand, promotion of the development of such marketing activities, which are aimed at attracting investors in the face of well-known actors, movie stars and pop stars, politicians, businessmen, etc. to active cooperation, and on the other hand, the

use of sporting events, meetings with famous athletes, etc. for the active promotion of art and as a result of brand promotion;

– identification and practical use of such models for the organization and conducting of competitions, which program provides not only traditional forms of professional sports and arts combination, but also new forms of their associations, which have not previously been practiced.

The analysis of development trends of modern professional sport, art, and a variety of marketing campaigns that were undertaken in practice in these areas, gives basis for the following conclusions:

– the idea of convergence and strengthening of professional sports with art union, integration, synthesis really is not abstract and the idea of importance at the present time to promote professional sports is almost sold;

– practical steps for professional sports and arts integration are made in two main directions. On the one hand, attempts are being made to strengthen the union of professional sports and the arts, to unite and harmoniously use them to solve certain social and economic objectives. On the other hand, efforts are made to reconcile differences between professional sports and art on the base of increasing the marketing potential of professional sports, as well as to gain professional sports brands;

– the attempts of professional sports and arts integration, as a rule, affect some aspect of this integration, without being related to each other, and do not cover many other important areas, forms and ways not intended to create a clear organizational structures, as well as are designed for a fairly narrow group of consumers, etc.

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UDC 334.722

THE ROLE OF TRANSPORT INFRASTRUCTURE DEVELOPMENT IN THE REPUBLIC OF BELARUS

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The actuality of this article presents the fact that economic growth, income level and overall development of society depends not only on the deepening division of labor and complexity of industrial and commercial relations, but also on the people's aspirations for closer interaction and cooperation, so the availability of adequate transport infrastructure is of paramount necessity. Considering the current state of the transport infrastructure in the Republic of Belarus, taking into account the geopolitical location of the country, we can conclude that nowadays the development of transport infrastructure in the Republic of Belarus does not correspond to its real possible level and require upgrading to more efficient use of the capacity of the country.

Transport infrastructure is a type of infrastructure, the aggregate of all transport industries and companies, which perform transportation, as well as provide its implementation and maintenance [1].

The object of the transport infrastructure is a technological complex, which includes rail, tram and inland waterways, contact lines, roads, tunnels, overpasses, bridges, railway stations and bus stations, subways, sea trade, fishing, specialized and river ports, port facilities, shipping waterworks, airfields, airports, communication systems, navigation and motion control of vehicles and other transport complexes of buildings, structures, devices, and equipment, which are necessary for transportation [2].

The world economic forum, in its report for the year of 2014, ranked the countries according to the level of development of transport infrastructure. Among the countries of the former USSR the best position has Estonia − 29 place. Azerbaijan − 38, Lithuania − 41, Latvia − 42, Kazakhstan – 50, Russia – 53, Georgia − 69. Ukraine has better position in comparison with Moldova (82) and Armenia (85), Tajikistan (91), Kyrgyzstan (108). The Republic of Belarus, Uzbekistan and Turkmenistan are not included in that list [3].

As a consequence, we should notice that for the Republic of Belarus it is necessary to take some measures to develop its transport infrastructure. At the moment, the first steps have been already made in this direction: operates resolution of the Council of Ministers of the Republic of Belarus dated April 6, 2006, № 468 "On approval of the Program "Roads of Belarus" for 2006-2015". Within the framework of this program the following activities have already been carried out: representing a complex of interrelated measures and mechanisms aimed at improving transport and operational condition of roads and the provision of national economy and population in the roads. Activities are provided by the scope of work of traffic activity on maintenance, repair, overhaul repair, construction and reconstruction of roads [4].

It is expected that as a result of the implementation of the strategy in 2015 the total amount of revenues from transit (excluding revenues from the transit of oil and the cost of services for the transit of natural gas through pipelines) will be $2.4 billion, or 160.2 % compared to 2010, as well as to 2.6 % and 2.7 % in the gross domestic product.

The amount of revenue for the residents from the international road transit traffic through the territory of the country − $392.2 million (160 %), from roadside services − $1.2 billion (180,3 %).

Contributions to the budget from the residents of the international road transport transit through the Republic of Belarus in 2015 will be $25.4 million, or 155 % compared to 2010. Tax deductions for transportation on public motor roads in 2015 will reach $11.2 million (160 %), and the road tolls on the highway M-1/E30 − $79 million (164.6 %) [5].

The Program of development of the logistics system of the Republic of Belarus for the period till 2015 is also carried out in the Republic of Belarus, approved by the resolution of the Council of Ministers of the Republic of Belarus dated August 29, 2008 No. 1249. The developers of this program calculated that with the development of logistics service in 2015, the Republic of Belarus will have an economic effect in the amount of $ 5.7 billion.

The program of development of the logistics system of the Republic of Belarus for the period up to 2015 aims to elaborate the main directions of development, to create organizational charts of logistics centers and to create all necessary conditions for attracting investments in facilities and infrastructure of logistics system.

The dynamics of growth in the number of logistics centers in the Republic of Belarus is presented in the table 1.

Table 1 – The dynamics of growth in the number of logistics centers in the Republic of Belarus

	2012	2013	2014
Transport logistics centers, number of units	11	21	30

Source: [6].

According to this program it is proposed to build or create 6 regional and 12 territorial transport-logistics centers by means of upgrading the existing infrastructure. Considering the analysis of foreign trade and transit traffic, and also international transport corridors passing through the territory of the Republic of Belarus , transport and logistics centers are expected to be created in addition to the regional centers in Zhlobin, Rechitsa , Mozyr, Soligorsk, Pinsk, Baranovichi, Orsha, Vaukavysk, Lida, Borisov, Krichev and Bobruisk [6].

In addition to the foregoing, to improve the transport infrastructure of the Republic of Belarus, we propose the following activities:

1) In repairing the highways of Republican destination the complete renovations of the segment of the roadway should be used, but not the "point» repairing, what is used much more often. In the future all the roadway will be updated on a certain highway.

2) The major highways should be widened and multi-level interchanges applied in places of high traffic.

3) In the road construction it is necessary to take into account their high groovy eclipse. Insufficient groovy eclipse of the roadway can lead to rapid destruction, as a result travel speeds will decrease on these roads.

4) In the Republic of Belarus there is no well-developed roadside services. It is recommended to increase the number of roadside hotels and places of recreation and maintenance of vehicles mainly for drivers of international traffic.

The improvement of the transport infrastructure of the country is also possible with foreign investments. The favorable investment climate of the Republic of Belarus is determined by the following factors:

1. The strategically advantageous location

Accommodation business on the territory of Belarus allows companies to serve the most capacious and fast-growing markets: the European Union's (500 million consumers), Russia, Ukraine, Kazakhstan and other CIS countries (280 million consumers).

2. Direct access to the market of the Common Economic Space (CES):

− the common customs territory of the CES;

− the equal business conditions (including the cost of the key energy resources);

− the common rules of technical regulation, common sanitary, veterinary and phytosanitary norms;

− the free movement of goods, services, capital and labor.

3. Competitive investment and tax climate

In Belarus there are a number of preferential modes, which can be very useful for foreign companies, including position of their tax planning and optimization. According to the World Bank "Doing Business-2015" research, in comparison with 2013 Belarus improved in 2014, its position in the assessment of the quality of the business environment increased on 1 point. As a result, the business environment of Belarus was ranked 57th place out of 189 countries, far ahead of Russia and Ukraine that we can observe in the table 2.

Table 2 – The ranking of countries in terms of business conditions 2014

Country	Business conditions, place
Poland	32
The Republic of Belarus	57
Russia	62
Kazakhstan	77
Ukraine	96

Source: [7].

4. Advantageous geo-economic situation of the country

The Republic of Belarus is crossed by two pan-European transport corridors, according to the international classification № "II" ("West-East Berlin-Warsaw-Minsk-Moscow) and № "IX" ("North-South" - Russian border with Finland-Vyborg-St. Petersburg-Vitebsk-Gomel-Ukraine-Moldova-Bulgaria-Greece) with a branch "IXB" - Gomel-Minsk-Vilnius-Klaipeda-Kaliningrad.

5. Unique privatization opportunities

The Republic of Belarus offers foreign companies a unique opportunity for accelerated development of their business related to the intensification of the country's privatization process.

6. A skilled workforce

More than 90% of the population of the Republic of Belarus has higher, secondary or basic education [7].

Thus, from this article we can conclude that the development of transport infrastructure in the Republic of Belarus corresponds to the current level of economic development of the country. However, it requires the upgrading for more efficient use of the capacity of the country.

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COMPETITIVENESS OF THE COMPANY AND ITS DETERMINING FACTORS

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The article presents the concept of "competition", "competitive advantage," "competitiveness", it is analyzed the logical connection between them, it is identified the factors determining the competitiveness of an enterprise.

Competition in any society is a natural and necessary form of interaction between enterprises, companies and people. It is predetermined by their different positions in society, different objectives and interests [1].

Obviously, the competitive advantages are inextricably linked with the competition: they arise, where competition emerges and develops [1].

Competitive advantage is a system that possesses any exclusive value, giving it superiority over its competitors in the economic, technical and organizational field [2].

Different scientists define the relationship between the categories as follows: for example, G.L. Azoev defines them as follows: "Peculiarities of competitive advantages and the mechanism of their formation fundamental basis to ensure the competitiveness of the organization" [3].

In the economic literature competitive advantages are often identified with the possibilities of the company more effectively manage available resources that is its competitiveness. This analogy is well founded, as the sense of competitiveness often interpreted as the ability to stay ahead of rivals in achieving economic goals [1].

In other words, the competitiveness carries a competitive advantage initially. In today's market, the competitiveness of the organization is the only original element-the foundation of creating competitive advantages [1]:

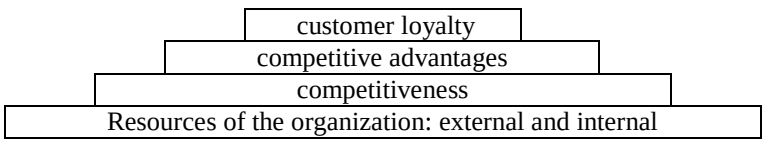

Fig. 1. A schematic representation of the relationship of concepts "competitiveness" and "competitive advantage."

Source: [1].

Competitiveness has a property of hierarchy. Therefore, assessment of the competitiveness of the enterprise should be based on considering and understanding that "Competitiveness is a system and determinants can be understood only in the exchange between the interconnected elements which are formed at different levels of the social system" [2]. Thus, the competitiveness of the organization is formed by the competitive

advantages at the level of competition between the firms themselves (specifically the benefits of company's management) only partially. Indicators of competitiveness for any company display the results of the work for almost all its services and departments (i.e., characterize the state of its internal environment), as well as the reaction with respect to external factors [4]. Competitiveness of the goods should also be included in the assessment of the competitiveness, as it was evidenced by the models of hierarchical structure of competitiveness by G. Azoev and A. Chelenkov.

In the systemic study of the concept of competitiveness G. Azoev and A. Chelenkov distinguish a hierarchical structure, which sequentially includes the assessment of goods, enterprise, industry and the economy in terms of their superiority over similar competing sites [2].

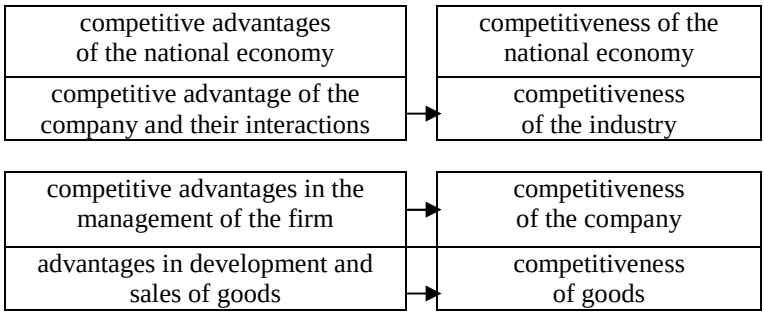

Fig. 2. The hierarchical structure of competitiveness by G. Azoev and A. Chelenkov.

Source: [2].

Thus, taking into account all the characteristics that previously were described, we define the essence of the concept "competitiveness of the organization" (Table 1):

Table 1 – Approaches to definition of essence of the concept "competitiveness of the organization"

Author	Definition
Z.A. Vasilyeva [5]	"The competitiveness of enterprises (for consumers) is the ability to meet the needs of (problem solving), based on the production of consumer."
I.L. Dulisova [6]	"Competitiveness of the organization is the object property that characterizes the degree of consumers' satisfaction of the specific needs of products (services)."
A. Zakharov [7]	"Competitiveness of the organization is the possession of properties, which create an advantage for the subject of economic competition."
I.V. Sergeev [8]	"The competitiveness is the ability of the organization to produce competitive products due to its ability to efficiently use the available resources. "
J.A. Fashiev [9]	"The competitiveness of the enterprise is understood as a real and potential ability of the company to develop, manufacture, sell and service competitive products in specific segments of the market."
M.O. Yermolov [10]	"Competitiveness of the company is a relative characteristic which reflects the difference between the processes of development of the manufacturer the products and a competitor as to the degree of satisfaction with their products or services of a particular social need, and on production efficiency."

Source: own development on the basis of studying of special economic literature.

Competitiveness of the enterprise at the micro level is determined by three main factors:

- resource (physical resource costs per unit of output is the feedback with private and shared performance indicators);
- price(level and dynamics of prices for all inputs and finished goods);
- "Environmental factor" (the economic policy of the state and the extent of its influence on the market counterparty).

In addition to these factors at present in all countries such factors as innovation is gaining tremendous momentum.

On the product level, competitiveness of products (services) is defined by three essential elements:

- the property of products(services), its quality and price characteristics;
- the level of after-sales service; properties of competing products(services), and features of consumers [4].

Competitiveness is a concept that can be described by the activities of the enterprise without looking through its balance sheets. Today competition of any product in the world market with political conditions is doubly hard. The question how it can be estimated immediately rises. The answer to this question is considered in this article: the relationship between the concepts of "competition" and "competitiveness" is quite logical and is manifested by the notion of "competitive advantage". Thus, the dependence between the level of competitiveness and the competition is becoming equally logical. As for the assessment of the level of competition on the world market, the scientific opinion on this matter boils down to the concept of property which characterizes the hierarchy. Such scientists as L. Andreeva, M. Gelvanovsky, and G. Azoev, A. Chelenkov represent the structure of competitiveness, where lower-level are competitive enterprises and higher level is the state, linked by means of the competitive advantages of different orders. So, it appears that competition among states can be determined by their internal competitive advantages, which in their turn are created due to the competitiveness of each company in each country.

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UDC 336.71

PERSPECTIVE FORMS OF EXPANDING THE RESOURCE BASE OF THE COMMERCIAL BANKS BASING ON THE USAGE OF ADVANCED TOOLS OF FINANCIAL ENGINEERING

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The author offers the ways to increase the resource base of commercial banks using advanced tools of financial engineering.

The modern development of banking systems is characterized by mutual penetration of capital of the banking system of one country to another. This is largely due to the improvement of banking technologies, improving the quality of the Bank's services, the development of foreign economic activity of business entities. In this regard, in most developing countries, there is a significant increase in competition not only between the national, but also foreign financial – banking institutions. The consequences of the global financial crisis of 2008 and the Belarusian economic crisis in 2011 revealed a deep relationship of the real and financial sectors, as well as the important role of the stability of national banking systems to external and internal challenges. At this time, a reduction in the volume of lending under government programs to support the development of the economy, many Belarusian companies and banks are forced to adjust their business development plans and include them in the use of other alternative sources of funding for expansion and investment projects [1, p. 73].

To the problems of management of the resource base of commercial banks the works of Russian scientists Alymova Yu, T. Cooper, G. Kravtsova A. Rakov, S. Sploshnova, F. Cherniavskii, S. Pelikh, as well as foreign researchers A. Berger, V.Vagnera, E. Zhukov, M. Goncharov, M. Dempsey, O. Lavrushina, Tavasieva A. are devoted [1, p. 74].

In order to ensure sustainable activities, as well as effective provision of banking services to commercial banks a constant increase in the volume of attracted funds is necessary. In the world and domestic practice for this purpose a variety of methods are used, which vary depending on the reasons and initiators of their use, methods of implementation and documentation [2, p. 63].

In recent years, along with Belarusian banks credits (loans), deposits, bills funds from non-residents in foreign currency started to be raised with the help of other forms, such as syndicated loans and credit notes. In the long term – the emergence of Eurobonds [3, p. 39].

International syndicated loans – loans provided by several lenders to one borrower. They do not require obtaining a rating, although the presence of the rating is desirable as it helps reduce interest rates and increase the number of creditors. Compared with the assistance of a standard bilateral loan all the conditions of the syndicated loan are uniform for each lender and allow the borrower to reduce labor costs for debt service.

The syndicated loan is used in cases where a borrower requests too large loan amounts, and for one bank it is undesirable to have such a concentration risk of loan portfolio.

The disadvantages of the syndicated loan: restrictions on the bank's activities in connection with the signing of the contract syndicated loan. These may be increased requirements to comply with the capital adequacy constraints associated with the acquisition or sale of assets, provision of audited financial statements according to international requirements as soon as possible, and more [4, p. 90].

Consider another form of raising funds from non-residents in a foreign currency - credit notes.

Credit linked notes - forms of raising funds in the open market. The issue is in the form of securities issued by non-resident legal entities, payments on which depend directly on the performance of obligations under subject to the asset (for example, a loan issued by non-resident Belarusian bank). In this case, an investor who buys CLN (notes associated with credit) or LPN (loan participation notes), assumes the risk of the Belarusian bank. Its income depends on whether Belarus will perform a credit institution with its obligations under the underlying loan CLN or LPN [3, p. 39].

Eurobonds – a kind of securities in the form of coupon bonds issued by the Issuer in order to obtain long-term debt in the international market [3, p. 40].

Consider another way to increase the resource base – the securitization of assets. Securitization can become a profitable tool for expanding the resource base of Belarusian banks, will significantly improve the attractiveness of their loan products. The very concept of Asset Securitization (asset securitization) means equipment financing, which is widely recognized initially in the US and then in Europe. The mechanism of asset securitization consists in write-offs of certain assets of the bank, their separation from the rest of the property and transfer the balance to a specially created financial intermediary (Special Purpose Vehicle – SPV) for the refinancing of such assets at the local or international stock market [5, p. 51].

The basic structure of the securitization of assets is shown in the figure 1.

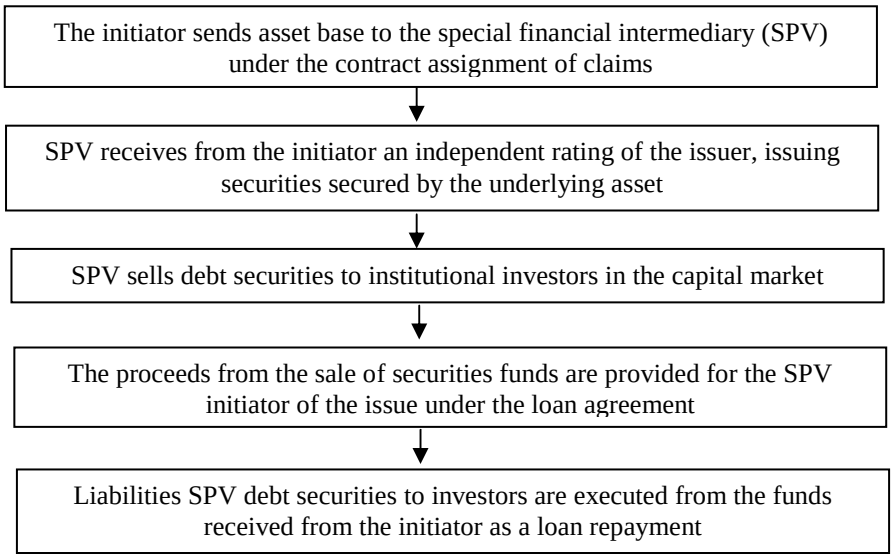

Fig. 1. The basic structure of the securitization of assets

Source: own elaboration based on [5, p. 52].

For customers (both individuals and legal entities) when placing their funds in the bank guarantee investments (investment) of these funds are necessary without the risk of loss. In today's banking business to solve such a problem, there are structured ("hybrid") deposits, which allow the client to provide psychological comfort and confidence in the preservation of his original investment, plus the probability of obtaining a yield higher than the rate of inflation and the average rate on conventional, classical deposits. This character of structured deposit creates association of constant (stable) and variable (changeable) cash flow [6, p. 13].

A structured deposit - this is essentially a product that combines the deposit and investment where the return depends on the market valuation of the underlying assets that underlie this product. Typical financial instrument that may be associated with such deposits, includes market indices, equities, interest rates, financial instruments that generate a fixed income, currency, or their combination. As an example, consider a structured product deposit + shares. The yield on the deposit is 32% per annum. The amount of investment – 200 million rubles. The risk of loss of a deposit – 0 % (the capital must be maintained in any case), the risk of loss on the shares – 100 %. What proportion should be placed on deposit to guarantee one year 100 % return of the capital. The share of risk capital is calculated by the formula 1:

$$Srisk = (B + r) / (B + R) \cdot 100\ \%, \quad (1)$$

where B – a guaranteed profit on the deposit,

R – the maximum possible losses on shares (in %),

r – allowable losses for the investor (in %).

Substituting the values into the formula yields $Srisk = (32 + 0) / (32 + 100) \cdot 100\% \approx 24{,}2$ %. That is, under these conditions, approximately 24.2 % or 200 mln rubles · 24.2 % = 48.4 million. rubles you can invest in stocks (or other risky instruments), so that in case of failure not to lose the original amount.

Risk-free: the part of the funds is invested in the most reliable financial fixed income instruments such as bank deposits and bonds. This part of the investment brings a steady income, forming a "financial cushion" that provides the investor a return of all his assets at the end of the investment period, regardless of the results of investment in the second – revenue – part.

Income: the part of the funds are invested in more profitable, but at the same time, and more risky instruments, such as options – financial tools allowing to buy or sell the selected assets and to get a significant profit under favorable circumstances. The practice of designing structured deposits allows the bank to substantially increase their level of financial engineering, which naturally affects the acquisition of additional competitive advantages. The presence of such products in the arsenal of the bank can not only attract the attention of a certain group of investors, but also to strengthen their loyalty in the future. Financial innovation as one of the driving forces of modern banking is perfectly reflected in the establishment and operation of structured deposits, even with the use of simple technology and option strategies at this time. All this altogether allows us to conclude that the development of programs for bank deposits is structured in today's realities profitable business [6, p. 17]. Structured deposits are generally less risky than direct investments in other financial instruments, such as stocks or bonds, because the bank is obliged to pay the investor all the invested capital back. However, they are riskier than ordinary deposits, as their profitability depends on an assessment of other financial instruments in the market, which are linked structured deposits. In some cases, an investor can get just invested money back without any additional income.

The implementation of the planned activities will not only enhance the ability of commercial banks, but also will give a powerful impetus to the development of all the domestic financial market, its tools, infrastructure and institutions that enhance the efficiency of capital allocation and create favorable conditions for the modernization and growth of the national economy.

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Economics

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THE SILVER ECONOMY AND PROBLEMS OF DEVELOPING IT IN THE REPUBLIC OF BELARUS

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Evaluation criteria of population ageing are defined. Causes and factors of population growth in older age groups are defined. The characteristic of silver economy is given, directions and factors of its development are indicated, and problems of development of the silver economy in the Republic of Belarus are revealed.

The general trend for most countries of the world is population ageing. The data presented in table 1, prove the increased process of population ageing. This trend is manifested significantly in developed countries (OECD countries, USA, Japan). The growing population ageing poses to society not only demographic, but also serious economic, socio-psychological, medical, social and ethical issues. The increasing share of older people in the structure of population necessitates the study of their needs, physical and social opportunities. Demographic ageing becomes a state issue, requiring an appropriate solution now and intensive work in the coming years.

Table 1 – People in the older age group in the population of the world.

	Total population, million people		The proportion of the population 65 years and older, %	
	2004	2015	2004	2015
Total	6389,0	7219,0	7,3	8,4
Developing countries	5093,0	5885,0	5,4	6,5
China	1308,0	1393,0	7,5	9,6
India	1087,0	1260,0	5,2	6,2
Russian Federation	143,9	136,7	13,6	13,3
OECD	1164,0	1233,0	13,6	16,1
Japan	127,9	128,0	19,2	26,0
USA	295,4	325,7	12,3	14,1

Source: [1].

Combining the opinions of different scientists, demographers, sociologists, economists, we can say that the process of population ageing has a number of objective reasons. With the increasing standard of living life expectancy is growing too. Scientific and technical progress and implementation of its achievements in medicine, pharmacology and social services leads to the fact that the existence of older people and care about them goes to absolutely new level. At the same time, the increasing availability and quality of education changes the priorities of young people of reproductive age and gives them the opportunity to pay more attention to career and self-realization, moving the care about the reproduction of generations to the second plan. Together both of these processes – increasing life expectancy and declining birth rates – mainly lead to ageing of the population.

Economic consequences of this process are obvious: shortages on the labor market and probability of slowing economic growth, increasing load on the pension system and, most likely, tax increase for the working population, changing demographic structure of the consumer market, increasing load on the health system and so on. But there are some pluses too: declining birth rates may contribute to the further development of individualization and increasing quality of education that will have the result of increasing professionalism and efficiency of work of young specialists [2].

In EU countries where population ageing was proved quite a long time ago and is common to many countries, governments began discussing possible solutions to problems that entails this demographic process. So the concept, called the silver economy, was formed. This implies an economy that fully mobilizes labor potential, meets the needs and streamlines the way of life of older people with regard to the public interests and needs in conditions of population ageing. This economy is called silver because of the obvious similarity of gray hair, which is a hallmark of older people, with silver color. And the silver economy involves not only solving the problems of ageing population, but also increasing economic growth with the active participation of the elderly.

According to the calculations by Accenture and Oxford Economics [3], as a result of stimulation of the silver economy in the United States in 2020 will be 5 million more jobs, GDP will get additional 2.2 %; in Germany – 5 million jobs and additional 2.1 % of the volume of the economy; in England 1.3 million and 2.5 % respectively.

One of the most important directions of development of the silver economy (Fig. 1) is the increase of production through the employment of pensioners who are still able and willing to work. Staying in the labor market, older will increase their income, will be financially independent for longer; the economy will receive a boost domestic demand; the state budget – growth in tax revenue and lower expenditure on pensions. It is important not only to create new jobs but provide a longer period of work [3]. It is therefore necessary to adapt workplaces to the needs of older people to let them continue sharing their experience and work without sacrificing performance.

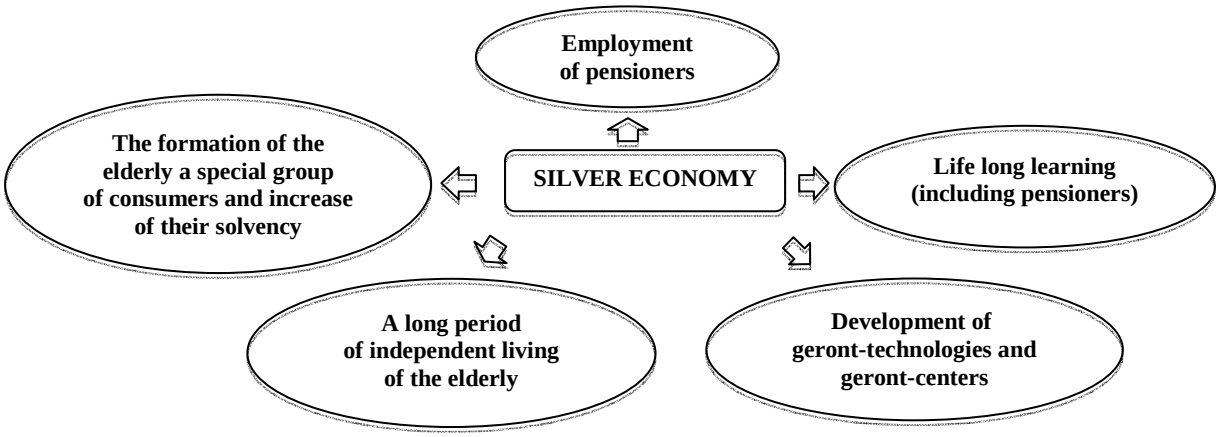

Fig. 1. Main directions of development of the silver economy

Source: elaboration of the author based on [2, 3].

However, solving the long-term employment problem of older age people, it is necessary to consider the dynamics of their labor potential, depending on their age. According to experts, the value of labor capacity, depending on the old people health of all ages is divided into three levels [4, p. 37]:

- 60-65 years: the efficiency is maintained at 65-70%;
- 65-70 years: efficiency level – 50-60%;
- 70-75 years and older: level of efficiency is about 35-40%.

Therefore this specific dynamics of efficiency of older people must be considered during the attraction them to work. It's possible to use, for example, flexible schedules and modes of work (part-time, flex time), periodic attraction of experienced employees during the most intense periods of work, complicated or bulky orders; the moving of pensioning and other.

The problem of providing more long-term employment of pensioners makes the organization of continuous training in the framework of additional education programs for adults very important and actual, so as to maintain their competence, they should be able to use technical innovations, to navigate in advanced technologies, working methods, etc. In this regard, the institutions of the "third age" are already widespread today in different countries, including Republic of Belarus; they provide training and professional development for older people, social and psychological assistance and other.

In the case when income of elderly people allows them to live, not to survive, we can speak about the formation of a special group of consumers. In this regard, another important direction is development of geront-technologies [5] (from Greek "geront" – the old man), which involves multidisciplinary area of applied research. Its goal is the improvement of technical devices and consumer products tailored to age-related changes of the human body, to create the optimum conditions of life and work, as well as facilitate to better health care for older people.

The results of the geront-technologies use include various pharmacological products, the system of online health monitoring, automated appliances, robots and gadgets, specially adapted for older users, various automated medical products, such as electronic wheelchairs, hearing AIDS, blood pressure monitors, etc. The use of geront-technologies is associated with the desire to realize consumer potential, both of the older people and those who want to take care of them (children, grandchildren, other relatives or even the local authorities); that makes it possible to increase the independent living period of the elderly. However when an elderly person loses the ability to self-sufficiency, silver economy involves the use of geront-technologies to ensure efficient operation of nursing homes, which should be equipped with high-quality diagnostic equipment for health control and support. In recent years nursing homes, which already work on these principles have become more and more similar to the sanatoriums and increasingly are referred as geront-centers in developed countries , which can also pursue commercial goals, providing services for seniors in fields of rehabilitation, diagnostics, tourism, leisure and so on.

Through the development of silver economy directions mentioned above the decrease of the load on the state budget becomes possible. Employment of retirees enables to restrain the growth of pension payments. The development and use of the geront-technologies, aimed on the improvement of the working conditions, facilitation of diagnosis and medical service and maximal extension of the independent living period and appropriate care for older people, helps to reduce or at least slow down the growth of public expenditure on health and social services.

Development of the silver economy main directions is determined by various factors. The main one is the economic development level of the country. If the underlying problems of working age population employment are not solved, it is difficult to talk about the employment of pensioners; if advanced technologies are not used in a standard set of benefits production, it is difficult to talk about the development and application of geront-technology. Despite the significance of the view of the ageing population by public authorities, none of the state budget is able to provide adequate funding for all areas of the silver economy development, so it is important to involve the private sector, developing public-private partnerships. If the country has all the conditions for business development, it will not stay away from this problem and showing all of its advantages will rebuild itself and will help society to adapt to a new way of living in the face of population ageing. However, the state should provide all the conditions for this by providing certain benefits or incentives.

One more important thing is the level of pension provision, because even with the possible employment of older people, not all of them can work. In order to form a special group of consumers from pensioners their income should let them purchase certain goods. But at the same time, the silver economy involves the reduction of the burden on the state budget; therefore, an important factor is the strong and effective functioning of the pension system.

The development of geront-technologies and geront-centers due to such factors as the development of science, its funding, the pace of scientific and technological progress. Geront-technologies are new and quite high-tech direction, combining the achievements of various fields: medicine, information technology, marketing and many others. That is why they are so closely associated with the rate of technological progress.

One more important factor is the level of cultural and moral development of society, but rather the attitude towards old age and the elderly. It is problematic to implement reforms relating to older people and their welfare, if the society attitudes to them without proper understanding and respect. Also it becomes difficult to implement gerontological goods, if the younger generation does not want to support financially their elderly relatives and to invest in taking care of them. It's necessary to understand that sooner or later each of us will become old, and elderly may have their own peculiarities in behavior that may be different from the concepts and needs of other people. The better the old man is understood, the easier is to make everyone feel comfortable in society.

Based on statistics, Republic of Belarus entered into a state of demographically old population in the early 1970-ies (Table 1, Tables 2, 3). Much time has passed since then, the USSR collapsed, our country gained independence and at the same time, faced serious socio-economic crisis, which had a significant impact on birth rate, and, as a consequence, on population ageing, which continued to gain momentum. At the beginning of 2013 23,5 % of Belarusians were older than working age, and only 16 % of citizens had not yet reached working age [6, p. 45]. Moreover, in the coming decades the trend of reducing the number of working-age population will continue, because this age group will join those who were born in the very beginning of the 90s, when the birth rate was very low, and the category of working age will be left by generation born in the post-war years, a time of growth in the birth rate.

Table 2 – Assessment of population ageing in the Republic of Belarus on the scale of J. Beaujeu-Garnier – E. Rosset

Years	Total population, mil. people	Proportion of 60 years people and older, %	Characteristics of population ageing process
1970	8,99	13,2	Initial level of demographic ageing
1979	9,53	14,0	Average level of demographic ageing
1989	10,15	16,1	High level of demographic ageing
1999	10,04	18,9	Very high level of demographic ageing
2009	9,51	18,6	Very high level of demographic ageing
2010	9,50	18,9	Very high level of demographic ageing
2011	9,48	19,1	Very high level of demographic ageing
2012	9,47	19,4	Very high level of demographic ageing
2013	9,46	19,4	Very high level of demographic ageing

Source: elaboration of the author based on [1].

Table 3 – Assessment of population ageing in the Republic of Belarus on the United Nations scale

Years	Total population, mil. people	Proportion of 65 years people and older, %	The level of population ageing
1970	8,99	9,0	Old population
1979	9,53	10,8	Old population
1989	10,15	10,4	Old population
1999	10,04	13,3	Old population
2009	9,51	14,3	Old population
2010	9,50	14,1	Old population
2011	9,48	13,8	Old population
2012	9,47	13,7	Old population
2013	9,46	13,8	Old population

Source: elaboration of the author based on [1].

As a result, the development of the silver economy can give a powerful impetus to the development of society and increase its prosperity, ensuring a comfortable life for both young and old people. The experience of European countries in the development of the silver economy is useful for the Republic of Belarus. A lot of attention should be directed at increasing of the employment of pensioners, promotion of their work, education "through all life", and the introduction of geront-technology and development of geront-marketing focused on older age groups. However, in the Republic of Belarus, like in other transition economies, it can be done only when other more pressing problems are solved, in particular the problems of providing effective employment, wages, social security, raising the level of innovativeness of the economy, the effective development of industry and agriculture.

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INNOVATION AS THE OBJECT OF ACCOUNTING

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In recent years innovation is more and more often discussed in various spheres of life. However it should be noted there is no precise definition of the term. This is primarily related to the fact that "innovations" affect all the fields of human activities. They reveal the concept of the term in their own way. All this discovers the actuality of the subject 'innovation'.

Misunderstanding of the term also makes fast development of the innovations difficult. This is the result of people being incompetent which causes negative results of their activities. This situation is a problem of the present reality.

Innovations as a science originated not long ago. It studies innovations and their manifestations. At present the term "innovation" has no clear definition. This fact allows us to provide a new concept of "innovation" by means of the sources analysis, which will contribute to the further development. Presentation of the new understanding, the definition of the new term "innovation" is the purpose of my scientific work.

In this report the author used the following methods: system approach method, analysis and synthesis, the unity of the historical and logical approaches, comparison, and reasoning by analogy.

1. The essence of the concept of "innovation"

In this report the author considers approaches to defining the essence of the concept "Innovation", analyzing the sources: normative documents of the Republic of Belarus, dictionaries and encyclopedias and other literature.

