MINISTRY OF EDUCATION
OF BELARUS
POLOTSK STATE UNIVERSITY

EUROPEAN
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DIMENSION
IN RESEARCH

ECONOMICS

Electronic collected materials
of XI Junior Researchers' Conference
(Novopolotsk, May 23 – 24, 2019)

Novopolotsk
2019

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211440, ул. Блохина, 29, г. Новополоцк,
Тел. 8 (0214) 53-63-40, e-mail: inter.office.psu@gmail.com

Технический редактор Михайлова Ольга Петровна
Компьютерная верстка Дарьяновой Татьяны Александровны
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CRITERIA FOR THE OPTIMAL CHOICE OF SUPPLIER

VLADİMİR ALEKSEYENKO, JOHN BANZEKULİVAHO MUHİZİ
Polotsk State University, Belarus

This article describes the most important criteria needed to make a decision on the choice of the optimal resource provider, helping to reduce the risks associated with the supplier's inability to fulfill its obligations.

***Keywords**: Criteria, optimal, supplier, choosing, quality.*

Supplier selection is one of the most important tasks of procurement logistics. The underestimation of this stage of production is not only a gross mistake of the manufacturer, but may later become a decisive factor in the recognition of the products of this enterprise as uncompetitive on the market. The supplier's performance is simply necessary for the successful operation of any organization.

There are two ways to choose a supplier:

Choosing a supplier from among companies that have already been your suppliers and with whom you have already established close ties. This facilitates the choice, since the company's purchasing department is already familiar with their level of professionalism [1].

Selection of a new supplier, as a result of the search and analysis of the market of interest: a market with which the company is already working, or a completely new market. Let this option be more costly compared to the first, since it requires a certain amount of time and resources to verify a possible supplier, but it provides an opportunity to follow the situation on the market as a whole, and, having made certain conclusions, use the services of the most suitable (for selected organizations criteria) of the supplier. It is also reasonable to assume that the higher the competition in the market of the supplier, the more favorable conditions (without the loss in quality) can be achieved by the client organization.

There are two main criteria for choosing a supplier:

1) cost of acquiring products or services;

2) quality of service [2].

Quality of service includes quality of products or services and reliability of service. The latter is estimated by means of the probability of no refusal to satisfy the customer's application. In addition to the main criteria, there are additional ones. These include:

– Remoteness of the supplier from the consumer;

– Deadlines for the execution of current and emergency orders;

– Organization of quality management at the supplier;

– The ability of the supplier to ensure the supply of spare parts during the entire service life of the supplied equipment;

– Creditworthiness and financial position of the supplier, etc.

The stages of choosing the optimal supplier are:

Search for potential suppliers.

Contests, auctions; the study of promotional materials (corporate directories, ads in the media, sites on the Internet, and so on); visiting fairs, exhibitions; personal contacts with possible suppliers (correspondence, telephone conversations, business meetings) [3].

Check supplier.

Supplier reliability is one of the most important criteria for choosing it. In the event of an insolvency of the supplier, the company will not only suffer losses due to a shortage of raw materials and materials, but will also be forced to increase costs of finding new resources. It is at the stage of dating that the potential partner is checked. If the supplier turns out to be unfair, then the buyer may experience problems in trading, which can lead to financial losses, so it is important to identify the reliability of the supplier before entering into an agreement. To verify the reliability of the supplier, information can be obtained from the following sources: a

personal meeting with the management of the organization; financial statements of the supplier; local sources (legal entities operating in the area); banks and financial institutions; potential supplier's competitors; trade associations; news agencies; public sources (registration chambers, tax and other, with information open for familiarization). The result of the second stage is a list of suppliers with a proven reputation.

Analysis of identified suppliers.

As a result of the analysis of potential suppliers, a list of specific suppliers is formed, with which the work on the conclusion of contracts is carried out. Criteria based on the analysis of potential suppliers are the price and quality of products, as well as the reliability of supply.

Supplier Reliability Assessment.

Evaluation of the results of work is carried out on already concluded contracts.

The criteria for selecting a supplier also include the following issues:

1) Information on the company's position in the existing market, its experience, supplier's reputation, reputation, the identity of the manager, a contingent of major customers, the size of the current market and plans for the future, competitive advantages, as well as leadership in the market of specific products, the possibility of a long-term business partnership, financial stability and financial conditions (for example, the possibility of providing price discounts);

2) Existing relations with the supplier – the existence of existing or already invalidated contracts with this company, the prospects for long-term cooperation, the presence of various circumstances affecting the choice of supplier (kinship ties), the volume of sales of goods necessary for mutual interest;

3) Products supplied – fame, breadth of assortment, quality and appearance of goods, compliance with established sanitary and technical standards, availability of certificates;

4) Pricing policy – prices for the products supplied, their difference from the average market, the possibility of discounts;

5) Reliability of supply – compliance with the delivery schedule and emergency orders, compliance with requests for the volume and structure of goods, the implementation of a transport service provider, the possibility of varying the various terms of delivery;

6) Availability of reserve capacity;

7) Improving the quality of products, related services in the form of organization, the possibility of returning defective products, the ability to ensure the supply of spare parts during the entire service life of the supplied goods, as well as make repairs;

8) Geographical location of the supplier;

9) The absence of negative messages about it from business partners or the media;

10) Professional level of staff, staff turnover and so on.

For the organization of smooth operation, it is desirable to have a large number of suppliers, since it provides the following benefits:

1) The ability to successfully negotiate prices, terms of delivery or other obligations;

2) A choice if one of the suppliers is experiencing difficulties (difficulties may be associated with the terms of delivery, product quality and service);

3) The ability to solve problems arising from an increase in production or sales, not provided for in the current production (sales) plan.

It is also necessary to constantly monitor what measures the supplier is taking to ensure the safety of the quantity and quality of the products being shipped:

1) Compliance with the established rules for packaging and packaging of products, marking and sealing of individual items;

2) Accurate determination of the number of products shipped (mass and number of places, boxes, bags, bundles, bales, packs);

3) When shipping products in a package, there is a clearance for each container document (packaging label, packing list), indicating the name, quantity and quality of the products in this container location;

4) Accurate and correct registration of shipping and settlement documents, compliance of the data indicated in them on the quantity of products to the actual quantity being shipped;

5) Control over the work of persons engaged in determining the number of products shipped and registration of shipping and settlement documents for it;

6) Shipment (delivery) of products that meet the quality and completeness of the requirements established by the standards, specifications, drawings, recipes, samples, standards;

7) Accurate and correct execution of documents certifying the quality and completeness of the products supplied (technical passport, certificate, quality certificate), shipping and settlement documents, the compliance of the quality and completeness data indicated in them with the actual quality and completeness, as well as timely shipment (delivery) of products that meet the quality and completeness of the requirements established by the standards, specifications, drawings, recipes, samples, standards;

8) Accurate and correct execution of documents certifying the quality and completeness of the products supplied (technical passport, certificate, quality certificate), shipping and settlement documents, the conformity of the quality and completeness data indicated in them with the actual quality and completeness, as well as timely sending of documents certifying the quantity, quality and completeness of the product to the recipient; documents are sent with the products;

9) Compliance with the transport regulations for the delivery of goods for transportation, their loading and fastening, as well as special loading rules established by the standards and technical conditions.

Thus, the process of selecting the optimal supplier is extremely complex and requires maximum attention from the buyer's organization, including an assessment of the reliability of the supplier, analysis of the identified suppliers, as well as supplier verification. We also stressed the importance of having several suppliers at the same time at the enterprise, which will allow us to diversify risks. Reducing the likelihood of a complete lack of required resources.

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Economics

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ORGANIZATIONAL AND MANAGERIAL ASPECTS OF PROFESSIONAL SPORTS IN THE REPUBLIC OF BELARUS

ALIAKSANDR MATVIENKA, ANASTASIYA YEMIALYANAVA
Polotsk State University, Belarus

The study is devoted to the economic development of the sports industry in the Republic of Belarus. Special attention is paid to the approaches to the development of professional sports in Europe and the USA. The advantages and disadvantages of the existing systems of professional sports are noted. The results of the study show great differences between the system of professional sports in the Republic of Belarus and the existing ones in the USA and Europe.

The professional sports industry in the Republic of Belarus is at the stage of formation and commercialization, there are profitable professional sports organizations and market relations are developing, which contributes to the investment attractiveness for private investors, but the situation in the industry does not have a stable vector for development in this direction yet.

The main reasons for the economic imperfection (commercialization) of the sports industry in the Republic of Belarus [2] are related to the lack of private (sponsorship) investment, and the main source of investment is financing from the state budget. In this regard, it is necessary to evolve the mechanisms and tools of the market economy applicable in the industry of professional sports.

The disunity of individual sports clubs in the search for ways to pay off and defend interests (especially in team sports) reduces the efficiency of commercialization of the sports industry. In the world practice, this problem is effectively solved by creating professional leagues and associations, in which the professionally trained management apparatus conducts negotiations with potential users of the sports product and intermediaries. Unfortunately, the creation of professional leagues in our country is currently only at the stage of long-term plans and projects.

The formation of professional sports in the Republic of Belarus is based on the world experience, primarily of the USA and Europe. Historically, there have been two main approaches to the development of professional sports: commercial-sports and sports-commercial, between which there is a significant difference.

The basis of the first [1], which is typical mainly of the USA, is the pursuit of maximum income, while professional sport is considered as a specific sphere of business. Sports activity and its results are a means of achieving profit. American management system is characterized by profit at the expense of directly competitive activities (and not at the expense of budgetary allocations, as in the Republic of Belarus), by differentiation of the level of wages of athletes, up to the establishment of the salary limit Fund for the team. Some other typical features are the lack of, as a rule, sponsors, the high cost of selling television, a high entrance fee for beginners, the system of distribution of income from the sale of tickets, low rent for the use of municipal (urban) sports facilities, tax incentives. The noted features relate primarily to the management of the most popular (more profitable) sports in the United States.

Managers of American professional sports have formed a system of legal relations between its subjects. For example, the relationship between employers and professional athletes is based on the current system of selection of players in the team (draft system), their retention in the club, control over athletes, resolving controversial legal issues, as well as the transfer of athletes. In the US the sports business is more competitive than in other countries. In European sports, according to experts, there is no such competition as in the States, and in the Republic of Belarus does not exist at all. One of the main tasks of professional sports managers in the United States is to ensure that none of the teams gets a significant advantage over the others, as the viewer will not go to the game if they can predict the winner in advance. In order to prevent the financial collapse of individual clubs the American management system has established some rules for the distribution of income from the sale of tickets and television contracts signed by the League. These rules are the factors of economic development and financial well-being of professional sports. Another key point of management in the US is the introduction of restrictions on the salary of athletes, which also balances the financial capabilities of the teams.

The second approach [1] is more typical of Europe. In European countries sports competition is a priority and a prerequisite for running a sports business. The European model is based on the competition between sports teams seeking to create an advantage, largely based on financial opportunities to acquire the strongest athletes.

Analysis of the European management of professional sports shows [1] that the desire of managers and team managers to overcome the situation inherent in the system of organization of competitions and to achieve the best economic results tempts many clubs to lead management beyond their means, which often leads to disastrous consequences.

In comparison with the American management system in Europe, another principle of recruitment of professional leagues is implemented. This peculiarity of management leads to other principles of team formation, participation of sponsors (European clubs have up to 50% of income due to sponsorship) [3] and local authorities in their financing. In Europe, clubs receive less income from the sale of television, the salary of athletes is lower, and they are less socially protected.

World professional sport is an ambiguous phenomenon [4]. Its models, which have been formed in different countries of the world for a long time, have significant differences in several criteria. The American and European models are typical. When considering these criteria it should be noted that among professional sports in the United States, Europe and the Republic of Belarus there are differences in attendance of competitions, social security of athletes, the role and place of television in support of sports, the place of professional sports in the system of social values, in the classification of athletes, the amount of their remuneration, etc.Comparative analysis shows significant differences between the professional sports model in the Republic of Belarus and the existing in the United States and to a lesser extent – from the European one.

The data obtained in the study became the basis for the following conclusions:

– funding for professional clubs, both in the United States and in Europe, is carried out mainly at the expense of income derived directly from sports activities;

– European clubs are financially more dependent on government support at the local level, and not all teams are able to fully recoup costs from sports activities by themselves;

– ticket sales for foreign clubs, both in the USA and in Europe, are the main source of income, which is unusual for sports in the Republic of Belarus;

– the second source of importance for foreign teams are the funds received from the sale of broadcasting rights, in the Republic of Belarus this source of funding is in the process of formation;

– sponsorship is unusual for American sports, but in Europe it plays a significant role. An important feature of sports in Europe is the financial assistance of municipal councils, which in principle is very similar to the existing system of financing clubs in the Republic of Belarus.

The modern stage of development of the world professional sport gives rise to new model versions. The emerging Belarusian one can be referres to them as well.

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Economics

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IMPROVING THE EFFICIENCY OF ORGANIZATION OF INTERNATIONAL AUTOMOBILE CARGO TRANSPORTATION

ALIAKSANDRA ROZINA, JOHN BANZEKULIVAHO MUHIZI
Polotsk State University, Belarus

In article questions of improving of efficiency of the organisation of the international automobile cargo transportation for satisfaction of inquiries and requirements of consumers of the automobile transportation services are considered. The key role of organization of transport process at the implementation of the international automobile cargo transportation is noted. The basic stages of organisation of the international automobile cargo transportation to ensure the effectiveness of cargo delivery *are consistently characterised.*

Keywords*: international automobile cargo transportation*, transport process, cargo delivery, *cargo carrier, consignor.*

In the context of globalization, there is a rapid development and continuous improvement of the transport industry. The transportation system of any country provides the necessary transportation for the functioning of the national economy, establishing links with other countries and ensuring the welfare of society.