Our research showed that the opinions of the authors of the economic literature are slightly different, which makes a different approach to the definition of innovation. In this respect we can classify the concept of innovation into twelve major groups, such as:

- *New or improved products;*
- *products introduced into civil turnover;*
- *new organizational and technical decisions of the administrative, commercial or otherwise;*
- *new or improved technologies;*
- *new or improved services;*
- *solution can promote technologies, products and services in the market;*
- *result of activity on realization a new product on the market;*
- *practically used the results of activity ;*
- *commercial application of innovation;*
- *the result of innovation activities;*
- *result to achieving STP;*
- *new way of creating added value.*

The analysis of the concept "Innovation" shows that 15.6 % of the authors define it as new or improved products; 13.3 % believe it is the new organizational and technical decisions of the administrative, commercial or other character, new or improved technology, new or improved services; 11.1 % define innovation as practically used results of the activities; 8.9 % of the authors define the concept of innovation as products introduced into civil turnover, result of activity in realization of a new product on the market; 6.7 % believe that innovation is the solution that can promote technologies, products and services on the market, the commercial application of innovation; the smallest number of authors – 2.2 % define the concept of innovation as follows: the result of innovation activities.

The study allowed to unite the groups of the "innovation" concept into common approaches, such as law and economics. Based on the sources analysis we have distributed approaches to the essence of the concept of "Innovation".

Table 1 – Approaches to the essence of the concept of "Innovation"

Approaches	The essence of the approach	Authors, sources
Law	New or improved products, technologies, services, and new organizational and technical decisions of the administrative, commercial or otherwise	Law of the Republic of Belarus № 425-З [1], I. V. Voitov, A. L. Topoltsev, A. P. Chechko, M. A. Bondarenko[2, c. 36], M. I. Krutalevich, E. V. Vashekevich, L. Y. Kunitskayah[3]
Economic	New or improved products	T.Y. Goraeva, S.A. Krechko [4, c. 4], M. N. Chechurina[5, c.8], I.V. Voitov, V. M.Anishchik, A.P. Grishanovich, N.K. Talochka. [6, c. 7], I.V. Voitov, F.N. Hadorkin, J. F.Solonovich [7, c.256], I.A. Kostevich, V.A. Bogush, I.S. Kangro [8, c.54]
Account		

Source: own development based on the study of the special economic literature.

The author has determined the legal approach to the essence of the term "innovation" as new or improved products, technologies, services, new organizational and technical decisions of the administrative, commercial or other character.

Economic approach which defines the term as new or improved products was also determined.

Having studied the economic essence of the concept "innovation" in the economic literature and regulatory legal framework, we can conclude that the approach to defining the essence of this concept in various sources is ambiguous.

As a result of the study we derived two approaches which share a common attribute: new or improved products. Based on this comparison we can give a definition of the term 'Innovation" as new or improved products.

2. Classification of "innovation".

Economic literature presents a variety of approaches to the classification of innovation. The author has considered the approaches of the following Russian scientists: P.N. Zavlina and A.V. Vasilyev, V.V. Gorshkov and E.A. Kretova, E.A. Utkin, G.I. Morozova and N.I. Morozova, I.T. Balabanov, A.I. Prigogine.

Having analyzed the proposals of classification "innovation" we have come to the following conclusion: the views of some scientists on the term 'innovation' are similar (scope, structure and targeted innovation changes as the scale of the intensity and effectiveness of innovation). Conclusion: these signs are essential for determining the classification of innovation.

As a result of this study the following definition of the term "innovation" was given - new or improved products. The following attributes are defined: classification, the field of application, the structure of innovation and change targets, the scale of the intensity and effectiveness of innovation that contributes to a better perception of the term, and therefore a better understanding of what we achieved exploring the concept. Thus the author has achieved the goal of the research: the definition of the new term "innovation".

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ANALYSIS OF TRANSPORT AND LOGISTICS INFRASTRUCTURE OF VITEBSK REGION

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This article analyzes the transport and logistics market in Vitebsk region of Belarus. The main factors hampering the development of logistics and transit potential of the region are identified. The methods solving this problem are developed.

Creating conditions for development in the regions of the integrated economy based on the development and competitiveness of freight and goods movement system, an extensive network of distribution and warehousing, realization of innovation, financial and human capacities of Belarus, is one of the main conditions for increasing political, economic role of the country in the world economic space. The strategic objectives of development of the regions of Belarus are overcoming the gap of transport infrastructure development and forming the elements that make up the national and international transport corridors passing through the territory of the Republic, based on the formation of self-sufficient regional economy.

Regional economic policy in the use of potential logistics infrastructure creates favorable conditions for development in the future of logistics clusters multiplier effect that will have a positive impact on the economy of the regions of the Republic of Belarus.

In this regard, the study of transit potential of the Republic of Belarus for further development of the regional development strategy is relevant.

The purpose of the study. Study and analyze the transport and logistical capacity of the Vitebsk region to identify the main factors influencing the development of the logistics market in the region.

Analysis of the received results. Transport and logistics potential of the Vitebsk region of Belarus is implemented by 25-30 %. Vitebsk region has good conditions and a number of advantages for the development of transport and logistics activities, as it has a high export and transit potential. Objective factor of development of the export potential of the region is its favorable geographical position, which opens opportunities for the sustainable economic and trade cooperation, especially with the regions of Russia and the Baltic countries. Availability of developed infrastructure of the gas pipeline and pipeline transport, intersection of major European transport corridors on this territory, the possibility of integrated passenger service development and freight traffic by road, rail and air links confirm the need of logistic capacity of the country, which will result in an increase in the transit country's attractiveness, export growth, increased welfare.

However, in the Vitebsk region warehouse infrastructure is badly developed, most of the available storage room is converted production sites. The market lacks both conventional warehouses of new format and specialized, such as refrigerating rooms. The main problem is the lack of substantial warehouses that meet modern requirements of sanitation. Violation of the conditions of products storage affects the quality of products.

Investigation of transport and logistical capacity of the Vitebsk region shows that the region has all the necessary prerequisites for the formation of a regional transport and logistics system.

An increase in the transport and logistics capacity as well as the transit potential of the region will contribute to the development of a proposal for a development strategy for regional transport and logistics system. This strategy should link social and economic problems of the Vitebsk region with the interests of economic entities, including freight and logistics intermediaries, logistics administration within complex logistical production and transport, transport and marketing systems, which provide the basis for production and transport infrastructure and supply the region with its complex components**.**

The main aim of the strategy will be the development of modern transport and logistics infrastructure to ensure effective merchandising and lower transport costs in the region's economy, stimulate the development of transit traffic through the Vitebsk region, the integration of the transport system in the region into the global system of transport communications and standards of service.

The main tasks to be solved by the development strategy of the Vitebsk region are:

– increase of the capacity and efficiency of the regional distribution network;

– optimization of interaction of objects CLW, their effective territorial location;

– improving the quality and scope of logistics services, including through the integration of the individual units and the formation of a single information space;

– unhindered passage of goods through the crossings, border stations and transfer points on the border;

– acceleration of the movement of goods in the domestic and international communication, when the delivery involves several modes of transport;

– maximal use of geographic location, logistics infrastructure, reduction of losses of goods in transit;

– attraction of additional cargo to transport corridors, increase in transit;

– providing the maximum list of transportation and logistics services, the organization of an integrated transport customers service and thereby attraction of more cargo, the creation of a flexible grid of tariffs.

Practical application of the results. Research in this paper is used in the development of regional transport and logistics system strategy in Vitebsk region

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UKRAINE'S EXPERIENCE IN DEVELOPING STRATEGIES FOR THE DEVELOPMENT OF REGIONAL TRANSPORT AND LOGISTICS SYSTEMS

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In this article the market of logistic services in Ukraine has been studied, the country's experience in building regional logistic clusters has been investigated and the range of problems constraining the establishment and development of clusters in Ukraine has been identified.

Increasingly important significance in shaping of innovation activity of separate territorial entities in Ukraine is attached to cluster structures built on the cooperation of enterprises, financial institutions, educational institutions, etc. In developed countries such structures arose long ago and continue arising in various industries. In the works of famous foreign scientists theoretical basis of formation and functioning of clusters, the use of cluster models to increase the competitiveness of the economy, their advantages and disadvantages have been clearly defined. Foreign experience can be useful to develop a national strategy of clustering in Ukraine, with comprehensive study of its socio-economic development. It is these tasks at this stage that are the priority for central and local government.

Effective logistics of the country is becoming an increasingly important factor of economic growth, diversification and poverty reduction. It also serves as an indicator of development.

Logistics Performance Index (LPI) is used to evaluate the trade logistics environment. In other words, how easy or difficult it is to make export-import and transit operations from the perspective of companies engaged in commercial transportation, freight forwarding and logistics.

In the ranking of LPI in 2007 Belarus took the 74th place among 150 countries in the world, Russia – 99th, Kazakhstan – 133rd, Ukraine – 72nd. In the rating of 2012 Belarus ranked 91th, Russia – 95th, Kazakhstan – 86th, Ukraine – 66th place (in 2010 - 102 place). Thus, we can conclude that Ukraine wants to improve the efficiency of trade logistics environment and thereby increases the level of economic development of the country. [2]

Transport infrastructure is one of the most important complexes of socio-economic system that meets the needs of social production, the national economy and the population in freight traffic.

Ukraine's transport network includes 21.6 thousand km of railways, 166.1 thousand kilometers of paved roads, 4.8 thousand km of trunk pipelines, 40.1 thousand km of gas pipelines.

In 2012, the amount of cargo carried in comparison with 2011 decreased by 1.8 % and amounted to 1.9 billion. Cargo turnover amounted 412.6 billion ton-kilometers, and decreased by 7.4 %

Today the share of road transport in the total cargo holds 68.2 %. However, the lion's share belongs to private automobile cargo transportation.

As for the commercial trucking then, in 2012, traditionally the greatest specific weight in the structure belonged to railway transport, which made up 64 %. In the second place – pipeline transport – it accounts for about 18 % of the total traffic.

The potential of geopolitical and geo-economic situation in Ukraine is largely implemented through the provision of transport services. Over the last ten years transit has become an essential component of the export services. The export of transport services is a real resource that Ukraine has in order to achieve economic growth. In the overall amount of services export transport services occupied 73 % or 4.2 billion dollars in 2012, representing 5.9 % of the GDP of Ukraine. The total number of services exported in 2012 made up 30.8 %. In 2012 all types of country's transport exported 170.9 million tons of cargo. Import freight traffic contained 82.3 million tons of cargo.

Ukraine made arrangements for the formation of transport and logistics clusters. For example, in the Kherson region it was considered promising to create the first Ukrainian transport and logistics cluster, which would combine 106 companies and organizations, among them three commercial seaports, 7 river ports, 5 shipping companies, shipyards, rail and road transport enterprises, an airport, airline enterprises.

The main tasks of the cluster, which is now in its formative stages, are to improve the transport system in the region, establishing cooperation transport enterprises and restructuring of transport structures.

From 2000 to 2013 the sphere where clusters were being created significantly expanded. In most regions cluster surveys have been conducted, effective forms of economic agent market participants interaction have been implemented. A number of development projects of territorial-production clusters are being carried out on its own initiative in Zhytomyr, Ivano-Frankivsk, Lutsk, Lviv, Rivne, Sevastopol, Kherson, Khmelnytsky and other cities [3]

Today in Ukraine clusters are being developed in Ivano-Frankivsk, Volyn, Rivne, Poltava, Sumy, Kharkiv regions, Sevastopol. For example, in the Khmelnitsky region building and sewing clusters operate quite successfully, there are travel ones "Kamenetz" and "Dyvosvit", the cluster of green rural tourism "Oberig" having all the possibilities for further development, including in cross-border dimension.

It is planned to create an international logistics cluster, which will include aviation, Kherson and Skadovskii seaports, river ports, rail and auto ways, and the largest producers, insurers and operators. This cluster will allow the area to increase the flow of goods between regions, to develop infrastructure and attract even more tourists. The arrangements for the formation of cross-border logistics cluster in Zakarpatie are being made. In Lugansk region the feasibility of cross-border cluster initiatives realization in transport engineering, agriculture and medicine is being studied [1].

In the situation of transition economy in Ukraine, besides being in a state of crisis, the clusters can be created and survive under the following conditions:

• relatively favorable market conditions for the sale of goods and services produced in the cluster;

• unification of owners with strong regional power, undertaking the creation of favorable conditions for business.

Thus, Ukraine having scientific research potential, production infrastructure and the highest in Europe potential factor of transit (by calculation of the British Institute of Rendall), due to its geopolitical position in Eurasia - between Russia , Central Asia and Europe - and a well-developed communications network , and also taking into account world integration processes that encourage the formation of transport and logistics systems in areas of transnational flows of goods movement and causing the need for a synthesis of logistics systems , has the ability to organize regional logistics clusters.

For clustering it is proposed to implement a set of measures for the information campaign among potential participants and stakeholders to clarify the competitive advantages of clusters in transition and market economy, promote greater efficiency of the system of vocational training and lifelong learning the use of the infrastructure of industrial parks and technology parks for the development of clusters, reduce administrative barriers and others. In 2009, the Ministry of Regional Development and Construction of Ukraine developed a draft Concept of the National Strategy for the formation and development of cross-border clusters, which will operate up to 2015. The purpose of this strategy is to improve life of citizens, ensure the competitiveness of Ukraine and its regions. The strategy defines its basic components, tasks, provides a comparative analysis of possible options to identify transboundary cluster initiatives and development of cross-border clusters, expected results after its implementation. [4]

We will outline a circle of problems hindering the development of regional logistics clusters in Ukraine:

• lack of investment in transport infrastructure in Ukraine to address the challenges associated with improving transit opportunities;

• cross-border cooperation in the framework of Euro-regions requires the harmonization of legislation of neighboring states;

• legal clustering in Ukraine is in its infancy. There has arisen a need to take into account the legal form of a cluster to improve the legal framework regulating the innovation at the regional level;

• the future of Ukraine's economy largely depends on the competitiveness of enterprises in various industries. This goal is unattainable without the introduction of modern logistics techniques and technologies in business practice;

• quite a serious problem is the training of the staff in the field of logistics. Early implementation of logistics thinking into the practice work of middle and senior level personnel of different companies, etc. is needed. There is also a need for intensive training in the specialty "logistics", retraining in this field of the personnel of middle and senior management. Currently, one of the problems for the CIS market , including Ukraine , is the growing number of logistics companies and the demand for logistics services in the absence of human reinforcements, so the main thing is to work in the field of training and education ;

• lack of competitiveness strategy of Ukraine in general and in the regions on the basis of innovative cluster structures .

Thus, the state policy of Ukraine is based on a responsible attitude to the needs of the region, on the use of the synergies of the development of economic clusters in the first place – transboundary. Government attaches particular importance to regional cooperation. Increased competitiveness of regions in Ukraine and its integration into the European space, innovation, increased productivity, and increase in the index of human life should be based on the National Strategy for the formation and development of cross-border clusters, through the combined efforts of the central and local authorities. Three quarters of the country – the border area is a significant basis for the allocation of activities in the field of creation of cross-border clusters and use of the results of their performance in the long-term state strategy.

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PROBLEMS AND PROSPECTS OF MARKETING COMMUNICATIONS PROFESSIONAL SPORTS IN THE REPUBLIC OF BELARUS

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The article is devoted to marketing in the industry of professional sports. The author identifies a number of problems in the development of marketing communications professional sports of the Republic of Belarus. In the article marketing and consumer behavior fans of football clubs in the top League of the Republic of Belarus are analyzed. The ways of the development marketing activities of professional sports organizations are offered.

Marketing plays an important role today in the world of sport. Marketing in the modern world, including that of professional sports, is developing dynamically. It is recognized that the marketing and marketing techniques are fully applicable to the field of professional sports.

In the field of sports marketing includes the issues of finding and working with sponsors, sale of sponsorship rights, the interaction between the government and sports organizations, work with media coverage of sports events, research status and prospects of development of individual sports, analysis, marketing communications, sporting events and much more. This area today is very important. Because without marketing there won't be any sponsors, and without sponsors there will be no funds for the training of athletes, for creating an effective team, and therefore there will be no victories, which all fans of professional sports await.

Roger Enrico, the President of Pepsi-Cola said: "Marketing is not aimed at a free show on television, and sales growth".This idea is continued in the statement of Michael Payne, marketing Director of the International Olympic Committee (IOC):"... the days of charity passed. Business leaders increasingly need to justify marketing expenses to their shareholders; now it is not enough to say that the support at the Olympic games is good for the company – you must prove it with real facts" [8].

Marcel Hussam considering marketing activities in the Olympic sport of positions of the system approach, determines the nature of the relationship between the different structural parts of the marketing system [6].

In today's market the main instrument for achieving the goals of economic activity of the participants of the Olympic sports are marketing activities, specifically the following programs: business cooperation with the television companies for the sale of the rights on the implementation of the broadcasts of the competitions of the Olympicgames;TOP Ssponsor Programmes; IOC Licensing; Olympic Philatelic Programmes; IOC Suppliers; IOC Coin Programmes [1, p. 10-12].

Thus, marketing in the sphere of physical culture and sports is not so much a commercial as a social character, is a special kind of social outreach, technology, socio-cultural innovations aimed, in a broad sense, the reproduction of the nation's human capital. In addition, marketing is the theory and practice of management activities, the philosophy of the market industry "physical culture and sport" [3, p. 122].

Sports marketing in Belarus is a new, but very promising and rapidly developing area. National school of marketers in this area of management is only beginning to emerge. A.J. White and M.E. Karpacka in the article "The Role of marketing in the development of sports industry" consider some aspects of the financing of sport in the Republic of Belarus and suggested measures to improve marketing, by activation of organizations in the conduct of promotional activities, but rather suggested strengthening the role of sponsorship in sport events [2,p. 224-229].

Target spending on the marketing budget is not provided, in this regard, sport organizations decide how much money are spent on advertising. Many professional clubs in the Republic of Belarus does not employ marketers, because these duties are executed by managers. For a more detailed illustration we will analyze the marketing activities of football clubs in the top League of the Republic of Belarus (Table 1).

In a difference from Belarus and CIS countries in the Western market the market of sports marketing has already existed. Also it is developing successfully. For example, the annual turnover of this market in the U.S. is more than 200 billion dollars. The distribution of the sponsorship payments in the countries of Western Europe depends primarily on the popularity of the sport. The more popular the sport, the greater the audience gather competitions, respectively, and attention from sponsors in this case will increase.

Table 1 – Marketing activities of football clubs in the top League of the Republic of Belarus

Club	The presence of marketing specialist	Who is responsible for marketing	Events at the stadium and work to attract fans	Branded products	Future plans
Minsk	No	general Director	Avavilable not on a regular basis, active assistance to people with disabilities.	Scarves, t-shirts with the logo, ice cream logo.	A search for a good marketing specialist.
Naftan	Yes	Leading specialist	No promotions, performances for the entertainment of fans there.	The stadium appeared tent with the paraphernalia of the club.	There are enough events in the plans.
Neman	No	Head of public relations	Activities during breaks, cooperation with FM radio, live broadcasts, online video broadcasts.	No, because the club has long been no significant progress.	Lots of unrealized ideas.
Torpedo-BelAZ	No	Press-attache	Penalty second goalkeeper from fans, 7 years is a sponsor of the urban school Comedy tournament.	Cooperation with entrepreneurs, manufacturing products and selling on every game.	There are enough events in the plans.
Shakhtar	Yes	Deputy Director	Action "In school with Shakhtar", among holders of season tickets, the number of planned PR activities is constantly increasing.	At the stadium there is a tent, with a variety of Souvenirs, spread it through the stores and shops.	Addressed to 4 target audience: the viewers, the club, the sponsors and the Mass media.
BATE	Yes	Head of develop-ment Depart-ment	At the stadium the growth figures of players, three large companies that sell products.	Chips under the brand, a joint project with "Coca-Cola", cooperation with enterprises of the region.	All hopes and projects are associated with the new stadium.
Belshina	Yes	Head of Departm ent	No promotions, performances for the entertainment of fans there.	It is planned to go on the way BATE in cooperation with enterprises.	Selling merchandise through the website.
Brest	No	Specialist with fans	At the stadium there is a café, various actions.	Do not activate any editions of the product with the brand.	The future development of the brand.
Gomel	No	general Director	Belarusian speaker, speech freestylers, advertising on monitors in all the malls of the city, the stadium 5-6 point of sale food service.	While the sale of merchandise are entrepreneurs, running trolley with club logo.	A wide range of products, then the opening of the club museum.
Dynamo	Yes	Specialist	Competitions during the break, the sponsor company "Leysan Computers", before matches operates the fan zone with sports attractions.	The stadium operates specialty store with a large assortment of the club.	Having more advertising.

Source: own elaboration based on data [9, 10].

According to research by Western marketers, the greatest amount of money is invested in football, which is the most popular sport. On the second place by this indicator is the Association of the names of sports facilities with the brand. Examples are the Emirates in London, Allianz Arena in Munich, the Volkswagen Arena in Wolfsburg, Nordbank Arena in Hamburg. In third place is Formula 1, and in the fourth is American football.

Sponsorship programs in the West are nothing more than elaborate advertising campaigns, integrated into the overall advertising strategy of the sponsor, while in the Republic of Belarus they are in the nature of patronage or lump-sum promotion.

A distinctive feature of sports marketing is that sports organizations vary by product. Consequently the main role in the life of sports organizations is not played by fans and or consumers, but it is played by the players and sports teams, which are, respectively, have a determining effect on marketing[2, p. 224-229].

According to I. Rein, Ph. Kotler and B. Shields athlets, owners, coaches, sports development programs, professional leagues, sports products, sports events, sports television programs, and sports teams could became a sports brand [5, p. 264-289].

Sports brand is a strategic asset and the only component of the property which can remain unchanged for several years maintaining its exchange value. It is also one of the nonmaterial assets. Strong brand is like a magnate attracting sponsors and helping to enter new areas of activity. For the license giver the brand is the money making element through the development of merchandising, for selling the rights to the symbol, club colors, to the name, sports event, or sportsman's image for the use by the licensee in its marketing activities [5, p. 264-289].

Let us consider some of the most expensive brands in the field of professional sports.

Manchester United brand value is estimated at the level of 351 million dollars which amounts to 24 % of the companies value. The brand value includes also the annual receipts from sponsors at the level of 94 million dollars and fees for media rights at the level of 70 million dollars [11].

In spite the fact that Real Madrid and Bayern Munich are only of worth, respectively, 1 billion dollars and 838million dollars, the baseball team New York Yankees is worth of 1,2 billion dollars. European clubs have a higher brand value than American ones. This is the case because Real and Bayern have revenues from sources which they do not have to split (share) with other teams from their countries (sports merchandising), or from the sources which in lesser degree sponsor of their rivals. It is different from the case of Yankees (television) [11].

Business brands are evaluated on the basis of how much their market value exceed the book value in comparison with the standard for the sector [4, p. 163-167].

Financial opportunities of professional sports is constantly growing, and there are fans. They are involved in it in different ways: buying tickets, watching television, listening to the radio, reading newspapers, magazines and brochures, collecting a variety of Souvenirs related to professional sports. Together they annually spend 6 billion dollars on visits to various competitions.

With regard to the Republic of Belarus, sports marketing is in its infancy. There are problems with the transition of the Republic of Belarus from the sports competitions financing at the state expense to independent profit from sports organization resources. Here is the big problem of finding a sponsor for the organization, advertising and conducting sports competitions. In the Republic of Belarus due to the lack of funding 26.4% sports organizations are unprofitable. Companies and firms do not have a benefit to sponsor the sport, because of the relatively small sponsorship money in a difference from the advertising costs which often give much more tangible result. But at the same time the interest of the sponsor emerges when a large number of people are watching a sporting event, but attendance at sporting events in the Republic of Belarus is very low.

If we consider the promotion of sports competitions, we can see some problems here. Indeed, in the Republic of Belarus the tickets for all home games of the football club are not common for example. The football club BATE Borisov which has the correct vector of development has some achievements. This is the step sent to a new stadium in Borisov to which families would go and in this way the number of viewers will increase. Consequently, the advertising contracts will increase, this know-how is absolutely new for the CIS, even none of the clubs in the Russian Federation come to this.

To get more information about the development of professional sports in the Republic of Belarus, conserning the possibility to develop sports marketing, you should analyze the attendance of sports teams and organizations. You can analyze the attendance of football clubs in the top League of the Republic of Belarus. For better understanding we will construct a chart that shows the percentage of average attendance home games clubs to maximize the possible fallibility of their stadiums (Fig. 1).

As you can see from the chart, the football clubs BATE, Gomel and Slutsk have the best levels of occupancy of their stadiums, the high indicator of the football club Slutsk is characterized by low capacity of domestic arena and high interest among fans, due to debut in the Premier League. Other clubs are much inferior, filling their arena only by a third or a quarter, and sometimes even less.

The clubs together with the ABFF should work together to engage in the promotion and advocacy visits to football matches, running simultaneously with new marketing initiatives in stadiums appropriate advertising campaign promoting football in the framework of various social marketing programmes. They should make a

visit of football matches and any sport competition a fashionable pastime instead of visiting shopping malls and other entertainment. It is necessary to develop competent marketing policy and make a visit to fashionable among residents of the city and surrounding areas, the European examples are not leading the championship is sufficient, when the inhabitants of much smaller cities populate the arena 10-12 thousand people during the matches of their team.

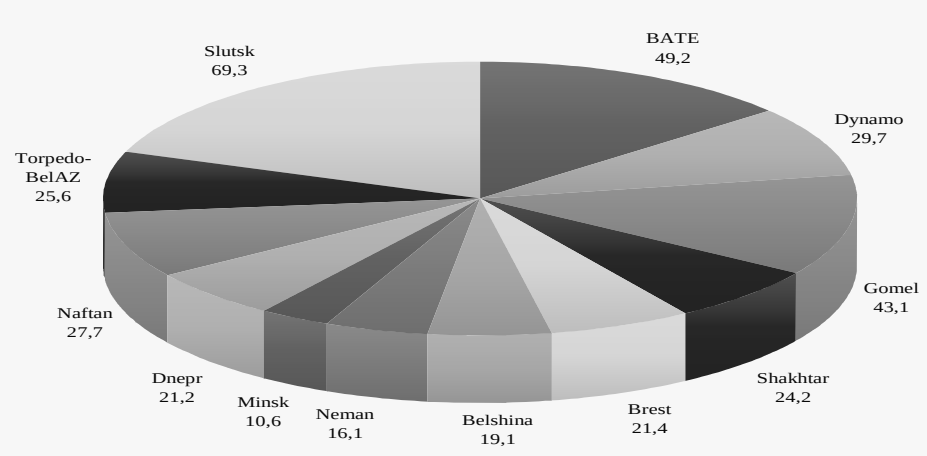

Fig. 1. The average attendance at home games of the top division clubs of the Republic of Belarus football to the highest possible occupancy of their stadiums in 2014, %

Source: own elaboration based on data [7].

Today marketing in the sphere of physical culture and sport is a very powerful and well-integrated technology social and cultural innovation, an important component of the overall culture and spiritual life of modern society. As you know, physical culture and sports belong to the socio-cultural sphere, with the main purpose of the reproduction of national human potential.

The industry of professional sports is one of the most important business sectors in the world. The most important thing for marketing in professional sports is to increase sports audience and expand sports market to keep the public, but valuable sports subject in a way of growing globalization, we need to search for solutions to expand audience and market in the process of sports integration.

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UDC 338.93

COMPETITION AND COMPETITIVENESS OF AN ENTERPRISE

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Different approaches to the definition of "competition" and "competitiveness" are considered. Multiplicity of wording of the concept "competitiveness" is defined. The author's definition of this concept is proposed.

Market economy is a complex organism, consisting of a huge variety of industrial, commercial, financial and information structures, interacting with each other on the background of the system of legal norms of business. The most important feature of market economy is the principle of freedom of economic activity. Any business entity has the right to choose the desired suitable type of activity and implement it in any form permitted by law. The defining principle of market economy is the equality of market entities and different forms of ownership.

Market is characterized by the efficient allocation of resources. Competitive market system directs resources to the production of those goods and services that society need most. It dictates the use of the most effective methods of combining resources for production.

The market system contains incentives for the use of scientific and technological progress. Application of advanced technologies provides us with a temporary competitive advantage in the form of higher product quality and its lower price. The characteristic of the market economy is the ability to meet the diverse needs [1].

An important role in the market economy is played by the competition. The classical definition interprets competition as a rivalry of several persons (companies) in achieving the same goal. Adam Smith was the first to prove that the competition, making profit rates equal, leads to the optimal division of labor and capital, and defined the basic conditions for its functioning. Firstly, competitors must act independently and not in collusion. Secondly, the number of competitors should be sufficient to exclude the extraordinary approach [2].

In scientific literature there are three approaches to the definition of competition. The first one defines competition as contentiousness in the market. According to A. Marshall, "competition is that one person is competing with others, especially when selling or buying something." This approach is based on the everyday sense of competition as rivalry for achieving the best results in any field [3].

The second approach considers the competition as a part of the market mechanism, which allows you to balance supply and demand. This approach is characteristic of the classical economic theory. For example, Adam Smith interpreted the competition as a behavioral category, where individual buyers and sellers compete in the market for more profitable sales and purchases.

Israel M. Kirzner similarly believes that "competition is a process in which potential buyers and sellers try to determine each other's supply and demand curves by touch."

A. Yudanov claims that market competition is companies' struggle for limited effective demand of consumers, which they wage on the available market segments. It can be summarized that competition acts as a force for the interaction of supply and demand and for the balance of market prices. As a result of rivalry between buyers and sellers the total price for similar goods sets. Competition ensures the functioning of the market mechanism of pricing.

The third approach defines competition as a criterion which determines the type of industry market. This approach is based on a modern microeconomic theory, where competition is understood as a kind of property market, and it is characteristic primarily of neoclassical economic theory [4].

The content of the competition is most fully revealed when considering functions performed by the competition.

Modern economics has identified the following main functions of competition: guiding (is the impact on the offer of benefits in order to establish their optimal matching the demand); allocative (is expressed in the effective arrangement of the factors of production in areas where their use provides the greatest return); adaptation (is aimed at rational adjustment of enterprises to domestic and external environment that allows them to move from economic survival to expansion of areas of economic activity); innovation (manifested in stimulating innovation and the use of scientific and technological progress); distribution (has a direct impact on the distribution of the national product among consumers); controlling (is made to prevent the establishment of monopolistic dictation of some market participants in relation to others) [5].

Competition leads to the fact that limited resources are used more completely and efficiently, they flock to the industries that produce necessary for consumers and profitable for producers products. The competition is universal; it affects all countries, their economy, social relations, science and culture, all firms and industries of

all producers. Competition is one of the most important ways of improving the efficiency of the economic system as a whole and all of its units. It is an incentive for the person to struggle to outrival others.

In the market economy conditions competition is an important component of country's economy and its manufacturing industries, and it pretends to be the main factor in country's economic growth and economic security.

Under conditions of abundance of commodity markets and excess of supply over demand, every product has to fight for consumer's preference. Many products simultaneously offer the same or different ways of meeting the same needs of the buyer on equal or slightly varying price conditions. In this situation, the preference is given to a consumer product, which is defined as competitive [6].

Currently, there is still no common understanding of the term "competitiveness". At various times, the issue of competitiveness was fundamentally studied by Russian scientists such as L.S. Avirom, Y.P. Adler, G.G. Azgaldov, V.V. Buzyrev, V.G. Versan, A.V. Glichev, S.D. Il'enkov, A.V. Karasev, I.G. Lukmanova, Y.B. Monfred, A.N. Pytkin and others. Substantial contribution to solving the problem is madt by the following foreign scientists: S. Brue, P. Drakker, J. Mond, F. Taylor, W. Shewhart and others.

American economist Michael Porter gives the following definition of "competitiveness", "Competitiveness is a characteristic of product, service and market entities to act in the market on a par with similar goods, services or competing economic agents."

Kalashnikova L.M. believes that company's competitiveness is a complex concept, which is contingent on the system and quality of management, product quality, breadth and depth of assortment, demanded by society or its individual members, stable financial condition, ability to innovate, efficient use of resources, purposeful work with the staff, the level of physical distribution system and services, company's image [7].

Fatkhutdinov R.A. gives the following definition: "Competitiveness is the ability of a firm to produce competitive products, its privilege in relation to other companies of the industry at home and abroad. Competitiveness of a company can only be assessed as a part of a group of companies belonging to the same industry or companies producing similar products.

Seleznev A. writes that competitiveness is producer's position in the domestic and foreign markets, due to the economic, social and political factors, which is reflected through indicators adequately characterizing the state and the dynamics [8].

The multiplicity of formulations of the concept of competitiveness is due to the following factors:

• a great variety of the existing standpoints on the question;

• multivariance of the concept (from technical to economic characteristics of products, companies, industries);

• the presence of different levels (product, company, subindustry and industry levels as well as the levels of national and world economies);

• with respect to this economic category (one and the same product can be competitive in some markets and non-competitive in others).

Thus, having considered the views of various scholars on the concept of competitiveness of an enterprise, it can be concluded that under the competitiveness of an enterprise one must understand the complex characteristic, which expresses superiority of the development of a given enterprise over the development of competitive enterprises in their degree of satisfaction of people's needs and in the effectiveness of achieving objectives of their activity.

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FINANCING HIGHER EDUCATIONAL INSTITUTIONS OF THE REPUBLIC OF BELARUS

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The article considers features of science and innovation activities of higher education institutions, aims and sources of funding for this activity. The costs of research and development in the Republic of Belarus and in the higher educational establishment "Polotsk State University" are analyzed.

Along with the traditional functions of higher education institutions – teaching, research and professional education, universities have appeared qualitatively new: innovation and entrepreneurship. Practice has shown that the new model of the university as educational, scientific and innovative complex that combines fundamental education, academic science with an extensive network of high-tech innovation structures and small enterprises is one of the most effective structural elements produced by the national innovation system. On the one hand, these systems have significant scientific, technical and innovative potential that can be realized with the creation and promotion of their innovations to market. On the other hand, they begin to train personnel for the innovation economy [1, p. 42].

The higher education system provides the main component of the innovation economy of the country – human resources – based on a combination of fundamental training with flexible response to the needs of current research directions and high technologies. In 2012, 12 % of higher education institutions carried out research and development in the structure of organizations engaged in research and development.

The policy of the Ministry of Education of the Republic of Belarus in the field of science and innovation is an integral part of the state innovation policy of the Republic of Belarus [2].

The scientific innovation in higher education need to be developed on the basis of the existing system of organization of scientific and technical activities in universities and research institutions of the Ministry of Education, based on the principles of continuity. This means not breaking the existing management of the sector, but rather complementing it with new elements to fill the existing gap between the creators and consumers of scientific and technical products [2].

The scientific production and innovation activities of universities should be carried out by institutions of all sizes and, consequently, with different legal status. The structure of innovation management institution should include both administrative divisions and structures of methodical, information and consulting support of subjects of scientific and innovation activities of universities. The scientific innovation sphere of universities is currently characterized by a variety of organizational structures, resulting from uncertainty as multi-variant and innovative processes and imperfections forms of commercialization and financing innovation [3].

The main purpose of scientific innovation of the education system is to provide training of scientific and scientific-pedagogical staff by international qualification requirements, the effective use of educational, scientific, technological and innovation potential for economic development and social objectives of the country [3].

When performing set goals, the most important is the issue of funding the research and innovation activities of universities. The main sources of funding can be [2]:

a) the republican budget funds allocated for financing of scientific, technical and innovative activity of the university;

b) the innovation fund of the Ministry of Education, funds of other national government bodies;

c) the means of the Belarusian Innovation Fund;

d) the personal funds of universities, including those obtained from the reference of economic contract work, foreign trade transactions;

e) bank loans, including loans from the European Bank for Reconstruction and Development;

f) venture capital funds and companies specializing in venture capital financing;

g) the funds received by universities on projects of international funds and programs, including the Framework Programmes of the European Union, the Central European Initiative and others.

Let us consider the structure of domestic spending on research and development in higher education institutions of the Republic of Belarus for the period 2010-2012 by source of funding (Table 1).

Table 1 – The structure of the of domestic spending on research and development of the higher education sector by source of funding in 2010 – 2012 years

Sources of financing costs	2010 year*	Sp. gr., %	2011 year*	Sp. gr., %	2012 year	Sp. gr., %	Structural changes, p.p.	
							2011/ 2010	2012/ 2011
The amount of funding of domestic spending on research and development, mln rub.	366 277	100	243 063	100	354 107	100	-	-
Of these sources of financing:								
personal funds	7 392	2,0	3 778	1,6	4 549	1,3	-0,5	-0,3
budget funds	245 112	66,9	161 404	66,4	233 668	66,0	-0,5	-0,4
extra-budgetary funds	84	0,02	290	0,1	191	0,1	0,1	-0,1
funds from foreign investors, including foreign credits and loans	19 273	5,3	18 544	7,6	29 919	8,4	2,4	0,8
funds from other organizations	94 396	25,8	59 046	24,3	85 780	24,2	-1,5	-0,1

Note: the information is presented in a comparable form.
Source: own elaboration based on data [4, p. 131].

Information in Table 1 indicate the important role of budgetary financing of science and innovation of high school. This is proved by the fact that about 66% of the funding for the period from 2010 to 2012, was carried out at the expense of the budget. It should also be noted that a considerable role in financing of domestic spending on research and development in the higher education sector is given funds to organizations.

Consider the internal and external costs of research and development in the educational establishment "Polotsk State University" (Table 2).

Table 2 – The costs of research and development in the "PSU" in 2011 – 2012 years

Costs	2011 year*	Sp. gr., %	2012 year	Sp. gr., %	Absolute change, mln rub.	Growth rate, %	Structural changes, p.p.
The costs of research and development - total (mln rub.).	4 801	100	3 095	100	-1 706	64,5	-
Including:							
domestic expenditure on research and development	4 698	97,8	2 865	92,6	-1 833	61,0	-5,2
external costs of research and development	104	2,2	230	7,4	126	222,2	5,2

Source: own elaboration based on reports of research sector of "PSU".

The costs of research and development in 2012 decreased by 1 706 mln rub. compared to the year 2011 and amounted to 3 095 mln rub. Gross domestic expenditure on research and development for the largest share in the structure of the cost of research and development - 97.8 % in 2011 and 92.6 % in 2012. Thus, domestic expenditure on research and development decreased by 1 833 mln. rub. in 2012 compared to 2011 and amounted to 2 865 mln. rub. External costs for research and development amounted to 230 mln. rub. in 2012, it is more by 126 mln. rub., than in 2011, the growth rate of these costs amounted to 222,2 %.

Consider the composition, structure and dynamics of the internal current expenditure on research and development in the higher educational establishment "Polotsk State University" (Table 3).

Table 3 shows that as part of the intramural current expenditure on research and development is dominated by cost of labor - 70.3 % in 2011 and 70.4 % in 2012. Despite the increase in the share of labor costs by 0.1 %, the absolute value of these costs decreased by 1 295 mln rub. in 2012 compared to 2011. Social contributions also decreased in absolute terms by 429 mln rub. and in 2012 amounted to 670 mln. rub., in the structure of internal current expenditures on research and development, they occupy 23.5 % in 2012. Other material costs in 2011 amounted to 4.9 %, in 2012 they decreased by 1.9 percentage points and amounted to 2.9 % of the intramural current expenditure on research and development. In absolute values, other material costs decreased in 2012 compared to 2011 by 145 mln rub. and was 83 mln. rub. Other expenses increased by 23 mln rub. and amounted to 91 mln rub. in 2012.

Table 3 – Structure and Dynamics of intramural current expenditure on research and development in "PSU" in 2011 – 2012 years

Costs	2011 year*	Sp. gr., %	2012 year	Sp. gr., %	Absolute change, mln. rub.	Growth rate, %	Structural changes, p.p.
Current domestic expenditure on research and development (excluding amortization), mln rub.	4 698	100	2 852	100	-1846	60,7	-
Including:							
cost of labor	3 303	70,3	2 008	70,4	-1295	60,8	0,1
allocations to social needs	1 099	23,4	670	23,5	-429	61,0	0,1
other material costs	228	4,9	83	2,9	-145	36,4	-1,9
other costs	68	1,4	91	3,2	23	133,4	1,7

Source: own elaboration based on reports of research sector of "PSU".

Consider the sources of funding for of domestic spending on research and development in the educational establishment "Polotsk State University" (Table 4).

Table 4 – Structure and dynamics of sources of financing of domestic spending on research and development in "PSU" in 2011 – 2012 years

Sources of financing	2011 year*	Sp. gr., %	2012 year	Sp. gr., %	Absolute change, mln. rub.	Structural changes, p.p.	Growth rate, %
The amount of funding of domestic spending on research and development, mln. rub.	4 698	100	2 865	100	-1 833	-	61,0
Including sources:							
personal funds	-	-	-	-	-	-	-
budgetary funds - total	931	19,8	1 249	43,6	318	23,8	134,2
Including:							
funds from the republican budget	838	17,8	1 085	37,9	247	20,1	129,5
local budget funds	28	0,6	31	1,1	3	0,5	110,7
Union State budget	65	1,4	133	4,6	68	3,3	206,0
extra-budgetary funds	-	-	-	-	-	-	-
funds from foreign investors, including foreign credits and loans	-	-	98	3,4	-	3,4	-
credits and loans	-	-	-	-	-	-	-
funds from other organizations	3767	80,2	1 518	53,0	-2249	-27,2	40,3

Source: own elaboration based on reports of research sector of "PSU".

The amount of funding of domestic spending on research and development in 2012 decreased compared to the year 2011 to 1 833 mln rub. and amounted to 2 865 mln rub. Of these, the budget amounted to 1 249 mln rub. in 2012, representing 43.6 % of the total amount of financing. The growth rate of the budget amounted to 134.2 %. Means of foreign investors, including foreign credits and loans in 2012 amounted to 98 mln rub., That is 3.4 % of the volume of funding. Due to other organizations held 80.2 % of the total volume of financing of domestic spending on research and development in 2011, in 2012 the share of the funding source was 53.0 %.

Universities need to work actively to diversify the sources of financing of scientific innovation, reduce the share of budgetary financing by increasing the off-budget.

It should be noted that the system of higher education is the most promising in building on its base Belarusian innovation and investment network, which should serve as a bridge connecting science and production in all regions and sectors. This is determined by the capabilities of the national high school: the distribution of universities in all regions; high scientific and technical potential; universality of the higher education system, by its interdisciplinary nature: scientific schools of the universities in Belarus cover all areas of the economy; by links between higher education through its graduates with all regional and industrial structures; a relatively high level of information management system for high school, including global and local computer information networks connected into a single system; public support of high school; a flexible system of high school [5, p. 9].

The purposeful and systematic use of the advantages of the higher education system will effectively integrate the results of university, academic and industrial science for the development of innovation, the creation of the country's effective innovation economy [5, p 10].

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CONCESSIONS IN THE ECONOMIC RELATIONS OF THE STATE AND PRIVATE SECTOR

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In this article the special attention is paid to the essence and forms of implementation of the public-private partnership (PPP) in the Republic of Belarus. Concession as one of the most effective and applicable public-private partnership mechanisms in the international practice is revealed. The scheme of functioning of the concession mechanism is shown. Advantages and disadvantages of the concession mechanism are disclosed.

Thematic justification is that at the present stage in the Republic of Belarus there is an urgent need for structural changes and closer interaction of the state and private sectors. In this connection, such effective structure as the public-private partnership (PPP) has arisen and started playing an increasingly important role [1].

One of the main directions of transformation of economy and public life in the Republic of Belarus at the present stage is further reforming of state ownership for the purpose of its more organic inclusion in the system of market relations. The successful solution of this problem depends not only on implementation of programs of privatization, but also on the use of other mechanisms and forms which don't assume the transfer of property rights to private organizations to the full extent. An effective way of increasing efficiency and providing quantitative and qualitative characteristics of state ownership functioning is the development of partnership of the state and private sectors: joint organizations, a contract system, production sharing agreements. The most important form of economic partnership is concessions [2].

Concessions allow attracting additional resources to the public sector of economy, first of all, investments, weakening the sharpness of budgetary problems, shifting the main part of risks to a business sector and at the same time keeping objects transferred to concession in state ownership. In concession system of the relations there is an association of resources and potentials of two economic entities - the state in the form of its property and business in the form of enterprise principles of managing, investments, management, and innovations. In essence transition to concessions means partial privatization of some functions of the state determined by the legislation and a concession contract.

As concessions are a public-private partnership form, we considered the concept "public-private partnership". In economic literature there is no unanimity of opinions on the definition of the essence of this concept.

Deryabin M. [3] holds the opinion that public-private partnership is an institutional and organizational alliance of the government and private business for the purpose of implementation of socially significant projects in a wide range of fields of activity - from the development of strategically important branches of economy to providing public services on a country scale or on certain territories.

Vologina Zh.Yu. [4] considers that public-private partnership is a legal mechanism of coordination of interests and ensuring equality of the state and business within the implementation of economic projects directed to the achievement of the objectives of public administration.

Thus, as a result of the carried-out analysis we chose the definition of the studied category which in our opinion, most fully reflects its essence: public-private partnership is a legally issued for a certain term mutually beneficial cooperation of government bodies (organizations) and commercial entities aiming at the connection of resources and distribution of risks which is realized for the implementation of socially significant, investment, innovative, infrastructure, national projects and programs having important state and public value [5].

In the world practice various forms of realization of partnership between the state and the private sector, such as contracts, rent, leasing, production sharing agreements, joint ventures, investment funds, etc. are applied. According to most experts' view the most popular of them is concession where one party creates and (or) uses a real estate which, by the property right, belongs or will belong to the other party and which this other party vests the first one with the specified purposes. Concessions make up from 60 to 80% of all partner agreements between the state and private business in the countries of Europe and the USA [6].

In their pure form concessions are most widespread in the countries where the partnership between the state and the private sectors rests on the developed legislative base. First of all France should be referred to such countries, which concession legislation is one of the most developed in the world and consists of a complex system of rules of law reflected in various state and local statutory acts and which has rich jurisprudence. The USA, where there is practically no any special legislation on concessions at the federal level, refers to countries with undeveloped legislative framework of partnership between the state and the private sector. Some specific requirements to concessionaires are established by regulations of state and local authorities, but generally the relationship between the state and the private sector is regulated by general civil law. It causes a variety of forms of realization of partnership which can be referred to concessions [7].

As for the Republic of Belarus, according to Concessions Act issued on July 12, 2013, concession is the right to own and to use the object of concession or the right for carrying out some activities based on a concession agreement [8]. Concession is finalized in the form of a concession agreement the parties of which are the concessor (the state, for and on behalf of which a certain department or a state company act) and the concessionaire (the legal entity receiving corresponding assets and business activities rights from the concessor) [9].

Zhukova N. S [10] offers the scheme of the concession mechanism which, in our opinion, most fully reflects the interaction of authorities, the private sector, and consumers of services and goods created by the concessionaire in the course of activities on the management of objects of concession (Figure).

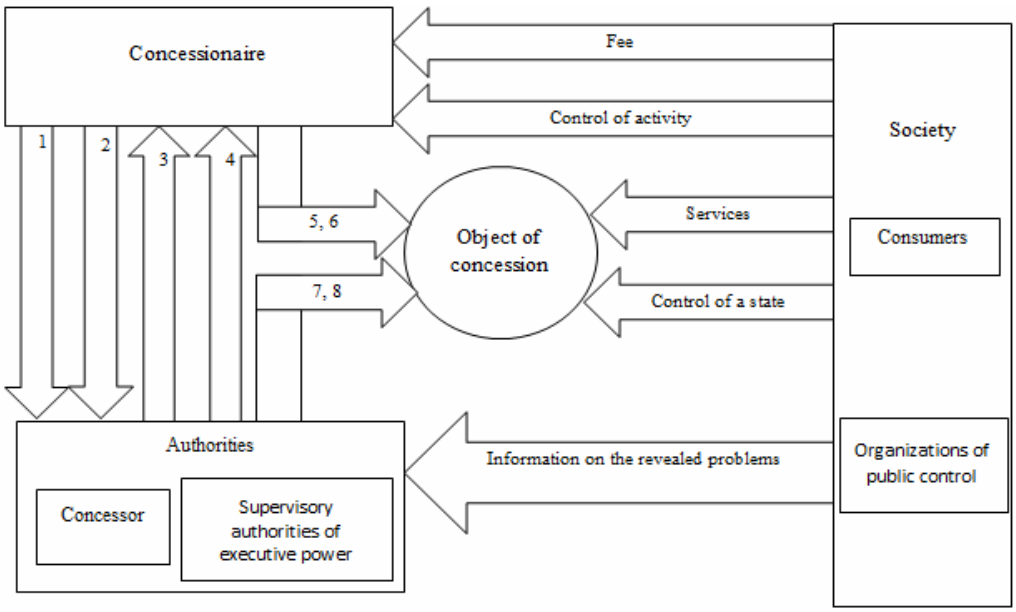

Fig. Scheme of functioning of the concession mechanism:
1 – concession payment; 2 – taxes; 3 – state (municipal) support; 4 – control of activity;
5 – management; 6 – investments; 7 – financing; 8 – control of a state

According to this scheme during concession the parties are connected with each other not only by the conditions of the concession agreement, but also by a number of other relations. The concessor exercises control and supervision of a condition of the object of concession and of the activity of the concessionaire. It also carries out systematic monitoring of the concessionaire's execution of conditions of the concession agreement. The fact, that the concessionaire interacts with consumers of services during the use of the objects of concession, defines

its special relations with society. In this regard the control over the concessionaire's activity and over the condition of the object of concession should also be carried out by the society represented by consumers of services and specialized public organizations. Information on concessionaire's observance or non-compliance with public interests should be sent to both the concessionaire, and the concessor.

Special attention should be paid to advantages and disadvantages of concession mechanism (Table).

Table – Advantages and disadvantages of concession mechanism

Concession mechanism	
Advantages	Disadvantages
socially significant issues are resolved which are difficult to realize at the expense of budgetary funds only	determinancy of concessions
non-interference of the state in the current business activity of the concessionaire	insufficient degree of flexibility and dynamism
risk diversification	rather new type of legal relationship, and the legislative framework is worked out insufficiently
possibility of long-term planning	participation in concession is expensive and risky for the concessionaire in comparison with rent relations
the condition of indispensable investment of resources into the object of the agreement preserving property as municipal, that is this type of agreement is an alternative of privatization	the operating legislative framework entirely protects the interests of the concessor, the concessionaire enters legal relationship at his own risk
allows to conduct effective management of state (municipal) property complexes at the expense of private investors resources	a rather limited list of potential concessionaires that is caused by exclusively intended use of objects of concession [11].

Source: own consideration based on the studied economic literature.

Thus, the interests of the state are: first, it shifts expenses on investment and the maintenance of property to the private sector, theoretically, for increase of its efficiency; secondly, it replenishes its budget due to receipt of concession payments and shrugs off financing of state objects; thirdly, it solves social and economic problems.

To sum it up, it is possible to draw a conclusion that successful concession activity in the Republic of Belarus is possible only in the presence of the state capable to guarantee equal partnership with business, if necessary to defend interests of society, to provide transparency of concessionaires' work. Therefore, the state should not only develop, but also actively realize concession programs.

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STANDARD AND CUSTOM INVESTMENT PROJECTS: EVALUATION OF THEIR EFFECTIVENESS (ILLUSTRATED UE "POLOTSK BEVERAGES AND CONCENTRATES")

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When choosing a company investment project, it is necessary to calculate the discount rate and the payback period to determine the effectiveness of the project. This article presents calculations of the discount rate by three main methods as their basis payback period for standard and custom investment projects is defined.

Background research is that current economic trends require the expansion of scientific views on the effectiveness of investment projects carried out in the present conditions of economic development of the country. The main purpose is to study the methods of evaluation of investment projects, taking into account the discount rate and their application to support management decision-making in the implementation of the standard and non-standard investment projects. To do this, the analysis of investment projects based on indicators such as net present value and discounted payback period.

Currently, in the Republic of Belarus a lot of attention is paid to the investment activity. Attracting investments represent one of the most effective ways of socio-economic development of the state or its individual parts - the region. Implementation of the investment objectives involves the formation of investment projects, which provide investors and other project participants with the necessary information to make decisions about investing. After examining the domestic and foreign literature, we concluded that the concept of the investment project is treated in two ways: 1) as an activity (activity), which implies the implementation of a complex of any action to ensure the achievement of certain goals and lead to capital gains; 2) as a system that includes a certain set of organizational, legal and financial settlement and documents necessary for the implementation of any action or describing these actions. In theory, when considering investment projects are allocated different classifications for the purposes set out in this study is an important division of the project into standard and non-standard. The standard is considered an investment project, which has cash flow only once change the sign "minus to plus" or "plus to minus." The project is unusual, if at least one of the above cost of the project, not including the primary, has the opposite sign [1, p. 13].

Valuation of investments is based on a comparison of the expected net income from the project to invest in capital. While net cash flow is defined as the difference between the net income of organization, as well as the sum of the total investment costs of the project (capital cost and increase in net working capital).

To bring the projected cash flows in a comparable form (i.e., to bring them to the future value of the initial time), you must use the method of discounting. The discount rate – the rate of return (the rate of return required by investors when investing the same content and the degree of risk). It takes into account the risk premium to invest in the company evaluated: the greater the risk, the discount rate will be higher. In practice, we know quite a lot of approaches to determining the discount rate, however, are the most common and most frequently used the following approach: the weighted average cost of capital (WACC), the method of cumulative construction, calculation model in terms of the refinancing rate and the inflation rate, the method of expert assessments, regulatory method.

According to the development strategy of the UE «Polotsk beverages and concentrates»interest rate on equity is 35 %, the share of own funds in total investment costs – 30.51 % interest rate – 28 % (among banks offering loans financing of investment projects, was chosen "Belarusbank", as it proposes the lowest rate on the loan [2]), the share of loans in total investment costs – 69.49 %. Then, the weighted average discount rate (D_{sr}) will be equal to:

$$D_{sr} = \frac{35 \cdot 30,51 + 28 \cdot 69,49}{100} = 30,1\%.$$

The second approach is the method of cumulative construction, according to which the value of risk-free rate of return, which is taken by us at the level of return on short-term government bonds (in September 2014 it averaged 27 % [3]) adds an additional risk premium. For an investment project of the UE «Polotsk beverages and concentrates» discount rate by the method of cumulative construction (D_C) will be:

$$D_C = 27 + 3 + 1 + 1 = 32\%,$$

where 3 %, 1 %, 1 % – is additional risk premium (risk factors – financial structure, results of operations and other special risks, respectively). To identify risks on the first factor, was made analysis of the sources of financing of the enterprise, where it was found pretty much dependence company of borrowed capital, as well as the difficulty of the enterprise to pay its obligations. As to the second factor, to assess the cost-effectiveness based on the following factors: return on invested capital, return on assets, return on sales. As special risks need to be considered specific risks, which may be significant for the analyzed enterprise (for example, the specifics of doing business in the country, etc.).

The third method is a model for calculating the level of the refinancing rate and the inflation rate. The discount rate without taking into account the risk of the investment project is defined as the ratio of the refinancing rate of the National Bank of the Republic of Belarus (from 13.08.2014 year it is 20 % [4]), and the announcement by the Government of the Republic of Belarus for the current year rate of inflation (for 2014 it is provided for in 11 % [23]). For our company discount rate in terms of the refinancing rate and the inflation rate (D_n) will be equal to:

$$D_n = ((1+20/100)/(1+11/100)-1)\cdot 100 = 8{,}1\%.$$

Next, take into account the correction for the risk of the project. So how to implement the investment project has two main objectives: the acquisition of new assets and the increase in sales of existing products, the allowance for risk will be installed on the largest of the two-level, i.e. at the level of 10 %. Thus, the discount rate at the level of the refinancing rate and the inflation level of risk will be equal to 18.1 %.

Based on the calculated discount rates were analyzed effectiveness of standard and non-standard (with an uncertain timetable for implementation) of investment projects on the example of the UE "Polotsk beverages and concentrate", namely: discounted cash flow calculated and discounted payback period. Tables 1 and 2 calculated net present value for standard and custom (undefined implementation schedule) investment projects.

Table 1 – Net present value on a standard investment project of the UE "Polotsk beverages and concentrates", mln rubles

Indicator	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year
1. Investment	10000	27078	30993	97	43	0	0
2. Net present value on an accrual basis:							
2.1. with outdiscount	-10775,1	-18024,2	-23017,2	10267,1	46401,4	95401,4	153401,4
2.2. discount rate 1,181	-10775,1	-21063,2	-33415	-13246,7	5307,063	26634,89	48011
2.3. discount rate 1,301	-10775,1	-22611,8	-38243,9	-23181,8	-10597	2549,44	14510,35
2.4. discount rate 1,32	-10775,1	-22831,8	-38902,3	-24485,4	-12616,2	-384,99	10579,4

Source: own development.

In order to take into account the specific investment projects with uncertain implementation schedule proposed the following optimization model cash flows of the project with an uncertain timetable for implementation:

$$NPV = \frac{NVI}{r^{(\frac{n}{12})}}$$

where n – stage (month) of project; I – investment of the project.

To calculate the net present value, taking into account the discount rate should be noted that in this case the project was administered for a period of 7 years, and that the extra investment costs for the project will be carried out in the first 5 years of the project: in the first year - in the 3rd month in the second year - in the fourth month, in the third year - in the eighth month, in the fourth year - in the second month, in the fifth year - in the seventh month.

Table 2 – Net present value on non-standard investment project of the UE "Polotsk beverages and concentrates", mln rubles

Indicator	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year
1. Investment	10000	27078	30993	97	43	0	0
2. Net present value on an accrual basis:							
2.1. with outdiscount	-10775,1	-18024,2	-23017,2	10267,1	46401,4	95401,4	153401,4
2.2. discount rate 1,181	-10336,2	-16143,1	-19347,2	-2705,44	11567,86	29626,99	47726,99
2.3. discount rate 1,301	-10089,1	-15193,1	-17668,4	-6548,93	-1766,24	11871,15	21064,78
2.4. discount rate 1,32	-10052,6	-15059,9	-17440,3	-6972,68	-695,90	-99,58	18265,28

Source: own development.

Was also calculated the discounted payback period - the period of time when the investment amount will be equal to the discounted cash income. On the basis of the data in Table 1 and 2 were calculated payback period of the investment project according to the following formula:

$$DPP = Last\ year\ with\ a\ negative\ index + \frac{Last\ year\ with\ a\ negative\ index}{Last\ year\ with\ a\ negative\ index\ and\ the\ following\ year}.$$

Calculations have shown that if the company will carry your project to a standard in their calculations will use the method of calculation in terms of the refinancing rate and the inflation of the risk, the project will pay for itself in 4 years 9 months, if the weighted average cost of capital - 5 years 10 months if the method is cumulative construction - about 6 years. Classification of the investment project to non-standard (with an uncertain implementation schedule) shows smaller payback period of 5 years. All the project's payback period is less than the period of its implementation, which allows reasonably decide on its adoption.

Thus, investments play an important role in the functioning and development of the economy. Investment growth has an impact on the amount of social production and employment, structural changes in the economy, the development of its specific industries. Through investments to create new high-tech production, modernizing existing, implemented promising for the national economy and business investment projects. One crucial to making an investment project has the right and informed choice of discount rate. It should take into account all the risks that may be subject to an investment project, including not only common, but also specific risks. How well will the discount rate, so the investor can correctly predict the further development of events associated with the investment project. After entering the investment project, the company will have at every stage of design techniques and methods of influence on the level of risk in order to reduce it to the maximum.

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ECONOMIC PERFORMANCE OF THE CONSTRUCTION OF A SMART HOME

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The questions of technological progress, which help to improve a person's life, are considered in the article. The question of how scientific advances are helping people to care about the ecology of the environment, as well as financial savings in the operation of the building.

Expenditures for maintenance and operation of any building typically include utility bills for heating, ventilation, gas, hot and cold water, lighting and power appliances. Rates listed on the utilities are constantly growing. Obviously, the reduction of this expenditure is possible by reducing the amount of energy consumed, which in turn requires the implementation of principles and energy-saving technologies in the design and construction of buildings.

Smart home is a house of modern type, organized for people living with the help of automation and high-tech devices. Under the "smart" home should be understood a system that provides comfort (including security), and resource for all users. In the simplest case, it should be able to recognize specific situations that occur in the home, and properly respond to them. In addition, the automation of several subsystems provides a synergistic effect for the entire complex [1].

The main advantage of "smart home" is considered to be comfortable. But more important is the possibility of significant reductions in energy consumption.

Energy-efficient building is called, which uses design and technical solutions to exploit its low power consumption, while maintaining a comfortable sanitary conditions.

Construction of energy-efficient homes based on the following criteria:

• Low power consumption ensures low operating costs at home;

• Increased comfort - warm and healthy indoor climate;

• Higher market value of the building.

Energy economy of the building, in turn, is useful for society and the economy, as the effect on reducing pollution, saving natural resources and reduce dependence on import of energy carriers.

Search and energy supply, and their conversion into energy, leading to the pollution and destruction of the environment (carbon dioxide and other gases, dust and liquid emissions, water contamination), thus, less energy consumption, the lower the soiling. However, for the needs of environmental protection is not enough only to energy conservation. Hence the desire to energy-efficient building was also the environmental, which uses materials which are safe for human health and has no adverse impact on the environment.

Rate the energy properties of the building can be based on the average value of the annual energy consumption in a particular building, per 1 m^2 of usable area. For projected building this value can be calculated based on the data of the project and for the construction of the building - actually measured.

That the building could be called energy saving, the following important building solutions:

- location of the building, taking into account the profile of the terrain, sunlight, wind direction, "green shield" etc.;
- shape of the building of maximum compression, without projections and discharges, the room with large windows on the south side, small windows, or lack thereof on the north side, thermal buffer zone (greenhouses, waiting room sun window);
- outdoor enclosures, such as walls, roof, with good thermal insulation, sealed, with a minimum of thermal leaks;
- exterior windows and doors with high thermal isolation and increased tightness;
- night insulation of windows;
- balconies special design shall minimize thermal leakage
- automatic ventilation with heat recovery;
- heating and hot water with high efficiency;
- the possible use of solar collectors for heating domestic hot water [2].

Smart home – it is also a good project, which specifies all the details of the implementation of elements on which the limit heat loss. Implementation of the construction is in accordance with the project, metering and leak of thermal insulation of external protections.

Control of heating the house is organized as follows. The house is equipped with different heat sources (fireplace, solar collectors, heat pumps, boilers), after kindling fire automatically redistribution of energy (depending on the season) in the central heating or hot water system. It provides exactly home control system. On hot days, kindling the fire is not possible, because it is blocked by the system, and the function of the ground source heat operate solar collectors. After nightfall the situation changes, because changes external conditions. If tenants do not want to heat the fireplace, the system includes a heat pump, or (if it is down for maintenance) – gas boiler. This sequence is not accidental - it is defined economies. The cheaper energy, the higher the priority equipment that it produces. For economic reasons, the heat pump provides two modes of operation: it is a source of heat and cold in the winter - summer. This possibility has a positive effect on the efficiency of its use. Similarly, the situation with the electricity used by tenants of the house for domestic purposes. Whenever possible, the system switches the device to the power of cheap electricity generated by solar panels installed. Such interaction scenarios, there are many. That is why the management of heating systems, hot water system or home lighting is the task of computers rather than people. Today, the system creates a dream house, do not need to resign ourselves to the role of technical workers [3].

Making a decision about the construction of energy efficient buildings in the first place ask ourselves whether the amount of change to pay for our energy and how much we improve interior comfort. Providing energy and thrift buildings require additional costs for the construction, since the calculation of additional costs for such a building should take into account the difference between the cost of standard and energy-saving products. For example, the cost of increasing the thickness of the insulation, the difference in the cost of the windows and doors of standard and energy saving, the difference in the cost of heating and ventilation systems, etc.

Increasing the size of the investment, depending on the choices made, is combined from several to 12% of the standard object. But, as a result of investment in single-family home can achieve a reduction of energy consumption up to 16,000 kWh per year.

If you use credit to build a house, then this value can be used to save on payment of an additional portion of the loan, the amount of which increased costs to improve the energy standard.

Perhaps additional construction costs of energy-efficient homes and increase the amount of the loan, however, the monthly loan payment is not increased by an amount greater than the same value of the monthly savings on operating costs. Total costs as energy and credit for energy-saving and standard buildings are approximately the same, while after payment of the loan total cost of ownership of energy-efficient buildings will be lower.

Thus, the construction of energy-efficient building is a profitable investment.

There are many different insulating materials that can be used to insulate the external building fences, however, for each specific case it is necessary to select an appropriate material of desired thickness. And in addition to the cost, the choice of insulating material to take into account the following properties:

1. The thermal conductivity.
2. Diffusion (permeability) of water vapor.
3. Strength (load bearing capacity).

Insulation is provided the use of reliable full of products of one manufacturer, as compared with a combination of different systems and solutions.

The main reason is the lack of heat leakage, poorly executed or no insulation at a particular location. Also, among the reasons for this phenomenon can be distinguished geometric profile of the building, for example, the presence of a plurality of angles or kinks.

Energy-efficient building should not only have good insulation, but also sealed outdoor enclosure. The tightness of the building is a necessary element to limit the losses of valuable heat as well as to create conditions in which the exchange of ventilation air is adjusted.

Fresh air to be discharged into the room through the instruments, while the uncontrolled flow of air should be kept to a minimum. Performing airtight building requires the use of appropriate design solutions in all areas with the risk of loose connections designs.

The energy demand for heating and ventilation of the building is largely dependent on its location in the area, shape, and internal planning. Thanks to the excellent location and profile can reduce energy consumption by even a few tens of percent.

Location of the building should be taken into account as far as possible the natural barriers (uneven ground, adjacent buildings, high trees) that protect against the wind blowing in the dominant direction and make maximum use of the sun's energy.

The form of the building should be open, without breaks, large protrusions and recesses. Large windows on the south side - is the foundation, which should be subject to the interior layout of the building. On the south side shall be located room with large windows, and on the north side - utility room (bathroom, storage room, entrance to the building), in which the windows are small or non-existent.

This placement of windows allows maximum use of heat in the form of solar radiation, which reduces energy requirements for heating the building, and makes better use of natural light in the room. And for the installation of solar collector would be the best place with the orientation of the roof slope to the south.

Glazed waiting room, winter greenhouse, or other premises built to the building, it is desirable to use as a communicating zone, further insulating and reduces the need for heat for heating.

In modern residential buildings glazed spaces are used of different functionality (e.g, winter greenhouses). These spaces are used to reduce energy consumption and provide tenants access to natural light, the sun, and also serve as an excellent holiday destination.

Space bounded by fences glazed requires appropriate in summer cooling system, and in winter - an effective system of use and containment of heat flow. Moreover, these require adequate ventilation space and protection against too strong sunlight radiation.

In energy-saving facilities glazed space serves as a buffer which delays or heat and transfers it into the building at night, or cool rooms in summer. Glass composition should be characterized by the corresponding stiffness ensure safe entry and be resistant to atmospheric agents. Most often used for these purposes or tempered safety glass.

Exterior walls protect the interior of the building from heat loss. However, some of the heat still penetrates through the wall. Therefore, they must have good thermal insulation properties, with minimal heat indicator.

Applies two types of wall construction: single-layer and multi-layer.

In a single-layer wall construction material used is one that performs a structural function while maintaining thermal isolation wall at the desired level.

In present multilayer wall layers made from two or three different materials, each of which performs a different function. The carrier layer - the inner affected by high load, made of a material with high strength (concrete, ceramic or silicate brick). The next layer - insulating material (foam, mineral wool). And the front or outer layer protects the wall from external influence.

For thermal protection of buildings used by the glass with a special coating that lets solar radiation inside the building, but the thermal radiation from the walls. Thus, a significant portion of the heat retained inside.

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.

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

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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.

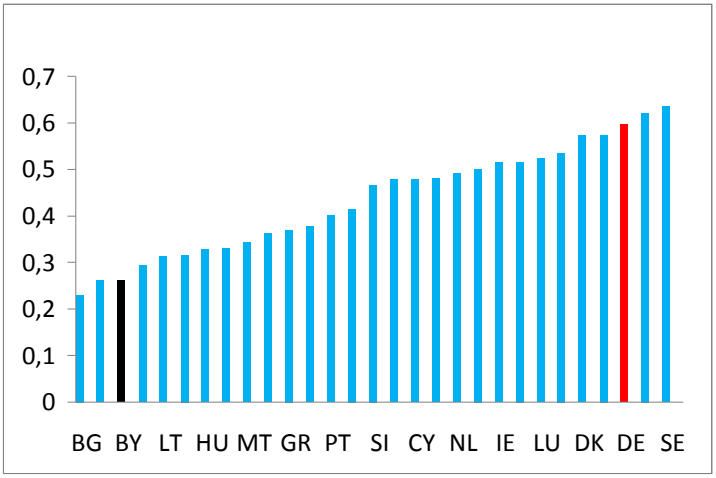

Fig. 1. Belarus in the context of summary indicators of innovative development of the EU:
EU – European Union, BE – Belgium, BG – Bulgaria, BY – Belarus, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, IE – Ireland, GR – Greece, ES – Spain, FR – France , IT – Italy, CY – Cyprus, LV – Latvia, 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).

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

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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].

Proceeding from the above, it follows that venture capital in the first place, is an investment resource that incorporates features of both financial capital and human. From this its specific character derives. Basically, he spent to invest in small companies with a high level of concentration of product innovation and high potential risk.

Thus, generalizing the terminology and opinions of most experts, it must be concluded that venture capital (eng. Venture Capital) is a special form of resource that combines financial and intellectual capital invested in the innovative project.

The concepts such as "venture capital", "venture capital financing" have a direct relationship with the innovative inventive activity. It is a given venture financing, resulting inventions and innovative products directly introduced into commercial production.

In the Republic of Belarus venture financing is in its infancy. Some normative legal acts have already been adopted, regulating the activities of venture capital organizations. So, in January 2007, the decree of the President of the Republic of Belarus № 1 "About the possibility of creating venture capital organizations" was taken. In May 2010, the Decree of the President of the Republic of Belarus No. 252 was signed, in which the Belarusian innovation Fund was endowed with the functions of state venture capital Fund. In particular, at the moment this Fund finances innovative projects on a revolving basis.

The next step was the beginning of this Fund analysis and selection of venture projects (Fall 2010). The activities of the Belarusian innovation Fund are based on the experience of the venture capital funds of the Russian Federation (in particular the experience of the Republic of Tatarstan and the Republic of Kazakhstan was considered).

However, the Belarusian model of venture capital being financed through the Addition is considered the extremely high-tech and innovative project.

Foreign venture capital investors who want to invest in the development of innovative product Belarusian companies must be accredited by the State Committee on science and technology.

However, there are a number of obstacles for the penetration of venture capital investments on the territory of the Republic of Belarus. In particular not all foreign venture capital investors consider innovative climate attractive. So among the main disadvantages they are:

• heavy tax burden for newly established companies;

• high degree of state involvement in the regulation of venture capital financing and the participation of foreign investors;

• the presence of certain constraints in the framework of high-risk investments

• the presence of imperfect system of protection of copyright and intellectual property;

• non-development infrastructure, etc.

In this case, the government of the Republic of Belarus has already taken a number of measures to improve the investment and tax climate to attract foreign investment in General, and venture capital in particular.

One of the basic directions of perfection of venture investment at the moment, while the legislative framework is in the process of reform is the development of the infrastructure of venture financing. In particular it is necessary to adjust the carrying out venture fairs, as a communication platform, to stimulate the opening of the venture incubators, etc.

Venture financing allows you to solve many problems on the path of market reforms, associated primarily with the need to use accumulated huge resource potential (yet preserving its advantages in comparison with other countries) and increased threat of crisis phenomena in the economy.

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UDC 657

PROBLEMS, OBJECTS AND INFORMATION ANALYSIS OF THE VENTURE ACTIVITY

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In the system of venture activity, gradually developing in domestic practice, the analysis of venture activities plays an important role by in order to facilitate investment decision by an angel investor.