At the present stage of development of the market economy, interstate relations are characterized by the expansion of foreign economic relations. An important role in ensuring these connections are, undoubtedly, all types of transport. Transport today is the most important means of providing links between states. However, it should be noted that it is road transport that occupies a special place, since it is almost impossible to carry out "door-to-door" delivery by other types of transport [1, p. 297].

The demand for automobile cargo transportation is determined by the constant dynamics and structure of production volumes in each country. Economy and transportation of cargo mutually influence each other. The development of the economy causes the growth of freight traffic. On the other hand, high rates of transportation and the capacity of the transport system have a positive effect on investment activity and growth rates of the national economy. Transport, like all sectors of the economy, contributes to the development of society, so it is worth constantly developing the road transport industry [2].

The organization of transportation of cargo has its own characteristics and advantages. First of all, when placing any order, the most convenient mode of transport for transportation is determined, then the route of transportation, the necessary transport and accompanying documentation are developed and approved in accordance with the requirements of both domestic legislation and customs and tax legislation for international transportation.

Special attention in the implementation of the international automobile cargo transportation is paid to the organization of the transport process. This integral part of the transportation process occupies an important place, because as a result, correctly organized transportation of cargo is performed with maximum efficiency, that is, with minimal logistical costs, in a short time and with high quality, and this always remains relevant. In addition, international road freight transport is classified as a service export and provides capital inflows. All this causes the relevance of the organization of the international automobile cargo transportation.

The organization of international transportation is a complex process, which includes many different components, but the main thing is to build an optimal logistics chain in such a way that it is possible to deliver goods on time and minimize the corresponding logistics costs.

The international automobile cargo transportation is one of the profitable activities. But such activities are fraught with a large number of complex problems, such as poor development of transport infrastructure, lack of roadside service, road conditions, etc. These problems adversely affect the delivery of goods, which affects the cost and time of transportation. To solve them, enterprises seek to organize each stage of the international automobile cargo transportation [3].

The international automobile cargo transportation involves the constant crossing of the customs borders of different countries, which requires the company to perform flawlessly at all stages and stages of the required actions. One of the main features is the organization of receipt of information about the exact location of the goods in a particular location. International road freight transport should be organized in such a way that cargo delivery takes place at a specific time, and the possible costs of transportation are minimized.

The organization of the international automobile cargo transportation also includes the conclusion of a contract for the transportation, receipt and processing of applications from consumers of transport services, determining the route, drawing up a task for the driver, providing the driver with documentation, carrying out transportation directly [4].

Transport operations can be divided into three main stages of the organization of the international automobile cargo transportation.

The first stage of operations includes actions preceding the conclusion of a transaction for the transport of cargo. These include:

– planning of foreign trade traffic. Here the enterprise determines the need for transportation;
– analysis of transport markets, tariffs and conditions of transportation. Thus, the enterprise is looking for potential carriers;
– cost planning.

The second stage of operations occurs in the process of the transaction and consists of:

– in determining the basic conditions of the contract (the buyer or the seller pays transportation);
– in preparation for the transport conditions of the contract;
– in the preparation of goods for transportation;
– in the conclusion of the contract of carriage;
– in the organization of control over the movement of the vehicle;
– in registration of the necessary transport and customs documentation.

The third stage of transport operations is carried out during and after the completion of the transportation process, and comes down to:

– to make payments (preliminary and final) for the carriage of cargo;
– to the resolution of possible disputes between the shipper, carrier and the consignee;
– to prepare for the necessary cases (judicial or arbitration resolution of disputes).

Next, we consider the process of organizing the international automobile cargo transportation within the enterprise-carrier.

After the negotiations have been held and the application has been received, the process of carriage of the cargo itself should be organized, which is structured as follows:

1. The choice of vehicle in accordance with the type of cargo, its volume and weight. The choice of vehicles will be influenced by such factors as:

– the nature of the cargo (weight, volume, consistency);
– the number of simultaneously shipped batches;
– the urgency of the delivery of cargo to the customer;
– the location of the destination, taking into account weather, climate, seasonal characteristics;
– the distance to which the cargo is transported;
– value of the cargo (insurance);
– the proximity of the location of the point of delivery to transport communications;
– cargo safety, etc.

The expert assessment of the significance of these factors shows that when choosing a vehicle, first of all, the reliability of adherence to the delivery schedule, delivery time, and transportation cost are taken into account. The correctness of the choice made must be confirmed by technical and economic calculations [1, p. 327].

2. Drawing up a contract for the organization of the international automobile cargo transportation. Here a contract is drawn up, which lists the list of services of the transport enterprise, the timing of their implementation and cost. The contract for the organization of the international automobile cargo transportation is a guarantee of the quality of the provision of these services, the safety of the cargo and the observance of delivery dates.

3. Preparation of the necessary documentation. This is one of the most critical components of the organization of the international automobile cargo transportation.

When cargo transportation, between the carrier and the shipper, documents are drawn up for the driver, for the vehicle and for the cargo.

The documents for the driver include:

– civil passport;
– driver's license of international standard;
– driver's medical insurance policy;

– travel certificate (for the countries of the Commonwealth of Independent States – CIS);
– driver card;
– certificate of driver training (for the transport of dangerous cargo).

Vehicle documents include:

– certificate of registration of the vehicle;
– a certificate confirming the passage of the state vehicle technical inspection;
– permission to allow the vehicle to participate in road traffic;
– certificate of international service station (MSTO);
– permission to enter a motor vehicle into the country or transit through the territory of the country (dasvol);
– insurance policy of civil liability of vehicle owners;
– other special permits that depend on the type of cargo being transported.

Cargo documents include:

– request;
– contract for the carriage of cargo;
– invoice (TTN) and CMR;
– waybill (TTN) and contract for the international carriage of goods by road (CMR);
– general power of attorney to receive, store and transport cargo;
– waybill;
– shipping specification;
– certificate of quality;
– veterinary certificate;
– phytosanitary certificate;
– quarantine certificate;
– cargo declaration;
– additionally written instructions for the transport of dangerous goods.

1. Shipping to destination. Here the organization of the international *automobile cargo transportation* includes loading, transportation to the destination and unloading.

2. Reporting. Under the reporting means the provision of reports on the work done, confirming the observance of the delivery dates specified in the contract, as well as the safety of the cargo.

In conclusion, it should be noted that a clear phased approach to the organization of the international automobile cargo transportation allows you to settle all the formalities without wasting energy, financial investments and time. Determination of the optimal route, calculation of tariffs for the carriage of cargo, preparation of documentation, freight forwarding and all other issues on the organization of the automobile cargo transportation assume the specialized transport enterprise. The organization of the automobile cargo transportation is carried out in such a way as to reduce the corresponding logistic costs and deliver to customers cargo with high quality transportation in a short time. This allows to achieve maximum economic effect.

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LOGISTIC APPROACH TO MANAGING A REGIONAL WAREHOUSE OF AN ENTERPRISE

ALIAKSANDRA YATSYNA, JOHN BANZEKULIVAHO MUHIZI
Polotsk State University, Belarus

In this paper, we consider a logistic approach to the management of the regional warehouse. A sequence of warehouse operations is also presented, at the expense of which the capital turnover accelerates, respectively, an increase in profits received per unit of time, as well as a reduction in production costs.

Keywords: *logistics, logistic approach, warehousing, regional warehouse, warehouse operations.*

The logistic approach to the management of the regional warehouse activities involves the organization of all activities in such a way as to ensure maximum efficiency of the warehouse at the lowest cost and the required quality of customer service. The policy of enterprises aimed at obtaining income from logistics activities, as a rule, leads to an increase in profits.

In the areas of production and handling, the application of logistics allows you to:

1. Reduce stocks on the entire path of movement of the material flow.
2. Reduce the time of passage of goods through the logistics chain.
3. Reduce shipping costs.
4. Reduce the cost of manual labor and the corresponding costs of cargo operations.

In general, a regional warehouse is a link in the enterprise's logistics system and combines many of the components of this system: storage, distribution of production products, ensuring smoothing of inconsistencies between the pace and nature of the receipt of these products, on the one hand, and consumption, on the other.

The concept of material flow is key to logistics. Material flows can flow between different enterprises or within an enterprise. When moving material flows in logistics systems, warehousing plays an important role. The warehouse processes at least three types of input, output and internal material flows. Input stream means unloading vehicles, checking the quantity and quality of the arrived cargo. Output necessitates the loading of transport. Internal flow involves the movement of cargo within the warehouse [1, p. 116].

With a logistic approach to the management of the regional warehouse, it is necessary to carefully plan all warehouse operations.

The technology of loading (unloading) works depends on the nature of the cargo, on the type of vehicle. It is important to provide this stage with appropriate means of mechanization, which include loaders, manipulators, cranes, hoists and other mechanisms. Reducing the cost of manual labor for cargo operations results in:

– to a significant reduction in the execution time of loading and unloading and storage operations, which reduces the lead time and the overall duration of the logistic cycle;

– reduction of the relevant costs of operations with cargo, including through the use of similar means of mechanization, the same packaging, the use of similar technological methods of cargo handling at all levels of the logistics chain.

The next operation is the acceptance of the cargo in terms of quantity and quality - during the acceptance process, the actual parameters of the arrived cargo are checked against the data of the shipping documents. Accuracy and speed at this stage will be able to increase the use of modern technology. For example: in determining the quality of food products, it can be modern gadgets such as a dosimeter, hygrometer, etc., and when accepting cargo by quantity and further accounting, RFID technology has been well recommended. Acceptance at all stages of the movement of the material flow from the primary source of raw materials to the final consumer, allows you to constantly update information about its quantitative and qualitative composition [2].

Then the cargo moves to the storage area. When placing goods must take into account the frequency of their orders. So, goods with a high frequency of orders must be placed near the shipping zone; with medium frequency - in the middle of the warehouse; with low frequency - far from the shipping area. In these zones, goods must be placed depending on their size (small, medium, large), which significantly reduces the labor costs for the selection of goods in the preparation of orders. Products with a limited shelf life must be stored

separately, which will not "forget" about the shelf life of the product and implement it in a timely manner. At this stage, modern accounting systems such as ERP and WMS have proven themselves well.

Depending on the type of stored products, technical equipment is selected, on which the cargo is stored and the form of its placement in the warehouse space. The choice is influenced by: warehouse space, warehouse height, used commodity carrier, volume of delivery lots, features of cargo commissioning, free access to goods, storage conditions for goods, breadth of product range, ease of maintenance and capital costs [3, p. 461].

The placement of technological equipment should ensure maximum utilization of the area and height of the warehouse.

The main types of storage are:

– warehousing in a stack in blocks;
– storage in the shelf racks up to six meters
– storage in the shelf high-rise racks;
– storage in walk-through (entry) racks;
– warehousing in mobile racks;
– storage in elevator racks.

The use of various types of storage provides several advantages:

– high degree of used area and volume;
– free access to the product;
– ensuring structural changes in stocks;
– ease of maintenance;
– the possibility of high-altitude storage;
– the possibility of automated control;
– fulfillment of the FIFO principle (the "first in, first out" load);
– low investment and construction costs;
– low operating costs and maintenance costs.

In modern warehouses, various types of warehousing are most often combined, especially in wholesale warehouses. This is due to the variety of stored products with various specific features.

The next operation is a complete set of orders. As in previous operations, the greatest efficiency can be achieved here using modern technologies, for example, Pick-By-Light, mine-type automatic machines, conveyor lines, carousel systems for picking.

Selection in picking zones can be done using various technologies. In some zones, mine-type automata are installed for small piece goods in standard packaging. The performance of these machines can reach up to 12,000 units per hour, moreover, this equipment provides maximum accuracy in the selection of orders with a minimum time for their execution. In other zones, you can use the carousel systems commissioning orders for the selection of a wide range of products. The advantages of using these systems are:

– minimizing the time spent searching for goods;
– saving of storage space up to 60%; cargo protection from unauthorized access.

In the third zones, you can install equipment for Pick-By-Light technology for fast and medium-needed goods. Thus, the use of the latest technologies in the field of order picking allows you to significantly increase warehouse productivity, improve the quality of the set, reduce the time spent on order picking, which will lead to more complete and timely customer service.

The loading operation is different from the unloading operation, primarily because in this case it is necessary to take into account the technical characteristics of the vehicle and, above all, its carrying capacity and body volume. Logistic approach is the optimal selection of vehicles.

In addition to general warehouse operations, regional warehouses organize the delivery of products to retail outlets in the region. At this stage it is important to accurately calculate the route of traffic. According to various estimates, the cost of operations using vehicles ranges from 30% to 50% of the total logistics costs. Therefore, reducing transportation costs is an important reserve for reducing the cost of production.

The costs associated with storage, transportation and other operations that promote the material flow account for about 70% of the final cost of the product. The time spent on these operations is about 95% of the total time it takes to move goods from the primary source of raw materials to the final consumer.

Proper management in the warehouse has a significant impact on the competitiveness of the company, on the development of service, cost optimization, and hence on the efficiency of the enterprise as a whole [4,

p. 116]. Therefore, a logistic approach in organizing the sale of products in general and in organizing the activities of a regional warehouse, in particular, allows accelerating the capital turnover of enterprises, respectively, increasing profits per unit of time, and also reducing production costs.

In this way, the logistic approach to managing a regional warehouse is based on managing the entire warehousing process within one organizational and management system of an enterprise.