Venture activity – is an innovative activity which is aimed at the development, financing and implementation of venture projects in the form of cash investing in equity-risk projects and prospective organizations, without any kind of warranty in order to obtain high profits [1, p. 19].

Venture activity is always fraught with the risk. Firstly, it is the presence of the factors, the effects of which takes place in any other business activities (they are the volatility of demand and supply of goods and money, factors of production, price volatility, lack of knowledge in the fields of business and etc.). Secondly, there are specific factors in the business of the venture .For example it is the lack of guarantees on successful results and guarantees on a refund to the angel-investors; as it's a small innovative organization, and therefore it is more dependent on changes in the external environment as opposed to large organizations involved in innovation, in which the risk is covered by the extent of the usual well-functioning economic activity [2, p. 63-64].

It is important to note that in the Republic of Belarus the venture activity is recognized to be innovative. That is why the analysis of the venture activity of the organization can be based on an analysis of innovation.

Under current conditions the venture activity is a new direction of the organization and in this connection there is a need for economic analysis of the activity.

The aim of the venture capital activity is an overall assessment of its effectiveness and impact on the most important financial and economic indicator of organizations, expediency definition and implementation of optimal variants of individual innovation, operational adjustment parameters of the venture projects and support for making strategic investment decisions.

The economic content of the object of analysis venture activity such as innovative processes occurring in the context of a single organization, and its goal set the following tasks:

– evaluation based on the analysis of the previous period and predict future options for the variants of development of organization, the overall effectiveness of venture activity and taking into account the definition of strategic marketing analysis needs in the venture projects;

– preliminary, current and subsequent evaluation of the effectiveness of venture projects;

– the choice of optimal variants of implementation of venture projects;

– identification and definition of the causes of deviations in the implementation of venture projects;

– the assessment and analysis of the risks associated with the implementation of venture projects;

– identification of internal and evaluation of external reserves for increasing the efficiency of financial and economic activity, identifying the areas of growth and development, making any recommendations for the management of the organization [3].

For the purpose of this study it's necessary to select objects of analysis of venture activity. Because most of investments in venture projects inevitably involve risk, so the risk is the object of analysis of venture activity of organizations.

According to the author a key player in the scheme of venture capital activity is venture capital fund, as its main function is to promote existing ideas to market at the expense of different angel investors and provide them with the return of these investments. Therefore, the author considers the analysis of venture activities in terms of venture capital fund, which plays the role of agent between the venture capital organization engaged in financing and venture capital projects.

In order to carry out analysis of the venture activity correctly it's also necessary to use information on economic activity provided by the organization, as well as general information in the form of legislative acts of the Republic of Belarus. It can be identified such important source of information as the business plan, the financial statements (balance sheet, income and expenditure statement, cash flow statement, statement of changes in equity), legal acts of the Republic of Belarus, publications of the industry and specialized edition, etc.

It should be noted that the analysis of venture capital activity is an integral part of a comprehensive economic analysis, which means that the essence of his method can be formulated on the basis of economic analysis.

In that way the method of analysis of venture capital activity is a method of systemic (complex) explore innovative potential and innovative activity, determination of the results and effectiveness of venture activity,

identifying the factors contributing and constraining to the development of innovative of the entities (or other) on the basis of the information available for the analyst [4, p. 98].

There is a number of evaluation of venture capital organizations. However, it is believed that the method of discounted cash flow is the most appropriate for the newly formed organization with a new and not having direct counterparts product is [2, p. 70]. This method supposes the determination of income period and the degree of risk of the project. Let us consider the contents of this method conformably to venture project:

Analysis stage of the venture activity:

1) Evaluation of the venture project.

Calculated indicators: the cost of the venture project, residual value of the venture project, the net present value of venture project.

2) Risk analysis of the venture project.

Used method is the Delphi method. Its essence is in successive survey experts in various fields of science, technology and the formation of a mass data that reflects the individual assessments of experts, based on a strictly logical experience.

3) Analysis of the effectiveness of the venture project.

Calculated indicators: a simple rate of return on investment, a simple rate of return on equity, the ratio of financial autonomy of the project, the current ratio of the project, the pay-back period of investment in venture project.

4) Analysis of the profitability of the venture project.

Calculated indicators: the rate of return on invested cash, rates of return angel-investors.

When the venture organizations developing a financial strategy for the near and distant future, it should focuses on achieving the best effect, which is measured by a complex of different indicators. For example, in the process of analyzing venture project, you can use not only the indicators proposed by the author, as well as a number of other indicators of financial and economic activity to assess the financial condition of the organization to choose the person who performs the analysis.

Venture organization should perform an analysis of its activity not only in the initial stage of debt venture capital, but in the future with the purpose of monitoring the implementation of the project and adjust industrial policy of the venture capital organization, if necessary. It will allow to relate near benefits and long-term goals in the optimal way [2, p. 71].

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LOGISTICAL COSTS. IMPLICIT COSTS AS PART OF LOGISTICAL COSTS

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The article generalizes approaches to the interpretation of the concepts of "logistical costs", "implicit costs" in the scientific economic literature, as a result giving its own definition of logistical costs. The proposed definition allows to create a composition of the logistical costs and to identify the composition of the implicit costs as part of logistical costs. The relevance of chosen research topic is to study the concept of logistical costs. Minimization and optimization of logistics costs will improve the profitability and competitiveness of any organization.

In the conditions of formation and development of market relations in the economy an important role belongs to the processes of costs formation, distribution and use. The reduction of logistical costs is the main motivating factor of a company. Their reduction will not only reduce costs when making logistical operations, but also allow a company to reduce the prices of their products significantly and due to this win the competition.

The relevance of chosen research topic is to study the concept of logistical costs. Minimization and optimization of logistics costs will improve the profitability and competitiveness of any organization. If we determine the nature and structure of logistical costs accurately, this will allow to affect their value, minimization of which is a favorable factor for the process of logistical activities.

It should be noted that in the economic literature there are many approaches to the interpretation of the concept of "logistical costs."

Results of concept interpretation study are presented in the Table 1.

Table 1 – Interpretation of concept «logistical costs» in literature

Origin	Definitions
Donald J. Bowersox	«Logistical costs are all costs, which are necessary to cover the needs of logistics» [1].
Grigoriev M.N., Uvarov S.A.	«Logistical costs are the cost of implementation of logistics operations, which include distribution costs and part of production cost» [2].
Drozdov P.A.	«Logistical costs are the costs, that include the expenses of stock storage, transportation and procurement expenses, the expenses of the purchase of goods and order fulfillment and the expenses associated with lost revenue» [3, c. 58, 59].
Eremina E.A.	«Logistical costs are the costs associated with the movement of goods from the primary source (suppliers of raw materials, components) to the final consumer » [4, c. 66].
Kirillov V.S.	«Logistical costs are the costs of supply, expressed in monetary form caused by the expenditure of various types of economic resources in the production and promotion of the finished product» [5].
Petrosian D.B.	«Logistical costs are the cost of production and service production factors in monetary form caused by the transformation of material flow and its attendant financial and information flows at all stages of the logistical agreement» [6, c. 164].
Savenkova T.I.	«Logistical costs are the costs to cover logistics operations, such as warehousing, transportation, etc.; collection, storage and transmission of data about orders, stocks, supplies, etc.» [7].
Sivokhina N.P.	«Logistical costs are the costs which accompany the logistics function, namely the cost of transportation, at maintaining stocks and order processing» [8, c. 27].
Stock G.R.	«Logistical costs are a share in the cost of the product» [9, c. 15].

Source: author`s own development based on the study economic literature.

We propose the following definition of "logistical costs" on the basis of the study. Logistical costs are the costs associated with the implementation of logistical operations, including the cost of storage and maintenance of stocks, transportation and procurement expenses, the expenses of the purchase of goods and order fulfillment.

The studies allow us to conclude that the authors have different definitions of the concept and structure of logistical costs. However, according to Grigoriev M.N., Uvarov S.A., Kirillov V.S. and Petrosian D.B. implicit costs are a part of logistics. Because of it we will further describe the concept of "implicit costs."

According to Grigoriev M.N. and Uvarov S.A implicit costs are the costs associated with the use of own resources of a company. They are hidden, acting as imputed (alternative) costs of enterprise`s own resources used in the production [2].

Kirillov V.S meant by the implicit cost the opportunity cost, which represents the amount of income that would provide the company's own resources if they are profitably used in alternative variants [5].

Petrosian D.B interprets the implicit costs as revenues, which a company spends using own resources, i.e. these are revenues that would be generated by a company for its own resources use in best way of their application [6].

According to Gerasimov B.I. implicit costs are called internal costs of resources that are the property of a company [10].

Based on the research we can point out 4 approaches to the interpretation of the concept "implicit costs."

The first approach considers the implicit costs as revenues, which a company spends using its own resources.

In the second approach implicit costs are treated as expenses for the production of products that are not included in the cost, as they have no form of payment.

The third approach defines the implicit costs as cash payments that a company could gain through a better use of resources belonging to it.

The fourth approach considers the interpretation of the concept "implicit costs" as factors and services costs that are used in the production process, but not for buying (due to the use of a company`s own resources).

As a result of our analysis, we propose the following definition of "implicit costs." Under the implicit costs we understand internal costs for raw materials and factors of production that are not paid because they belong to the owners of production.

Thus, we make a conclusion that the implicit costs are a part of the logistical costs because we can find them everywhere wherever it is necessary to make a rational decision and there is a need to choose between the available variants.

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UDC 658

FEATURES OF THE DEVELOPMENT STRATEGY OF A TRANSPORT ENTERPRISE

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In acute competition the problem of improving competitiveness is central to the country's economic policy, and it applies to all levels of its hierarchy. Of special importance is a company's competitiveness as the main component of the economy. To develop a strategy for an enterprise means to determine the general direction of development in order to achieve long-term competitive advantage and other corporate purposes. That strategy sets the direction of a company: growth, stabilization, reduction or combination of options; decisions about specific products and markets for channeling financial and human resources, the definition of the type of competitive advantage.

Corporate strategy is a collection of its main objectives and the main ways of achieving them. It is mostly formulated and developed at the level of top management, but its implementation will involve all levels of government.

Logistics strategy is a plan detailing the financial and human resources allocated for the operation of physical distribution, logistics and procurement of production (supply). The strategic plan should include the statement of operational policies and provide power distribution equipment and functional systems that can achieve business goals at the lowest cost [2].

Strategy can be viewed as a detailed comprehensive and integrated plan aimed at achieving the mission and goals of a company with maximum efficiency. The main objective of this plan is to provide innovations and changes in an organization in accordance with changes in the environment [3, p.234].

The purpose of competitive strategy is to conduct organization`s business ethically in relation to competitors, to achieve a competitive advantage in the market and create a circle of loyal customers. Competitive strategy should include short-term tactical moves for an immediate response to changing situations and long-term actions that affect the future competitive opportunities for an organization and its position in the market [4, p.27].

To implement the opportunities that a company can have and which involve the external environment, as a rule, there are many ways to achieve goals. Therefore, an enterprise should:

1) take account of all possible strategies that can help achieve the objectives;

2) appreciate the chance that it can be realized in view of external factors and internal capacities, i.e. assess the degree of implementation of selected targets;

3) choose a strategy to achieve the objectives quickly and with the least risk.

Domestic enterprises are following the basic strategies such as:

– a survival strategy, which is used in the context of economic crisis, instability, inflation. This is an attempt to adapt to market conditions of management. This strategy is used when the financial and economic performance of an enterprise becomes a steady trend towards deterioration;

– a stabilization strategy (or limited growth) used in conditions of stability in sales and the resulting profits. It is used mainly in the sectors of a company with a stable technology, where management is generally satisfied with the position of an enterprise;

– a development strategy (or growth), which expresses the desire of an enterprise to increase sales, profits, improve profitability and other indicators of efficiency. This strategy is most often used in dynamic industries with rapidly changing technology.

In the framework of this basic strategies there can be implemented various strategic alternatives presented in the Table 1.

Table 1. – Matrix of strategic alternatives

Basic Strategy	Strategic Alternatives
1. Survival Strategy	1.1 Organizational sanitation 1.2 Economic and financial reorganization 1.3 Marketing sanitation 1.4 Social sanitation
2. The strategy of stabilization (limited growth)	2.1 Saving costs 2.2 Continuous adaptation of economic activities to the environment 2.3 Preservation of scientific, technical and human capacity
3. Development Strategy (growth)	3.1 Diversification 3.2 The intensification with account of market conditions 3.3 Technical and technological development 3.4 Integration

Source: compiled and developed by the author based on the data [1, p. 46].

All considered strategic alternatives that implement the basic strategy of a company, are being developed by the relevant services of an enterprise and can be grouped generally into functional strategies: marketing, organizational, technical, financial, economic, social and environmental (Figure 1).

Fig. 1. Functional strategy of an enterprise

Source: compiled and developed by the author

With the help of functional strategies areas of activity of a particular functional service are designated within the overall development strategy. For this purpose marketing strategy is fundamental; and along with the corresponding changes in the market namely this strategy gives strategic guidance to all other functional strategies.

The choice of strategy is limited to external and internal conditions and depends on the resources of transport enterprise and risk, which its management is ready to face.

After a positive decision with respect to a particular strategy an organization is faced with the task of implementation.

Implementation of a strategy is the organization of strategy implementation process, its management and coordination. The organization of a strategy is a set of management and production processes for the implementation of strategic plans.

The Strategic Plan includes a vision and mission, common goals that define the place of an organization in the future, the selected strategy. An integral part of the strategic plan is the policy of a company. It consists of a global program of an organization [5, p. 257].

It is a strategic plan that gives a company confidence and at the same time individuality. Strategic plan should be developed sufficiently flexible to meet the needs of the market, if necessary, to carry out modifications and, if necessary, re-orientation to produce other products.

In Belarusian experience of strategic planning its level is significantly lower than in the West, for several reasons: the lack of a sufficient number of qualified personnel, poor corporate culture, low predictability, and predictability of economic development in general, etc. However, the number of examples of the introduction of strategic planning activities elements of Belarusian companies multiplied.

Gained world experience shows that the mechanical application of standardized procedures for strategic planning in the specific conditions of business enterprises is ineffective. Transport companies need to modify structure of the strategic plan related to the orientation of active marketing, with a reorientation to external problems with the formation of a new organizational culture of production, ensuring the effective implementation of the chosen strategy for a transport company.

In today`s world the concept of "strategy" due to its many aspects and ambiguity, has gained a lot of definitions. But in business strategy it is most often defined as the "Plan", i.e. a set of well-defined and planned events, based on the established principles and objectives. Enterprise strategy can reconcile the views of the owners and employees, prioritize and make a company more attractive.

Strategic Development Plan of a transport company should be a comprehensive program of all industrial, economic and social activities of an enterprise aimed at achieving key strategic objectives in the most complete and efficient use of material, labor, financial and natural resources. It should aim at ensuring a high level of customer service at the most efficient use of vehicles.

The chosen strategy is evaluated in the analysis of accuracy and adequacy of accounting when selecting the main factors determining the feasibility of the strategy. The entire evaluation procedure is ultimately subordinated to one thing: whether the chosen strategy will lead to its goals. This is the main criterion for evaluation. If the strategy meets the objectives of a company, then its further evaluation is conducted in the following areas:

– compliance of the chosen strategy and requirements of the environment. We check to what extent the strategy is related to the requirements of the main subjects of the environment, to what extent the factors of market dynamics and product life cycle dynamics are taken into account, whether the implementation of the strategy will lead to the emergence of new competitive advantages, etc.

– compliance of the chosen strategy and a company`s potential and opportunities. In this case, we estimate how the chosen strategy is linked to other strategies, whether the strategy corresponds to the ability of staff, whether the existing structure allows to successfully implement a strategy, whether the strategy implementation program is verified in time, and so on.

– the acceptability of risk inherent in the strategy. We evaluate whether the risk is justified within the three areas: feasibility of assumptions underlying the choice of strategy; negative consequences for a company that are caused by failure of the strategy; whether the potential result justifies the risk caused by failure to implement the strategy.

The strategy may be useless if a company does not create a mechanism for its implementation. This is a separate big issue, which includes the construction of adequate strategies of organizational structures, functional strategies funding, selection of managers who have leadership qualities, creating a corporate culture that enables all employees to reveal their best qualities.

It is necessary to indicate that in the transition to a market economy each economic entity independently assesses the competitive situation and makes decisions. As international experience shows, the leading position in modern competition acquires the one who is competent in the field of logistics, knows its methods.

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UDC 657

DEVELOPMENT OF THE BIOLOGICAL ASSETS ESTIMATION IN BEEKEEPING

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The article deals with development of the biological assets estimation in beekeeping according to the current legislation and IFRS. The proposal on a bees assessment on fair value proceeding from their weight is made.

There is an unresolved problem of the Belarusian and international methodological approaches unification to cost determination of biological resources and techniques of their account at the present stage of rapprochement of the national account with requirements of IFRS still. Growth of social and economic and ecological value of beekeeping and need for its foreign investment causes special relevance in active transition to the international standards of the beekeeping organizations accounting. Thus, it is required to develop new methodological approach to a biological assets assessment, their cost reflection in the account and the reporting which has to meet the international standards requirements for the unified indicators formation.

The question of an assessment is the most difficult and inconsistent question in accounting methodology which was considered throughout history by scientists of the different countries. The assessment serves in accounting, first of all, for cost assets determination and obligations for the purpose of drawing up the external and internal reporting establishing a real property condition of the organization. Therefore, it is offered to understand as the concept "assessment" -" value terms method of the account object for its high-quality and quantitative changes purpose reflection in the account, in internal and external financial statements".

For today methodological approach to main beekeeping categories assessment in Republic of Belarus, such as "bee", "biotransformation of bees", "agricultural production" considerably differs from cost determination techniques in IFRS that demands approaches improvement to an assessment taking into account features of beekeeping production functioning.

Unique signs of agro-industrial complex branches productions and, in particular, beekeeping - typical branch of agricultural production, are application in bees production.

By the results of production economic essence research, bees correspond to the indispensable conditions provided by IFRS for recognition of assets as biological. Therefore for the purpose of approaches unification to indicators formation of the reporting beekeeping farms with the account international practice requirements it is recommended to consider bees as biological assets that will allow to estimate bees according to provisions of IFRS 41 "Agriculture" and to form information adapted for the international standards in the current account and accounting reports.

In spite of the fact that the beehive, a cellular or package, a forage for bees and a uterus are a necessary condition for maintenance of bees activity, they don't give in to biotransformation, and carry out a role only of the operating factors capable to regulate biotransformation of bees with a uterus, and aren't actually biological assets. Therefore to be accounted as biological assets there have to be accepted only natural set of a queen bee, the working bees and drones forming the functioning bee family capable to biotransformation and the making agricultural production and additional biological assets.

According to the current legislation, at initial recognition the bought bees as stocks, are estimated at acquisition cost, and grown up on an apiary as finished goods, - at standard and expected prime cost with bringing in the end of the year to actual cost which pays off by division "costs of the expenses falling on new bees for quantity of bees". At the same time, considering complex nature of production in beekeeping when along with bees on an apiary receive a big variety of agricultural production it is impossible, to determine the exact size of the expenses carried directly on new bees. In the acting accounting practice this issue is resolved by introduction of actual bees cost conditional dependence on honey actual cost that doesn't correspond to real market conditions.

According to the Law "About Accounting and the Reporting" at acceptance to the account assets are estimated at the initial cost [the law on boom account] which for finished goods is defined "in the sum of the actual expenses connected with production of these stocks" [The instruction on stocks]. Seasonality of receiving finished goods in beekeeping doesn't allow to define the actual production expenses within a year therefore for establishment of beekeeping production cost the legislation provided an assessment at standard and expected (planned) prime cost with finishing it in the end of the year to the actual. At the same time, production assessment method at planned and standard prime cost is imperfect: estimates production which arrived and realized within a year at the registration prices which are formed before calculation of actual cost that assumes drawing up large calculations volume for of production cost adjustment to the actual level and increases labor input of process.

Thus, in the Republic of Belarus the principle of the account at prime cost acts as the predominating concept according to which the size of the actual expenses suffered at production or acquisition is put in a basis of a finished goods assessment and biological assets in beekeeping. According to this principle accounting purpose does not consist in finding of cost which can be changed after commission of economic operation, and in prime cost determination (cost at commission time of economic operation) that contradicts the principle of biotransformation of biological assets. In these conditions a bees assessment operating technique and beekeeping production leads to distortion of their real cost therefore development gets practical value in market the focused methods of a bees assessment and biotransformation results when their cost is defined not by an expensive method, and with the real price of realization.

In the conditions of national accounting standards rapprochement with the international standards requirements it is actual to use in practice the farms of provisions of IFRS 41 "Agriculture". According to the principles of IFRS 41 "Agriculture" "at the time of initial recognition and for the end of each reporting period the biological asset has to be estimated at fair value minus expenses on sale", that is, the acquired and new bees, and also beekeeping production, it is recommended to estimate at fair value.

However the concept "fair value" didn't become still equal among alternative estimates in the domestic accounting theory in spite of the fact that this problem is closely connected with the fundamental purpose of the Belarusian accounting reforming – with transition to International Financial Reporting Standards. Therefore, there is a need for carrying out detailed research of the concept "fair value" taking into account national features and definition of possibility of its biological assets and agricultural production assessment application in beekeeping branch. Often the Belarusian accountants don't apply the principle of fair submission of information for the following main reasons. First, they are afraid of being beyond the competence and breaking the law. Secondly the determination of "fair" cost is not perceived as function by accountants and the appraiser. At last, thirdly, the institute of fair value is rather new to national legal system. However the Belarusian and Russian scientists actively discuss the concept of fair value and possibility of its practical application (V.F. Paliy, N.A. Prokofiev, O.V. Rozhnov, Ya.V. Sokolov, V.Ya. Sokolov, L.Z. Shneydman, L.A. Chaykovskaya's work, etc.) .

According to IFRS 41 "Agriculture" "fair value – the sum for which the asset or in which the obligation, as a result of transaction implementation between well informed, independent parties wishing to make such transaction can be fulfilled and can be exchanged". IFRS 13 "Assessment of fair value" defines fair value as "the price which would be received from asset sale or which would be paid for obligation transfer, in usual operation between participants of the market for an assessment date ".

That is, according to IFRS object fair value is defined when performing the following conditions: existence and functioning of the active market for the estimated asset or the obligation; existence in the market of the parties one of which wishes to realize object, and the second to get it; the parties have to have access to the market, to be informed and independent in the decision to make the transaction. When performing these conditions, IFRS identify category of "fair value" with the concept object "market value".

On the other hand, in case of the active market absence or its insufficient organization for fair value determination of IFRS 13 points to possibility of the different ways using of an assessment created in expensive (the compensated cost calculation) and profitable (the discounted cost calculation) approaches to determination of fair value, that is market value – not the only base for fair value determination therefore the "fair value" category isn't completely equivalent category of "market value".

Thus, "market value" is always "fair value" in the presence of the active market and independent, informed, persons interested to carry out the transaction of the parties, but as base for determination of fair value the current market value does not always act, and also other methods of determination of fair value are possible therefore to define fair value only as a market assessment is incorrect.

For the purpose of economic sense definition disclosure of "fair value" we will address to essence of the term "fair" defining concept. In explanatory dictionaries "fair" means "true, correct, thorough, not fictional" [1, p. 167], "… based on impartial observance of truth" [2, p. 542], "… according to truth, the rule, the law" [3, p. 702], that is fair value has to be the standard recognized as that all users of information about estimates of objects.

Summarizing the aforesaid, the offer to understand the coordinated cost which is recognized by the interested informed and independent parties participating in the transaction as fair value is made.

While determining fair value it is necessary to consider possible limits of the prices "justice" at an assessment of biological assets and agricultural production. Thus it is necessary to proceed from such assumption as equivalent advantage of this way pricing use for the agricultural organization and the possible (potential) buyer of biological assets and agriculture production of this economic entity

Despite numerous research, the problem of effective bees fair value choice technique determination and results of their biotransformation taking into account features of biological assets activity stages remained unresolved despite the growth of the state' interest in beekeeping development. During the reporting period there is a continuous bees movement and biotransformation which as object of accounting, have to be objectively estimated at each stage of a biological asset functioning in economy changing its real cost.

The operating determination technique of bees cost, first, is differentiated depending on a way of receipt of bees in the organization, unlike uniform approach to an assessment on IFRS that results in the increased labor input of registration process; secondly, the biotransformation processes which are shown in high-quality or quantitative changes in a condition of bees don't receive value terms in accounting whereas their real market value changes that lead to a divergence of indicators of accounting reports with the valid cost indexes of biological assets.

In case of the active market existence for establishment of the object current market value, IFRS 41 "Agriculture" suggests to count biological assets fair value and agricultural production on the basis of the asset's price established in such market. In the presence of the active market bees fair value and production of beekeeping is accepted to equal market price of the estimated asset, which Suzdaltseva N. and, Zakharova E.V. suggest to count as average arithmetic all offers on product sales in the chosen market.

At the same time, first, in the active market bees are realized together with beehives, in cellular or the packages therefore market price is established not for 1 kg of bees, and taking into account the factors which directly aren't influencing the cost of biological assets as natural set of bees, a uterus and drones (type of the contents bees for realization, quantity of honeycombs, type and quantity of a forage for bees and a uterus, etc.). In that case, average market price of bees will be the value judgment which does not consider essential properties of assets and does not correspond to the principle of an objectivism for establishment of biological assets fair value and agricultural production.

On the basis of the conducted market research the only factor having direct impact on establishment of market price of natural set of bees, a uterus and drones is the weight of bees. When the weight of bees in the realized bee family is higher, it is considered to be stronger and therefore it is estimated more expensively. On the basis of the conducted research is made the proposal as a basis of establishment of the current market value of bees to assume the cost of 1 kg of bees taking into account a uterus and drones corrected on their breed. To calculate the market value of 1 kg of bees it is rational to take the cost of offers the packages in the market which include the smallest quantity of the foreign factors influencing the cost of biological assets from this cost. It is recommended to subtract the market value of a forage for bees and a uterus on the norm recommended to GOST "Bees".

Thus, according to requirements of IFRS 41 "Agriculture" bees, it is recommended to estimate at fair value that will lead to rapprochement of the national account with the international practice, will lead to an objective assessment of a real property condition of subjects of managing of agrarian and industrial complex.

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FORMATION OF TRANSPORTATION OPTIMIZATION BASED ON THE INTEGRATED LOGISTIC SUPPORT

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The article describes the basic guidelines for integrated logistic support of the transportation process in the formation of the optimization process. The description of the functional cycle of order execution on transport customer service as a basis of integrated logistics is given.

Transport services market is steadily growing. In order to optimize the main transport and logistics processes (significantly reduce inventory, speed up the turnover of working capital, reduce logistics costs, provide the most complete customer satisfaction in the quality of goods and related services), companies adopt methods of integrated logistics management. About the features of this type of logistics we'll talk in the article.

The optimization of transport and logistics processes of the enterprise is carried out in the following orders:

– the maximum service to customers and partners of a company;

– the achievement of the optimum level of process costs at the desired level of service for customers.

To optimize the process, the following resources are required:

– the competent team of professionals with experience in logistics;

– the park of own rolling stock;

– the terminals which are equipped with required loading facilities.

The most significant is the decision to optimize routing. The main requirement of routing: the creation of a number of feasible routes with lower cost and service to all customers. As the objective function for the calculation of the routing decision which must be minimized, for example, can be selected in accordance with the total cost of the route.

Huge advantages of applying logistic principles of organization and control flow processes known results are confirmed by numerous studies.

According to various foreign experts, the introduction of logistics in the company provides:

– cost reduction in turnover by 20 %;

– volume of stocks – 30 – 70 %;

– reduction of production costs by 30 %.

V. Lukinskiy, referring to the results of expert evaluation specialists, specifies that the application of logistics, allows:

– to reduce inventory levels by 30 – 50 %;

– to reduce the time of product movement by 25 – 45 %;

– to reduce the re-warehousing transportation in 1,5 – 2,0 times;

– to reduce the cost of trucking by 7 – 20 % and railway transport – by 5 – 12 %.

The world practice shows a high integrative role of logistics, especially the sphere of production and the sphere of circulation. Linking the past into a single logistic chain, logistics favors not only a sharp decline in stocks, but also increase productivity and increase sales.

In the 1980s and 1990s originated the term "integrated logistics". The system of integrated logistics provide the product promotion through a continuous and sequential chain of step-by-step add value with the acquisition of goods and services at the right time, in the right quantity and form. Added value means that each stage of system of logistics includes actions, which increase the cost of a product or service for those, who will receive goods. The logistics can integrate the distribution, production and supply that to synchronize the rhythm and flows.

Integrated logistics is designed to manage the flows of logistics system, passing through all these stages. In practice, this is consistent with the structural division of the principle of functionality (supply, production, storage, distribution and so on). The process of formation of the logistics system is based on the provision and maintenance of the product life cycle from the conception to disposal.

Simplified the structure of integrated logistics can be represented as: design → purchasing → production → distribution → sales → customer service.

An integrated approach allows:

– to separate issues of distribution, production management and logistics, eliminating the possible differences between the functional areas and the relevant departments;

– to minimize the contradictions between the production and marketing;

– to systematize and organize the information flows.

Functional cycle, or cycle of execution of the order – the basis of integrated logistics. It is the study of individual parameters of integration on the basis of the mentioned cycles, together forming the operating system of logistics, allows us to determine the dynamics, to find relations and solutions. With suppliers and customers the company has information and transport network. The functional cycle – the main object of the planning and operational management in logistics, it is clear that it plays a critical role in meeting the logistics needs, creating the structural basis of integrated logistics.

The order cycle (functional cycle) is the main object of analysis of the integration of logistics functions. It's basic structure relates to the link and nodes, and it is the same for physical distribution, and logistics production and supply. A significant difference in the degree of management control over the different types of functional cycle. The obligatory condition of logistics' integration is the study of the configuration of each individual functional cycle to identify critical linkages and control lines.

An important task of leadership is to create the employees of the so-called logistic thinking that all managers in the company have learned to think and to act, based on the concepts of integrated efforts and efficiency.

The role of online access to a comprehensive set of information in logistics should not be underestimated. Information technology is able to meet the bulk part of the information needs, in addition, there are the possibilities, if it's necessary to receive data in real time. The use of IT-development allows to reduce logistics costs through more effective management of information flows, increasing their speed and coordination.

For the effective functioning of the logistics system it's necessary to generate logistics infrastructure. All infrastructure departments in the management process are integrated elements of the logistics system of the company. Infrastructure forms a sort of skeleton on which to build a logistics system and its operation. This includes information and transport facilities, such as separate functions, such as processing customer orders, inventory management or processing, carried out within the framework of the logistics infrastructure.

A necessary condition for integration are structural changes in logistics. The effect of logistics integration in order to reduce costs and improve the quality of customer service, it is difficult to overestimated, while promoting it at all levels, regardless of their sector of individual companies. The level of development of domestic enterprises requires the creation of conditions for association of industrial, commercial enterprises and companies serving the market infrastructure, in integrated logistics system. They are able to deliver products to the consumer quickly, on time and with minimal cost.

Therefore, the main trend of our time, including the processes in the world economy, is the acquisition of new factors of logistics efficiency, merging its traditional applications areas and the formation of a qualitatively new strategic innovation system - integrated logistics. Overcoming barriers and differences between individual companies and even entire industries in effective integrated logistics chains with well-developed cross-functional coordination within a single company becomes particularly relevant today.

Prerequisites for integrated logistics approach are:

– understanding the importance of logistics market mechanisms as a strategic element in the implementation and development of the competitive capabilities of the enterprise;

– consideration of possible prospects and trends for the integration of participants in the logistics chain between them, the development of new organizational forms - logistics networks;

– technological capabilities in the field of advanced information technologies, opening new possibilities for the management of all aspects of production and commercial activities.

The dynamics of market relations, globalization, international business and resource constraints lead to a significant increase in the velocity of the material, financial and information flows, reducing the number of intermediaries in the logistics chain, reducing the stability and reliability of their functioning. Therefore, the achievement of the strategic objectives of an enterprise is possible with the transformation of existing logistics systems in the integrated logistics network.

In order to most effectively implement the global goals of the business and the government in general, we need in a well-developed integrated logistics system. It should be remembered that the maximization of profit will be affected by factors such as competitive position, competitive price, low costs and industry structure. In this case, the integral responsibility for the level of costs associated not only with internal costs, it also includes the responsibility for the efficiency and timeliness of delivery, the choice between the production and purchasing it from suppliers.

The involvement of individual interconnected elements in the integrated logistics process in order to prevent wasteful loss of material and other resources allows us to solve managerial tasks with maximum efficiency. Integrated supply chains contain five performance indicators:

– communication with suppliers;

– communication with consumers;

– processes within one division;

– logistics processes between departments within the company;

– logistics links between enterprises in the supply chain.

Such systems are aimed at a significant reduction of costs by speeding up the turnover of capital, reduce the time of execution of orders, coordination with network providers.

Among the key areas of logistics competence are inventory management, transportation, logistics information, logistics, warehousing, materials handling and packaging. Focus on delivering high quality customer service through the integration of key competencies allows to develop modern technologies and logistics management and to achieve a high level of competitiveness. It is clear that progress in each of these fields is meaningful only if they increase the overall efficiency of the integrated logistics system.

According to the classics integrated logistics D. Bowersox and D. Kloss cheaper using the information to find the optimal solutions than to implement sub-optimal inventory transfer. Integrated Logistics in the West led to the creation of the concept «Supply Chain Management» - SCM.

For the implementation of integrated logistics support (ILS) apply modern technologies, which include CALS-technologies. Under the ILP understand the approach to solving the complex logistics tasks in the process of creation and use of products and, above all, to ensure their effective operation on the basis of creating the necessary maintenance tools products, including documentation and databases for training, diagnostic products, their repair, etc.

The emergence of the concept of integrated logistics support (ILS) products and integrated logistics systems due to the desire to maximize the efficiency of the operation of complex equipment. ILS is also seen as a set of measures and procedures aimed at reducing overall costs at all stages of product life cycle (PLC), primarily in the operational phase.

The concept of ILS typically include the solution of the following task groups:

– analysis of logistic support;
– management of technical maintenance and repair;
– management of logistics;
– document management and workflow;
– staff training.

These tasks groups:

– research market conditions and predict the prospects for sales of products planned for production;
– define infrastructure systems products service period of operation, including planning procedures of logistics, diagnosis of the condition of products, repairs, etc.;
– consider the requirements of maintainability in the design of products, design tools and maintenance of complex technology, in parallel with the development of the product;
– calculate the reliability and duration of failure-free operation of the product;
– calculate the cost of production and operation of products;
– determine the composition and the required amount of spare parts;
– teach the staff;
– support communication between producer and consumer by accessing the consumer to the integrated database products to simplify diagnostics and repair products;
– get data about faults and failures for the adoption of measures to improve reliability of products;
– classify and codify the products and materials needed to facilitate searching for desired data in directories and databases;
– develop and manage electronic maintenance and repair documentation;

Already at the design stage to predict costs and identifies the resources required to support the product in the correct state, created the DB ILS (Fig. 1) intended for the information service of all participants in the product life cycle, developing electronic technical documentation used in the procurement, delivery, commissioning, operation, maintenance and repair products, planned demand maintenance. In systems, the ILS is controlled processes of delivery of products, the formation and execution of applications in the operation of the product database ILS is available to service personnel. It should be noted that the ILS is closely linked with ensuring quality control in accordance with the standards of ISO 9000 series.