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Economics

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IMPROVING EFFICIENCY OF SUPPLY CHAIN MANAGEMENT

ANGELINA DOMKINA, JOHN BANZEKULIVAHO MUHIZI
Polotsk State University, Belarus

The article presents the results of the analysis of an enterprise logistic system to identify ways to improve the efficiency of supply chain management of products to the external market. The proposed measures to substantiate the choice of the route of transport, the best option for delivering products to the external market between tank wagons and tank containers, improving information and documentation support, remote monitoring system of transport management, expanding the geography of an enterprise's products are pointed out.

In the market economy, the sustainability of an enterprise is largely determined by how deeply the degree of development of interaction between participants in processes occurring both inside and outside its logistic system is studied. Therefore, ensuring sustainable development of an enterprise is possible only with sufficient study of all supply chains, from mining sites to a focal enterprise and intermediaries selling products to end consumers. The formation of inter-company communications, including manufacturers, trade and intermediary organizations, financial institutions, is carried out within the framework of integrated supply chains, where logistic operators act as a system integrator. This approach is implemented in the framework of the logistic concept of supply chain management.

Supply chain management is a process of planning, execution and control (in order to reduce costs and fully meet customer requirements) of a material flow (material resource flow, work in progress, finished goods), as well as information related to it, service and financial flows from their point of origin to the point of final consumption (including import, export, internal and external movements). The essence of the concept of supply chain management is the rationalization of logistic operations throughout the product life cycle (development, production, sale of finished products and their after-sales service) [1, p. 3].

Supply chain management is closely linked to the economic strategy of business entities. Effective supply chain management is one of the decisive factors for the sustainable development of an enterprise in today market conditions. Supply chain management is aimed both at optimizing inter-organizational interaction based on modern management methods and information technologies, as well as at optimizing intra-company processes. The practice of implementing a supply chain management system suggests that this concept is fundamental in modern logistics and will continue to evolve rapidly in the future [2].

Research of the effectiveness of supply chain management was carried out at one of enterprises of the petrochemical complex of the Republic of Belarus, which has a significant positive impact on the growth of the national economy. The purpose of research is to identify promising areas of development of this enterprise in order to improve the efficiency of supply chain management for the supply of its products to the external market.

The main activity of the enterprise is the production of high-pressure polyethylene, acrylic fibers, organic synthesis products, low-tonnage chemistry, mineral fertilizers, fractions and pyrolysis products, consumer goods. The products manufactured by the company are competitive due to high quality, diverse assortment and active logistics, it is widely known and has numerous consumers in both internal and external markets.

The results of the analysis of the existing logistic system of an enterprise indicate that it is not able to effectively ensure the supply chain management of products to the external market in the conditions of globalization and sustainable development of a market economy.

In the supply chain management of the enterprise, a number of shortcomings have been identified. They should be given special attention:

– the route of movement of vehicles upon delivery of products to the external market is determined in a non-optimal manner;
– the choice of modes of transport for the delivery of products to the external market is not justified by anything;
– prevalence of paper data processing technology;
– insufficient functioning of the system of remote monitoring of transport management;
– the need to expand the geography of deliveries of products of the enterprise.

These drawbacks significantly affect the efficiency of supply chain management and the sustainability of the enterprise as a whole.

To eliminate the above-mentioned shortcomings, we consider it necessary and expedient to suggest a number of events, namely:

– design and justification of the choice of the route of movement of vehicles and modes of transport for the delivery of company products to the external market;

– the choice of the optimal way of delivering to the external market between tank wagons and tank containers;

– improvement of information and documentation support of the enterprise;

– improving the system of remote monitoring of transport management in supply chains;

– expanding the geography of the enterprise products.

Consider the content of these events in more detail.

1. Design and justification of the choice of the route of movement of vehicles and modes of transport for the delivery products to the foreign market. Design and justification of the route and modes of transport for the delivery of products to the foreign market was proposed using the example of the acetone cyanhydrin delivery from Belarus to China. The acetone cyanhydrin is one of the types of products manufactured by the company, which is in great demand in the international market. Efficiency of the enterprise depends on low logistics costs.

As a result of weighing many options, it was decided to consider three options for the delivery of the acetone cyanhydrin: automobile transport, automobile and sea transport, rail and sea transport.

Having developed and analyzed three possible routes for the delivery of the acetone cyanhydrin from Belarus to China we choose the third option "rail and sea transport" because, despite the fact that it is longer than the first one, it is much safer and more economical all others.

2. The choice of the optimal variant of the delivery products to the external market between the tank wagons and the tank containers. We consider two possible options for the delivery of cargo: tank wagons and tank containers.

Delivery of acetone cyanhydrin to tank wagons from Novopolotsk station (Belarus) to Tallinn station (Estonia) by rail (and own tanks), then transshipment and delivery to the port of Tallinn (Estonia) and the final stage will be shipping from the port of Tallinn (Estonia) to the port Lianyungang (China). Transportation of acetone cyanhydrin in tank containers will be carried out in 20-foot tank containers T14, which will be rented. In both cases, both rail and sea transport will be used.

To determine the method of product delivery, the calculation of the total cost of transportation of ACG from Novopolotsk (Belarus) to Lianyungang (China) was made, which amounted to 282,300 euros for carriages in tank cars and 371,236 euros in tank containers. Such a difference in the total cost can be explained by the fact that the tank container is not owned, but leased, in contrast to tank cars, which are the property of the enterprise. Therefore, for the delivery of acetone cyanhydrin from Novopolotsk (Belarus) to Lianyungang (China), it is more economical and more expedient to use tank wagons.

3. Improving information and documentation support of the enterprise. In modern conditions, regardless of the type of activity and industry sector, the performance of any work and the solution of any task are always associated with the use of already well-established information support at a sufficiently high level. Information support is designed to help better organize business processes in the enterprise.

To improve information and documentation suppory of the enterprise in order to ensure the effectiveness of supply chain management, it is necessary to introduce an electronic document management system. In this regard, we offer the implementation of the OPTIMA-WorkFlow software platform in the enterprise.

OPTIMA-WorkFlow is a software platform for creating document management systems (electronic document management), provides a comprehensive automation of the processing of documents and allows you to go to paperless technology to work with electronic documents [3].

The main workplace of the user of a software product (such as an information center) will consist of all the necessary components to ensure the smooth operation of virtually all structural divisions of the enterprise, which will lead to an increase in labor productivity. The maximum implementation period for the OPTIMA-WorkFlow software platform is 9 weeks. Its payback will not make you wait long.

4. Improving the system of remote monitoring of transport management in supply chains. For the enterprise in question, we propose the introduction of the PRO CAN module navigation system.

PRO CAN module is a premium product in its class. The module program is being improved and remotely updated. New features are added to it according to customer requirements. In addition to the basic PRO CAN

functions, the module is equipped with a built-in battery, 4 fuel level sensors, 2 flow meters, 3 thermometers, 4 discrete systems, a voice communication link with the driver are connected to it [4].

The operation of the system is as follows: the monitoring module is installed on the vehicle, connected to the on-board computer. The dispatcher determines in real time the location, route, car mileage, real fuel consumption, the volume of gas stations, identifies uneconomical driving style, suspicious downtime, determines the driver's working time and much more. On the screen of a computer or mobile device we see an electronic map with all the cars and mobile workers, as well as all the most important analytical information.

Thanks to the implementation of the PRO CAN module navigation system, the efficiency of supply chain management in the enterprise logistics system is improved, and there is a saving on the technical operation of vehicles.

5. Expansion of the geography of the enterprise's products. As a result, the analysis of the external market, as potential and promising international markets for the sale of the enterprise's products, were considered countries such as France, Spain, Iraq, Korea and Indonesia that have not yet been developed.

Country profiles were ranked by attractiveness and risk factors. Factors of attractiveness include population size, gross domestic product per capita, constant demand, etc. The risk factors include the inflation rate of the national currency, the distance of transportation to the capital, the level of competition in the national market, etc. The selection of potential markets for the sale of the enterprise's products was carried out by building a map of the countries attractiveness-risks. Some countries (for example, Indonesia) have the highest rate of attractiveness, but the risks that an enterprise may incur when interacting with a given country are also high. In such cases, we offer the enterprise to refrain from penetrating into such markets.

Thus, from the proposed measures it follows that the efficiency of supply chain management plays an important role in increasing the sustainability of the enterprise to ensure its long-term development. In this case, improving supply chain management involves selecting promising routes and economical modes of transport for delivering products to the external market, choosing the optimal delivery option, improving information and documentation support and a remote monitoring system for transport management, expanding the geography of deliveries of an enterprise.

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UDC 331

DIGITAL TECHNOLOGIES ON LABOUR MARKET

ANNA PANKOVA, ELENA BOGDANOVA
Polotsk State University, Belarus

The article deals with the general trends of replacing people with information systems. It is noted that the professions of the average wage and the average level of complexity are exposed to replacement in a greater extent. Examples of future professions from the sphere of management and the general characteristic of competences necessary for successful work in the future are described in the work.

Introduction. Technological development has always destroyed some professions, replacing them with new ones with other activities, perhaps in every sphere. For example agriculture in the United States at the beginning of the XIX century: people employed in this area accounted for 90% of the workforce, today their market share does not exceed 2 %. And such a sharp decline occurred relatively smoothly, without big social unrest or total unemployment. The app development economy is another example of a new employment ecosystem. Many categories of professions, in particular those connected with mechanical monotonous work, are already automated. They will be followed by other categories as computing power continues to grow exponentially [4]. In this regard, it will be relevant to study the causes and consequences of the transformation of labor market under the influence of inexorably ongoing technological progress. The purpose of this research is to study the current trends in the labor market and analyze the factors that will affect the formation of professions in the field of management in the near future.

Main part. As noted by Schwab (2016), employment will grow in high-income cognitive and creative professions and in low-income manual work, but it will significantly decrease in the average income monotonous standard professions [4]. In support of this thesis, we can cite the "curve of the Autor", which is shown in figure 1.

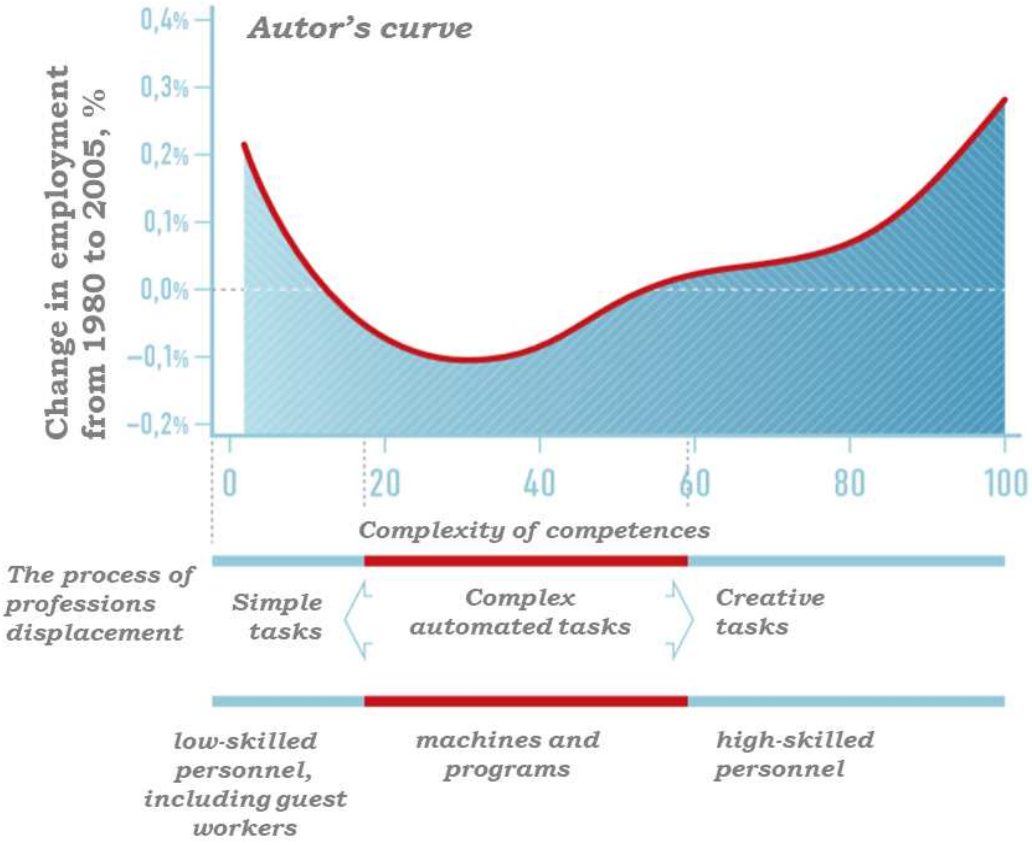

Figure 1. – Autor's Curve

Source: [3].

The "Autor's curve" is a curve developed by the American economist David Autor, which shows the change in employment in the US industries from 1980 to 2005, depending on the qualification of workers. The graph shows that employment among low- and high-skilled workers has been growing and employment among middle-skilled workers has been declining. This was primarily caused by widespread use of automated solutions for tasks of medium complexity. Automation in industries always begins with the work of the average level of qualification. These works contain enough template components to be easily automated, and are already well paid to make automation economically attractive for business owners [3].

It is interesting to note that the replacement of people with automated systems is connected not only with the expanding capabilities of algorithms, robots and other assets other than the workforce. According to Michael Osborne, a fundamentally important factor that provides automation is the fact that in recent years companies have invested a lot of effort and money in a more accurate definition and optimization of jobs in the framework of activities in order to transfer works to third parties, to provide their withdrawal from the country or to transform the job into remote status (for example, through the service Mechanical Turk of Amazon – the collective market of crowdsourcing on the Internet). Such optimization of workplaces means providing additional opportunities for replacing people with algorithms, since discrete, exactly defined tasks entail more effective monitoring and high quality of data related to the task, thus creating a convenient base on which it is possible to develop algorithms for the performance of work [4].

There is also a negative side of the medal of mass development of information technologies: mass robotics and automation will lead to the release of jobs, a large number of people may be left without work, it will be necessary to retrain specialists to other professions, but also there will be a lot of new professions. This in turn is a source of economic and social tension for modern society. From the Technology at Work report, published by Oxford Martin School, it may be predicted that 77% of jobs in China will be robotic in the next couple of decades, in India the same value will be 69%, Thailand – 72%, the US – 47%, the UK – 35% and the average for OECD countries – 57% [1].

In research made by Frey and Osborne the quantitative values of the potential impact of technological innovations on unemployment are given, where 702 professions are distributed according to the degree of probability of their automation: from the minimum risk of automation ("0" corresponds to the absence of risk) to the most risky ("1" maximum risk of replacing the profession) [2].

Table 1 shows examples of professions that are subject of automation.

Table 1. – Examples of professions subject to automation

Most exposed to automation	
Probability	**Profession**
0,99	Telephone sales specialists
0,99	Tax documentation specialists
0,98	Insurance appraisers, auto damage
0,98	Referees, arbitrators, other officials in the sports industry
0,98	Legal secretaries
0,97	Waiters and hostesses
0,97	Real estate agents
0,97	Contractors in the agricultural industry
0,96	Secretaries, administrative assistants, except for legal and medical assistance
0,94	Couriers and messengers
Minimal exposure to automation	
0,0040	Choreographers
0,0042	Physicians and surgeons
0,0043	Psychologists
0,0055	Human resources managers
0,0065	Computer systems analysts
0,0077	Anthropologists and archaeologists
0,0100	Marine engineers and naval architects
0,0130	Sales managers
0,0150	General directors

Source: compiled by the author on the basis of [2].

In general, there are can be distinguished three groups of professions [3]:

– new professions - appear in connection with the change of technologies, the use of new practices and new demands of consumers;

– changing professions - changing under the influence of information and communication and other technologies;

– professions pensioners - disappear as a result of automation and other technological and social changes.

It should be noted that there are at least four categories of knowledge that robots can hardly master. All such professions may be characterized by unpredictability, and they are [5]:

– working with unpredictable people (i.e. people in general);
– work in an unfamiliar environment;
– working in complex and changing situations;
– work in terms of dual processing of the data.

Accordingly, the most important factor of professional development at the present time is that the profession is not static, the possession of its graduate does not mean achieving complete success. Traditional definitions of skilled work are based on the availability of advanced or specialized education and the acquisition of certain skills within a profession. The most competitive employees are those who "absorb" the so-called over-professional skills. They include [3]:

– systems thinking;
– intercultural communication;
– ability to manage projects, use project approach in solving professional tasks;
– culture of "lean" wasteful production and skills of optimal (with minimal resources) solution of the problem;
– ability to work with robotics and artificial intelligence systems;
– ability to work with customer focus;
– multilingualism and multiculturalism;
– skills of working with people and integration of the employee into work with numerous social groups;
– skills of working in conditions of high uncertainty (due to changes in the environment);
– creativity.

If we turn to a specific area of management, we can say the following. If earlier management systems looked like pyramids with many levels of middle management, now pyramids become "flat", workers are more delegated, freedom of decision-making increases. For example, some companies experiment with working without bosses at all. The main tasks of management in the future will be to find mechanisms of distributed management: opportunities to form, coordinate and evaluate distributed mobile teams of specialists for specific projects. In the 2020s, the role of non-hierarchical organizations (for example, the community of independent producers) will increase, they will coordinate their sales, production, investment in equipment and human capital through the network [3].

In table 2 we consider what professions in management may appear and how they will look like.

Table 2 – New professions in the field of management

Profession	What the employee will do
1	2
Time-broker	A specialist who "sells" the working time of specialists, who are in free employment, that means managing someone else's employment on the open market. This specialty on the far horizon disappears due to the appearance of automated solutions
The production coordinator in distributed communities	A professional who consolidates the customer orders and organizes the work of independent teams working within the industry community in order to develop, manufacture and assemble the product according to the customer's requirements. In fact, it is the director of production for the community, consisting of several independent producers
Trendwatcher/forsiter	Specialist who monitors the emergence of new trends in different sectors of the economy, public life, politics and culture, making reports on the impact of new trends on customer needs. On the far horizon, the ability to work with images of the future will become a universal competence of any managers
Virtual lawyer	Specialist in remote legal support through the network, including the norms of the legislation of the country in which the case should be conducted (regardless of the country in which the lawyer practices himself)

Continued Table 1

1	2
Portfolio manager of corporate venture funds	A specialist who manages the company's investments in startups created on the basis of the ideas of its employees and aimed at the development of the company's product line. Accompanies the development of these startups from idea to production
Corporate anthropologist	It is the specialist responsible for studying the markets of innovative products of the company by anthropological methods (for example, the included supervision) and increasing the relationship of the company with its target audience

Source: compiled by the author on the basis of [3].

These are just some examples of possible professions in the field of management. At the same time, we note that the emergence of a new or change in the old profession occurs gradually: firstly, a small number of pioneers try a new approach to the performance of work, then the bulk of employers recognize the need for changes, and the "tail" can last for a very long time.

Conclusion. As a result of our research we can identify some trends. Firstly, the replacement of people's functions by information systems occurs to a greater extent at the average level of any sphere of activity, when the task is not very difficult, but already quite well paid. Secondly, the replacement of people with computers is impossible when working with unpredictable people, in an unfamiliar environment, in complex and changing situations, in conditions of dual data. And thirdly, the emergence of new professions and the change of old ones will require from workers to acquire over-professional skills, such as systems thinking, intercultural communication, skills to work in conditions of high uncertainty, etc.

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UDC 338:45

THE DEVELOPMENT OF "GREEN" LOGISTICS IN THE REPUBLIC OF BELARUS

NATALYA BAIDUK, PALINA LAPKOUSKAYA
Belarusian National Technical University, Minsk

The article deals with the issues related to the development of "green" logistics as one of the priority areas of eco-innovation at the present stage of economic development. It clarifies the essence of the concept of "green" logistics, analyzes the "green" technology of production and logistics activities which can reduce the harmful effects on the environment, their advantages and disadvantages. The article discusses the reasons for the use of "green" technologies and barriers to their rapid implementation in the logistics activities of the Republic of Belarus. Examples of foreign companies successfully implementing the principles of "green" logistics are presented.

Modern trends of integration and globalization contribute to the active development of enterprises, but in pursuit of success, many people forget about the environment. Modern logistics, in order to meet the requirements of time and technology development, must meet such an important requirement as environmental friendliness. "Green" logistics can be considered as a promising direction of development in the field of supply chain management.

After analyzing various literary sources, it can be concluded that the direction of "green logistics" appeared in the late 80s-early 90s of the last century. The beginning of the development of "green" logistics was laid by German scientist Erwin Muller. Together with his colleagues, he paid great attention to transport logistics, noting the strong link between logistics, environmental protection and natural resources. Over 20 years of development of this area, scientists have not come to a common and unambiguous interpretation of the term "green logistics". Synonymous with the term "green" logistics is the term "environmental" logistics (ecologistics)". Below are some concepts of "green" logistics (table 1).

Table 1. – The essence of the concept of "green" logistics

Author(s)	The essence of the concept
M. Yu. Grigorak, Y. V. Varenko [1, p. 403]	The system of measures, which provides for the use of energy and resource-saving logistics technologies and modern equipment at all levels of the supply chain of goods in order to minimize the negative impact on the environment and increase the total consumer value of products for consumers
D. Rogers, R. Tibben-Lembke [2]	A set of actions to assess and minimize the environmental impact of logistics activities
J.-P. Rodrigue	Environmentally friendly and efficient transport distribution system
Y. Yang, H. Peng	One of the types of modern logistics aimed at the integration of economic benefits, social and environmental aspects
L. Yanbo, L. Songtian	Planning, design and management system using advanced logistics technologies and environmental design methods in the field of pollution reduction and resource consumption, dictated by environmental principles. The main goal is to coordinate logistics activities and social and environmental impact
Allan Mackeown [3]	Science and a set of measures that ensure the movement of material in the implementation of any production processes up to its transformation into a product and waste products, followed by bringing the waste to disposal or safe storage in the environment, as well as the collection and sorting of waste consumption, their transportation, disposal or safe storage in the environment.

The main "green" technologies in logistics activities include:

– selection of suppliers of raw materials with the lowest cost of non-renewable resources;
– reduction reserves to reduce the need for warehouse space;
– optimization of cargo transportation routes in order to reduce emissions of harmful gases;
– transition to environmentally friendly modes of transport (sea, water, rail) and reduction of road transport;
– exclusion of intermediate storage and transshipment points from the logistics chain;
– reducing paperwork [4, p. 116].

As a rule, the reduction of the harmful impact of production and logistics activities on natural areas is considered at all stages of the product technological cycle and supply chain links, which is consistent with the approaches common in foreign practice. Figure 1.1 shows the stages of the product life cycle from the idea of its creation to disposal, where the concept of "green" logistics technology is used to reduce water and air pollution, process waste production and consumption of goods. This scheme is offered by analysts of the international consulting company Tata Consultancy Services.

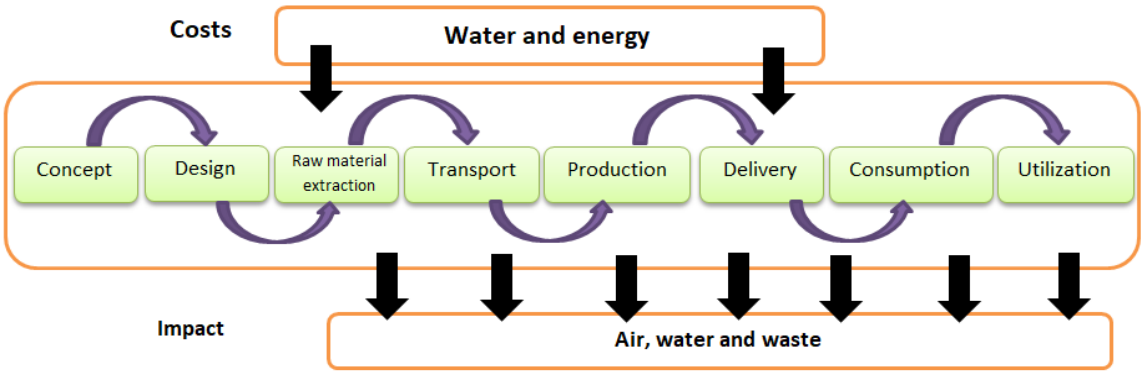

Figure 1. – Product life cycle and its impact on the environment [4, p. 117]

It follows from figure 1.1 that the key technologies for reducing the anthropogenic impact on the environment are: reducing the distance when transporting goods at all stages of the supply chain; increasing the use of local resources (reducing fuel costs and harmful emissions into the atmosphere); the use of modern environmentally friendly energy-saving vehicles. Optimization of the transport network can bring triple benefits to the company: reducing the environmental burden, improving the image and reducing costs throughout the supply chain. The sphere of "green" logistics can include environmental projects for the construction of warehouses using energy-saving technologies and environmentally friendly building materials; minimizing the cost of thermal energy while ensuring the safety and loading and unloading of goods; the use of multi-turn containers and packaging; increasing the carrying capacity of vehicles; ensuring the utilization processes in the form of reverse supply chains (collection and sorting of waste, their delivery to distribution warehouses, delivery of finished products derived from waste to the trading network, etc.)

Companies are beginning to perceive measures to reduce the harmful effects on the environment not as "requirements from outside", but as a way to improve efficiency, competitiveness and openness to society. According to the results of the survey "the green Trends Survey", conducted among commercial companies and their customers in the world's leading markets of Asia (India, China), Europe (UK, Germany) and America (USA, Brazil), the role of "green" logistics is regarded by them as one of the key factors of sustainable development and functioning of economic entities and environmental conservation. The majority of respondents noted that the use of "green" technologies for the company is not a marketing ploy, but a vital need to reduce costs and has an impact on the reputation of the company, its corporate responsibility. More than 3.6 thousand shippers and consignees took part in this survey. The importance of the "green" approach was noted by 77% of respondents working in large companies (numbering at least 500 people), and only 41% of individual entrepreneurs (or self-employed); 51% of the consignees and 57% of the senders surveyed indicated a willingness to use green technologies, and two thirds of the consignees would prefer to receive green logistics services at the price of conventional services.

Among international companies that successfully implement the concept of "green" logistics, there are the following:

– Nord Stream AG (Germany) – has built the world's most environmentally friendly Nord stream gas pipeline with minimal CO2 emissions into the atmosphere;

– DHL (Germany) - introduced GoGreen service and keeps records of CO2 emissions during transportation of all cargoes;

– UPS Air Cargo, the operator of Express delivery (USA) – uses a machine with a hybrid engine;

– Deutsche Bahn Schenker Rail (Germany) – implements the Eco Plus project and receives electricity for its electric locomotives from renewable energy sources;

– Green Cargo Road & Logistics AB (Sweden) – uses energy-efficient locomotives;

– Toyota (Japan) – widely uses wind turbines and solar panels for power generation;

– K Line, a shipping company (Japan) - has developed an innovative computer system to optimize the operation of engines based on monitoring of weather and hydrographic conditions, which leads to a reduction of harmful emissions into the atmosphere by 1%;

– Heineken (Germany) has been selected to analyze the implementation of green technologies in logistics as one of the world's leaders in socially responsible and sustainable business development. Since 2010, the concern HEINEKEN N.V. implements the Brewing a Better Future business development program, one of the goals of this program is to become the most socially responsible beer producer in the world by 2020. This goal is achieved by ensuring efficiency in terms of caring for the environment at all stages of the production chain, from the purchase of raw materials to delivery to the end user. Choosing suppliers, the advantage is given to those that meet the highest categories of environmental safety standards [5].