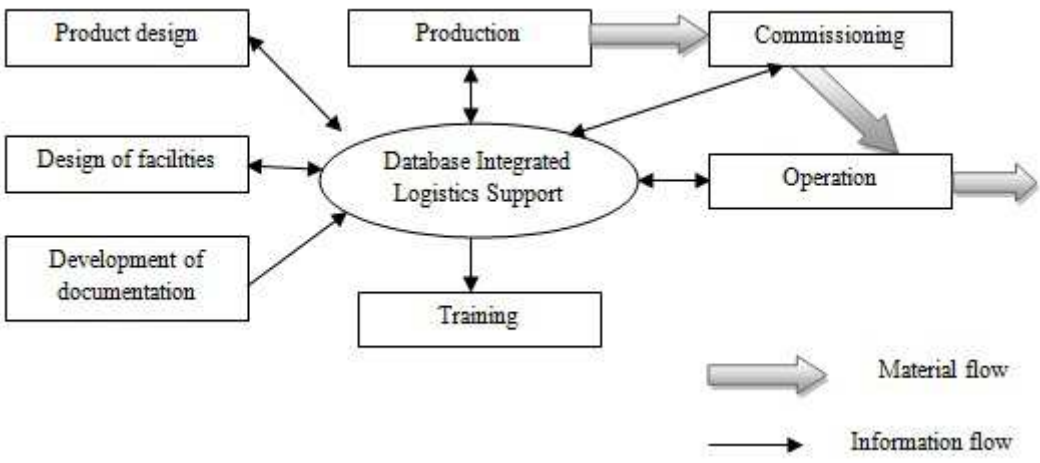

Fig. 1. Basic procedures and flows in the system ILS

Thus, logistics integration allows the achievements of each individual functional area to make the maximum contribution to «spike» the competence of the company in logistics. This poses a logistics management company's current goal is to reach a higher level, to play the role of so-called cross-functional coordinators, while individual functional areas of logistics as resources that need to be integrated into a single management system.

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THE ECONOMIC ESSENCE OF THE CONCEPT "CASH FLOW" AS THE OBJECT OF ACCOUNTING

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This article is a result of the research made on economic essence of the concept "cash flow". This work is based on different authors' and researchers' opinion, made from careful study of their work. The offered definition will allow to bring accounting terminology into accord, and promote the formation of the authentic view, which characterizes the cash flow as the economic category.

In modern conditions of doing business the most important indicator of the company effectiveness is the financial result, expressed by the amount of economic profit. However, in the enterprise accounting practices some situations may appear, when business has a profit, but it is insolvent, and on the contrary, it may has a loss, but it is solvent.

This factor arises due to the fact that the accounting income and expenses are recognized on an accrual accounting basis. In case when excess of income overdue expenditure, the company earns a profit. However, all costs may have already been paid on the balance sheet date, but the trade receivables are not still paid, in this case there is the cash outflow in the absence of the inflow. I.e. there is a profit, but the necessary volume of funds may not exist. Or reverse situation may occur, when expenditures are higher than income, i.e. the company has an accounting loss. However, accrued income (receivables) is paid by the buyer, and accrued expenses (for example, in terms of payments to suppliers for services) are still not paid. Therefore, according to the accounting information, the company has a loss, but it is capable of generating the necessary cash flow and of remaining solvent.

This means that the provision of cash resources for the production and investment process affects the results of the enterprise activity, of the degree of its financial stability and solvency, and of competitive advantages, necessary for the current and future development [1, p. 23].

At present, scientists are paying significant attention to the cash flow. However a single definition has not been adopted yet. For example, "cash flow" is sometimes identified with the category of "financial flows", but that is not quite true. This is due to the fact that the category of "financial flow" is much wider than the category of "cash flow" and includes cash flow in its membership. In addition, it includes other flows of financial resources, such as securities, credit resources, etc.

The idea of "cash flow" appeared in American economic literature after World War II. The category "cash flow" was originally used in the securities market by financial analysts to assess the companies' stock price. The translation of this phrase into other languages, while preserving its meaning, causes some difficulties. That is why different authentic translations and definitions are found in Russian economic literature.

Probably, due to the ambiguous translations of this definition in the economic environment an ambiguous interpretation of the word "cash flows" have been formed.

To be able to use the category of "cash flow" as the object of accounting, it is relevant and useful to investigate its economic essence from the author's points of view (Table 1).

Table 1 – Economic essence of the concept "cash flow" as the object of accounting

Author	Economic essence of the concept "cash flow(s)"
Ermasova N.B., Ermasov S.V.	«…is a set of distributed in time receipts and payments of cash, generated by business activities» [2, p.79]
Bocharov V.V.	«…is the amount of money that is received or paid by corporation during the set period» [3, p.144]
Basovski L.E.	«…a numerical series of payments distributed over some time » [4, p.154]
Verigo A.V.	«…is consistent movement of cash flows, assets and tools, related to the functioning of the state and economic units» [5, p.133]
IAS 7	«…are cash inflows and outflows, as well as cash equivalents» [6, p.2]
Savitskaya G.V.	«…is ongoing process of cash flow movement over some time, which is metaphorically compared with the system of "financial circulation" which provides a viable organization» [7, p.506]
Eugene F. Brigham, Michael C. Ehrhardt	«…is irregular flow of cash payments or receipts» [8, p.374]
Blank I.A.	«…is the summation of receipts and disbursements of cash funds, allocated over separate intervals of exact period and generated by economic activity, the movement of which is associated with the factors of time, risk and liquidity» [9, p.375]
Kuznetsova I.D.	«…is a summation of cash flow receipts and disbursements (distributed over time) as a result of sale of any project or functioning of a particular type of assets» [10, p.18]
Nikitina N.V.	«…is the difference between the received and paid cash funds» [11, p. 125]
Shimov V.N., Kamenkov V.S.	«…is the inflow or outflow of the capital as a result of the activity for a certain period» [12, p. 468]
Azrilian A.N.	«…is the difference between the amounts of receipts and disbursements of cash funds of the company for a certain period of time (usually a fiscal year)» [13, p.707]
Balabanov I.T.	«…the part of cash funds that remains in the business entity, at least temporarily until their further distribution» [14, p. 404]
B.Kollas	«…is the money that remains to the enterprise, in other words, the difference between the income and expenditures after one or more operations» [15, p.136]
Sorokina E.M., Bratishenko V.V.	«…is a cash flow movement, i.e. income (inflow) and expenditure (outflow) for a certain period of time» [16, p.10]
Romanovski M.V.	«… characterizes the result of the cash flow movement in the enterprise for a given period of time, i.e. the difference between receipts and payments of the company's cash funds for a certain period» [17, p.182]
Kovalev V.V.	«…generated inflows and outflows of cash funds in the context of the exact time period» [18, p. 28]
Poliak G.B.	«…is the movement of cash flows, distributed in some period of time, that occurs as a result of economic activities» [19, p. 197]
Tolkacheva E.G.	«…is the summation of receipts and disbursements of cash funds, distributed over the time and generated by the economic activity, the movement of which is associated with the factors of time, risk and liquidity» [20, p. 31]
Ermolovich L.L.	«…on the one hand, it is the inflow of cash funds together with cash balances on accounts, and, on the other hand, it is the expenditure of cash funds on the salary payment, social needs, on payment to raw materials suppliers, on fuel and energy, etc., transferred into taxes to the budget and extra-budgetary funds, payment interest for the credit, loan repayments, etc.» [21, p. 179]
Volodin A.A.	«…is the collection of all receipts and payments for a certain period of time [22, p. 58]
Krejnina M.N.	«…is the difference between cash funds of the enterprise that are received and paid for a certain period of time» [23, p. 249]
Lapusta M.G., Mazurina T.Y., Skamaj L.G.	«…is the result of the movement of cash flow of the enterprise for a given period of time» [24, p. 305]

Source: the own research on the basis of comparative analysis of the special economic literature.

As shown by the analysis, there are two points of view on the essence of cash flow as an economic category. There are two basic ways to measure these objects in the economy (particularly in accounting): for a certain period (turnover or stream) and for a certain date (the rest or the balance). The first method focuses on the movement, the second focuses on the result of this movement (i.e. at a certain point).

The first conditional group of authors considers that the essence of the "cash flow" is based on the turnovers method measurement. This group of authors includes N.B. Ermasova, V.V. Bocharov, G.V. Savitskaya, Eugene F. Brigham, Michael C. Ehrhardt, I.A. Blank, I.D. Kuznetsov, V.N. Shimov, V.S. Kamenkov and others. According to them, the cash flows are "inflows and outflows," "receipts and payments", "the process of moving of cash funds".

The second conditional group of authors considers that the essence of the "cash flow" is based on the cash net (balance) method measurement. This group of authors includes N.V. Nikitin, A.N. Azrilian, I.T. Balabanov, B. Kollas, M.V. Romanovski, N.M. Krejnina, M.G. Lapusta, T.Y. Mazurina, L.G. Skamaj. From their point of view, the essence of the "cash flow" is the "difference", "the result of the movement" of cash funds.

It should be noted that the essence of the word "flow" is, directly, "... a moving mass of something" (according to the Explanatory Dictionary of Russian language by S.I. Ozhegov [25]) or "...the continuous movement of something" (according to the Explanatory Dictionary of Russian language by D.N. Ushakov [26]). That means, the essence of the word "flow" is "movement". Based on this view, we can conclude that the definition of "cash flows" as the difference between receipts and disbursements of cash funds is inappropriate. In accounting, the result is determined for a particular period of time, accordingly, this interpretation of "cash flows" should be identified with its remains. That means that it is more appropriate to determine the "cash flows" through such indicators as the "Cash received" and "Cash used", but not through the indicator "Net cash".

It is also important to distinguish between "cash flow" and "net cash flow". If talking about "cash flow", we mean some movement of cash flow. At the same time, "net cash flow" is the difference between cash receipts (cash inflows) and cash disposals (cash outflows). This corresponds to a foreign form of The Cash Flow Statement.

Based on the above, we offer the following definition of cash flow which is the fullest reflection of the essence of considered category as the object of accounting:

"Cash flow" is a direct movement of cash funds in the form of inflows and outflows, which are generated in operating, financial and investment activities of the enterprise during a certain period of time.

This definition differs from existing ones because it covers the key aspects of the enterprise in terms of accounting, that means:

1) The direction of cash funds movement. That is, this is namely the cash flows, and not the result of this movement, and it is namely directed, as this process involves money movements between business entities for each specific type of operation.

2) Generation during the operation, financial and investment activities. The cash flows can usefully be measured, using the turnover method measurement, it also should be noted that in this case generated cash flows accumulate cash inflows and outflows, but not the difference between them. The generation of cash flows relates to types of company's activities. I.e. the operating, financial and investment activities produce a corresponding cash flow. This is the key position of the accounting because this aspect is often ignored in some special economic literature.

3) Movements of the cash flow during a certain period of time. It is important to note that any method of measuring objects in the economics implies the certain measurement interval, i.e. start and end points. The reporting period for the enterprise is a month, a quarter or a year. In practice, there may be situations when you need information about the cash flows for one or four months, and the reporting period for the enterprise is a quarter. Accordingly, it is expedient to characterize the cash flow not only during the reporting period but for a certain period of time (which may coincide with the reporting period, but this is not necessary).

Offered definition will allow bringing economic terminology into accord, and will help to form full and authentic information about this object, minimizing or eliminating potential data distortion.

The concept of "cash flow" includes different types of these flows which serve the financial and economic activity of the enterprise. For this reason, in order to avoid confusions, the term "cash flow" should be used in a general sense, but in each concrete case it should be used as the term "cash flow" and should specify what kind of flow is mentioned. For example, "the cumulative cash flow", "cash flow of operating activities" and so on [27, p. 31-32].

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BRANDING DEVELOPMENT AT THE ENTERPRISE

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The article is devoted to the actual problem of modern Belarusian companies – branding development. In the work, the author defines goals and objectives of the brand, analyzes Belarusian branding, and identifies problems of modern enterprises in branding development. The author pays special attention to the development and implementation of brand book in the company.

The policy of branding forms a favorable image of the company in the consumer's mind, increases the competitiveness of the company and provides long-term business efficiency.

The advanced enterprises use new methods of market penetration more and more actively, so there is an increase in the number of brands that don't have significant differences from each other. This process complicates competition and causes the need of deep study of branding.

In the current situation it is topical question to clarify and systemize the basic economic categories of branding, examine the mechanism of formation of branding strategies that provides a comprehensive study of the external and internal environment of the company. It's also interesting to explore the perception of brands by the customers and evaluate the effectiveness of branding in the enterprise.

Theoretical, methodological and practical basics of branding are reflected in the works of many foreign and domestic scientists. Essence, classification, branding strategy, branding formation are achieved in works of H. Rudaya, J. Grinyuk, S. Rybchenko, Z. Makasheva , A. Godin, etc. Methodological foundations of marketing research of branding and evaluation of brand loyalty are reviewed in works of A. Chupris, H. Golubkova, I. Filimonenko.

However, in spite of many theoretical achievements in branding, it's necessary to note that there are not many practical studies in branding development at the enterprise. There is also the lack of algorithm of forming branding strategies. The leadership of the majority of Belarusian enterprises ignore new communication concept of marketing, in which branding is on the top place.

The process of creating long-term consumer preferences is considered as activities to provide advantages to the buyer of goods or services, their characteristics in comparison with similar goods or services, the formation in the minds of consumers persistent associations related to this product. These associations, as shaped connection of individual experiences in general, bright and stable picture of the interconnected representation of the consumer about the product, are called brand.

Brand is a name, term, design or other feature that distinguishes one seller's product from those of others [1, p. 28].

Branding is the activity of giving a particular name or image to goods and services so that people will be attracted to them and want to buy them [2, p. 39].

The main purpose of branding is to inspire favorable view of the goods to the buyer.

The objectives of branding are the following [3, p. 67]:

- to facilitate memorization of the goods, company;
- to help the customer in choosing a product;
- to symbolize the guarantee of quality and service;
- to stimulate the desire to buy a product;
- to improve the effectiveness of advertising and other means of communication;
- to strengthen the corporate spirit of the enterprise;
- to affect the aesthetic level of the enterprise.

Branding as a specific work process has an extremely multilateral and comprehensive character. Modern companies practice different approaches to branding development. Selection of specific mechanisms, tools and techniques are always determined by the objectives and features of the market environment. However, the systematization of practical experience in building brands allows to allocate basic directions in the development of brand identity.

There is general sequence of activities carried out in the process of branding [4, p. 72]:

- *preparatory stage* (market research, analysis, justification of actions);
- *projective stage* (development of the brand name, trademark registration, preparation of advertising campaigns);
- *implementation of the project* (introduction of the brand in the market and its development).

In Belarus branding is at the stage of development, maturation and formation. In the domestic market there are quite serious and well-known brands ("Milavitsa", "Gefest", "Savushkin product", etc), that lead to many market segments. For example, many Belarusian goods already have positions spontaneously formed brands. In Russia, you can hear such expressions as "Belarusian furniture", "Belarusian cosmetics", "Belarusian jersey" and "Belarusian shoes." For example, according to statistics of Yandex.ru during 2013 the word "Belarusian" was searched 5,952,415 times, mainly in Russia and the CIS. The most popular combinations of words were "Belarusian furniture" (198,976 times) and "Belarusian jersey" (173,223 times). This suggests that spontaneously created brand "Belarusian" exists [5].

At the same time, most domestic enterprises do not pay enough attention to the development and promotion of its own brand. In the West, for example, brands are considered the highest value of the company, they are called "religion of modern times." Belarusian manufacturers, going to foreign markets, face to strong competition of foreign brands, and even when the quality of the Belarusian products are better, consumers will prefer products of well-known brands. Note that even if the company "Mercedes" or "Toyota" declare that the consignment was sold with technical errors, consumers are loyal to these companies. Strong brand has so-called protective barriers.

First of all Belarusian enterprises should learn how to use branding technologies, and after that promote a recognizable brand in foreign markets.

The author proposes to start work on branding development with the creation and implementation of effective marketing tool - brand book.

In the classic sense *brand book* is a document that contains information about the philosophy, values, promoted by the brand. Brand book is mostly focused on work with partners, dealers and other participants in the process of interaction with the consumer audience [6]. There are two types of brand book: brand book of the company and brand book of a specific product (service).

Brand book performs a number of functions, namely:

• regulates the use of corporate style of the enterprise and its members in all aspects (work with suppliers and partners when advertising campaigns, etc.);

• gives general description of the company (goods or services): the goals, values, target audience, etc .;

• provides recognition of the brand through the unity in visual perception of the product or the company and the allocation of exclusive features;

• simplifies and standardizes the process of design of places of goods sale and design of business documents;

• facilitates the work of marketers who must clearly know the brand, which they promote (advertise).

The structure of the brand book is not universal.

The general scheme for constructing brand book can be offered:

• general description of the brand (philosophy, values, target audience, brand concept);

• logo book (logotype, proportions, specific colors, fonts, terms of use of the trademark);

• design of business documents (business cards, envelopes, folders);

• Business souvenirs (notebooks, diaries, pens, cups);

• advertising services (brochures, leaflets, posters);

• design of outdoor advertising (billboards, stands);

• advertising in the media (examples of acceptable and unacceptable construction of ad units);

• design of the office (interior, uniforms) [6].

Development of brand book is a structuration and systematization of materials created earlier. In order to get a quality brand book, all departments of the company should be directly involved in the development of those sections that correspond to their specialization (sales department prepares marketing concept, marketing department – the concept of promotion, etc.).

The author developed a typical layout of brand book on the example of OJSC "Polotsk Dairy Plant". The costs of development and implementation of brand book at OJSC "Polotsk Dairy Plant" are presented in the Table 1.

Table 1 – Calculating the costs of implementation the brand book at OJSC "Polotsk Dairy Plant"

Activity	Cost, BYR	Remark
Purchase of brand book	3 727 500	Developer - Studio "Logo", the rate of USD 10650 BYR, 15.10.2014
Spread the order to comply provisions of brand book	0	-
- compensation to the responsible executive for the implementation of brand book (employee of "Polotsk Dairy Plant") - deductions from wages (34,6 %)	4 200 000 1 453 200	According to the company, the average salary of an employee is 4 200 000 BYR.
Production of brand media	34 810 000	10% of the advertising budget per month. Implementation period - 10 months (starting from 01.01.2015 till 01.10.2015)
TOTAL	44 190 700	

Source: developed by the author.

The costs of development and implementation of brand book at OJSC "Polotsk Dairy Plant" are 44 190 700 BYR. Development and implementation of brand book is a centralized and systematic solution. It implies significant start-up costs, which subsequently repaid by optimizing future communication projects.

Using brand book, the organization takes a step on the way to success.

The agency "MPP Consulting" makes annual rating of the most expensive Belarusian brands. Thus, according to the rating of "BelBrend 2014" the following companies are on the top (Table 2).

Table 2 – The costs of leading Belarusian brands, 2014

Brand	Cost, million $	Industry
Santa bremor	71,7	Foodstuffs
Babushkina krynka	69,5	Dairy industry
Milavitsa	68,2	Light industry

Source: [7].

The high cost of brands included in the rating is calculated on the market value of the brand, the company's performance, its position among competitors in the industry, the opportunities for further development and growth.

As a result of the research it can be concluded that branding is an important component of any enterprise, a symbol of commercial activity. The development of branding provides the company significant competitive advantages in the marketplace. The first step on the way of branding development is an implementation the brand book.

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ANALYSIS OF LABOR POTENTIAL IN BELARUS AT THE END OF 2014

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This article presents analysis of the labor potential in the Republic of Belarus at the end of 2014. The general state of the labor market of the Republic of Belarus has been reviewed, negative phenomena have been marked. A number of measures that would help solve the problems in the labor market have been represented.

In the modern world a man, opportunity and ability of each employee, the individual groups and society as a whole play the primary role in manufacturing. Based on the data study of labor potential key indicators we can see the "weak" points in economy and social policies and, therefore, we can define new directions and priorities for work. According to the data received for several years we can follow the dynamics of the main indicators and find out what was the cause of the increase or decrease of labor potential, and to avoid mistakes in the future. In addition the impact of labor potential directly affects the economic potential of the state as a whole which means that the considered issue is actual [1, p. 309].

The phenomenon of migration directly influences the employment potential of the state. In the 50s – 60s of the XXth century there was an excess of labor in Belarus, which could not be fully used by the republic's economy which became the cause of people's migration to other regions of the former USSR. Besides Belarus lost its population because of the exchange with the Russian Federation, Ukraine and Kazakhstan, as well as with some Baltic republics. Radical change in the external migration reduction occurred in the 60s XX of the century. The smallest migration percentage of Belarusians took place in 2000, at the moment this figure is several times lower, it indicates the stability in the economy and better working conditions in general.

Nowadays the concepts "human development index" and "human capital" are used to characterize the labor potential of the XXth century [2]. HDI of the countries is published by the UNDP in the annual "Human Development Reports." Now the Human Development Index for Belarus is 0.786. Having this index our country still holds a firm place in the category of countries with high human development. The main components of the index have risen too.

Generally the Republic of Belarus occupies the 53rd place in the ranking of the Human Development Index in 2014.

Apart from the high rate of HDI, measures taken by the Belarusian Government to ensure the employment of the Republic of Belarus allowed to maintain stability in the social sector, to improve the situation at the labor market, to reduce unemployment; contributed to the reduction of tensions at the labor market.

Nowadays the overall labor market conditions of the Republic of Belarus are characterized by steady excess labor demand over supply [3]. The number of vacancies declared by employers to the Labor, Employment and Social Protection Committee of Minsk City Council, Labour, Employment and Social Protection Directorates (Departments) of City and District Councils, on December 1, 2013 amounted to 65 thousand (December 1, 2012 - 67.5 thousand vacancies).

At the same time organizations need more blue-collar professions, which make up about 80 percent of the total number of vacancies, about 11 per cent of the jobs are associated with unskilled labour.

In January-November 2013 242.9 thousand people applied for employment assistance to the bodies of Labour, Employment and Social Protection (88.5 per cent compared to the same period of 2012), 147.3 thousand of which were unemployed (87.6 per cent). 284 thousand of people needed to be employed (88.6 percent), including citizens who were registered with labour, employment and social protection bodies, at the beginning of the year, 172.2 thousands of which were unemployed (87.7 per cent).

Tension at the country's labour market (the number of unemployed per vacancy) decreased from 0.4 on December, 1 2012 to 0.3 on December 1, 2013, in rural areas from 0.6 to 0.5. The registered unemployment rate was 0.5 percent of the economically active population while the forecast for the end of 2013 is up to 1.5 per cent.

Positive dynamics of the demand for labour has helped to reduce the average duration of unemployment to 3.4 months (at the same period of 2012 it was 3.7 months). The employment period of the unemployed was 1.4 months.

As part of the State program activities promoting Belarusian employment in 2013, approved by the Council of Ministers on December 27, 2012 № 1211 (National Legal Internet Portal of the Republic of Belarus, 17.01.2013, 5/36768) in January - November: assistance in employment for created and the existing working places was provided. 171.3 thousand of people, 112.7 thousands of them were unemployed (respectively 100.8 and 95.5 per cent of the expected result); assistance in organization of business, craft activities, as well as the rural tourism services was provided by supplying 2.3 thousands of unemployed (94.7 per cent) with subsidies; training of 9.6 thousand of people (76.7 per cent) was organized; 62.3 thousand of people (96.7 per cent) took part in paid public activities, including 31.9 thousand of unemployed (97.8 per cent); 288 families of the unemployed (114.3 per cent) were resettled to a new place of residence and work; 30.9 thousands of pupils and students were provided with temporary employment in their free time (129.8 per cent) [4].

Realizations of the state and regional programs had a positive impact on the labour market of small and medium-sized towns and districts with persistently high level of unemployment. Out of 117 districts and 12 towns of regional subordination only in 2 areas unemployment rate has exceeded 1 percent and amounted to 1.1 percent.

However, there are a number of negative effects at the labour market:

- reduction in labour supply,
- the development of regional and professionally qualified imbalance of supply and demand at the labor market amid the low level of labour mobility,
- a decrease of population of working age,
- reduction of the level of employment, which is accompanied by staff shortage, which formation is significantly affected by the labor market and educational services imbalance. Imbalance between demand and supply of labour force in professional, qualification structure, geographical location of vacancies and the unemployed has been preserved,
- the problem of employment of certain categories of young people without professional education, disabled people, citizens, released from correctional penitentiary institutions of the Ministry of Internal Affairs system, as well as citizens who have a long break from work and need social support (hereinafter called as the target groups).

Certain regional differences were made at the labour market of the Republic of Belarus, which appear to a greater extent not on the regional base but within regions. Despite the decrease of unemployment in regions, tight labour markets exist in a number of areas and small towns. One of the obstacles to their effective development is uneven territory distribution of the labour force and low labour mobility.

Besides, the brain drain outside the country has had a significant impact on the labour market, especially in the context of free movement across borders within the Common Economic Space. Against the background of the brain drain and workers outflow in connection with the retirement there has been a decrease in the prestige of blue-collar professions among young people.

To solve these problems it is advised:

- to modernize the labour market drawing on the experience of foreign countries,
- to attract skilled labour force from near and far abroad due to the current high unemployment among young and high-potential people secialists,
- to make more efficient use of labour potential due retraining, the creation of high-tech working places, the creation of conditions for high efficiency work,

- to achieve the interaction between enterprises (employers) and educational institutions in training of young specialists and its quality evaluation,
- to provide appropriate conditions and job and development prospects at the territory of the Republic of Belarus.

To solve the current situation there should be a step by step developed plan that will be corrected in the process of its implementation. One should begin with labor and production organization and with labour productivity workers' skill level development.

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FORMATION AND DEVELOPMENT OF ENTREPRENEURSHIP IN BELARUS

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In the article the importance of entrepreneurship for the economy, the formation of the definition of "business" are discussed. The definition of "enterprise" is given in accordance with the Civil Code of the Republic of Belarus, the stages of the development of small business in the economy of Belarus are identified. The formation of small business in 2012 is described.

Entrepreneurship is one of the most active forms of economic activity. The development of private business is usually associated with the formation and activities of small and medium-sized enterprises. The first postulates of the entrepreneur Adam Smith were formulated in the XVIII century. Such an individual is considered to have organized their own business, the profitability of which depended on the appropriate economic environment and began its implementation while it was being formed, which gave a certain degree of freedom and law: for choosing the type of economic activity, the acquisition and the use of resources, the order of the finished product, the profit and so on. [1, p. 147].

Over the time, this type of activity being modified, demanded a scientific explanation of emerging forms and subjects of business sectors. Because of the diversity of the objectives and priorities of economic schools and trends the identification of different concepts, borders has a conventionally accepted character. The history of economic development suggests that enterprise began with a small business, shopping and more precisely with usurious transactions. a number of key assumptions and factors contributing to the emergence of small businesses are highlighted. They are as follows [1, p. 340]:

1) the emergence of civil society and the rule of law;

2) the formation of the idea of personality, which is endowed from birth with a complex of inalienable rights, freedoms and interests which may come into conflict with the interests of society and the state;

3) the separation of property from the government and thus the economic power from the political one;

4) the formation and approval of ideas of an inalienable right for private property in the modern meaning associated with it ideas of economic freedom;

5) the separation of the economic, social and political spheres of life;

6) the emergence of market economy.

Summarizing the position of the theoretical concepts it can be pointed out that business occurs when there are two interrelated factors: economic freedom and a private initiative, combined with the ability to organize the process of economic activity. The main requirement here is to extend the freedom of man, which excludes their submission to the will of others and combined with the laws of society, as well as the autonomy of management decision-making in order to optimize and improve performance.

The system of market relations in small business acts as a form of entrepreneurial activity, which is characterized by distinctive features such as size, a number of employees, industry affiliation.

In accordance with Article 1 of the Civil Code of the Republic of Belarus, "Entrepreneurship – a self-sufficient enterprising activity of citizens, aimed at making profit or personal income and carried out on their behalf, at their own risk and under their own financial responsibility, or on behalf of, and under the financial responsibility of legal entity (enterprise). Entrepreneurship can take the form of self-employment, as well as various organizational and legal forms of enterprises (legal entities) [2].

In accordance with the Law of the Republic of Belarus "Concerning state supporting of small business in the Republic of Belarus" small businesses – legal entities – are companies and organizations with an average number of employees:

– in industry and transport – up to 100 people;
– agriculture and scientific and production – up to 60 people;
– construction and wholesale trade – up to 50 people;
– other branches of industrial sphere, public catering, consumer services and retail trade up to 30 people;
– other non-production sectors – up to 25 people [3].

In the history of the Belarusian small business the following steps have been made:

The first phase (1985-1987.) is characterized by the emergence and activity of the centers of scientific and technical creativity, temporary creative collectives in public organizations, a distribution team contract, a small number of participants in entrepreneurship and its experimental nature, of emotional and psychological foundations of entrepreneurship based on private property. This stage can be called experimental.

The second phase (1987-1988). During it the scale of small business expands, the number of people increases; enterprise takes on the character of an active movement. The purpose of the development of small business is the provision of the domestic market with consumer goods. This stage is called the stage of "cooperative movement." It served as an accelerator in the accumulation and redistribution of capital, allowed small business to acquire the basic knowledge, skills.

The third phase (1989-1990) is associated with the adoption of legislation aimed at strengthening small businesses. The preparations for the so-called small-scale privatization. It created the necessary basis for a real transition to a market economy, economic efficiency of the Belarusian economy. It was at this time that private enterprise was legalized. The development of the lease, which can be regarded as a feature of the Belarussian small business is of particular importance in this period.

The fourth phase (1991-1992) is characterized by the appearance of commercialization and medium-sized businesses. There have been fundamental changes in the state's attitude to the development of entrepreneurship. Many laws were adopted, which provided the opportunities for large-scale enterprise development.

1992 - the year of a shock therapy - characterized by the highest growth of small businesses (2.1 times) and the number of people employed in them since the mid-80s. This fact is phenomenal-functional by nature, as the implementation of the liberalization of prices and then the introduction of tax burden greatly undermined the financial base of small business. It led to stormy inflation, on the one hand, to the depreciation of savings of the population, and on the other – to a sharp increase in interest rates of a bank credit.

During the fifth stage (1993-1994) the large-scale privatization and development of all types of entrepreneurship took place, the emergence of many owners and intensive participation of small businesses in the service sector, trade, catering, light industry producing consumer goods and durables. However, at this stage the stimulation of the production of goods and services has not yet been provided.

The sixth stage. By 1995 extremely profitable niches and opportunities of trading and brokering have become almost extinct. Many problems small businesses faced in predominantly such spheres as trade, research and consultancy orientation led either to the cease of activity or changes of the direction of their activities.

The next stage of business development (7th stage) should be determined within the limits from 2000 to 2008. At this stage, the government is aware of the problem and the need for business development in our country, as reflected in the program of socio-economic development for 2001-2005 and 2006-2010.

In this period of public policy objectives in the field of development the need for the development of small and medium-sized businesses was declared in order to ensure greater efficiency and enhancing production, innovation, investment, and development of all types of businesses in rural areas. Since the fourth quarter of 2008, the economy of Belarus has faced significant challenges caused by the global financial and economic crisis. Belarus in its recent history as an independent state for the first time has faced such global problems [4, p. 45].

It should be noted that at the initial stage of the modern development of small business in the Republic of Belarus the concept of non-interference of the state was promoted. It was believed that the business itself finds its way all by itself. It was assumed that the market – is a self-regulating system and in the process of competition can get the same result as in the countries with developed market economies. Without considering in detail the period of development of business, it should be noted that this had a negative impact on the formation of the strategy and tactics of its development at the national level [5, p. 69].

In the mid-90s in the country measures to correct the situation and create favorable conditions for business and especially in basic industries have been taken. In the Presidential Decree of 19 July 1996 the Ministry of Business and Investments of the Republic of Belarus was established - the state management body responsible for the development of entrepreneurship. The development strategy of the business sector of the economy was formed – the acceleration of economic growth in priority areas, creating new jobs through increased investment activity and improvement of the organizational, financial and legal framework of entrepreneurship. The improvement of the regulatory framework has been done, measures to raise funds in this sector of the economy have been identified, the infrastructure of business support, there was developed and implemented a program of Entrepreneurship Training [6, p. 77].

Over the past few years, a growth in the number of small businesses state can be observed. In particular, the number of small companies in 2012 amounted to 82,612 the same (Fig. 1), which is 47,222 units more than in 2006.

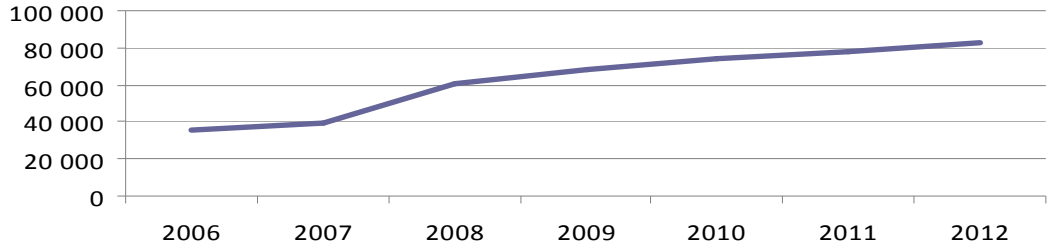

Fig. 1. Dynamics of small organizations in Belarus from 2006 to 2012

Summarizing the study, it should be noted that entrepreneurship in the economic development and social stability of society is a complex system that requires continuous improvement. In general, small businesses in the Republic of Belarus were developed in the early 90s and in the last decade they have turned into an independent and highly influential element of the market economy.

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THE ECONOMIC ESSENCE OF CASH EQUIVALENTS AS THE OBJECTS OF ACCOUNTING

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The establishment of market economy in the Republic of Belarus and the constant increase in the number of competitors in all areas of activity where cash equivalents are an integral part of the funds of the organization. At the moment, there is no serious and modern scientific development in the field of accounting relating to the economic substance of cash equivalents.

The establishment of market economy in the Republic of Belarus and the introduction of the Standard Chart of Accounts and Application Instruction № 50 (dated from 29.06.2011) led to the introduction of the term "cash equivalents" into the accounting and analytical work .

Cash equivalents are an integral part of the funds of the organization. They play an important role in assessing the organization liquidity.

"Cash equivalents" or "cash and equivalents" mean short-term investment securities that have both high creditworthiness and high liquidity.

Here are the main features of these securities:

- Low risk level;
- Low profitability.

The introduction of IFRS (International Financial Reporting Standards), the transition to the new economic system made by the Republic of Belarus requires the development of theory, methodology and practice of accounting being an information source for the management of cash and cash equivalents.

Studying the accounting issues of cash equivalents formation, the disclosure of their economic substance is of particular importance.

Many economists identify different characteristic features of cash equivalents. According to D. Volkov and D. Van Horn, cash equivalents are short-term investments [1, 2]. The same description to cash equivalents is given in the Instruction №111, IFRS 7 [3, 4]. It should be noted that investments with short maturity refer to cash equivalents [2, 3]. However R. Lyusyuk believes that cash equivalents are highly liquid investments. Incidentally, this point of view is supported by many other authors [5]. In Order №11 of The Ministry of Finance of The Russian Federation it is said that cash equivalents also are low-risk investments [6]. The Law of the Republic of Uzbekistan stipulates that cash equivalents include convertible investments [7].

However, some authors categorize cash equivalents as the value in terms of money (V. Shimov [8]) and goods (A. Azmiryan [9]).

It should be noted that the criteria for attribution investments to cash equivalents are a part of the accounting policies of the organization.

In this regard, the following criteria for attribution investments to cash equivalents can be marked:

- Short maturity (3 months from purchase date);
- Negligible risk;
- Cash settlement and transfers on the road do not apply to cash equivalents.

However, investments in other companies' shares do not attribute to cash equivalents. At the same time, these include: preference shares, acquired shortly before maturity, bank overdrafts (under certain conditions), treasury bills and bonds, the transaction valid for 1 day.

After examining the opinion of economists and legal acts, the author believes that the following issues should be understood under cash equivalents: highly liquid, low-risk, convertible short-term investments having a maturity period of not more than 3 months from the date of purchase.

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PRINCIPLES AND METHODS OF COMMERCIAL LOGISTICS

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In this article the author considered and analyzed the principles of logistics and commercial mediation, resulting in the identified principles of commercial logistics. By analogy, the methods of logistics have been studied, analyzed and projected onto a commercial logistics.

In a previous study we have shown the author's definition of commercial logistics as logistics section, that organizes effective management of commodity and related financial, information and service flows in the area of commercial mediation in the process of promoting products and services from the production sphere to the consumption sphere [1, p. 135]. But the study of only the economic essence of the term cannot give a complete idea of how it works. So, for the full understanding of commercial logistics functioning in commercial enterprises, it is necessary to study the principles and methods it is based on.

In the study of economic literature it was revealed that nobody highlights the principles of commercial logistics, as such, but they are associated with the principles of logistics and commercial mediation. So, we give below the principles of logistics in general and commercial mediation and define the principles of commercial logistics.

The main principles of commercial mediation are [2]:

– close relations of commerce with the principles of marketing;
– the ability to foresee commercial risks;
– flexibility of commerce that is focused on the accounting of the ever-changing market demands;
– the selection of priorities;
– drive for final results - profit;
– responsibility for the implementation of adopted obligations under the commercial transactions;
– the display of personal initiative.

The logistics principles include [3]:

1. The principle of rationality. A characteristic feature of the development of the logistics enterprise system is the choice of the most appropriate option of logistics system. Managerial decisions that are the best (optimal) in the range of indicators for given conditions are chosen. The challenge is not to find better solution that exists, but to find the best solution of all possible solutions. From the point of view of rationality you can evaluate not only the level of the quality of decisions that you make (the optimal solution of the problem, the optimal plan, optimal control), but also the state of the logistics system and its behavior (the optimal trajectory, the optimal resource allocation, optimal functioning of the storage system).

Universal principle of optimization: the decision is always taken in such a way that rational achievement of the goals of the enterprise logistics system is carried out due to the selected ratio of costs and achieved results.

2. The principle of integrity. The larger is the enterprise logistics system and the larger is the difference in size between the part and the whole, the greater is the probability that the properties of the whole may be very different from the properties of the parts. Mismatching of local optima purposes of individual parts to the global optimum purpose logistics system of the enterprise is possible. Any logistics system must be considered at first at the macro level, i.e. in the interaction with the environment, and then at the micro level.

Sum of the optimal decisions made by employees of individual structural functional departments of the enterprise, does not guarantee the optimization of enterprise logistics system as a whole. In such a way the integrity is the character of logistics system to perform a given target function realized only by the system as a whole and not its individual elements.

3. The principle of systemacity. The principle assumes approach to the logistics system as an object represented by a set of interconnected private elements (functions), the implementation of which achieves the desired effect in the required time, for the necessary human, financial and material costs, with minimal damage to the environment. The principle of systemacity assumes research of logistic object on the one hand, as a whole, and on the other hand, as part of a larger system, in which the object is analyzed in certain respects with the other systems. In such a way the principle of systemacity covers all sides of the object and the object in space and time.

4. The principle of hierarchy. Hierarchy is a method of subordination of dependent elements according to the hierarchy stairs and the transition from the lowest level to the highest level. Hierarchy is the type of structural relations in complex multilevel logistics systems characterized by ordering and organization of interactions between different vertical levels. Hierarchical relations take place in many logistics systems, which are characterized by both structural and functional differentiation, i.e. the ability to implement a certain range of logistics functions. And at higher levels the functions of integration and coordination are exercised.

Hierarchical structure of logistics systems caused by the fact, that the management of them is related with using and processing of large amounts of data. At the lower levels it is used more detailed and specific information, covering only some aspects of the functioning of logistics system. The higher levels serve generalized information that characterizes the operating conditions of the whole logistics system; at these levels decisions are made on the logistics system as a whole. The hierarchical structure of logistics systems is not absolutely rigid. It is connected to a hierarchy which is combined with more or less autonomy of lower levels with respect to the overlying layers. In the management of logistics systems inherent to every level possibilities of self-organization are used.

5. The principle of integration. Integration means the union in the whole of any parts or properties. The principle of integration aims to study the integrative properties and laws in logistics systems. Integrative properties are manifested as a result of combining elements to a whole, combining the functions in time and space. Logistics system as an orderly set of elements with definite connections has special system properties, that are not natural to the individual elements and allows you to get a synergistic effect.

The synergistic connection is the connection which upon joint actions of independent elements of the logistics system provides a common effect exceeding the sum of the effects of these elements, acting independently i.e. the increasing connection of the elements of the system.

Synergy:

– the effect of mutual reinforcement of relations of a system with the other at the level of material flow;

– the joint (corporate) effect of the interaction of elements in the system.

Synergistic effect is the effect of the combined actions. For example, rotor-conveyor lines combine the functions of transportation and handling.

6. The principle of formalization. Formalization assumes reception of quantity and quality characteristics of functioning of the logistics system.

After studying the principles of commercial mediation and logistics, it was found that these principles are similar, namely:

a) the principle of rationality = the principle of the selection of priorities;

b) the principle of integrity = the principle of flexibility of commerce that is focused on the accounting of the ever-changing market demands + the principle of achieving the main objective of commercial organization (profit maximization);

c) the principle of integration at the commercial mediation implies a close connection of the activity with marketing, forecasting commercial risks, etc. (Table 1).

Based on the foregoing 4 principles of commercial logistics should be identified:

1) the principle of rationality;
2) the principle of integrity;
3) the principle of integration and systematicity to achieve the synergetic effect;
4) the principle of expression of personal initiative. This principle is reflected in the fact that the commercial logistics is a commercial intermediary activity, which is such an activity that requires a manifestation of personal initiative of all participants of the trade organization in order to maximize profit.

Table 1 – Principles of logistics and commercial mediation related to commercial logistics

Principles of logistics	Principles of commercial mediation	Principles of commercial logistics
the principle of rationality;	the principle of the selection of priorities;	the principle of rationality (or of the selection of priorities) helps commercial enterprise to choose the most profitable supplier in terms of cost, distance and reliability;
the principle of integrity;	the principle of flexibility of commerce that is focused on the accounting of the ever-changing market demands;	the principle of integrity helps the commercial enterprise to organize its logistics system in such a way that regardless the changes in demand for the product to receive the maximum possible profit due to unity (integrity);
	the principle of achieving the main objective of commercial organization (profit maximization);	
the principle of integration;	the principle of close relations of commerce with the principles of marketing;	the principle of integration is reflected in the connection of the commercial activities of the commercial enterprise with marketing, forecasting and so on.
	the principle of the forecasting commercial risks;	

Source: own study based on the study of economic literature.

Having defined the principles of functioning of commercial logistics, we'll consider the methods by which this section of logistics operates.

During the research it was found that due to the fact that commercial logistics is a new separate area of logistics, it is difficult to identify not only its principles but also the methods. Therefore we will conduct the analysis of the methods of logistics in general and then project them on commercial logistics.

Methods of logistics are the ways of influence on the managed object for the purpose of effective and efficient logistic solutions at the enterprise [4]. The main methods of logistics are given in the table 2.

Table 2 – Methods of logistics and their essence

Methods	The essence of the method
the method of system analysis;	relies on general theory of systems in accordance with which any supply chain with moving along it perforating flows is a sophisticated economic system;
the cybernetic method;	based on the information approach to the investigation of the processes of the management of logistics operations;
the methods of economical and mathematical modeling;	widely applied in distribution logistics in cause to the complexity of the implementation of sales activity and the need to logical modeling. By the way, ABC- and XYZ-analysis are widely used in distribution logistics;
the method of operations research;	applied at allocation of limited resources of the organization in order to optimize the amount of inventories at the complex network planning of logistics systems for the optimization of delivery schemes of products etc. For example, the use of the method of operations research in production logistics allows to distribute the field of operations between the individual pieces of equipment, production units or strategic business-units in such a way that the overall total profit was maximal;
the method of forecasting;	is one of the key methods of logistics and allows to forecast tendencies of development the various systems in dynamics, relying on evidence-based approaches to decision-making.

Source: own study based on the study of economic literature.

Based on the methods of logistics listed above, we can project the following methods onto the commercial logistics:

1) the method of system analysis;
2) the methods of economical and mathematical modeling;
3) the method of forecasting;
4) the method of operations research.

The essence of the method of system analysis in commercial logistics lies in the fact that the field of commercial mediation implies a management of the system directed on processing, transfer, storage and sale of goods and services. Such a system requires a systematic approach to identify all possible risks and losses as well as gains.

The methods of economic and mathematical modeling are also projected on commercial logistics because commercial enterprise needs to know how much profit any type of product can bring and so on.

Without the method of forecasting the existence of trade organizations is useless since the trade organization is directed on reception the maximum possible profit from implementation of its activities. Without forecasting, the firm is unable to foresee the possible increasing or, conversely, decreasing of profit for the next or current period.

The essence of the method of operations research in commercial logistics is that in the trade organization all conducted operations should be clearly divided and regulated to minimize time costs, and it is very important in today's economy.

Having determined the principles and methods of commercial logistics, we can say that commercial logistics, just like any other sphere of logistics, is based on the theory of logistics as a field of science. However, due to its focus on the optimization of commercial activity the theory of commercial mediation should also be considered and it was done in this paper.

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THE THEORETICAL MODEL OF REGIONAL COOPERATION BETWEEN LITHUANIA AND BELARUS

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The article discusses the theoretical issues of possible economic cooperation of Lithuanian border regions and Belarus, belonging to different economic associations of the EU and the Eurasian Union (EAU). Each economic system and proven ways of managing it has its advantages and features, which can provide a synergistic effect in improving the welfare of neighboring regions, to increase their relative share of the national budget, while maintaining "ceteris paribus" on many other parameters.

Lithuania and Belarus are two states, which have been close geographically for centuries. By the will of God in different periods of time and in different political configurations, the two territories that merge into one state, then again divided into two, came at the present time of spring 2015 to the following parameters:

A) geographically – the countries share a common border at 677 km, that makes about 39% of all Lithuanian border and about 23% of all Belarusian border, the Belarusian area is larger than that of Lithuania about 3,2 times, population approximately by 3,5 times. Border regions of Lithuania with Belarus are its nine eastern regions of Zarasai, Ignalina, Švenčionys, Vilnius, Šalčininkai, Varėna, Druskininkai and Lazdijai. Totally they make up 18.6% (12,132 square kilometers) of the territory of Lithuania, and by number of population 8,7 % of the total population of Lithuania or 255,1 thousand people at the beginning of 2014 (Lithuanian Department of Statistics, 2014);

B) politically - relate to the EU and the Eurasian Union;

C) economically - to countries with a market and partly controlled economy.

Optimization issues of regional cross-border cooperation at the junction of different economic unions and comparative evolution of the Baltic States welfare in the EU

We know that the greatest breakthroughs occur in interdisciplinary sciences or at their junction from the natural and social sciences. Thus, Lithuania and Belarus have a unique opportunity to test in practice the synthesis of state regulation and the free market to achieve breakthrough solutions and patterns of interaction in regional cooperation to improve competitiveness, employment rate and welfare of the population.

Each party can use positive sides – Belarusian – first of all an administrative resource through lending, in energy resources and enterprise creation focused at sales markets in the Eurasian Union – Lithuanian regional administrative power in the establishment of city core enterprises, aiming at markets sales within the country and the EU. In fact, the model of creating joint ventures is offered. This model has state-private capital for the purpose of diversifying markets by obtaining customs preferences and ensuring the increased employment of the population of border regions as well as reducing its migration and emigration. Regional and central Lithuanian authorities will have to challenge themselves and answer a simple question – what is better – or by use of the target program of regional cooperation with Belarus to create in the foreseeable future – for 5–10 years "n" number of jobs or to spend and continue to receive from the central authorities transfers for payment of social and other types of benefits to residents.

Why do these questions appear? Tables given below show that as separately taken regions on border with Belarus lag behind the average Lithuanian indicators. Cumulative figures of all the Baltic countries are close to those of our selected countries only on percentage. This gap is only increased during the 8-year period, except for the index GNI per capita PPP with the Benelux countries, Sweden and Finland.

Table 1 – The main economic indicators of the two border counties to Belarus – Utena and Alytus. (Lithuanian Department of Statistics, 2014)

Municipalities	Year	Year	Year	Year
	2000	2004	2010	2013/2014
Utenos County				
Population compared to Lithuania, %	5,4	5,3	5,0	4,9/4,8
Unemployment rate, (in Lithuania), %	<15,4(16,4)	>12,3(11,4)	>21,3(17,8)	>22,6(13,2)/16,8(11,8)
Employment rate (aged 15-64), (in LT), %	<54,9(58,7)	<57,8(61,1)	<53,9(57,8)	<55,6(62,2)/58,1(63,7)
GDP per capita compared to avarage, %	87,8	86,8	77,5	74,9/64,9
Share of GDP created by county, %	4,7	4,5	3,9	3,7/3,2
Export of goods produced in Utenos county compared to Lithuania, %	2,9	2,5	2,0	1,8/2,0
Alytus County				
Population compared to Lithuania, %	5,4	5,4	5,2	5,1/5,1
Unemployment rate, (in Lithuania), %	>18,4(16,4)	>16,0(11,4)	<17,2(17,8)	>14,7(13,2)/16,8(11,8)
Employment rate (aged 15-64), (in LT), %	<55,5(58,7)	<55,0(61,1)	<57,1(57,8)	<59,4(62,2)/59,2(63,7)
GDP per capita compared to avarage, %	81,4	69,1	65,6	65,8/64,5
Share of GDP created by county, %	4,4	3,7	3,4	3,4/3,3
Export of goods produced in Alytus county compared to Lithuania, %	4,9	3,4	2,3	2,2/2,2

Note: > over the country avarage, < less the country avarage. Calculated and composed by author.

Table 2 – Absolute and percentage difference between Baltic States and some other countries and countries groups in 2004 and 2012 (The World Bank, 2014).

Indicators	Benelux 2004/2012 (current US$)	Finland, Sweden 2004/2012 (current US$)	Germany 2004/2012 (current US$)
Absolute difference			
GNI per capita, Atlas method	- 28.452/- 32.701	- 29.948/- 38.119	- 24.688/ - 29.846
GNI per capita PPP	- 20.950/- 19.574	- 19.086/ -19.077	- 17.408/- 19.412
GDP per capita	- 30.207/- 31.360	- 29.411/ - 36.996	- 26.226/ - 27.218
Percentage share of the Baltic States from the share of other countries			
Percentage difference	%	%	%
GNI per capita	17,6/30,6	16,8/27,4	19,7/32,6
GNI per capita PPP	37,4/53,8	39,6/54,5	41,8/54,0
GDP per capita	18,4/31,9	18,8/28,4	20,6/35,0

Source: composed and calculated by author.

Definition and motivations of competitiveness.

It is obvious that in a market economy all enterprises must operate under the conditions of competitiveness.Competitiveness in its turn is determined by the availability of opportunities and motivations of its participants.

Competitiveness, however, is a global definition, and the level of preparation of national economies for participation in the global market is different. Therefore those tools which are good for developed economies, aren't always suitable for many sectoral branches of the developing economies or for sectors of the economies producing products with a little added value.

Narrowing the term competitiveness for individuals, all other invariable requirements for goods, which in a certain price corridor will be purchased only while maintaining its quality parameters, the main emphasis has to be put on its price competitiveness or ratios of the price of goods in a national and international context.

In such a way price competitiveness, i.e. the level of the exchange rate and the cost of labor and the role of authorities in creating the optimizing conditions for receiving higher value-added by legal entities and individuals in the area are considered as the determining factors of competitiveness at an output of products and

services on a local, regional and global markets, because in the case of failure will be an outflow of national and foreign currencies with the same markets (Markevičius, N., Podviezko, A., 2014).

The main factors in raising or lowering the foundations of the entire spectrum of competitiveness are the state, individuals and legal entities. Let us consider motivation of each of these participants.

The first motivation of the state is increase of well-being of the population as in this trend it strengthens belief of the population in the state professed economic ideology based on different degrees of state intervention in daily economic life.

The second motivation of the state is to fulfill social obligations in each region, which is associated with a certain level of availability and regional infrastructure development.

The third motivation of the state is to collect taxes and payments to the budget. And here the state has more choice and levers of influence establishing various mechanisms replenishment of the budget. The fundamental fact is that the more affluent areas with all other things being equal pay higher absolute amounts.

There may be found more motivations. Fundamental fact is that to maximize the profitability of the region for the state correlates with its political and social stability. As a rule aggravation of social stability is the result of tactical or strategic setbacks or failures in the political and economic doctrine.

Motivation for individuals is the real income from their labor activity which in the short and long term allows them to link their fate with this region. By this motivation the proportion of labor and rest relates, the opportunity to earn more than the average and additionally, the quality of health care, the availability of childcare facilities, schools and institutions of higher education, opportunities to improve their living conditions as a result of fiscal and monetary policy of the state.

Motivation of legal entities is to maximize profits or the income of the enterprise under the partnership with the state in the solution of social issues.

Social responsibility of business along with profit maximization more often becomes the subject of research in the XX-XXI centuries. Some enterprises have already paid more attention to this phenomenon, such as „The Nobel Brothers Oil Production Partnership company" (Bessolitsin A., 2012) which pursued such policy in Russia already beginning with turns of 19-20 centuries.

The enterprises can work on local, regional and international markets. Their motivation should be to increase the competitiveness of both in order to expand into new regional and international markets, as well as increasing the share of sales in the local market, including by minimizing costs. In other words, the motivation of local entities should be to increase marginal profit and marginal revenue, which will synergize both the income of legal persons and local budgets.

Monitoring theoretical reflections

Synthesizing everything it is possible to make the following generalizations.

The role of the state for the developing economies is defining. The policy of deregulation and a non-interference policy like laissez-faire is good, speaking in images from the level when "spacecraft", in our case the enterprise, already took to the competitive orbit. In this regard the government can maintain the motivation of individuals and entities by selling their shares in their own companies or to stimulate the creation of new businesses and related workers the same state-owned enterprises. In other words to create clusters based on large state-owned enterprises, suggesting that their marginal costs will be minimized, and the marginal profit will be maximized, because marginal motivation will be increased for new legal entities and individuals. Thus the state will be able to release them in "free floating" reducing its paternalism through budget transfers in the process of formation of more and more competitive regions. Such a mechanism is more efficient for economies with greater state regulation, because for more liberal economies the state has less leverage.

In this context, theoretical and pragmatic steps to promote such cooperation between Lithuania and Belarus could become a pioneering example of cooperation on the European continent of the countries with different economic systems conventionally and establish synergistic effects to eliminate the large gap in GDP per capita both between the old and new member countries EU as between the EU and the EAC regions.

1. Lithuania like any other economy operating on modern market constantly faces the dilemma: to cooperate or to compete with other countries. Lithuanian economy convergence into an integrated economic space of the EU based on the classical theory laissez-faire seems exhausted as separately because of small economy in the country does not have real tools to overcome and reduce the absolute gap with developed countries. Sharing the close geographic area, common history and similar problems, it faces this problem on a steady basis and has to decide how to solve every new challenge: in cooperation for example with Belarus, or competing with it.

2. By the definition of the EU, if the basic parameters of this or that region make less than 75% of the average, then this region needs intervention.

3. It can be concluded that within 14 years, the regional economic policy in the border regions located between the border with the country not a member of the European Union (with Belarus) aimed at improving the welfare of the local population is undergoing collapse and is absolutely not effective.

4. The basic economic problem facing these regions in such locations with similar economic development and of similar size to Lithuania is that their economies can not compete qualitatively and quantitatively neither in the EU market nor the markets of other developed economies and therefore require access to markets with less competition.

5. The comprehension of that fact that without manufacturing, the generated added value of the enterprises there cannot be any growth of well-being of the nation should push the governments and local athorities towards the creation of such conditions, which could be able to adopt the theory of cross-border competitiveness.

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THE STREAMS OF THE SUPPLY CHAINS IN THE CONSTRUCTION SPHERE

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Supply chain management is one of the concepts taken from other industries and interpreted to suit the construction industry in order to bring improvements within the industry. A recent emphasis is laid on the integration of the whole supply chain because of the fragmented nature of the industry, and the large number of participants involved in a project development process.

This paper presents further analysis of economic flows existing in the construction supply chains and having their own specific nature.

The construction industry covers all aspects of building, civil engineering and the process plant industry and encompasses the planning, design, construction and maintenance of building and other physical structures (Cox, Ireland, Townsend, 2006). Besides, the construction field of national economy promotes activation of real sector work stimulating the work of metallurgical, machine-building, agro industrial sector, transport and etc.

But diversified modern hi-tech construction industry cannot anymore be successfully organized by means of traditional management and marketing principles. In postindustrial economy inconsistency of customers, builders and investors' interests leads to considerable social and economic losses. To avoid these losses or at least to minimize them, the supply chain management (SCM) in construction industry is conceived as an essentially new direction in the management organization of economic flow systems.

The supply chain (SC) is the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of consumer (Christopher. 2005). Each stage in a supply chain is connected through the flow of products, information and funds (Chopra, Meindl, 2010). Universal character of SC toolkit allows receiving effect from all economic resources. Today methodological bases of SCM are used for optimization of cargo transportation, rationalization of products flows, financial cooperation, information coordination and many other things in economy spheres. The SCM should also be used and implemented in construction sphere.

The formation of construction SC within the limits of uniform flow process of materials and information movement between all participants of construction complex according to technology of building manufacture, taking into account mutual relations between suppliers of resources, customers, builders and investors and as much as possible approached to industrial consumption is the main idea of SC activity in construction industry.

The process flows management has particular complexity and variety of commercial communications between customers, general constructors, subcontractors, designers, logistical providers, investors, as well as large quantity of product positions of building materials and completing equipment. The absence of highly-skilled personnel strongly affects the results of the construction industry activity. All the above lead to numerous idle times, failures to meet terms and conditions and poor quality of executed work.

Theoretical and methodological basis of construction supply chain is flow processes penetrating building field and having various nature. SC application allows displacing accents from management of building manufacture to management of economic streams. The basic object of supply chain management is the material stream which is inseparably linked to financial and information streams.

It is possible to unite the material, financial and information streams penetrating building field and name them *economic ones,* i.e. representing the ordered sequence of the interconnected events proceeding as uniform economic process. Also it is possible to understand a variety of resources and products of economic system as *an economic stream.*

From the point of view of the microsystem *an economic stream* is considered as a set of homogeneous economic elements moving from a source of occurrence (manufacture) to destination within the limits of certain economic system with parameters set to this system.

Further we will consider principal views of economic streams in construction SC more detailed.

We will consider material stream as a product considered in the course of applying various logistical operations to it and executed within a particular time interval. It is characterized by such parameters as nomenclature, assortment, quantity of production; dimensional characteristics (volume, the area, the linear sizes); weight characteristics; physical and chemical features of cargo; the characteristic of container (packing); conditions of contracts of purchase and sale (transfer to the delivery property), transportations and insurance; financial characteristics; conditions of performance of other operations of physical distribution; connected with production moving etc.

The management of material streams in construction is impossible without reception and processing of the timely and qualitative information. The data set of operations is formed by information streams. Information streams are messages (information) used by all members of the supply chain and processed by it for performing operations (including those with raw materials, building materials and an end product).

Thus, each physical stream is connected by information streams. Information streams can be either electronic or paper, and can be characterized as movement: (1) from system to system; (2) from system to person; (3) from person to system; or (4) from person to person. Clearly, there can be the interconnection of these methods of communications.

The role of information streams is considerably increasing in modern economy for the account of:

– occurrences of computer technologies, allowing to synthesize all subsystems in a single whole;

– necessities of self-descriptiveness increase about the order status, goods presence, terms of delivery, shipping documents etc., as necessary element of *logistical service*;

– requirements on increase in flexibility of logistical systems, first of all at the expense of fuller and more qualitative information.

Efficient control of the information streams and material ones connected with them depends on the level of their financial maintenance. It generates a financial stream which is in logistics named as the directed movement of the financial assets circulating in SC, and also between supply chain and an environment, necessary for maintenance of effective movement of a certain stream.

The important question is optimization of economical streams which having summed up it is possible to understand interconnected and correlative processes of movement of resources of construction supply chain participants for achievement of the put business purposes. The basic participants of the construction SC in the building business are suppliers of raw materials, manufacturers of building materials, building organizations (constructors), customers, designers, retailers, investors, intermediaries, the end users and others.

In Figure 1 you can find the set of material and financial flows existing in construction industry.

Describing presented construction SC and flows existing in it we can specify the following points:

1. In the presented picture there are a lot of links of construction SC which interconnect by various forms of material and financial streams. We can see material stream can exist as raw materials, building materials, building objects, construction works and reused building materials. Financial stream has the forms of income and investment sources.

2. In the construction SC the retailers are realtor agencies. But in some construction chains there are no retailers. In this case the end consumers connect with customers presenting state committees or state enterprises which build houses for inhabitants who have privilege of getting house or for own plant employees.

3. In some construction SC there are no intermediaries when manufacturers have opportunity to warehouse existing building materials on their own areas or there is just-in-time system between manufacturers and constructors.

4. Sometimes customers of a building object can get investment sources directly from banks.

One of the major problems of economic streams management forming the supply chain in the building field is coordination of logistical functions, the coordination of the purposes of all participants of the chain and the search of ways of interface of their interests.

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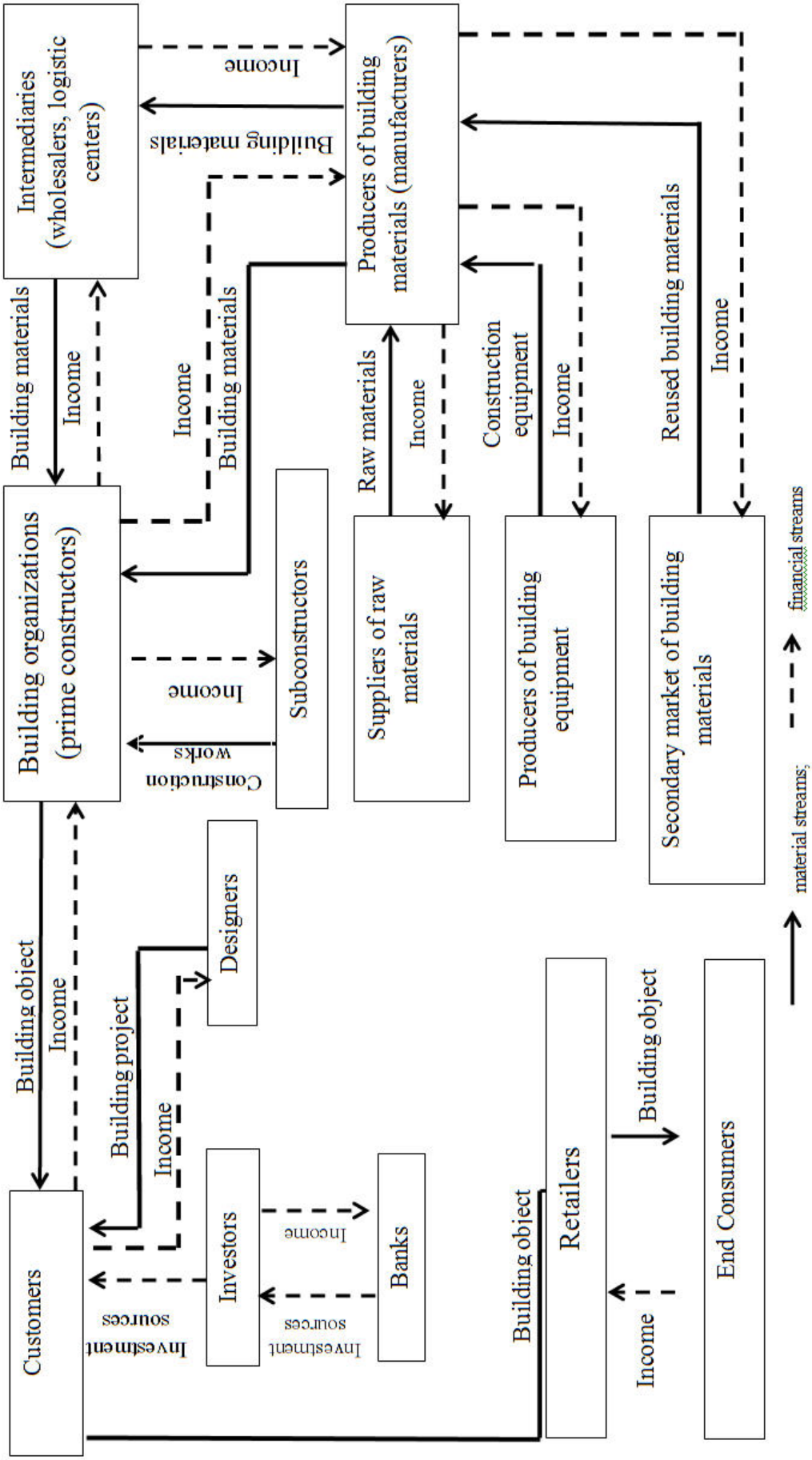

Fig. 1. Material and financial streams in the construction supply chain

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UDC 657

DETERMINATION OF ECONOMIC ESSENCE OF MINERAL RESOURCES AS OBJECTS OF ACCOUNTING

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Sustainable development of the Belarusian economy is impossible without balanced reproduction and use of mineral resources. However, the content of accounting and analytical information does not always correspond to the requirements of their effective control due to the lack of integrated development of the field of accounting. An integrated approach to the study of accounting issues of the field development, including the definition of objects of accounting requires, above all, clarifying the scientific terminology. In this regard, the economic substance of the concepts of "minerals", "stocks of minerals", "mineral resources" and "mineral raw materials" is investigated in the article. It is argued that the objects of accounting are mineral resources (stocks of minerals).

The development of the geological industry and the expansion of the mineral resource base of the Republic of Belarus provides for the need for further exploration and preparation for the commercial development of mineral deposits. However, the content of accounting and analytical information does not always correspond to the requirements of their effective control due to the lack of integrated development of the field of accounting.

An integrated approach to the study of accounting issues of the field development, including the definition of objects of accounting requires, above all, clarifying the scientific terminology.

In the legislative and regulatory documents of various countries, IFRS literature on mineral resources are different, sometimes contradictory concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials".

Thus, according to the Code of the Republic of Belarus "On Subsoil" minerals are understood as "... contained in the bowels of natural mineral formations of inorganic or organic origin, which are solids, liquids or in gaseous state, and the chemical composition and physical properties allow their industrial and other economic use in natural form or after pre-treatment (purification, enrichment). Mineral raw materials are minerals extracted from the depths and subjected to primary processing (cleaning, enrichment). Similar treatment of the concepts of "minerals" and "mineral raw materials" is contained in the Code of the Republic of Moldova "On Subsoil", the Law "On Subsoil" of the Republic of Uzbekistan, the Mining Law of Ukraine, in the publications of a number of authors, in particular I.V. Sergeyev, G.V. Sekisov, M.M. Yumaev, N.A. Syrodoev.

The opposite view, according to which minerals are treated as products of mining industry contained in mined from the depths of the mineral raw materials, is presented in the Law of the Republic of Kazakhstan "On Subsoil" and the Tax Code of the Russian Federation in the works K.V. Papenovoy.

The third approach to the terms "minerals" and "mineral raw materials" includes the identity of these concepts [1, 2].

In addition to the terms "minerals" and "mineral raw materials" in literature and legal acts of different countries the terms "mineral resources" and "stocks of minerals" are used. There are also differences in the definition of these terms.

One group of authors consider mineral resources narrower than minerals, namely as part of the minerals, that is quantified by geological studies and geological exploration.

In the other sources mineral resources are identified with the term "minerals" or the term "stocks of minerals. In this case categories "minerals" and "stocks of minerals" are not identical in many sources.

Analysis of the definitions of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials" set out in a special economic literature, as well as laws and regulations of different countries made possible to identify the key features of each category.

However, in our view, we can only talk about the possibility of using of predictive minerals. Real, proven ability to use arises as a result of geological exploration and evaluation. However, the distinguishing feature characterizes the different concept – "stocks of minerals". Analysis of the concept of "mineral resources" showed that the sign of exploration and evaluation ("explored and preliminary estimated", "calculated") is segregated in its definition or the characteristics possible only on the basis of assessment ("economically significant", "commercially reasonable ") are provided.

Thus, in our view, "stocks of minerals" and "mineral resources" are identical categories and they are minerals the use of which is proved on the basis of quantitative assessment.

In accordance with most approaches to the definition of the concept of "mineral raw materials" it is understood as minerals extracted from the bowels. That is, the distinguishing characteristic of this category is extraction from the field. It should be noted that the mining company will directly extract quantified minerals, that is, the use of which is proved.

Based on the above we represent the features of the concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials" in Table.

Table – The characteristic features of the concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials"

Notion	Distinguishing features			
	Location		Ability to use	
	occurring in the mine field	extracted from the mine field	prognostic	proved
Minerals	+		+	
Stocks of minerals	+			+
Mineral resources	+			+
Mineral raw material		+		+

Thus, from the economic point of view, the minerals are those lying in the depths of the prognostic natural mineral formations of inorganic or organic origin, their presence and the possibility of economic use is expected with varying degrees of probability. The concept of "natural resources" should be viewed broader than the concept of "mineral resources" ("stocks of minerals"). Since the latter are identified and quantified minerals, that is, the possibility of economic use of these resources is proved. In turn, minerals are those extracted from the bowels of the identified and quantified minerals.

Key features of the studied concepts presented in Table 1 suggest that part of the identified mineral resources after the exploration and evaluation of mineral resources are transformed into (stocks of minerals), which in the process of production go into mineral raw materials.

However, it should be noted that minerals cannot be identified as the accounting objects. This is because minerals are inferred resources that are not quantified and their presence is expected on the basis of geological assumptions and (or) the analogy with known deposits, i.e. they are hypothetical in nature.

Unlike minerals, mineral resources (stocks of minerals) are clearly identified.

Thus, exploration and evaluation of mineral resources (stocks of minerals) is carried out by the subsoil user at the specific field, i.e. the subsoil obtained on the basis of mineral rights. That is, each field has individual characteristics (in the form of documentary evidence), distinguishing it from the other objects in their physical and legal parameters. These signs are recorded in the passports of deposits and occurrences of minerals produced for State Cadastre bowels. For each mineral deposit information describing the location (region, district, coordinates, absolute mark above sea level, the name of the nearest station, pier village showing the distance and direction to the field), the quality and quantity of the main minerals and mineral together with it lying with assignment of cadastral number shall be contained [3].

Presence of clearly identified signs of mineral resources (stocks of minerals) suggests the possibility of viewing them as objects of accounting. Consider this hypothesis from the point of view of the theory of accounting.

Mineral resources (stocks of minerals) can serve as the organization's assets, if they meet the relevant criteria of an asset.

Thus, in the Republic of Belarus in accordance with the Law "On Accounting and Reporting" assets are understood as "property that arose in the organization as a result of a business transaction from which the company expects to obtain economic benefits".

Thus, in the Republic of Belarus signs of an asset are the following:

1) the existence of property rights to the object, that is, the right of possession, use and disposal (property rights);

2) the availability of economic benefits.

In accordance with Article 5 of the Code of the Republic of Belarus on subsoil mineral resources (stocks of minerals) are the exclusive property of the state. In this regard, under the laws of the Republic of Belarus mineral resources (stocks of minerals) are a necessary prerequisite for the functioning of financial extractive industries, an important means of production, they can not act as an asset in the balance sheet of the mining companies that we believe violates the requirement of substance over form.

It should be emphasized that the requirement of substance over form contains "Basis of Preparation and Presentation of Financial Statements": If the information is to represent faithfully the transactions and other events, it is necessary that they are accounted for in accordance with their substance and economic reality and not merely the legal form". The principle of substance over form fixed by the Law "On Accounting and Reporting" of the Republic of Belarus, the legislation of the Russian Federation and other countries.

The lack of mineral resources (stocks of minerals) of developing deposit in the balance of extractive industries does not only distort the information on the resources and economic potential of the organization, but does not integrate the accounting system with the system of national accounts.

Currently mineral resources (stocks of minerals) are included in the economic assets (AN212 mineral and energy reserves) in the international system of national accounts [4].

In Belarus, the economic value of mineral resources (stocks of minerals) is not reflected in the national accounts as non-produced assets (land, subsoil, water resources, patented entities, the notional value of business relationships and reputation, etc.) and values are not included in asset boundaries [5]. However, data on mineral resources (mineral reserves) are reflected in the state balance of minerals and geothermal resources of the subsoil, but they are only accounted for in quantitative estimation, that does not allow to build a system of cost accounting of mineral resources (stocks of minerals) in accordance with the SNA requirements.

It should be noted that mineral resources (stocks of minerals) are part of the national wealth of each state, but now in Belarus, they are not only taken into account by economic entities, but also in general excluded from the national wealth.