Logistics has significant potential for environmental control of transport systems, product recycling processes, minimization of environmental pollution, energy and resource saving. In addition, the management of material and related flows, based on the principles of logistics, initially involves reducing the environmental burden on the environment. At the same time, a number of researchers point to the existence of contradictions between traditional logistics, the purpose of which is to minimize costs, and its "green" component, aimed at reducing the harmful impact on the environment. It should be emphasized that the logistics principles sometimes come into conflict with measures to mitigate environmental damage. Ideally, each manufacturer of goods or services wants to build its logistics system so as to deliver the goods to the end user on the principle of "Just-in-time" and "Door-to-door". The efficiency of the distribution system should be increased by reducing the time management of a commodity flow. However, it is necessary to pay attention to reliability, that is, the desire for one hundred percent probability of the planned delivery and complete safety of the delivered goods, because this factor will serve as the basis for a fruitful and long-term relationship with the client. To solve only these two problems, the transport and logistics Department has to resort to the use of the most flexible and reliable modes of transport, which, as a rule, have the greatest negative impact on the environment.

Another example of the discrepancy between the logistics principles and the principles of environmental protection is the tendency to reduce insurance stocks. In the process of achieving this goal, there is a redistribution of loads from warehouses in the sphere of transport component. The irreversible increase in the use of transport leads to new congestion and an increase in the emission of harmful substances into the atmosphere.

Thus, it can be concluded that the implementation of the functioning of "green" logistics can't be a simple measure, since the very essence of logistics is largely contrary to the requirements for the protection and maintenance of the environment. It can be argued that the paradoxes of green logistics complicate the process of improving the logistics sector because of the focus on the desire to reduce the negative impact on the environment. The internal contradictions between the goal of environmental sustainability and industrial enterprises, which prioritize non-environmental road and air transport when it comes to logistics activities, can be seen as irreconcilable.

As for the Republic of Belarus, our logistics is a developing industry, and this type is new. Currently, there is no institution promoting its implementation. Belarusian companies that intend to become "green" and socially responsible face a number of difficulties, because environmental logistics in our country is just beginning to gain momentum. These difficulties can be attributed:

– high cost level. Minimization of environmental damage is directly related to the cost of research and the need to purchase environmental protection equipment, the cost of which will scare away even the most socially responsible entrepreneurs;

– low level of market supply. In addition, if there are those who wish to make huge sums of money for the sake of environmental care, the domestic market can't in all cases satisfy the demands for certain units and fuel;

– lack of experience in applying the principles of "green" logistics in Belarus. To overcome the lag in the development of logistics, the Republic of Belarus has to go through a phase of catch-up development, i.e. to gain experience from developed countries by borrowing relevant similar technologies, institutions, management methods;

– significant shortage of professionals in this field;

– the lack of desire of many entrepreneurs to make long-term investments in expensive "green" technologies that do not bring instant results;

– the absence of various mechanisms and legal acts regulating and stimulating the application of the principles of environmental friendliness;

– the lack of human interest in economic environmental management, as well as the consequences of human impact [6].

Competitive advantages in the activities of Belarusian enterprises of any industry through the use of "green" logistics, in the opinion of the authors, can be achieved by using the following areas:

– stimulation of the enterprises participating in various programs of ecological modernization of production;

– introducing into the practice of compulsory compensation by organizations for environmental damage;

– the reduction of transportation volumes to the minimum level due to optimal placement of warehouse and production facilities;

– increasing environmental and social responsibility of small and medium-sized businesses through various competitions, forums, tenders, etc.;

– the development of state programs aimed at sustainable development and further involvement of companies in such programs;

– the creation of business unions, clusters, public associations for the purpose of designing and further implementing environmental protection projects.

After analyzing all of the above, a number of ways to minimize the harmful effects on the environment in our country can be proposed:

– use Railways instead of relying entirely on automobiles. However, the problem of implementing this solution is that in Belarus, where the main logistical problems remain unsolved, infrastructure constraints prevent the transition from roads to Railways.

– transportation of goods on optimal routes. The essence of this proposal is to reduce the empty mileage of vehicles, which leads to a reduction in the amount of exhaust emissions into the atmosphere.

– consolidation of consignments in logistics channels, which makes it possible to use more "eco-friendly" modes of transport, such as rail, inland waterway.

– elimination of intermediate warehousing and cargo handling. This will lead to a reduction in the loss of material resources during their delivery from suppliers, which will also reduce the anthropogenic load on the soil.

– creation of a special calculator for informing customers on eco-solutions. The client can simply use this tool, specifying all the parameters of the cargo and the place of dispatch/destination. This easy-to-use tool will quickly calculate greenhouse gas emissions from the customer's shipment. By selecting a mode of transport for each stage of transportation – sea, air, road or rail – the calculator will calculate the amount of greenhouse gases that will be released during delivery.

Nevertheless, in the authors ' opinion, the most urgent problem of the concept of "green" logistics in Belarus is not the lack of mechanisms for the introduction and use of more environmentally friendly modes of transport or the most optimal routes. The difficulty of applying the concept is related to the allocation of responsibility for the harm caused: the state blames transport companies for the catastrophic environmental situation; companies, in turn, believe that environmental issues are within the competence of state structures and expect decisive action from the state. The concept of "green" logistics will work only when all three participants of logistics relations are aware of their responsibility and make decisions that directly or indirectly reduce the impact on the environment.

The above confirms that "green" logistics is one of the main parts of sustainable development of society and indicates the relevance of this topic. At the beginning of the 21st century, the most important factor in the transition to sustainable development is the creation and operation of highly efficient resource-saving technologies that ensure the production of high-quality, environmentally friendly products.

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Economics

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ECOLOGICAL SAFETY AS A CONDITION FOR SUSTAINABLE DEVELOPMENT OF THE ECONOMY

MARGARITA BOREYKO, NADEZHDA BOREYKO
Polotsk State University, Belarus

The state of the environment leaves much to be desired, therefore environmental safety is very important. All efforts will continue to be in vain if environmental safety is not ensured on time.

The urgency of the problem of environmental safety of the individual and the state is due to the fact that in modern civilized democratic states, along with progressive shifts in ensuring the security of the individual, the range of hazards associated with the entry of these states into the field of increased man-made and socio-environmental risk begins to expand. All over the world, including in rich industrialized countries, the zones of economic and economic activity are expanding, falling outside the scope regulated by legal norms and laws. This means an increase in the level of danger, environmental threats on a regional, and then on a global scale, both for the state and for individual citizens. The range of environmental hazards is increasing not only due to man-made, but also due to ongoing social or political changes.

Every year the negative impact of industry on the environment increases, and environmental safety is ignored by many industries.

Environmental safety must always be in constant control and regulation in order for the number of environmental problems to decrease. However, environmental safety is thought out in theory and this affects the level of its provision.

The history of the formation of the theory and practice of administrative and legal provision of environmental safety is organically linked to the prerequisites for the emergence and development of environmental legislation and its individual areas: the protection of forests, mineral resources and other natural resources.

Solving the problem of ensuring environmental safety is associated with the choice of a development concept. At present, despite the diversity of opinions, hypotheses and models, two concepts of the development of the world actually compete from the standpoint of environmental problems that have arisen. There are two concepts of environmental safety.

According to the first concept, which can be conventionally called resource or man-made, humanity can solve all environmental problems and ensure environmental safety by purely technological means, i.e. changing and correcting the economy on the basis of new technologies and not setting limits on the amount of resources used, economic growth and population growth. It has a wide range of shades ranging from a complete denial of the existence of any environmental hazard, except for local cases (this directly contradicts the observed and documented global changes), proclaiming the absence of development limits, and ending with calls for a transition to sustainable development, understood as meeting the needs of the present and future generations of people i. in fact, attempts to combine the preservation of the natural environment with economic growth (in its traditional sense) and the natural growth of the population. Environmental problems within the framework of this concept are often presented as a temporary phenomenon due to the "unbalanced use of technology", which will be overcome in the near or distant future. It is within the framework of this concept that the modern direction of concrete environmental activity was formed; as a system of local cleaning of the environment from pollution and rationing of environmental quality indicators for a narrow (several dozen) set of indicators, as well as the introduction of resource-saving technologies.

The technogenic concept does not have a developed theoretical base. It represents only the spread of human experience for the near and distant future. The models created within the framework of this concept, in the ecological aspect, set arbitrary initial conditions with some assumptions about future development. Similar assumptions are used for other input parameters - resources, food, population, regional characteristics, etc.

The second concept, biosphere, says that environmental safety should be ensured based on a theoretical basis and an understanding of ecology. In this ideology, biotic regulation is adopted as the principle. From this point of view, environmental safety should be ensured on the basis of accumulated experimental knowledge, in accordance with the laws of physics and biology. The theory of this concept determines that environmental safety should be supported by biotic environmental sustainability.

Also, achieving sustainable development is one of the most pressing issues facing all countries of the world. The goal is to ensure economic growth and at the same time protect the resource base and the environment, taking into account the interests of future generations.

The state policy of the Republic of Belarus in the field of environmental protection in accordance with the Constitution of the Republic of Belarus is aimed at ensuring the rights of citizens to a favorable environment as the main condition for sustainable social and economic development of the country.

Strategies were developed in the Republic of Belarus: the National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for the period up to 2030, approved at a meeting of the Presidium of the Council of Ministers of the Republic of Belarus on February 10, 2015, in order to improve the organizational, economic, technical and technological conditions for improving environmental situation in the Republic of Belarus. The state program corresponds to the priority of socio-economic development "Ensuring effective employment and human potential development (" Employment ")", determined by order of the Prime Minister of the Republic of Belarus of November 6, 2015 N 375r "On the formation of state programs for 2016-2020." Experts called the sustainable development strategy of Belarus until 2030 to ecologize national production and ensure environmental safety.

The transition to sustainable development involves ensuring security in all respects, and the close relationship between the country's overall security and sustainable development determines the conditions for the continued existence of society. This relationship should be based on the results of a comprehensive analysis of the totality of indicators of social, economic and environmental spheres of society.

Based on this, we will consider the concept of “Ecological safety” as one of the components of sustainable development of Belarus.

After analyzing the approaches of different authors to the essence of the concept “Ecological safety”, it can be concluded that the current definitions do not fully reflect the essence of this term. 91.2% of authors believe that environmental safety is associated with a negative impact on the environment. 85.7% of authors believe that the concept of environmental safety shows the state of environmental protection. 80% of Belarusian authors believe that environmental safety is a set of ways to ensure national environmental interests. 40% of Belarusian authors believe that environmental safety is a state of environmental protection.

Based on the study, the following definition of environmental safety was formulated. Ecological safety is a state of protection of the environment from threats arising as a result of anthropogenic and natural impacts on it, as well as one of the components of the program for the sustainable development of the economy.

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Economics

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THE ROLE OF STIMULATING OF INNOVATIVE LABOR OF PERSONNEL IN THE DEVELOPMENT OF THE LOGISTICS SYSTEM

ELIZAVETA DODONOVA, OLEG DODONOV
Polotsk State University, Belarus

The essence of innovative labor, the criteria for evaluating innovative labor of logistics are defined in the article, the definition of notion of "encouraging innovative labor of personnel in the logistics system" is given in the article, the methods for encouraging innovative labor of logistics are reviewed.

Labor of innovators (or innovative labor [1, p. 120]) is a fiature of the effective implementation of all logistics operations. The staff must be motivated for efficient realization of logistic operations and flow management, and staff payment must be built on the using of effective forms and methods to stimulate labor of logistics and other professionals who solve the problems of managing flows and resources in the logistics chain to introduce innovations at all stages: from purchase to sale of goods [2, p. 69].

The term "innovative labor" describes the system of socio-economic relations, concerning to the effective using of production and creative abilities of workers, the formation of their common interest in the development of the innovative potential of enterprises, the practical implementation of the innovative development of the production strategy [3, p. 4].

We can assume that innovative labor is a combination of intellectual and professional properties of a specific product of the labor force, which characterizes the difference from its other qualitative characteristics, depending on the specific field of knowledge and labor activity. The final result of innovation labor is a new product or service.

Innovative labor of staff can be considered a creative work activity, which is aimed at using the results of research and development of new ideas for distributing and updating the nomenclature, improving the quality of products (goods, services), improving the technology of their production with the subsequent introduction into production for the effective implementation of internal and external foreign markets. The strengthening of innovative, innovative activities of workers, the willingness of workers to change, their awareness of their involvement in the innovation process depends on their motivation to engage in innovative work.

The basis for evaluating and stimulating labor of logistics innovators and other professionals who solve the tasks of managing flows and resourcesin the logistics chain should be based on a compensation system that takes into accoun the criteria that determine the level of innovative potential of employees and their ability to introduce technological, organizational and marketing innovations at all stages of the logistics chain.Such criteria should be: the number of implemented innovation projects for the development of the logistics system; Information systems used to optimize the logistics concept by stages of the logistics chain; used information technologies aimed at streamlining material and financial flows; implemented technological innovations in the process of transportation, storage and delivery of cargo (including loading and unloading operations); organizational innovations aimed at optimizing the parameters of logistics business processes; innovations aimed at optimizing costs in the logistics system and others, in accordance with the functional responsibilities of staff positions.

Among the latest scientific researches which represent certain interest for solving this problem, the following can be singled out: the scienti ficresearchesofsuchscientistsas A.A. Kizimand O.A. Sivushkina [4]are devoted to the development of logistics systems on innovative basis; some aspects of the role of personnel in the development of logistics systems areconsidered by such scientists as O.V. Dodonov [5] and I.E. Elova [6]; some aspects of stimulation of logistic labor are investigated by S. B. Rachkova [7].

Considering the role of labor incentive in the development of any economic system, including logistics, it becomes obvious that this economic category is a tool for regulating social and economic processes both at the local level (in the personnel management system) and at the national level (in the system of regulating social and labor relations in the national economy).

The substantiation of the role of labor stimulation at all levels of the national economy is confirmed by the significance of this economiccategoryanditsinfluenceontheprocessesoccurringinthesocio-economic systems of any level – from the enterprise to the national economy as a whole. Summarizing the points of view of scientists, weclarifiedandcharacterizedtheroleofstimulatinginnovativelaborinthefollowingway: labor stimulation

should ensure the common interests of all participants in the labor process and the set of benefits wich are necessary for an employee for reproduction efforts in the labor process and for satisfaction of needs.

In the context of the logistics system, this is achieved by improving the efficiency (quality, quantity and results) of labor by improving the management of labor processes at each stage of the logistics chain - from purchasing to selling goods, rationalizing the use of working time at each stage of this chain, strengthening labor discipline at each workplace, reasonable formation and distribution of funds for labor remuneration (their optimization) of employees of each of the subsystems of the logistics system, that allows you to: accomplish the tasks facing the logistics system, increase its productivity, improve the quality of products, work performed and services provided, ensure a balance between pay and productivity and, in the end, achieve the required level of competitiveness and the possibility of successful development of logistics system.

The following definition is given by us: "Stimulation of the innovative labor of the personnel of the logistics system is the process of managing the employee's behavior and consciousness in each of the basic subsystems of the logistics system using methods of influencing his psychology to mobilize the internal potential to work at each stage of the logistics chain - from purchasing to the sale of goods, which provides the development of motivation for effective work, ensuring the achievement of the goal of developing a logistics system simultaneously with the growth of welfare of its staff".

Stimulation of staff to introduce innovations in the logistics system can be viewed in two important ways: as methods and tools of state regulation of the process of stimulation- stimulation at the state level; as a process of stimulating innovation in the enterprise (local level).

Stimulating methods of government regulation of innovation activity are direct and indirect means of influence of government on the behavior of economic entities and other innovation entities of innovation activity in order to increase their interest in creating, developing and disseminating innovations and introducing on this basis innovative models of countries. These can be either normative acts or other directive acts that regulate certain aspects of innovation activity, as well as government programs and strategies.

At the local level, stimulation of personnel is based on motivating staff to introduce innovations in the logistics system.

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Economics

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THE ROLE OF FRANCHISING IN SMALL BUSINESS DEVELOPMENT

ALISA DUDKINA, NATALLIA BELARUSAVA
Polotsk State University, Belarus

This article examines the current state and development of franchising. The historical stages of the term «franchising», the factors constraining the development of franchising in the Republic of Belarus.The use of franchising is defined as a means to enhance business development in the Republic of Belarus.

The Republic of Belarus in 2017 has improved its position in the ranking of Doing Business, taking 37 place and, currently, belongs to the countries convenient for doing business. The improvement of the world rating allows to improve the quality of life of the population, to increase the availability of jobs, to reduce unemployment, to increase the competitiveness of goods and services. Small and medium-sized businesses occupy a special place in the business environment. The contribution of small and medium-sized businesses in the GDP of the Republic for 2017 amounted to 24.7%, including the share of small business was 14.9 %, medium – 6.7 %, individual entrepreneurship – 3.1 %.

The country approved the Strategy of development of small and medium-sized businesses "Belarus – a country of successful entrepreneurship" for the period up to 2030. As a result of the implementation of the Strategy, it is planned to increase the share of small and medium-sized businesses in the total gross value added by 2030 to 50 %.

Despite the great work done by the government of the Republic of Belarus to liberalize the economy, small and medium-sized businesses face many problems and difficulties in the implementation of projects: the difficulty in obtaining loans, imperfect legislation, lack of financial resources, untrained personnel, lack of equipment capable of producing competitive products and services, and many others.

Compared to the larger ones, small businesses are much less inertia (due to less bureaucratization and the need to respond flexibly to the changing preferences of their target audience). On the other hand, small business is in much less favorable conditions compared to medium and especially large businesses:

– less financial transparency, insufficient assets and relatively low turnover make it difficult for them to access Bank financing (while the entrepreneur's own resources may not be sufficient for development);

– a small volume of purchases causes higher purchase prices and less favorable payment terms, which leads to lower profitability and the need to set higher selling prices for buyers;

– low profitability makes it impossible to rent convenient retail space in popular locations with a large flow of customers, and the small businesses are forced to trade in premises that are not always suitable for trading activities, and also located in places with a small flow of buyers. This, in turn, leads to an even greater reduction in sales;

– it is quite difficult for a small enterprise to form a competitive advantage that is obvious to customers and, as a result, to provide yourself with a loyal customer audience;

– insufficient managerial experience of aspiring entrepreneurs combined with their limited resources, not allowing to attract qualified staff, leads to low survival rate;

– lack of own loyal customer audience;

– the complexity of creating and retaining meaningful for the target audience of competitive advantages (in particular, by conducting innovation activities).

In these circumstances, small businesses have to look for non-traditional tools to continue to operate successfully in the market: both based on a variety of forms of inter-firm cooperation, and on various methods of cost reduction (for example, the use of e-Commerce).

In our opinion, the use of franchising in small and medium-sized businesses will help to improve the mechanism of small business development. Franchising is developing most favorably in the service sector. And the lion's share in the sphere of small and medium business is accounted for wholesale and retail trade, repair of motor vehicles, household services (37% of the total number of subjects). This tool does not claim to be universal, since it is not suitable for everyone, but its use in a number of situations can significantly simplify the creation and operation of a small enterprise.

In its historical development franchising has its roots in the distant middle ages. In the nineteenth century begin to develop relationships that most coincide with the current model of franchising. This partnership was

called "Connected homes". On the commercial level franchise came in the middle of the nineteenth century in the United States. The founder of the world-famous company "Singer Sewing machine company" Isaac Singer became the founder of modern franchising. Beginning in 1851, Singer entered into a written contract with distributors of the goods to transfer the franchise, the contract transferred the right to sell and repair sewing machines in a certain territory of the United States.

In the 1920s, standard commodity franchising began to develop in the United States. According to the principle of franchising, large wholesale suppliers began to build their relationships with the owners of retail stores. After the crisis in the us economy in 1930, franchising began to develop oil refining companies. So there were the first network gas stations owned by independent franchisees. In 1955 ray Kroc founded McDonald's Systems, Inc., which is the ancestor of franchising business format (Business format Franchisings), that is, franchising in its modern form, when together with the franchise passed the whole system of doing business.

In 1972 began its work, the European Federation of Franchising (European Franchise Federation – EFF). Membership in the organization are franchising associations in Europe, as well as other persons related to franchising.

This organization has developed a code of Ethics. It was developed by the European Franchising Federation with its members - franchising associations from Austria, Belgium, Denmark, Germany, France, Italy, the Netherlands, Portugal and the UK, in cooperation with the Commission of the European Community.

The current European code of ethics for Franchising was adopted in 1990. This is a kind of"Constitution" of franchising, on the basis of which is built all the rest of the regulation of franchising relations in each individual European country.

In the end, there is a General perception about the franchise and formed the special rules of this "business" [2].

Franchising is an agreement between economic entities, according to which one party (franchisor) provides for a fee the right to conduct business to the other party (franchisee). In other words, franchising-a way of organizing business relations between independent companies and / or individuals, as well as a form of small business, in which one of the parties (the franchisee) receives from the other (the franchisor) official permission to use the service mark, corporate identity, business reputation, know-how and the finished business model for a fee (royalties, lump sum).

Franchising systems can be structured according to many criteria.

The most popular classification:

– according to the product, which is implemented through the franchise system (type of activity);
– according to the know-how that is transferred;
– according to how the system is organized.

According to the type of activity franchising is:

– trading;
– service;
– production;
– mixed.

According to the franchisor's know-how:

– franchising of product distribution;
– franchising is the business format.

According to the system organization:

– direct franchising;
– development of territories;
– master franchising.

In the commercial franchising, franchisee has the right to sell the goods of the franchisor and use his method of sales. This is accompanied by the fact that the franchisee uses the franchisor's brand for the name of the store and enjoys the support of the franchisor in the design of the outlet, selection of assortment, training of personnel, customer service, merchandising and marketing.

In service franchising, the franchisor gives the franchisee the right to use its know-how in the form of recipes and procedures for the provision of a certain type of service. The franchisee draws up his point of sale with the franchisor's trademark, using its support in the design of the point, training of personnel and in the methodology of customer service.

In the production franchising, transferred know-how in the form of production technology and technical experience of the franchisor.

Mixed franchising is based on a combination of the main types of franchising: trade, service and production.

When franchising the distribution of the product, the franchisee has the right to sell an assortment of goods or provide a list of services under the franchisor's trademark.

When franchising a business format, the franchisor transfers know-how in the form of a full concept of economic activity.

Direct franchising is the simplest and most common method of network development. The contract is concluded directly between the franchisor and the franchisee for the opening of one franchise point.

In the framework of the development of territories, the developer area (area developer) gets the right to open franchised outlets within a defined territory, using sub-franchisees. According to the contract, the developer of the territory usually has to create a certain number of franchising points for a certain period of time in a certain territory.

Nowadays, social franchising is actively developing. Social franchising is a form of franchising aimed at mitigating or solving social problems rather than achieving commercial goals [3].

Why franchising will help small and medium-sized businesses to improve their efficiency? This postulate follows from the advantages that franchising gives, because any franchise system is based solely on a successful business. Despite the fact that the population of Belarus is actively involved in various business structures, the list of which is growing, there is still a part of the population is not very active in terms of risk and entrepreneurship. So franchising provides an opportunity to attract a wide range of people who do not dare to engage in "free" business without support and training. The basis of potential franchisees can be novice businessmen and other categories of persons who want and are able to engage in entrepreneurial activity "under the leadership".

As noted above, the most popular and effective franchising was in the United States, the country of its ancestor and European countries. In the Russian Federation and the CIS franchising also received its development, but not so large-scale. However, within the EAEU, the role of franchising can get its rapid development. Franchising, as a type of business, gets its greatest development in those countries where the share of private organizations prevails. This problem did not allow franchising to develop actively in our country. At the same time, 800 outlets are already working on franchises in Belarus. In mid-2018, there were about 80 companies in the country that provide a franchise and develop their networks (in 2013 there were only 4 such companies). The leadership is occupied by companies-manufacturers of confectionery products ("Красный пищевик", "Коммунарка", "Красный мозырянин", "Кристалл"). The production of clothes, shoes, sale of oil products to the population, agricultural products, engineering and many others can become promising segments for the enter of Belarusian franchises to international markets in addition to food products. It is meanwhile curious that Belarusian franchises are more in demand in the regions, international franchises are in demand in Minsk and regional centers.

Thus, it should be noted that there is a great interest and potential for the development of franchising among small and medium-sized businesses in Belarus. For its widespread implementation, a number of organizational and legislative changes, large-scale information work in the country and the development of international cooperation, which will unite the forces of domestic and foreign business, are required.

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PECULIARITIES OF INNOVATIONS IN THE AGRICULTURAL SECTOR OF ECONOMY OF UKRAINE

ALIAKSANDR DUDNUK, DZMITRO POLISCHUK
Kharkov Petro Vasylenko State Technical University of Agriculture, Ukraine

The article reveals the theoretical essence of innovation as an economic category and its peculiarities of its functioning in the agrarian sector of the Ukrainian economy, as well as the author's definition of the terms "innovation", "agronomy".

Introduction. World agriculture is moving towards increasing knowledge-based products. This is particularly evident in the example of economically developed countries, which, by maintaining the balance of the domestic food market on demand and supply, solving the problem of penetrating leading global markets, introducing innovations that promote modernization and restructuring of the country's economy, increase of competitiveness and efficiency of production.

The market transformations of the agrarian sector of Ukraine's economy necessitate the formation of a complex multilevel economic system capable of adjusting to conditions that are objectively drawn up and constantly being modified both within the agrarian sector and in other sectors of the national economy. Therefore, it is necessary for Ukraine to set and consistently solve the problems of innovative development of the agrarian sub complex.

Task formulation. The aim of the study is to clarify the essence and features of agrarian innovations and to identify the priority directions of innovative development of the agrarian sector of the Ukrainian economy.

Methods of research. The following groups of general scientific methods of cognition are used in the article: methods of empirical research - observation and comparison; methods applied at the empirical and theoretical levels of research - analysis, synthesis and methods of theoretical research.

Results, their discussion and perspectives. The study of domestic and foreign professional sources has shown that the innovative development of any branch of the national economy envisages, first of all, the creation of conditions for positive trends in economic dynamics, which ensures the creation and implementation of innovations. The English word "innovation" corresponds to the Ukrainian "introduction of a new" or "introduction of innovations". From this it follows that the practical use of innovations from the moment of its production and distribution as new products or services is an innovation (innovation) [1-2].

The analysis of the literature allowed for a sufficiently large number of definitions of the word "innovation". As you know, the term "innovation" preceded the notion of "new combinations" introduced by J. Schumpeter and proposed by him in the "Theory of Economic Development", and only since the 20-ies of the last century, the concept of "innovation" in economic theory has become modern interpretative.

In modern literature, two approaches to the definition of "innovation" are commonly used:

1) static, where innovation acts as "innovation-product" when it is presented as the result of an innovation process in the form of new technology (products), technology, a new method implemented in the market;

2) dynamic, where innovation acts as an "innovation-process", when the process involves research, design, development, production organization, commercialization and distribution of new products, technologies, and principles instead of existing ones [3].