Statistical measure of national wealth of the Republic of Belarus provides only "a set of accumulated wealth created by the labor of people that society has at any given time."

The accounting system should not only generate information to reflect the mineral resources (stocks of minerals) of Organizations of the Republic of Belarus in the SNA and the composition of the national wealth, but also include consideration of their exhaustion. This will provide the necessary information base for the calculation of the macroeconomic indicators of sustainable development (net domestic product, index adapted net savings, etc.), that characterize the relationship between the quality of the environment, depletion of natural resources and economic growth.

However, as noted above, under the current legislation of the Republic of Belarus mineral resources (stocks of minerals) cannot be included in the asset composition, as the exclusive ownership of them is state-owned.

Methodological principle of the theory of static accounting based on the legal concept of protection of the rights of creditors is a prerequisite for the balance sheet display only assets for which there is ownership.

The fundamental purpose of static accounting is identifying opportunities to pay off debts of the enterprise by its assets, therefore reflection of the balance of values which do not constitute proprietary rights in the asset is admitted impossible.

Dynamic theory of accounting was accepted in the definition of asset in the IFRS. It is based on the opposite methodological principle: all applied assets regardless of their ownership including rented, used on the rights of ownership and use are recorded in the balance. This theory proceeds from the purpose of identifying the financial results and the effectiveness of current activities. As it is pointed out by J. Richard, "dynamic theory in regard to the asset appears the antithesis of the static theory, since it does not take into account such a thing as property (in terms of its impact on the balance)".

The need of balance sheet display of all used natural resources both belonging and not belonging to the organization of the right of ownership is noted in the writings of domestic and foreign scholars such as S.G. Vegera, A.P. Shevlyuk, T.S. Semenov, Y.V. Altukhova, V.G. Shirobokov, I.V. Makunina.

Thus, the need of accounting treatment of mineral resources (stocks of minerals) with the purpose of accounting of the resource potential and its depletion, and subsequent integration of this information into the system of national accounts for the reliable determination of the index of national wealth and the calculation of macroeconomic indicators for sustainable development of the country allows for the conclusion about applicability of the provisions of the dynamic concept for reporting mineral resources as part of the organization's assets.

Based on the foregoing mineral resources (stocks of minerals) that meet the criteria of the asset in its dynamic interpretation (in accordance with the dynamic theory of accounting) fit in objects of accounting:

1) that are controlled by entity;

2) from which economic benefits are expected.

Thus, the inclusion of mineral resources (stocks of minerals) in asset composition will allow mining companies to disclose the resource potential and its depletion, that in turn will provide the necessary information base for reliable determination of the index of national wealth and the calculation of macroeconomic indicators for sustainable development of the country, describing the connection between the quality of the environment, depletion of natural resources and economic growth.

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UDC 336.77=111

DISCLOSURE CREDIT TRANSACTIONS. THE DEVELOPMENT OF CREDIT RISK IN THE CONDITIONS OF INFORMATION ASYMMETRY

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The article considers the phenomenon of information asymmetry in the banking business. Availability determines the existence of information asymmetry and the increase in banking risk. The effect of asymmetric information on the lender and the borrower is defined. A number of problems associated with the presence of information asymmetry are considered. Having trouble of transaction costs and the problem of increasing credit risk in the bank as a result of the negative impact of information asymmetry is marked.

A prerequisite for the existence of credit transactions is the existence of economic rules, rules that define the possible forms of economic organization in which individual participants interact with each other. From the perspective of O. Williamson, contracts governing transactions between economic agents should reflect three components exchange: the price, the specificity of resources and precautions [1, p. 141]. According to A. Auzan, peculiarities of a contract are directly linked with the characteristics of transactions – with their level of uncertainty, the degree of asset specificity and frequency [2, p. 163].

During the credit transaction and the conclusion of the relevant contract, primarily the right to use material goods is delegated. A distinctive feature of the credit transaction is a high level of risk to participants, in turn, generated by asymmetric information. At first glance, the greatest uncertainty arises from the lender, because originally it was he who fulfills its promises, transmits the value but to count on its return movement he can only after a certain time. However, the borrower may suffer if the lender refuses to commitments in full or in part. It may be, if the borrower has already made full or partial investment of the project, incurred certain costs, and the creditor requires early refund.

The contract allows interaction between participants unrelated with informal relations, as well as not always having mutual and complete trust for each other. The loan agreement regulates not only the conditions of the transaction and specificity transferred resources, but also captures the precautions that should protect participants from the breach of the transaction. In particular, collateral that will be alienated in favor of the creditor as a result of default by borrower commitments is the way to reduce the risk to the lender. The contracted refusal of remuneration payment (percentage) can be a safeguard against early claim for refund on the part of the borrower. For example, a client opens a term deposit in the bank, decided to return the money to its expiry, the bank usually applies in such cases, certain punitive measures – a reduction or lack of interest.

A contract between parties legally confirms the inherent loan repayment transmission resources.

Temporary nature of credit transactions is specific. It should be noted that when exchanging specific rights for credit, it is the third stage of the transaction, when participants perform their commitments and stop interaction is especially important and also the most problematic. The specifics of this stage for lending transactions is that the fulfillment of obligations for the parties differs over the time: in the commodity exchange transactions rights tend to occur almost simultaneously, then in the credit transaction, one participant (the lender) fulfills his obligations much earlier than his counterparty. This gives reason to say that the third stage has two phases in the credit transaction:

– at the first phase (WA) – the first party (lender) performs actions, according to the agreement he performs his duties, i.e. transfers the cost;

– at the second (ST) – the other party (borrower) returns a specified value, otherwise implementation of procedures that will restore the violated rights of the creditor begins (for example, alienation of collateral occurs). At this stage, the relationship between the parties either terminated as a result of fulfilment of all obligations by the parties or, in the case of non-compliance, will be continued with the involvement of a third party by legal means.

If the contract describes the options for such action, they come to life at the third stage of credit transaction.

For bank credit transactions these stages can be demonstrated as follows: the customer comes to the bank to obtain a loan to purchase real estate. Rather, in this case, we can talk about mortgage loans. At the first stage of negotiations the client provides information about his financial situation. The bank represented by its employees introduces a potential borrower with its conditions, rates, requirements and regulations. At this stage the client and the bank take a decision whether to continue their relationship. The second stage involves the signing of the contract, where all the rights and obligations of each party will be given, as well as the use of sanctions if the parties fail to fulfill the required conditions is provided. In the third stage the treaty comes into force, each of the parties honors their commitments: FOR - the bank provides agreed funds to the borrower; ST – the borrower carries repayments from a certain period. The transaction is completed at this stage, if the client completely paid off the bank, the mortgage on the property held by the Bank (if it was) is canceled [3].

Transaction information asymmetry that can adversely affect all agents of the transaction may be present at all of these stages.

Thus, credit transactions, the occurrence of which resulted in the establishment of the institute of credit, have a special place in the modern economic system. The essence of the credit transaction is shown in non-gratuitous transmission of rights for the use of the transferred property.

It should be noted that significant transaction costs of credit transactions due to high risks because of insufficient protection of the rights of their members, lead to unnecessary redistribution of property, undermine the incentives to participate in such transactions, reduce the efficiency of the entire economic system.

The need to reduce such losses in credit transactions involves the development and implementation of mechanisms, both market and government that will protect the interests of the participants and overcome these negative trends in the national economy.

Nowadays, the main types of banking risks are the credit, interest rate, foreign exchange, investment, operational, market, etc. Credit risk is acting as the main threat to financial stability of the bank that the loans granted to non-financial organizations and individuals make up a large part of the assets of the banking system. Credit risk is compounded by the existence of asymmetric information in all phases of the credit transaction. Thus, we must consider all aspects of the impact of asymmetric and incomplete information on credit activity of the bank.

During the analysis we found that the asymmetry of information affects not only the banks but also their customers. In both cases, more often than not, this is a deliberate asymmetry. Consider the manifestation of information asymmetry on the part of the lender and the borrower (Table).

Table – Information about asymmetry (from the perspective of the lender and the borrower)

The Lender	– adverse selection problem; – the actual purpose of the loan; – the technical condition of the collateral; – the anticipated decline in revenue
The Borrower	– the asymmetry of information distribution based on banking secrecy; – incompleteness of the treaty; – a situation in which a bank may require full repayment of the loan; – the real deadline for the consideration of the application for credit

Source: author's own development.

The problem of adverse selection. The lender, which does not have complete and accurate information about the borrower may unintentionally give credit creditworthy borrower, whereby it will lead to an increase in credit risk.

The actual purpose of the loan. Even if the lender made a favorable choice of creditworthy borrower, further concealment of information about the actual use of debt can lead to the phenomenon of moral risk. This situation, when two parties have different levels of information on the subject of their relationship, in its turn, the asymmetry of information is a prerequisite for the emergence of moral hazard.

The anticipated decline in revenue. The creditor cannot be fully sure that the borrower has a permanent and stable income. The borrower can provide information about his income, and its validity can be verified only with the passage of time.

The asymmetry of information distribution based on banking secrecy. The lender's seeking to get an excess profit to the detriment of the borrower is a manifestation of the lender's opportunistic behavior. The asymmetry of information distribution in this case is based on banking secrecy, i.e., the private nature of relations in the market of bank loans. The borrower's opportunities to assess credit conditions of similar projects are severely limited, because the content of specific treaties is confidential. However, the bank has the ability to manipulate the interest rate on credit, depending on the urgency of the borrower's needs for money, possible return of the financed project, the availability of banking services to the borrower, etc. [4].

Incompleteness of the treaty. Another factor creating moral hazard on the part of borrowers is incomplete contract, when the obligations of the parties are described formally, partly. This creates the space for the opportunistic behaviour of contracting parties to one another. Because of the confidential nature of credit relations the bank can apply unfair advertising, i.e. effective interest rate on the loan is generally known only after signing of the loan agreement and all related agreements. There is also a practice of "small print" where is, at times, the most important information that the borrower should know in order not to incur further losses. As far as the borrower, one of the risks of the group is "extortion" on his part. Opportunities for it appear when the customer is the key for the bank. Thus, the client can dictate his terms to the bank, threatening to jump to competitors. This introduces imbalance into the risks of the bank, since the bank is forced to issue loans on more favorable terms, including the area of risk assessment. The client may intentionally mislead the bank about his financial and economic status, appealing his importance and years of joint cooperation [5].

The possible *consequences of the impact of information asymmetry* on the Bank's activities include:

- deterioration in the quality of the loan portfolio;
- the loss of competitiveness;
- increase in the volume of distressed and hopeless credits;
- the bank's security levels drop due to high risk operations;
- additional transaction costs;
- threat to the banking system as a whole.

So, summing up, we can say that the asymmetry of information leads to the emergence of moral hazard from both the borrower and the lender, enlarges the bank risks in the credit sector, which affects the financial condition of the bank. We can say that it is the bank, not its clients that will receive the greatest number of adverse effects of information asymmetry. Because of the existence of information asymmetry in the borrower's behavior, the bank has to bear the additional transaction costs for the collection, processing and verification of information as well as to monitor the borrower after the transaction. All this is necessary, because the bank is not interested in increasing risks that could lead to its bankruptcy.

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RESEARCH OF RISKS IN THE IMPLEMENTATION OF CONSTRUCTION PROJECTS OF THE LOGISTICS CENTERS ON THE BASIS OF PUBLIC-PRIVATE PARTNERSHIP

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In this paper the authors proposed to consider public-private partnership (PPP) as a methodological basis for the creation of the logistics center. The paper analyzes the characteristics of risks disclosing their nature, impact on the project, methods of influence on the risk and distribution between the partners in the implementation of construction projects of the logistics centers based on PPP.

As objects of transport and logistics infrastructure, logistics centers are being established and are functioning in the face of considerable instability of the economic environment, it is the need to attract investment, highly effective methods and ways to manage their activities. Ultimately users bear costs of construction and further operation of logistics centers, so one of the solutions to this problem is PPP. Of course, the main source of funding for projects for the construction of logistics centers under PPP should be private capital, because the concept of PPP is to combine administrative, financial (intangible) resources of the state with the financial capabilities and entrepreneurial initiatives of private organizations.

A.N. Tour [1] considers the economic content of the PPP with the following items:

1. As part of the system of state regulation in order to implement industrial policy to stimulate innovative activity, investment in infrastructure and social services.

2. In terms of attracting private sector in the provision of public services (in areas such as housing, health, education, transport, municipal service, and others.).

3. A more perfect form with respect to the traditional methods of budget financing of capital investments and the investment process as a whole. If the current scheme investments mainly allocated from the budget, the new scheme provides for attracting additional private investment, risk sharing between the government and private owners, the transfer of responsibility for putting the object to private trader, transfer budget expenditures in installments after the redemption of the object.

Hence it is concluded that the organizational and economic essence of public-private partnership is that it is a tool for solving problems of social and economic policy, in which:

- state retains control of the implementation object and implements its strategic management;
- efficiency of project implementation is improved (through co-capital);
- risks and benefits between the partners are shared.

The main advantage of PPP projects lies in the fact that some of the risks of the project from the state goes to the private partner, in contrast to the budget financing, when all risks of implementation rests with the State.

Currently, a wide range of project risk management tools among which are the insurance, self-insurance, obtaining financial guarantees, hedging, etc. is used in practice. However, the methods to reduce the level of risk that affect the construction projects of the logistics centers implemented on the principles of PPP are poorly understood.

A.E. Sbitnev [2] holds a view that the complete elimination of the effect of risk factors on the results of the project is almost impossible, but the private investor can establish an acceptable (acceptable, marginal) level of project risk. In the development of the concept of acceptable risk the scientist developed an algorithm for selecting the optimal risk management strategy for regional road projects implemented on a PPP basis, to maximize its commercial viability. The author has established regional risks that must be considered by private investors in assessing whether to participate in the implementation of the investment project on the basis of PPP, he has defined methods to reduce them, which will neutralize the negative impact of regional risk factors on the results of the project.

Drawing on Sbitnev's studies, we have established the risks that investors should consider when evaluating whether to participate in the project under the terms of PPP (Table).

However, it should be noted that risks demand, increased costs, reduced revenues or delay in payment are also important for the parties of the PPP. In Table 1 we analyzed the characteristics of the risks, the most complete, in our view, revealing their essence, the impact on the project, methods of influencing risk and the distribution between the partners in the implementation of construction projects of the logistics centers based on PPP.

Table – Types of risks associated with the implementation of construction projects of the logistics centers based on PPP

Name of risk	Characteristics	Events containing risk	The impact of risk on the results of the project	The partner-ship carrier risk	Methods of impact on the risk
1	2	3	4	5	6
Political risk and geopolitical instability	Includes changes in laws or other regulations, in particular, the risk of discriminatory changes and changes in technical parameters, entailing the need to obtain permits, approvals or import licenses	Revision of previous agreements as a result of the change of political leadership in the region; cancellation of the previous administration adopted decisions on the project; breach of contract; increasing geopolitical instability	The deterioration of the financial results of the project; temporary suspension of the project or its closure	State	Insurance of foreign investments against political risks and semi-public agencies of countries - exporter of capital, and the Multilateral Investment Guarantee Agency (MIGA), part of the World Bank
Legal and regulatory risks	The practical aspect of political risks and solutions for the implementation of PPP, for example, procurement rules, liens on assets sufficient to protect the interests of creditors; rational mechanism and the current practice of execution of court decisions taken not by the state.	Deterioration of regional legislative conditions of the project for the construction of a logistics center based on PPP	The reduction in revenue from the operation of the logistics center and provision of transport and logistics services; the occurrence of additional costs associated with the construction project and operation of the logistics center	State	Provision of government guarantees to private partners against unfavorable changes in regional legislation for the period from the beginning of the project until the moment of return on investment
Default risk	Represents the probability of occurrence of an event when the created object is unable to provide the services of specified quality within the established deadline.	Errors in the design of the facility; inappropriate use of technology; improper use of the facility; the wrong way of handling or use other services project.	Inconsistency of the decisions taken by different departments involved in the project	The private partner	Provision of state guarantees to private partners

Continued

1	2	3	4	5	6
Social risk	The utmost satisfaction of needs of the population and the economy of the region in transport and related transport and logistics services	The negative reaction of the public; opposition to the construction of the logistics center	The increase in the estimated cost of construction of the logistics center in the revision and correction of the project documentation; reduction in expected revenues for the project as a result of fixing of fares lower than originally planned	State	Openness and transparency in the development of the project; holding of public hearings with the scientific community and the public; carrying out of surveys and questioning of the population in order to identify public opinions
Economic risk	According to Mataev T.M. [3], the economic risks of PPP can be divided into four categories: operational risks; commercial risks; financial risks; currency risks	Production risk is expressed as the probability of inadequate use of raw materials, cost growth, increasing the loss of working time, the use of new production methods, as a consequence of the implementation of industrial activity. Commercial risk is the risk of losses arising in the course of the sale of goods and services produced or purchased by the subject of PPP. Currency risk is the probability of loss due to changes in exchange rates, due to their high mobility and loss of purchasing power of the currency	The drop in demand and the need for traded goods (services) due to the displacement of its competing products; loss of quality of the goods during handling (transport, storage), entailing a decrease in its price; increasing distribution costs as a result of the payment of fines, contingency fees and charges. As well as reducing the risks of revenue; overestimation of the cost of construction; overstatement of operating costs, the reduction in income from the operation of logistics center, as well as the revenues generated from freight transportation and related transportation and logistics services	State / The private partner	The legal obligations of the grantor to pay compensation to the concessionaire in the event of failure of indicators established by the concession agreement. Insurance of performance risk by the concessionaire
Financial risk	Includes a reliable source of funding for the project involved, the nature of lenders and borrowers, and the limitations of the financial markets during the financial closing of the transaction and throughout the project life cycle	Credit risk is the probability of failure to perform its financial obligations to the investor by the subject of PPP, when using the external loan to finance its activities. Investment risk involves the risk of infusion deficiency of investment funds in PPP projects and their uneven distribution [2]	Reduction in revenues	The private partner	Creating the reserves by concessionaire (self-insurance). Issue of infrastructure bonds. The main obstacle to PPP is the lack of bankable PPP projects, i.e., the lack of projects that are attractive and meet the requirements of banks

1	2	3	4	5	6
Qualifying risk	Government partners need specialists who must not only understand the formulation, monitoring and execution of contracts, but also master the skills of negotiation, contract management and risk analysis, decision-making procedures for administrative projects	Insufficient level of qualification, experience of authorized executive bodies in the implementation of investment projects on the basis of PPP; lack of understanding of PPP	Increasing of the concessionaire's transaction costs due to an increase in the duration of the project coordination with regional authorities	State	System of training in PPP project management provides for the establishment of training centers, the development of programs and training courses for civil servants to improve their professional knowledge and skills for the purposes of PPP

Source: own elaboration based on the study of the scientific literature.

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IMPROVING CALCULATION TECHNIQUE OF EFFICIENCY INDICATORS OF BUSINESS PLAN IN THE CONSTRUCTION INDUSTRY

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Today development of business plan – a necessary process for any company. However, the legal acts devoted to the development of business plans, don't count the peculiarities of construction companies. This article discusses the possibility of taking into account the time factor in determining the break-even point of the project of construction company.

Today, planning is an integral part of a comprehensive business management, where the business plan of development organization is one of the most important places.

The business plan is the foundation for long-term and current planning for production and business companies. Writing a business plan is important for organizations in different fields, including construction companies, because it allows you to plan and optimize resources to maximize the company's financial results.

It should be noted that the quality of the business plan is determined by the degree of sophistication of its methodological support that satisfies the growing needs for objective, reliable, high-quality and reliable information of internal and external users.

Theoretical questions concerning methodological support to develop business plans for investment projects and business plans for the development of industrial companies are widely reported in the scientific literature by domestic, Russian and foreign scientists.

Nevertheless, the potential accumulated by science, often barely acceptable for organizations of construction industry. This is due to the complexity of managing a construction company, as well as the presence of the essential features of the functioning of the construction companies.

Shortage of theoretical knowledge on these problems required a rethinking of existing methodological support business plans developed for industrial enterprises. In order to bring it into a state corresponding to modern requirements of information support of the planning process of construction companies specific to the construction industry.

Objective: based on analysis of the current methodology for the calculation of performance indicators of the business plan in construction to offer directions for its improvement, taking into account industry specifics.

Our analysis of normative legal acts regulating the business planning process outlined in [1, 2] showed that there are general provisions in areas such as business plan for the development for a year, the business plan for the development for 5 years, the business plan of the investment project. For the construction industry it is also developed industry guidelines for the development of a business plan for the development of construction companies [3]. We stopped our attention on the study of the chapter "Performance indicators". Particular attention is paid to the method of calculating the breakeven point of industrial and construction organizations. It was found that in the regulations don't release the exact differences in calculating the breakeven point for the industry and construction. Recommended that the break-even level is the ratio of fixed costs to marginal profit. However, we believe that it is the wrongfully overlooked factor of time, which is an important feature of the production of construction products.

Real-world performance of construction companies require to take into account the following features: first, the long-term nature of construction projects (construction time of construction sites measured in years) at the time when the traditional break-even analysis is designed only for a short period of time. Secondly, simultaneously constructed building projects have different start and end dates of work for a year. As a rule, it is impossible to realize the full scope of work on the projects during the calendar year, namely to start on the first of January and end on the thirty-first of December. Third, in the construction, usually involving several building sites, brigades and so on, which have a direct impact on the effective construction and installation work on the project.

Therefore we suggest the following algorithm to analyze the breakeven (Fig. 1).

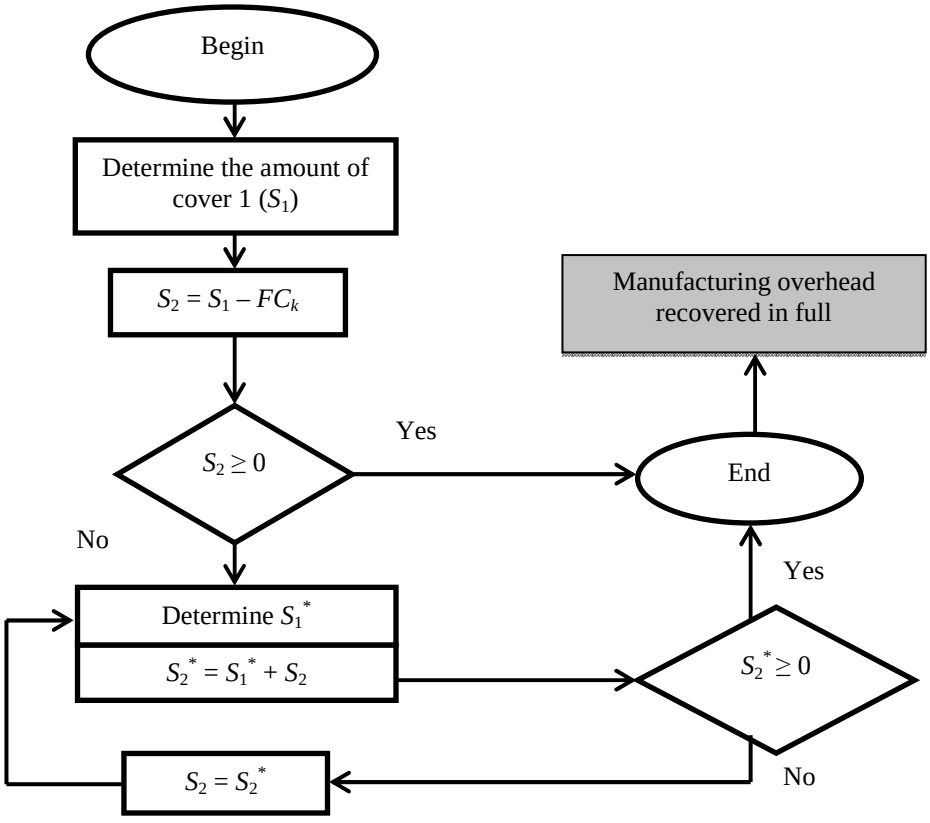

Fig. 1. Algorithm for calculating the reimbursement period of annual manufacturing overhead of construction sites: S_1 – amount of cover 1 of the first period; S_1^* – amount of cover 1 follow-up period; S_2^* – amount of cover 2 two subsequent periods, respectively; FC_k – the annual amount of manufacturing overhead k-th site

For the purpose of practical use of the proposed method of calculating the reimbursement period of annual manufacturing overhead of construction sites, we developed accounting and analytical base. For all the works of the process chain are fixed parameters listed in Table.

Table – Calculating the reimbursement period of fixed cost of the organization under the project № 1

№	Index	Project №1						
		1 month	2 month	3 month	4 month	5 month	6 month	7 month
1	Fixed cost, FC_k	1000						
2	Revenue	610	630	670	720	750	770	800
3	Variable cost	400	410	480	550	690	700	720
4	Amount of cover 1 (п.2 – п.3)	210	220	190	170	60	70	80
5	Amount of cover 2 (п.1 – п.3)	-790	-570	-380	-210	-150	-80	0
6	The reimbursement period of fixed cost	-	-	-	-	-	-	+
7	Profit (P)	0	0	0	0	0	0	0

Note – The sign "–" and "+" means "not recovered" and "recovered in full" fixed cost of the organization accordingly.

We illustrate graphically calculation the reimbursement period of manufacturing overhead by site № 1 (Fig. 2), which reflects the accumulated amount of cover 1 (curve) earned by the building site №1 within seven months of its work. The intersection of the curve of accumulated amount of cover 1 with straight of annual fixed cost shows that the site due to the accumulated amounts of cover by the end of the seventh month of his work reimbursed the amount of annual fixed costs of 1000 mln. rub.

Thus, the amount of annual fixed costs of the site №1 refunded in full within 7 months of its work, i.e. the reimbursement period of its annual fixed costs amounted to 7 months. As a result, site №1 from the eight month profits.

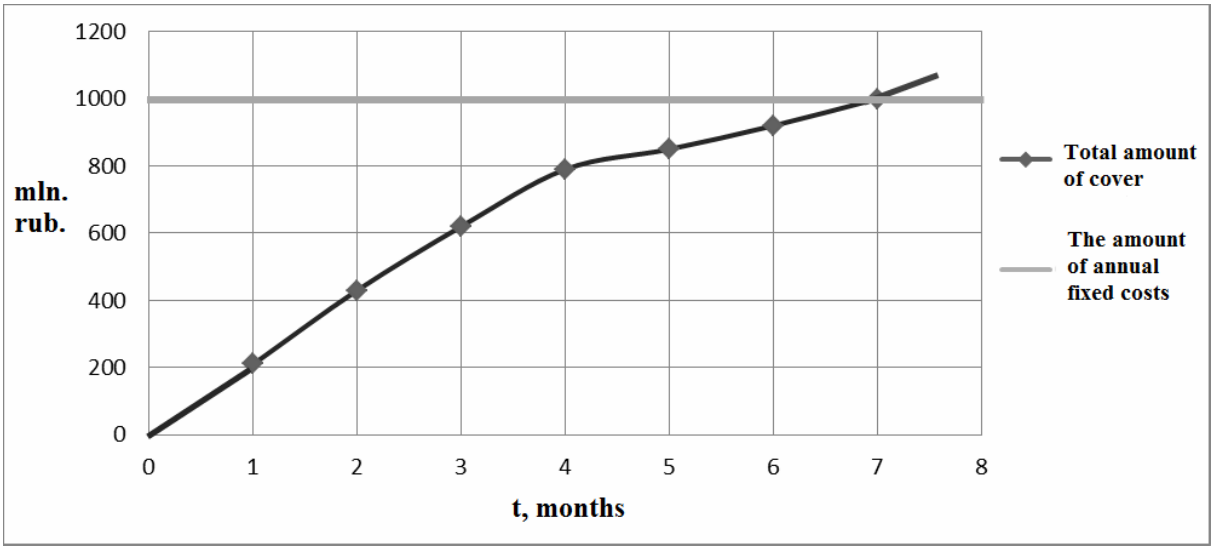

Fig. 2. Break-even graph of a construction company on the project №1

It should be noted the possibility of the proposed methodology for managers of a construction company as a tool for making effective management decisions in the case of an additional contract with the customer for construction and installation work on the project № 2 in the reporting period. Thus, in the case of an increase in

business activity of a construction company (additional contract with a customer for construction and installation work on the project № 2) break-even graph of a construction company will be changed significantly as revenue and the amount of cover will be increased, respectively.

Consequently, the curve of accumulated amounts of cover earned by building sites for the projects №1 and № 2, cross straight annual fixed costs at the point, reflecting a period of, for example, the 4th month of their work. In this way, sites due to the accumulated amounts of cover by the end of the 4-th month of their work will be reimbursed the amount of annual fixed costs of 1000 mln. rub.

This means that the rate of break-even of a construction company has a strong correlation with its business activities and associated by inverse correlation with the index of time out on the full reimbursement of fixed costs, i.e. with an increase of business activity during the current year (additional new building contract for the construction) the time needed to reach the break-even point of construction companies, is being shrunk. In turn, the deceleration of construction – is being increased accordingly.

Thus, the developed break-even analysis technique will allow to take into account the requirements of investors who wish to have more exact idea of the break-even activity as a single site, and the organization as a whole. In addition, each construction company will be able to estimate reliably the performance indicators of its operations, taking into account such features of functioning as the duration and urgency of the construction process. Therefore, the developed analysis technique will allow to make effective business plan, adapted to the specifics of the construction industry.

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PROSPECTS OF INVOLVEMENT OF LOGISTIC PROVIDERS OF THE FOURTH LEVEL TO THE ECONOMICS OF BELARUS

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In this article the general concept of logistic intermediaries of the fourth level is considered, possibilities of their integration into logistics of the Republic of Belarus, and also prospect of intermediaries of the fourth level in the future in the territory of Belarus are analyzed.

In modern conditions it's getting harder for companies to follow personally processes of purchases, financings, transportations, warehousing and service. Big streams, and also frequent variability of the market puts the companies in certain frameworks, and to solve them it is possible by only two ways: this way is focused by training of the staff which will be able to solve any problem, but rather on prospect, and involvement of logistic intermediaries who are able to help to solve problems now. Therefore it is possible to tell that logistic intermediaries are the main components of logistics, they are providers.

Logistic providers, they are operators of logistic services are the commercial organizations rendering the services in the sphere of logistics which are carrying out separate operations or complex logistic functions (warehousing, transportation, management of orders, physical distribution and so on), and also exercising the integrated control of logistic chains of an enterprise client.

Depending on the carried-out functions, logistic intermediaries are divided into main categories. The Classification and the role of the intermediary in logistic process is presented in Table 1.

Table 1 – The classification of logistic intermediaries

Classification	Role
1PL (First Party Logistics)	autonomous logistics; all operations are carried out by directly cargo owner
2PL (Second Party Logistics)	the company provides to the client traditional services in transportation and management of warehouse
3PL (Third Party Logistics)	on this level of logistics the list of services of the operator includes warehousing and the accompanying additional services, and also usage of subcontractors
4PL (Fourth Party Logistics)	on this level of logistics integration of all involved companies in a chain of deliveries of freights is supposed. Such a provider solves the problems connected with planning, management and control of all logistic processes of the company client taking into account long-term strategic objectives
5PL (Fifth Party Logistics)	the system which represents Internet logistics is planning, preparation, management and control of all components of the unified chain of transportation of freights by means of electronic media

At the moment there are the most popular intermediaries of the fourth level in Europe, particularly they help the company to save the considerable part of means.

4PL-providers have appeared recently. The term 4PL was for the first time registered in 1996 by "Andersen Consulting" a consulting firm, nowadays it is called "Accenture".

As a result of attraction by 3PL-providers for the solution of problems of big complexity, at first as subcontractors, and then and as partners, consultants-managers and IT and system integrators, the 4PL-companies act as the integrator of a chain of deliveries. Thus, association of the client and 3PL-provider in the structure of 4PL is based on information and administrative technologies. 4PL-process of management of all logistic operations in all chain of deliveries of the client are realized by the unified supplier of service [1, p. 27].

The 4PL-companies can also be divided into two categories taking into account that, they have real physical assets (asset based) or have no work by optimization of logistic systems only as intermediaries (non-asset based).

The full package of logistic services which must be realized by the company applying for the status of 4PL-provider in developed countries includes the following list of services:

1. Direct transportation, consolidation of sendings, forwarding.

2. Management of warehousing (the specialized equipment for a warehouse, the modern metal furniture, metal racks allowing to increase productivity and efficiency of work), stockpile management, formation of orders.

3. Introduction of industrial control system (An automated control system for technological process) of I ASKUE (The automated system of the commercial accounting of the electric power – provides the commercial accounting of the electric power (power)).

4. Registration of payments for transportations, maintenance of freights, services of the customs broker, management of motor transport, providing with spare parts.

5. Exposition of information support, design and ensuring functioning of information systems, consulting services.

6. Exposition of carriers, negotiations on tariffs, return of goods, supplying with materials, repacking, marking.

7. Management of implementation of orders, contract manufacturing, consolidation of sendings.

Actually, the 4PL-provider assumes functions of a management company.

Striking example is JSC Lidskoye pivo which in the work uses logistic intermediaries, and also the probability that it is intermediaries of the fourth level is great. And to achieve the best possible result it is necessary to satisfy the following three points:

1. These are Logistic centers. The substantial part of a logistician and a provider's work in particular, is occupied by the logistic centers. After all their correct arrangement gives a chance for 4PL-providers to find the greatest number of ways for delivery of goods to various countries. So what is it a logistic center? "The Lidsky brewery" has a logistic center. About $24 million were allocated for its construction. This logistic center is constructed near the M-6 highway Grodno-Minsk-Moscow. Due to this center storage and shipment of production is realized on a qualitatively new level. In the territory of a modern warehouse it is possible to store at the same time to the 6034 th pallet with a total amount of 3,6 million liters. Introduction of standards of OLVI

concern on delivery and storage of goods will allow the enterprise to save time for shipment for 30% and to cut down expenses on delivery of one dekaliter of production. This arrangement is very effective as, having reached Minsk, the product can easily will go on all territory of the country. Also Minsk can become a starting point for routes Minsk-Smolensk, Minsk-Vilnius etc. or for the trans-European M1 highway. Such extensive quantity of routes will help to find the most favorable ways for providers and to increase market sales.

2. Intermediaries of the fourth level. Such large enterprise as "Lidsky brewery" requires existence of the providers of the fourth level. 4PL-providers are shadow players who carry out all range of tasks of the enterprise. From storage of production in the center to exposition of the right routes and increasing of the list of clients of production. In many European countries the work of 4PL-providers is constructed in such a way that they deliver various parts of goods to different regions of the country and various countries of the world. "The Lidsky brewery" went on the European model. The central logistic center is constructed near the plant that allows to make temporary outflow of workers from plant on a warehouse and back. Depending on sales volume, to various regions of the country providers deliver various production. Having temporary warehouses for storage of production before selling providers of the company could organize so-called product circulation. As soon as it comes to the end, it is delivered again. I could feel it during two years of life in the city of Grodno. when every morning trucks with the Lidsky Brewery went to various cities of the country. Besides the question of transportation of goods to the European countries with the smallest expenses is still essential. If you aren't the employee of a logistic staff of "Lidsky brewery", it will be difficult to learn how they plan to deliver the goods to Europe with the smallest expenses. Open it, and the company will stop being suddenly unique in its own way. But it is possible to make own assumptions. For transportation of goods to other European country it is necessary to pay duties. Therefore it is favorable to have the logistic center in the territory of the country where are planned to do deliveries and to employ there certain providers of the fourth level. These providers know the territory across which with the smallest expenses it is possible to deliver goods in more detail. Thus duties on a transportation of goods will be minimum. Approximately thus many automobile giants work (Opel, Ford, Audi). A striking example of such goods which can be put forward on the international scene is Warsteiner beer. recently JSC Lidskoye pivo and the world famous leader of brewing of Warsteiner International KG signed the strategic license cooperation agreement. Within this document the German brewery for the first time entrusted the enterprise to make and realize from Belarus beer a premium segment of Warsteiner Premium Verum. At the moment JSC Lidskoye pivo is the 3rd plant in the world which makes Warsteiner beer according to the license. Now 4PL-providers have opportunity to deliver production of JSC Lidskoye pivo worldwide that will give a big push for development of the Belarusian logistics. Therefore if to generalize, "the Lidsky brewery" has an extensive logistic network, skilled intermediaries of all the levels who allow to send goods for export, and also within the country.