But, in our view, taking into account the Schumpeter's theory, innovation can be interpreted in three respects:

- innovation in the broad sense - as any changes that ensure sustainable development of the country as a whole and increase the competitiveness of economic entities;
- innovation in a more narrow sense - as a process of transformation of scientific achievements into production;
- innovation in the narrow sense - as some product, or result, introduced in the economic practice of business entities [4].

Consequently, without contradicting static and dynamic approaches and considering innovation as a change, both as a single act and as a process, since each approach has its own meaning in understanding the essence of innovation as a special phenomenon of the reproduction process, we propose our own interpretation of the concept of "innovation": this the final result of the process of introducing innovations that are aimed at a qualitative transformation of both productive and non-productive sectors in order to obtain a certain benefit:

increase profitability of production, reduce enterprise costs, increase in output ktyvnosti labor, welfare workers, and yield economic, scientific, technological, social impact of the introduction of scientific research. At the same time, in any definition of the meaning of the word "innovation" should take into account its general orientation to ensure social progress, increase the level of efficiency and profitability of production, improvement of economic and social relations in society. And defining the specific features of bringing innovation to the consumer, it is customary to talk about innovation activity or innovation process as a process of transformation of knowledge into innovation, passing the following stages: "science - technology - production - consumption".

The basic condition for the effective functioning of agricultural production is the expanded reproduction, which takes place in the interaction of economic and natural-biological processes. Therefore, in the management of innovations need to take into account the requirements not only economic laws, but also the laws of nature: equivalence, indispensability and a combination of life factors, laws of minimum, optimum and maximum.

Another feature of effective agricultural production is that here along with the industrial means of production active participation in the reproduction process is taken by living organisms - animals and plants. Their development is subject to the action of natural laws and depends on such natural factors as climate, weather, heat, moisture, light and food.

Thus, the innovative process in the agrarian sector is a constant flow of transformation and implementation in the economic practice of the results of research and development in the form of new varieties of plants, breeds and species of animals and crossbows of birds, new or improved foodstuffs, materials, new technologies in crop production, livestock and processing industry, new fertilizers and plant protection products and animals, new methods of prevention and treatment of animals and poultry, new forms of organization and management of various spheres of the economy, new approaches ing to social services that improve efficiency [5].

Innovation processes in the agrarian sector of the economy have their own specifics. They are characterized by the presence of regional, sectoral, functional, technological and organizational features. An analysis of the conditions and factors that influence the innovative development of agriculture, has allowed them to be divided into negative ones (those that restrain innovative development) and positive ones (those that promote acceleration of innovation processes).

The conditions and factors contributing to the innovative development of agricultural production are the transition to a market economy, the availability of natural resources, significant scientific and educational potential, capacious domestic food market, the ability to produce environmentally safe, natural food products.

As a negative condition, the weakening of the scientific potential of agrarian science, the peculiarity of approaches and methods to the management of innovative production processes, the need to combine different types of innovations, and the strengthening of the role of the state in stimulating and promoting innovation, a high level of risk of innovation processes in the agricultural sector, should be called. The conditions and factors hindering the development of innovations in the agrarian sector of the economy include compression of domestic demand for food, reduction of state support to the agrarian sector and state financing of scientific and technical programs, underdeveloped lending and high lending rates, lack of innovation infrastructure and state innovation policies and strategies, insufficient level of personnel training in the field of innovation management.

In crop production, innovative processes should be aimed at increasing volumes of produced crop products on the basis of increasing soil fertility, growing crop yields and improving product quality; overcoming the processes of degradation and destruction of the natural environment and ecologization of production; reducing energy costs and reducing the dependence of plant productivity on natural factors; increasing the use of irrigated and drained lands; saving labor and material costs; preservation and improvement of ecology.

In connection with this, the innovation policy in the field of plant growing should be based on the improvement of selection methods - the creation of new varieties of agricultural crops with high productive potential, the development of scientifically sound systems of agriculture and seed production. In today's conditions, the loss of livestock development and the sharp decline in livestock production volumes to increase the production potential of the industry is important for the use of physiological and biological innovations, the achievements of domestic and world breeding, which reflect the most important directions of improvement of breeding genetic potential, on which the level of productivity of animals directly depends , efficient use of feed resources, development of resource-saving technologies, aimed at raising the level the intensity and efficiency of production.

One of the main areas of innovation in livestock breeding is biotechnological animal breeding systems using genetic and cellular engineering techniques aimed at the creation and use of new types of transgenic animals with improved performance, resistant to disease. Equally important in the development of the innovation process in livestock belongs to technological innovations that are associated with the industrialization

of production, mechanization and automation of production processes, modernization and technical re-equipment of production, the development of knowledge-intensive technologies, the growth of labor productivity, which determine the level and efficiency of livestock production.

Exploring the terminological contradictions with regard to innovative activities in the agrarian sector and taking into account the specifics of the latter, as the transition to an innovative development model is associated with problems, urgent solution which will help to bring the country's economy out of a deep crisis, will provide entry into the world community, give a well-known definition of the term " innovations "in the agrarian sector. So, Kot O. considers agronomy as "... systematic introduction into the agrarian sphere of the results of scientific research work, which lead to positive qualitative and quantitative changes in the characterization of interactions between the biosphere and technosphere, as well as improve the environment" [6]. Kulayets M. and Babiyenko M. define the essence of agronomy as "... the final result of the introduction of innovation in the field of agriculture (a variety of plants, animal breeds, plant protection products or animals, cultivation technologies, etc.), which led to the economic, social, environmental and other types of effects » [7].

Their thoughts are echoed by the views of Kropivko M., who believes that agronomy is "... the final result of the introduction of new or improved products (services), technology, technology, variety, breed, organization of production, management system for the purpose of obtaining different types of products, effect and providing advanced reproduction process "[8].

According to Shubravskaya O., "agronomy innovation is an innovation that affects directly (or indirectly, within the technological chain) processes involving the person, the machine (equipment, instrument, etc.) and the environmental component (animal, plant, etc.), the existence of which in the natural environment (without human involvement) is impossible or possible with the loss of basic functional characteristics "[9].

Kipioro M. defines agronomy "as a result of labor, obtained through the application of new scientific knowledge that transforms the process of functioning and development of the industrial-economic system of agroindustrial complex in the direction of increasing its efficiency, stability and systemic quality of relations" [10]. Summarizing the above points, we propose the definition of agronomy itself, which should be understood as the final result of the introduction of innovations in the field of agriculture or structural transformations in the agrarian sector, relating to technology, technology, production organization, ecology, and the social sphere of the village, which led to obtaining economic, social, environmental and other types of effect and the purpose of which is to obtain various types of effects on the basis of satisfying certain social needs and ensuring food security of the country.

Conclusion. In the conditions of Ukraine's orientation in the world economy, the need to re-equip the industry, increase production volumes and the level of competitiveness of agricultural products, one of the promising directions of development of agricultural enterprises in Ukraine is the use of innovative approaches to economic activity. The development of the agrarian sphere should be ensured through the innovation and investment strengthening of the material and technical base of the agrarian sector, the introduction of environmentally safe, resource-saving and energy-saving technologies. That is why the strategic priorities in the development of innovation processes in the agrarian sector of the Ukrainian economy should include:

– technological re-equipment of agrarian enterprises and formation of organizational and economic mechanism for the functioning of the agrarian sector of the economy on an innovative basis;

– energy and resource-saving technologies of production, storage and processing of products;

– reproduction of soil fertility, prevention of all types of degradation, development of adaptive technologies for agro-ecosystems and agro-landscapes;

– development and processing of organic farming technologies;

– creation of a modern system of informational and infrastructural provision of innovation activity;

– development of state innovation policy and strategy at the national and regional levels and strengthening the role of state and regional institutions in activating innovation activities;

– improvement of the personnel training system in the field of innovative activity, which provides an increase in the innovative activity of organizations and the commercialization of research results.

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PROJECTS AND PROJECT MANAGEMENT IN THE MODERN WORLD

KARYNA DZIANISHCHYK, NATALIYA SHUMSKAYA
Belarusian National Technical University, Minsk

Summary: In this article definitions of the concepts "project" and "project management" are considered. During work ideas of the basic principles of strategic project management were created and also the main advantages of professional project management are marked out.

Development of business and public sector is carried out by means of projects. Acceleration of innovative processes and competition lead to toughening of requirements for terms of development of new products and entry into the new markets, results of organizational transformations. Project management forms real opportunities for achievement of goals and implementation of the accepted strategy in the available and many other spheres.

Strategic project management can be presented in the form of the scheme given below (fig. 1).

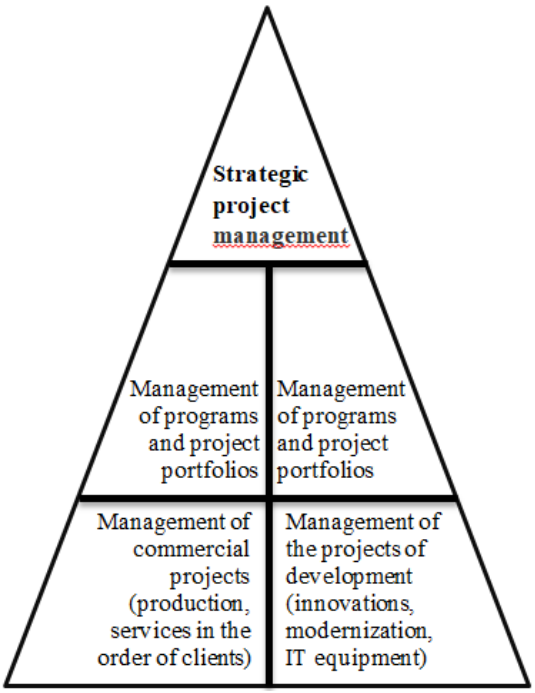

Figure 1. – Strategic project management

Project management can be divided down into two parts. One part is directed to realization of primary activities, such as production and implementation of services. The second part includes own development of the enterprise, improvement of processes, innovations, modernization, implementation of information technologies.

The main direction of company development is its management choice.

In project management it is necessary to answer the main issue: what for? As specifically the project fits into the strategy of the organization and how specific design objectives are solved. Project management consists of two main parts: strategic management and methods of operational management.

In the modern world the organization is not able to afford only evolutionary development, it is necessary to work more effectively. For this purpose methods of project management are considered.

For a start it is necessary to understand the project concept.

The project is a flexible organization and a complex of the coordinated actions for creation of unique result within time limits, to resources, productive parameters and quality.

The project is subordinated to the set purpose that is all participants of the project work for achievement of this purpose. The project is connected with the environment on exchange of resources, on exchange of results, also the property of an emergence when the project as the whole has those characteristics which are absent at the elements making it takes place.

The project consists of subsystems, in particular large projects. In them it is possible to allocate subsystems which interact among themselves. That is the project is a system. As projects are different, respectively various projects have also different system characteristics. It is possible to speak about factors of complexity. What defines the complexity of a system? First, a number of elements of a system. Further, characteristics of separate elements, it means that elements have certain properties. Elements are in interaction, the behavior of elements in various degree is determined in different systems, that is defined and subordinated to certain rules. Degree of the organization in a system is also various and there are systems where interaction of elements is not rather strongly defined, standards of behavior are not defined and also, on the contrary, there are systems where very accurately everything is defined. Difficult projects are characterized by the uniform purpose of functioning, difficult hierarchy and several hierarchically connected levels, existence of subsystems which aim functioning, existence of a large number of elements and communications between elements.

Planning, coordination, account and control of parameters of the project are necessary for successful implementation of projects and achievement of goals. Its management has to provide performance of work in time, within the allocated funds, according to the specification. These three parameters: terms, the budget and quality of works are under constant attention. It is also possible to call them the main restrictions within which the project is carried out. Project management is meant as activity which is directed to implementation of the project with the greatest possible efficiency at the set time limits, to money (and to resources) and also to quality of the end results of the project (documented, for example, in the specification). Thus, definition of project management can be presented as follows:

Project management is a management of purposeful changes for successful performance of the planned works according to initially established purposes and requirements for terms, cost and characteristics of the expected results.

To cope with restrictions on terms methods of scheduling and network planning are applied. For management of monetary restrictions methods of budgeting, the cost and financial analysis are used. Performance of work requires their resource providing and also there are special methods of planning of human, unearned and material resources, means of motivation. For management of results of the project there is a special quality management system.

Professional project management allows to save up to 30 percent of time and up to 20 percent of means, to provide compliance of drafts of the development strategy of the company, to operate effectively investments and innovations, to reduce risks of failure of projects, to effectively distribute responsibility and duties between participants of the project, to make projects controllable and transparent for their heads and other interested parties, to provide implementation of projects within established periods, the budget and quality.

In the research conducted by Volkswagen the main reasons for increase in interest in project management were allocated. Entered their number:

- Increase of complexity of projects (27%);
- Increase in number of projects (25%);
- Toughening of requirements and terms (23%);
- Competition and requirements of the markets (11%);
- Requirements to quality of products (9%);
- Motivation of personnel (4%);
- New production (1%).

The role of projects in the world raises. The scope of design methods of management increases. In the West growth of interest in difficult and large-scale projects is observed. Projects become the field of competition of the commercial organizations, however today it becomes fair at the level of international policy. According to the statistics of one of leaders in the field of methodology and standards in project management — Project Management Institute — if for the first 30 years of its existence was certified about 15 thousand professionals in the field of project management (Project Management Professionals), then for the last few years their quantity increased to 750 thousand.