3. Material resources. JSC Lidskoye pivo is one of the largest enterprises of the Republic of Belarus which has investment from numerous sources. These conditions give to the enterprise a chance to open the international scene.

They say that the general automation logistic operators and logistic intermediaries by 2020–2030 will be useless at all.

In the future because of increasing of the competition in the market, and also feature of the market, many logistic companies will be to expand number of the corporate and private clients due to extensive investments into researches and development. The Chains of deliveries will be extended; the companies will try to assume additional tasks. Due to the increasing needs of consumers a security link will be included to the chain of deliveries that practices in large companies. The logistic companies will have to assume more tasks of consulting. In the future the great value will be given to an offshoring, and also outsourcing, intermediaries of the fourth level who will be integrated over time directly into the enterprise at all will be attracted often. All this will have huge impact on a vector of development of logistics.

Due to the expansion of a chain of deliveries, the logistic companies will be obliged to trace in more detail the arising threats and risks. At load of the market it will be extremely important and paramount. 4pl-providers will also successfully be suitable for this task.

For minimization of threats and risks providers of the fourth level will have to look for alternative routes of delivery, develop plans for a case of unpredictable situations and other.

Therefore it is logical to assume that logistic intermediaries of the fourth level at the moment are an important link between work of the company and satisfaction of needs of clients. And next few years their importance and need will only increase, they will start being integrated into activity of the company therefore large international companies now reflect on creation of own such division. In the territory of Belarus importance of 4pl-providers also increases. For example, on actions of JSC Lidskoye pivo in the market, it is

possible to make the assumption that they in their work have already actively attracted intermediaries of the fourth level. At necessary financing and some other companies, plants, RB enterprises can start attracting in work of 4pl-providers and to enter to the international market.

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DEVELOPMENT OF ACCOUNTING AS AN INFORMATION SUPPORT OF EFFICIENCY ANALYSIS USING REAL INVESTMENT

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This article highlights the need for an accurate assessment of the effectiveness of real investment. To do this, the author under accounting offers investment cycle decomposed into new stage. On this basis the author develops a new method of accounting of investment activity, which reflects their development and use in separate subaccounts.

Investment activity plays a key role in the fundamental economic processes taking place at the level of the entire economy, and at the level of individual organizations. Many organizations in the implementation of its investment activities in most of the focus on real investment, so it becomes relevant issues such as the problem of assessing the effectiveness of real investment and the problem of increasing the economic efficiency of real investments.

Evaluating the effectiveness of real investment is the most important stage in the decision on the appropriateness of the investment project. Matter how objectively and comprehensively carried out this evaluation depends terms of return on invested capital, its profitability and the rate of development of the organization [1, p. 119-120]. In the reliability evaluation plays an important role providing information and all the information to analyze the efficiency of real investment provides accounting.

In accounting, real investments are accounted for as investments in non-current assets. Investments in non-current assets are financial and real. Real investments in long-term assets represent investments in fixed assets and intangible assets [2, p. 63-64]. In accordance with the laws and regulations of the Republic of Belarus accounting of real investments are on a separate account 08 "Investments in non-current assets". This account is intended to summarize the information about the costs of the organization to the objects that will later be accepted for accounting as long-term [3].

The essence of the problem of increasing the economic efficiency of real investment is that for every unit costs – labor, material and financial – to achieve a substantial increase in production, services and profits in national income.

As an incentive to invest organizations is their desire to obtain a significant profit, ceteris paribus the realization of these aspirations will depend on the size of the resulting income. There is a direct relationship: the higher the income, the more opportunities for investment [4, p. 61-62].

At this point in the analysis of accounting and no methodology that would allow to determine how much income is received from each specific investment project. There is a problem, how to compare costs and result. In accounting, revenues are recognized on activities. Account 90 "Gains and losses from continuing operations" is intended to summarize the information on revenues and expenditures associated with the ongoing activities of the organization, as well as to determine the financial result on it. Account 91 "Other income and expenses" is intended to summarize information on other income and expenses of the reporting period, according to investing

and financing activities [3]. But in the modern view the lack of income reflected in the context of investment projects, would determine the amount of costs and revenues separately for each object of investment. Subsequently, it would most accurately determine what investment project more effective and worth investing.

Investments in investment activities make the circuit: investment assets, depreciation, and profit-investment. Investment cycle is the period between the start of the planning of investments and rightly design parameters. Investment cycle is divided into practice in step [5, p. 319]:

1) pre-investment;
2) investment;
3) operational;
4) liquidation.

In order to develop an effective method of accounting for the formation of information flow on the creation and use of objects of investment activity in the accounting and analytical practice, domestic organizations offers. Since the investment activity is a dynamic process and economic accounting is intended to reflect this document, within the limits of accounting proposed investment cycle broken down into stages such as:

1) resource mobilization;
2) the conversion of resources into investments (investment);
3) the use of investment assets in business to generate income (operational).

This would allow an analysis of investment for capital projects and stages of the investment cycle. This will allow determining at what stage is the investment project in a certain period of time and some of the types of investments the most profitable.

Objective assessment of the effectiveness of investments largely depends on the methods of valuation. Depending on the time period of the investment activity, we can distinguish two methods of evaluating the effectiveness of investment is forecast and current [6, p. 8].

Prognostic evaluation methods are pre-investment and investment stage of the investment cycle. These methods help to assess investor future income from real investments have not yet begun to the process of investing. However, it should be noted that these methods do not always give an accurate estimate.

With regard to the current valuation methodologies, during use of the investee is rather difficult to accurately assess its effectiveness. This is due to the fact that the actual investments return in the form of cash flow, consisting of profit, depreciation, revenue from the sale of unnecessary assets and other income. Evaluating the effectiveness of only on the basis of profit significantly distorts the results of calculations overestimate the payback period and lowers the efficiency factor [7, p. 61-62].

Operation to repel investment activities in accordance with the stages of investment cycles are reflected on certain accounts. However, in the current accounting practice does not form an integral information about the investment project, but only some of its fragments. This in turn makes it impossible to fully analyze the reliability and efficiency of investment activity, as its individual components are determined by calculation.

For the formation of complete information about the investment project is proposed to organize the methodology of accounting investment follows.

Thus, the accounts of an inventory of sources of equity such as: 80 "Authorized capital"; 81 "Treasury shares (shares in the authorized capital)"; 82 "reserve capital"; 83 "Additional capital"; 84 "Retained earnings (loss)"; 86 "Target financing" to organize an analytical accounting in the context of stages of the investment cycle and the presence of sources of investment financing (formed used).

As a result, the new technique will be developed taking into account sources of financing investment, reflecting their development and use in separate subaccounts, opened to the above accounts. At the same time on the analytical accounts of the second level generated sources (both equity and debt) are detailed on their composition, and used - in areas of financing specific investment projects.

The proposed method of accounting sources of financing investments will:

– definitely a correlation between investments and sources of financing in the balance sheet;
– reliably detect the presence of unused sources of financing investment;
– improve the effectiveness of the control function of accounting for the targeted use of funding sources;
– create a database of funding sources for the analysis of investment efficiency.

During the investment stage formed permanent assets of the company. Some types of associated costs can be partially attributed to the cost of production, as deferred expenses and partly capitalized as pre-production costs.

At this stage, the costs incurred in the process of investment (the costs of design, construction and reconstruction, acquisition and installation of equipment) are recorded in the accounting records in the debit account 08 "Investments in non-current assets". These costs are at the end of the work will determine the

inventory (initial) cost commissioned objects – buildings, structures, equipment and accounted for as a cancellation of the loan account 08 "Investments in non-current assets" in the debit account 01 "Fixed Assets", 03 "Profitable investments in tangible assets ", 04" Intangible Assets "formed the original value of fixed assets, intangible assets and other assets taken up and processed in a manner [3].

For the formation of complete information about the investment project is proposed to organize an analytical accounting in the context of stages of the investment cycle and facilities investment.

As a result, the new technique will be developed taking into account the investment activity objects, reflecting their development and use in separate subaccounts, opened to the above accounts. At the same time integral information about the investment project will be formed on the analytical accounts.

During the operation of the investment project, investment returns in the form of cash flow, consisting of profit, depreciation, revenue from the sale of unnecessary assets and other income. At this stage, the circuit part of the investment cash flow from investing activities is again reinvestment, ie used as working capital. And the results of operations (finished products) go on sale.

These operations are reflected in the following accounts: 20 "Primary production"; 43 "Finished goods"; 90 "Income and expenses from operations".

By these accounts, we also offer open analytical account of the first level in the context of the stages of the investment cycle, and the accounts of the analytical account of the second level in the context of stages of the economic process.

In general, the system of analytical accounts for the accounting methods of forming integrated information on investment activity in the context of investment projects and the stages of the investment cycle presented in Figure.

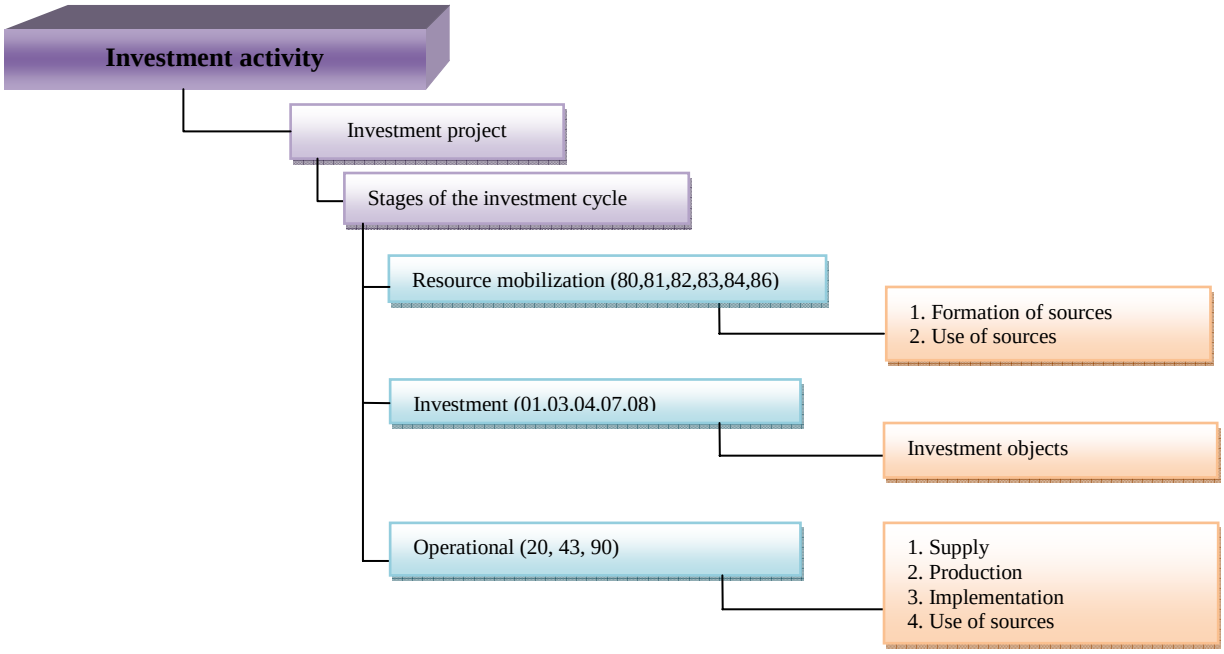

Fig. The system of analytical accounts for the formation of the methodology of accounting integrity of information on investment activity in the context of investment projects and the stages of the investment cycle

Note: own elaboration based on the study of special economic literature.

As a result, a new method of accounting of investment activity, which reflects their development and use in separate subaccounts, is opened to the above accounts. At the same time integral information about the investment project will be formed on the analytical accounts, which will analyze investment performance based on indicators emerging within the accounting system.

So at the stage of resource mobilization will be formed on the investment project attracted sources.

Why on investment will generate information on the amount of investment.

On the operational phase will generate information on the amount of income from investing activities.

In general, this information will characterize the efficiency of the investment project.

To summarize we have to say that in order to develop an effective method of accounting for the formation of information flow on the creation and use of objects of investment activity in the accounting and analytical practice, domestic organizations, we proposed the following, expanded investment cycle stage such as:

- resource mobilization;
- conversion of resources into investment;
- the use of investment assets to generate income.

This would allow an analysis of investment for capital projects, which will allow determining which types of investments the most profitable and stages of the investment cycle, which in turn will determine at what stage is the investment project in a certain period of time.

Also, based on this, we have developed a new method of accounting of investment activity, which reflects their development and use in separate subaccounts. At the same time integral information about the investment project will be formed on the analytical accounts, which will analyze investment performance based on indicators emerging within the accounting system.

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UDC 331.2

ANALYSIS OF THE FORMS AND SYSTEMS OF REMUNERATION IN THE CONSTRUCTION

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This article describes the existing forms and systems of remuneration in the construction industry. also reviewed international experience in the promotion of workers. The author formulated the principles that must be met in perfect system of remuneration.

Improving the wage system in the enterprise leads to stimulate employees to achieve such indicators of employment that will provide the required employer production results, while increasing the competitiveness of the enterprise. Therefore, the development of new and practical application of the most effective forms and pay systems requires the study of existing systems of remuneration.

In the construction industry of the Republic of Belarus, the most widespread tariff system and the basic forms of remuneration – the piece – payment for each unit of production or the amount of work performed and time-based - pay for time worked [1].

The tariff system is based on a set of regulations established rates and tariff coefficients, according to which the set and measured the level of workers' wages.

The tariff system of remuneration of the Republic of Belarus is based on a set of normative legal acts by means of which the differentiation and regulation of the wages of different groups and categories of workers, depending on the severity, complexity and intensity of labor, as well as features of types of work, industries and sectors in which employed workers [2].

The main components of the tariff system are as follows:

1. Tariff scale, differentiating salaries based on the category of work.
2. The tariff rate of the 1st category - defines the absolute size of simple labor per unit of time.
3. Tariff qualification handbooks, subdivide the work into groups according to their complexity.

Tariff wage system, in turn, are divided into two forms – time-based and piecework.

Time-based forms of payment is called a form of payment, in which wages are calculated according to the established tariff rate (salary) for the time actually worked. This form of payment encourages, first and foremost, skills development and strengthening of discipline.

Time wage labor is primarily used where:

- The quantitative result of the work is already defined workflow progress (for example, work on the assembly line with a given rhythm of the movement);
- The quantitative result of the work cannot be changed and is not determinative;
- Quality of work is more important than its quantity;
- The work is dangerous;
- Work is heterogeneous in nature and irregular load.

When piecework form of wage salary is calculated on a pre-established rates for each unit of work performed or manufactured products. Piecework form of remuneration stimulates primarily improving volumetric quantitative performance indicators.

There are a number of conditions of remuneration for which it is advisable to use a piece-rate wages:

- The presence of quantitative indicators of directly depending on the particular employee;
- The ability to accurately account for the volumes of works;
- The opportunity for workers to increase production of a specific area or volume of work performed;
- The need for a specific production site to encourage workers to further increase production [3].

In addition to these traditional systems and forms of organization of labor remuneration may be based on the following varieties of flexible pay systems:

1. Wage system based on its own wage scale.

The organization has the right to establish their original wage rates of workers and set its parameters. In this case, profession, position and discharges employees of the organization must necessarily be approved by the local regulatory legal act.

Tariff schedules and tariff rates are set by the employer alone, given the complexity and intensity of each employee of the organization. Also, the employer must manually set the tariff rate of the first category to calculate the wages of workers in the organization based on the tariff rate.

2. Remuneration system based on the "floating" salaries.

The system provides for the establishment of floating salary the employer size wage rates in the current month on the results of the previous month, taking into account the personal contribution of each individual employee's work results [4].

3. Wage system based on grades.

Grading system is based on the location of all professions and positions of employees of organization on the relevant grades, depending on the complexity and intensity of labor, its conditions, the skill level of workers.

In this system is evaluated the significance of the profession worker (office employee) for the organization, which is usually measured in points.

To this end, may be used different criteria for evaluating trades workers (positions of employees). Each of the criteria is assessed a certain number of points. The scale of assessments is divided into a number of intervals, called grades.

The total amount received by all criteria of points determines the position (rank) of a particular profession working (office employee) in the structure of the organization.

Depending on the number of points obtained by a specific profession (position) is flagged for a given interval, i.e., refers to a specific grades.

Building a system of grades may provide that the salary bands for grades will overlap, allowing greater flexibility to produce the motivation of employees [4].

4. Accord system of compensation.

A distinctive feature of this remuneration system is that the amount of payment is established not on a separate operation, but on the whole a predetermined range of activities with the definition of the term of its execution.

The sum of payment is announced to employees in advance. If the job requires a lump perform long term (more than one month), the interim payments made for actually executed during this period the volume of work, and the final payment is made after the acceptance of all work on together.

The most important application of the system of wages in construction companies, in cases where there is a delivery of building object within a specified period by the customer. In this case, the employer has the right to make provision for a wage that in case of failure in time chord work, its payment is made not at the rates

pieceworkers and on time payment conditions. It is also possible to stimulate labor of bonuses for early completion of the work.

The accord system of compensation can have individual and collective character. In the second case application of Individual Performance Factor of workers in performance of the general task is possible [5].

In foreign countries is broad experience of a wide variety of systems of remuneration:

– System "assessment of merit".

This system is widely used in the United States. The meaning of assessment of merit is as follows: workers with the same qualifications and occupying a position, thanks to its natural ability, seniority, goals, motives and aspirations can achieve different results in their work. These differences should be reflected in wages. By the way, this problem is solved with the help of wage differentiation within the category or position.

– Remuneration system, depending on the length of service in the organization.

The system is built on the basis of seniority of employees. Japanese companies, for example, use a reward for years of service, along with other factors, material incentives. Back in the 70s, based on the American system of tariff rates was formulated synthetic form of tariff wage. Using two rates: personal (based on seniority and age of employees) and labor (depending on qualifications and performance). Currently, the value of wages by 40% is determined by the length of service in the company.

– System of collective bonuses and "profit sharing".

In systems of collective bonuses accrued bonuses for staff to indicators directly related to the operating results of the collective organization, for example, increased productivity, cost reduction, etc. The source is the added bonus intra organizational profit or, more precisely, the savings obtained by reducing production costs. In systems of profit sharing compensation of employees is calculated for the results of both production and commercial activities. The source of compensation is the total or the balance sheet profit organization, the amount of which depends not only on production performance of staff, but also on the overall performance of the organization, which depend in turn on market conditions, the level of prices, etc. [6]. These systems are widely used in a number of countries, such as Germany, France, UK, USA.

However, all the above systems and shapes have several disadvantages. For example, the main drawback of the tariff system of remuneration will be the fact that the differentiation in wages is carried out mainly on the basis of formal parameters (the number of "waste" hours "work experience", the quality of education, which is expressed in the form of, for example, "red" diploma, etc. etc.). They can only presumably with more or less likely to testify about the high quality of work of a particular employee and do not sufficiently reflect the direct real achievements and results of work.

The study of existing forms and systems of payment are the following requirements to be met by a perfect system of remuneration:

a) remuneration shall be in accordance with the quantity, quality and results of their work and the cost of labor in the labor market;

b) it must include material rewards for high performance results, personal contribution to the activities of the enterprise;

c) have a stimulating effect on the worker;

d) ensure the achievement of the employer in the manufacturing process of such a result, which would allow him to cover the costs and make a profit.

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UDC 331.5

STUDYING OF FUNDAMENTAL FACTORS OF INCREASE OF LABOUR PRODUCTIVITY

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The major factors increasing labor productivity are presented in this article. At the description of these factors, the author relies on the point of view of foreign economists, researchers, analysts. The basic principles of motivational strategy of the foreign countries directed on increase of labor productivity at the enterprises (organizations) are considered.

Labor productivity is the key factor influencing efficiency of business, defines the main economic indicators of firm and, first of all, its competitiveness.

Research of the main economic definitions capturing the essence of this economic category became a main objective of studying of this indicator.

Study of this indicator is traced in works of many famous economists. K. Marx considered that productive force, of course, is always productive force which is useful for concrete work and actually determines by itself only extent of expedient productive activity during this period [1, p. 55].

In foreign literature the problem of labor productivity is considered by foreign economists, first of all, from the point of view of the salary size in the cost of a unit of production for the purpose of definition of competitive positions in the market, decrease in costs of production for a survival of separate firms and enterprises, and also for carrying out the international comparisons. Existence of a number of large works testifies to attention to this problem (Fabrikant, Kendrick, Geylenson, Rostos, Sutermister, etc.). D. Kendrick, being guided by the theory of "production factors", I offered three ways of measurement of productivity: 1) the relation of a gross product to unit of the spent time; 2) to unit of capital investments; 3) to the sum of capital investments and the spent work. Besides, he suggested counting the combined indicator – the development falling on expenses of work and the capital.

Growth of labor productivity is depending on certain factors. (or its reserves) it is considered to be labor productivity growth factors a set of the objective and subjective reasons characterizing the level of this economic category. Adam Smith gave classical definition of a role of increase of labor productivity and its major factors: "The annual product of the earth and work of any people can't be increased … differently as soon as by means of increase in number of his workers and productive force already busy … as a result of increase in the capital, that is funds … or as a result of more expedient division and distribution occupied".

The special attention to study of productivity as the economic category was given by the famous economist, the specialist organizer Mr. Emerson. He was the first who raised the question of production efficiency on a large scale. In the book "Twelve Principles of Productivity" he formulated the principles of the correct organization, both work of the certain performer, and production of the enterprise. It has been referred the following criteria to these principles:

1. Accurate goals of production and accurate designated problems of the personnel.
2. Common sense.
3. Competent consultation.
4. Discipline.
5. The fair relation to the personnel expressed in idea "the better you work the better you live".
6. Feedback.
7. Order and scheduling.
8. Norms and schedules.
9. Normalization of conditions.
10. Rationing of operations.
11. Standard written instructions.
12. Remuneration for productivity.

The main idea of Emerson is as follows: true labor productivity always yields the maximum results at the minimum efforts. G. Emerson considers, what not production has to be arranged to management, and management has to serve production [2, p. 187–190].

Now when studying productivity it is accepted to allocate factors of growth of this economic indicator. The factors are united into three integrated groups (Table 1).

Table 1 – Main groups of factors of labor productivity growth

1 group – factors of fixed capital	These factors are connected with mechanization and automation of work, introduction of progressive innovative technologies in production
2 group – socio-economic factors	It is structure and quality of workers (their qualification), working conditions, the relation of workers to work etc. In group of socio-economic factors the special role is played by structure and quality of labor as the contribution of each worker to the general cumulative work isn't identical: one person in a collective always performs more than average, and others work less than average value
3 group – organizational factors	They cover the whole complex of actions on the organization of work and management, management of the personnel which have direct impact on labor productivity growth. The special subgroup is made by the factors influencing relationship in collective and discipline of work. Here it is necessary to call, first, the system of values of workers and the principles of interaction influencing purposes of the personnel and behavior of workers, their interaction both in groups, and in collective in general. Secondly, measures of activization of workers, thirdly, control measures behind execution of administrative decisions and correction of mistakes and miscalculations and etc.

Source: it is made by the author on the basis of data: [3, 4].

Drawing a conclusion from above the presented table, we can note that on increase of labor productivity level direct influence is rendered not only economic indicators of efficiency of labor costs. Psychological criteria also belong to factors of increase of development of employees: the relation in collective, and not only among subordinates, but also at the subordinate head level.

At everything thus, according to the author, when studying influence of the major economic and psychological factors on increase in labor productivity at the enterprise, the special attention should be paid to experience of the leading corporations in industrially developed countries of the world. Such enterprises (organizations) support investment into studying and research of reserves of growth of labor productivity. As a result, it is wrapped in decrease in production and non-productive expenses, profit markup, progress in competitive fight in the world market.

According to the American researcher-analyst D.S. Sink, one of key indicators of overall performance of the enterprise is the labor productivity indicator which characterizes a share of the let-out production or the made services falling on a unit of labor input, and speaking more simply – a ratio of the received results to the incurred work expenses. In this scheme the author allocates important value for such criterion as management of productivity at the enterprise (organization).

According to the author, the management of labor productivity assumes, first of all, accurate statement and the formulation of the purposes and strategy directed on increase of level of this economic criterion. We can present this strategy in the form of the following algorithm of actions:

1) Creation of system of measurement of labor productivity;

2) Definition of reserves of growth of labor productivity on growth factors taking into account resource opportunities of the enterprise;

3) Development of the plan of measures on labor productivity increase;

4) Development of the scheme of material stimulation of the personnel for achievement of the planned indicators;

5) Training of employees in more effective modes of work.

Viewing in the large the presented algorithm, the increase of labor productivity at the enterprise is shown below:

- increases in mass of production created per unit of time at its invariable quality;
- improvement of quality of production with its invariable weight created per unit of time;
- reductions of costs of work per unit of output;
- reduction of a share of expenses of work in product cost;
- reductions of time of production and address of goods;
- increases in weight and rate of return.

The fact should be noted that for the increase of an indicator of productivity at the enterprises of Republic of Belarus it will be useful to use the experience which has been already saved up in foreign practice.

The increase of labor productivity by an example of the foreign companies is, in our opinion, actual because labor productivity is the major indicator for the enterprise. The careful study of the matter, its application in practice, on condition of fast response to the changing inquiries of environment and the consumer, allows to avoid unnecessary expenses and to compete successfully in the conditions of the modern market.

The motivation of work is among the problems to which solution much attention was always paid in world practice. Modern approaches to motivation of work are, as a rule, reduced for payment work, based on the fixed tariff rates and official salaries. In most cases they are ineffective. Therefore when forming systems of motivation of work at the RB enterprises, especially large, it is necessary to take the experience which is already saved up by world practice as a basis.

Below the presented table 2 reflects various politicians of the certain countries directed on increase of labor productivity at the enterprises.

Table 2 – Feature of the strategy increasing development of employees on enterprises

Country	Essence of motivational strategy
USA	• Combination of price-work and time compensations • Participation in profit • Awards for trouble-free operation, long operation of the equipment • Encouragement of scientists and engineers for the pressing achievements in the field of science
Japan	5 principles: • Lifelong hiring • Personnel rotation • Reputation • Preparation jobsite • Motivation and compensation
Germany	• Combination of active and passive policy of the state • Work incentives • Social safety net
France	• Compensation individualization • A mark assessment of work of workers on professional skill • Extra fee (at education of children, for certain merits on production)
Sweden	• Continuous updating on production • Principle "equal payment for equal work" • Strong social policy • Reduction of the gap between the minimum and maximum salary

Source: it is made by the author on the basis of data [5].

Having carried out the analysis of the data presented in table 2 the author came to a conclusion that for achievement of the optimum indicator of labor productivity at the Belarusian enterprises it is necessary to take into consideration the growth strategy of development at the foreign enterprises. These models entirely reflect the direction and course which are needed to be followed to increase performance level.

Taking into account foreign methodological approaches of this economic category study and the main motivators stimulating workers to increase their own professional development author's conceptual approach is developed. It provides the use of various foreign models increasing labor productivity. The capture for a basis of experience of foreign countries will allow, according to the author, to increase the development of employees at the RB enterprises and it is essential to increase labor productivity level.

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UDC 336.6:336. 201.3(476)=111

THE DEVELOPMENT OF SOLVENCY INDICATOR ANALYSIS AS A COMPONENT OF FINANCIAL INDEPENDENCE

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The international emblem of accountants is the emblem with the depicted sun, scales and the Curve of Bernoulli, and contains the inscribed motto: "Science, conscience, independence". That's why the main purpose of accountant is to provide an organization with financial independence.

Financial independence is an important characteristic of the stability of any organization. In the conventional sense, according to the experts financial independence is the ability of business entity to pay for its obligations in time.

From the author's point of view, financial independence is a complex of measures, which guarantee constant solvency, opportunity to cover any expenses of an organization in accounting period.

A lot of economists consider financial independence with the help of dynamic coefficients, which characterize, on the one hand, the level of financial independence, and on the other hand, the degree of protection of creditors' interests, as well as the implementation of long-term investment of an organization. From the economic point of view, financial independence is the information about the financial condition of an organization with the help of dynamic analytic coefficients, such as:

– coefficient of financial risk;
– coefficient of capitalization;
– coefficient of autonomy;
– current assets to equity ratio, etc.

The immediate source of information for the analysis of economic activities of an organization is the accounting data. That is why the author considers that it is necessary to develop the analysis of financial independence after the development of financial independence accounting.

The analysis of financial independence components will allow correctly to use the assets of an organization, make the right decisions for the efficient allocation of funds in order to improve the financial condition, evaluate the financial condition of an organization as a whole, as well as to identify factors that influence those results.

The author considers it necessary to carry out the analysis of financial independence in areas which are presented in the form of classification of financial independence (Fig. 1).

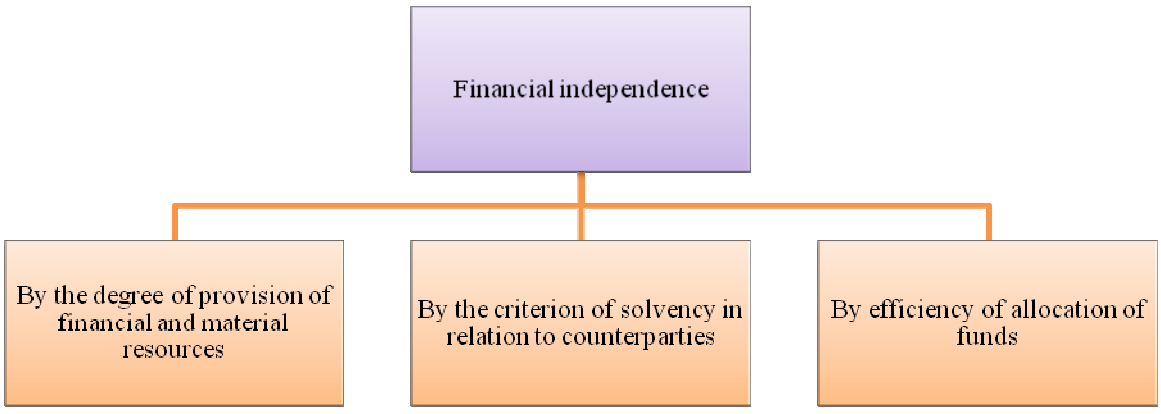

Fig. 1. General model of financial independence

Nowadays, in the national practice, there is no single approach to the analysis of the above mentioned indicators, but the interest of this article will focus on such indicators as solvency.

Solvency and the ability to continue normal financial and economic activities are the criterion of financial independence.

Maintaining a balance of its own assets and liabilities can guarantee permanent solvency to counterparties, as well as the attractiveness for investments taking into account acceptable risk.

Let us consider the methods of calculating of solvency indicators, which are proposed by legislation of the Republic of Belarus and various economists.

Table 1 – The methods of calculating of solvency indicators

Source	Calculated coefficient	Method of calculation	Value
1	2	3	4
Instruction on the procedure for calculating solvency ratios and analysis of financial condition and solvency of business entities [1]	The current liquidity ratio	$C_1 = \frac{SA}{SO}$, where SA – short-term assets; SO – short-term obligations	The ratio of result for Section II to result for Section V of balance sheet
	The coefficient of availability of current assets	$C_2 = \frac{SE + LO - LA}{SA}$, where SE – shareholders' equity; LO – long-term obligations; LA – long-term assets; SA – short-term assets	The ratio of sum of result for Section III and result for Section IV of balance sheet after deduction result for Section I to result for Section II of balance sheet
	The coefficient of availability of financial liabilities with assets	$C_3 = \frac{SO + LO}{RB}$, where SO – short-term obligations; LO – long-term obligations; RB – result of balance sheet	The ratio of sum of result for Section IV and Section V to result for balance sheet
	The absolute liquidity ratio	$C_{abs} = \frac{FI_s + CE}{SO}$, where FI_s – short-term financial investments; CE – cash and cash equivalents; SO – short-term obligations	The ratio of sum of short-term financial investments cash and cash equivalents to short-term obligations
Krasovskaya S.I. [2]	Real current liquidity ratio	$C_{cur.liq} = CR_L + R_L + \frac{C}{SI}$, where CR_L – the cost of liquid reserves; R_L – liquidity receivables; C – cash; SI –short-term indebtedness of an organization	Comparison of the current liquidity ratio to the level of the real factor allows to answer the question whether an organization is solvent or not. An organization is able to pay if $CR_L + R_L + C > R_N + SI$
	Minimum required coefficient of overall liquidity	$C_{ov.liq} = R_N + \frac{C}{SI}$, where R_N – the cost of necessary reserves; C – cash; SI – short-term indebtedness of an organization	
	The absolute liquidity ratio	$C_{abs.liq} = \frac{C + S}{SL}$, where C – cash; S – easily realized securities; SL – short-term liabilities	Shows how much short-term debt obligations can be repaid immediately if necessary
	The coefficient of intermediate liquidity	$C_{int.liq} = \frac{C + FI + F}{SO}$, where C – cash; FI – financial investments; F – funds in the calculations; SO – short-term obligations	Determines the possibility of an organization to pay off short-term liabilities in cash, by investments and funds in the calculations

Continued

1	2	3	4
	The coefficient of movables	$C_{mov.} = \frac{CA}{GA}$, where CA – current assets; A – gross assets	Can testify to the formation of mobile assets' structure, which conducts to acceleration the turnover of funds of an organization and the diversion of the current assets by lending consumers of goods and services to an organization, affiliated organizations and other debtors
	The coefficient of the share of reserves and taxes in current assets	$C_{sh.} = \frac{Vi + Vc + T}{SA}$, where Vi – value of inventories; Vc – value of costs; T – taxes on purchased goods, finished goods of an organization; SA – short-term assets	Reflects both the increase of the production capacity of an organization and of the irrationality of the chosen business strategy
Savitskaya G.V. [3]	The absolute liquidity ratio	$C_{abs.liq} = \frac{C + FI_S}{SD}$, where C – cash; FI_S – short-term financial investments; SD – short-term debts	Shows how much short-term obligations can be repaid at the expense of available cash. The higher it is, the more it guarantees of repayment of debts
	The coefficient of quick (immediate) liquidity	$C_{quick.liq} = \frac{C + FI_S + SR - DD}{SFI}$, where C – cash; FI_S – short-term financial investments; SR – short-term receivables, DD – doubtful debts, SFI – short-term financial liabilities	Satisfies the usual ratio of 0.7–1. However, it may not be enough if a large share of liquid assets is receivable, the part of which is difficult to claim in a timely manner
	The current liquidity ratio	$C_{cur.liq} = \frac{SA}{SO}$, where SA – short-term assets; SO – short-term obligations	Shows the degree in which current assets cover current liabilities
Lisenko D.V. [4]	The absolute liquidity ratio	$C_{abs.liq} = \frac{C + FI_S}{SO}$, where C – cash; FI_S – short-term financial investments; SO – short-term obligations	Characterizes which part of short-term liabilities can be repaid by available cash resources and short-term financial investments
	The coefficient of critical liquidity	$C_{crit.liq} = \frac{AR + C + FI_S + OCA}{SO}$, where AR – accounts receivable; C – cash; FI_S – short-term financial investments; OCA – other current assets; SO – short-term obligations	Characterizes the projected payment opportunities of an organization on condition of timely settlements with debtors
	The current liquidity ratio	$C_{cur.liq} = \frac{CA}{SO}$, where CA – current assets; SO – short-term obligations	Characterizes the degree at which all current liabilities are secured by current assets

Source: authors` own elaboration based on a special study of the economic literature.

As you can see from the above studied different methods of calculating solvency, it can be concluded that the calculation of analytical ratios is one of the best known and most frequently used methods of solvency analysis of an organization. These methods can allow you to see the relationship between the indicators and to assess trends in their changes.

Based on the research, the author identified two most complete methods for calculating the solvency index: methodology proposed by the legislator and the methodology proposed by the author Krasovskaya S.I. These two methods, in our opinion, more fully disclose the information about the state of an organization, characterize its ability to pay for the obligations in time, as well as allow us to make accurate conclusions about the financial condition and solvency of an organization with a view to adopting a competent management decisions.

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