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Economics

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EXPERIENCE, LESSONS AND PROBLEMS OF CHINESE ECONOMIC REFORM

EDUARD YARYHIN, INHA ZENKOVA
Polotsk State University, Belarus

The inconsistent economic policies pursued in 1922-1994 led Belarus to inflation, impoverishment of the population, growing corruption and general discontent with reforms. Since the mid-1990s, Belarus has paid attention to the study of gradual models of the evolutionary transformation of the economy, including the Chinese experience of reforming the command economy. Now it is tended to compare and analyze Eastern European and Chinese approaches to economic reform.

The main argument of this comparative analysis is that at the beginning of the reforms (for the PRC in 1978, and for the countries of the former Soviet Union in 1989), the economies of both countries were administrative-commanding and based on Marxist economic theory [1, p.10].

The purpose of this article is to answer the question of what the "Chinese model of economic development" is and how this model is applicable in Belarus. (or a comparison of Chinese and Belarusian economic reforms and how Belarus can learn from this)

The two countries first chose different reform strategies. Belarus until 1994, on the recommendation of the IMF and the World Bank, chose "shock therapy". China chose a "gradualist" approach to reform. Comparison of the experience of the two countries is largely reduced to the comparison of 'shock therapy' to 'gradualism'. "Shock therapy", as a rule, includes four elements: price liberalization, liberalization of foreign trade and exchange rate, privatization and privatization of state enterprises, and conducting non-inflationary macroeconomic policies. Supporters of 'shock therapy' argue that for a successful transition to a market economy, it is necessary to organize fully functioning markets and equalize the price structure to the world level. Followers of this model understand that the transformation of a command economy into a capitalist one is not painless. For example, the privatization and modernization of state-owned enterprises will inevitably lead to an increase in unemployment until the private sector begins to absorb excess labor. Since the transition period is inevitably accompanied by an increase in unemployment and a drop in production volumes, the shorter the transition period is, the sooner the economy will stabilize. Such well-known supporters of 'shock therapy' as Jeffrey Sachs argued that 'if you are going to cut the tail of a cat, then it is better to do it in one fell swoop than to cut it in pieces.' On the other hand, it was believed that, since the pain would be short-lived, the political opposition to the reforms would soon go out, and not having time would lead to the cancellation of the reforms. Supporters of 'gradualism' argue that the four above-mentioned characteristics of 'shock therapy' are not essential for the transformation process. [2, p. 74]. They believe that the process should take place gradually, sector by sector, stretching for many years. The "gradualist" approach can be characterized by four principles. First, as the system of parallel prices in China showed, price reform may be incomplete and gradual. Secondly, supporters of the "gradualist" approach do not consider the privatization of state-owned enterprises to be a necessary prerequisite for increasing the efficiency of production at state-owned enterprises. Third, the transition to a market economy can be carried out without a strict macroeconomic policy. Fourth, the sudden appearance of foreign competitors in the domestic market can lead to the collapse of the national industry. Analyzing the experience of reforms in the PRC and the former USSR, some economists came to the conclusion that economic "gradualism" without political reforms was more successful than "shock therapy" with democratization. Indeed, the approaches of the two countries were fundamentally different in that China chose "economic reforms without political reforms," and the USSR chose "political reforms with economic reforms." The Communist Party in China initiated the economic reforms, while in the USSR the CPSU was seen as the main obstacle to economic reform.

Thus, the reform of the political system of the USSR became the main prerequisite for economic reform. Economists disagree about how much China's experience applies to other countries in transition. Some argue that other countries may adopt certain details of the Chinese model of economic development, and another part of economists refers to the uniqueness of the Chinese model, which arose as a result of unique circumstances in China, which cannot be replicated in other countries with transitional economies.

Let us single out the common features and differences of the two countries and their economies. China and Belarus share a common socialist past, and many coinciding initial elements in the socio-economic structure before the start of the reforms. On the other hand, there are three main differences between the two

economies. First, before the start of the reforms, there was a significant gap in economic development of China and Belarus (and the USSR as a whole). Until 1978, China could be characterized as an agrarian-industrial country (agricultural products accounted for 35% of GDP) [4, p 25]. Secondly, Belarus spent a longer period in the socialist phase than China, and, therefore, market and business relations in Belarus were more distorted than in the PRC. The third difference is the population of the two countries. At this time, the population of China is estimated at 1.4 billion people, while the population of Belarus is less than 10 million people. These differences help explain why it was easier to start and carry out economic reforms in China. It is worth mentioning the differences in the goals pursued by economic reforms in the two countries. The main objectives of economic reforms in Belarus (until 1994) were: the creation of a mixed economy with the leading role of the private sector, the establishment of a liberal market economy and the openness of the economy. The objectives of the Chinese reform program were to create a multi-disciplined system with the public sector playing a leading role and government regulation, introducing the principle of distribution according to work, and increasing the openness of the economy. These reform strategies went down in history under the general name of 'socialist market economy' and 'socialism with Chinese characteristics.' In other words, the purpose of economic reforms in Belarus at the first stage was the destruction of the old system, while the purpose of the PRC was to reform this system. Of course, the difference in goals influenced the choice of different reform strategies in the PRC and the Republic of Belarus at the first [6, p.124].

What interest is the experience of the PRC for Belarus? First, the Chinese example of economic reforms showed that partial reforms could lead to positive changes in the economy and the fact that successful reforms do not require prior elimination of all obstacles.

Among Western economists, there is a tendency to believe that if a reformed economic system does not look exactly like a model of a market economy from a textbook, it means that the reforms carried out were unsuccessful. The success of the Chinese model has shown that there are alternative models. Secondly, the results of the reforms in the PRC questioned the economic conviction that private property is an inevitable prerequisite for economic efficiency, since collective village and village enterprises owned by local governments were one of the main factors for the success of Chinese reforms. China's experience is interesting for Belarus and other countries with transitional economies, primarily pragmatism manifested in this country in developing and constantly adjusting the policy of economic reforms in order to raise the living standards of the PRC population [5, p.10].

Reform of the economic system of China has already led to success, attracting the attention of the whole world; these successes can be summarized as follows: first, a pluralistic ownership structure is formed, in which various economic elements develop simultaneously. Secondly, market mechanisms began to play a major role in the most important industries; a system of market competition was created. Thirdly, from direct regulation and control in the field of macroeconomic management there was a transition to an indirect one, thanks to the reform of the financial, tax and monetary system, as well as the investment system. Fourth, there have been important changes in the system of employment and income distribution. Fifthly, the structure of comprehensive and multi-level external openness is mainly formed. The reform of the Chinese economy has progressed significantly. Therefore, it is worth summarizing all the successful experience and to benefit from the lessons learned. At the same time, now the reform still faces many problems.

The main experience of the reform of the Chinese economy. An analysis of more than twenty years of reform of the Chinese economy gives the following main experience.

1. The main feature of the economic reform is the preservation of the socialist political system.

2. The main point of the Chinese economic reform is the implementation of a breakthrough.

3. Chinese economic reform means updating the system towards the market.

4. Chinese economic reform means active creation of a market system by the government through administrative measures.

5. In the process of economic reform, China wisely used the experience of other countries, and based on the general political situation in the country, actively conducted research on creating a system of a socialist economy with Chinese characteristics.

Conclusion.

For strategic restructuring, it is important to determine the direction of the reform, actively create favourable conditions and conditions for its implementation, and move forward in a timely manner in accordance with the plan and not losing the right moment.

1. To determine the functions of the state economy, the main one being the implementation of the general state policy, to establish clear sectoral restrictions on new government investments.

2. In conditions of certainty of the basic functions of the state economy, it is systematized to promote the reform of state enterprises and the restructuring of capital.

3. Take appropriate measures to resolve questions left behind by history.

4. When reorganizing and changing the system of property rights of state-owned enterprises, the government should adhere to the principles of openness, fairness and transparency, pay special attention to studying relevant policies, standardizing procedures and overseeing the entire process.

5. To carry out a merger and mutual complement of the state economy and the national economy, encouraging the participation of the national economy in the strategic restructuring of the state economy.

Thus, a comparative assessment of two models of economic development (the Chinese model of a "socialist market economy" and the Belarusian model of a "socially oriented market economy") points to an obvious conclusion. Despite the fact that the goals of the two models – the transition to a mixed economy with a significant role of the public sector, as well as the preservation and improvement of the living standards of the population – are the same, the means to achieve these goals and the results of economic reforms are different. In China, reforms have led to the strengthening of market relations, and in Belarus – to increased state intervention in the economy. The Chinese development model, which has proven so successful in China, can hardly be applied in Belarus. The reason is simple – the factors and institutions that explain the success of the Chinese economic model are unique to China and cannot be replicated elsewhere. The lessons that other economies can learn from Chinese experience relate to solving specific problems in reforming various sectors.

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UDC 330.34

THE ESSENCE OF THE INFORMATION AND INTERNET POTENTIALS, THE RELATIONSHIP BETWEEN THEM AND ROLE IN REGIONAL DEVELOPMENT

ELIZAVETA GARBUKOVA, ELENA LISICHONOK
Polotsk State University, Belarus

The necessity of studying the information potential and Internet potential of the region is substantiated. It is revealed that the Internet potential is most often considered in the context of the study of information potential, which in turn is considered by the authors in the study of economic potential structure of the region. The ratio of information categories and Internet potential is presented. The place of Internet potential in the structure of intellectual potential of the region is shown. The definition of the category "Internet potential of the region" is given.

Currently, information technologies in one form or another cover almost all spheres of human life. The world economy is gradually moving into the Internet space. This began in 1985, when the first domain was registered. Since then, the scale of penetration of information technology is only increasing. In the context of economical globalization, the competitiveness of the region or the country as a whole is increasingly determined by the degree of development and practical use of information technologies and the telecommunications infrastructure that provides them.

The emergence of a new "Internet economy" allows companies to reduce prices for their products, to operate in a space with minimal barriers to entry, as well as to work online. All this allows, on the one hand, to increase labour productivity, on the other hand, it leads to lower inflation [1].

Great importance in economic terms is given to the state and level of development of intellectual resources, labour potential of the country or individual regions. In the conditions of mass introduction of information and telecommunication technologies into all spheres of human activities, information interaction with the environment (natural, social, cultural, etc.) becomes one of the main factors for personal development, ensuring the conditions for successful activities, as it allows to obtain relevant information. Information resources of the country, including each individual region, are now considered as a strategically important factor for social and economic development. It is intellectual resources and the social sphere that are designed to provide additional potential for economic growth. A significant place in this process is the development of Internet technologies that create conditions for improving the educational level of employees.

Information and communication technologies are becoming an integral part of the development of modern social and economic relations. The use of Internet technologies and Internet resources creates favourable conditions for potential realization of small and medium-sized businesses and households in the information economy, thereby increasing the efficiency of social reproduction of a particular region or country as a whole. The "information dependence" at all stages of social reproduction is growing as relevant and reliable information is becoming more available and accessible as well as means of its acquisition and application [2].

The search in the global information network Internet is now everywhere. In these circumstances, the need for information about the Internet becomes particularly acute. Currently, in the Internet a lot of documents are distributed relating to both the network functioning and the users work in it, and concerning various spheres of life: science, culture, economy, etc. The information update on the Internet, an extensive branched network, which includes computer nodes scattered around the world, is practically in real time [3].

The main trends in the development of the global information technology market from the position of the world's leading companies are presented in table 1.

The experience of developed countries shows that high technologies using the latest achievements of science and technology, their spread within the country and promotion to foreign markets provide a significant economic advantage and social stability. On this basis, the information potential can be represented as a concentrated expression of scientific knowledge and practical experience, formed in a formalized form and specific project forms, allowing the most rational way to organize the processes of creating information products and services. At the same time, the result is estimated by the total cost savings of labour, energy, material and information resources necessary for the implementation of these processes [5].

Table 1. – Trends in the Global IT Market

Company	Development Forecast
IBM company	IBM analysts believe that by 2023 quantum computing will become the mainstream in the technology industry. They will be widely used by new categories of professionals and developers to address issues that were previously considered unsolvable
Analyst firm Juniper Research	Experts say that peripheral computing will be used to quickly deploy the IoT solution. Their vendors are increasingly considering Edge Computing as a model for remote monitoring and processing of data directly on IoT equipment
Analytical company IDC	By 2021, at least 50 % of global GDP will be linked to digital technologies, and improved products, production processes and relationships will contribute to further growth. By 2020, the assessment of the investment attractiveness of any enterprise will take into account such factors as the introduction of platforms and ecosystems in the company, the value of data and the degree of customer involvement
Consulting company Deloitte	The improvement of quantum technologies will make it possible to produce a new type of materials resistant to destruction, while the wave functions of the quantum state will become the basis for the creation of a new type of computer calculations

Source: compiled by the author on the basis of [4].

There are many definitions of information potential, some of which are presented in table 2.

Table 2. – Approaches to the Definition of Information Potential

Category	Definition
Proskura D. [6]	Information potential is a set of resources and opportunities of the region in the implementation of activities in the information sphere
Korsukova C. [7]	Information potential is the main essential characteristic of the information system and its components. It includes all real and virtual information resources of the system. The core of information potential is information. The information potential of the company is based on various information systems. It can be an information system of society, personality, social groups and institutions
Kalinnikova I. [8, p. 223]	Information potential is an integral part of the creative potential of the team, reflecting its ability to rationally use the available resources, the new most effective means to achieve this goal
Muftakhetdinova H, Gorinov M. [9]	The information potential of the region is the ability of the economic system to use information resources to improve the production of goods
Illarionova E. [10]	Information potential is a set of information resources that provide a direct feedback between the elements of the regional system through exchange, distribution and dissemination of relevant information

Source: compiled by the author based on the analysis of economic literature.

Attention is drawn to the fact that the information potential of the region is mainly considered by the authors in the context of the study of its economic potential.

It should be agreed that the Internet potential of the region should be included in the information potential as an integral part of it.

According to N. Bogdan and E. Lisichenok [11] the Internet potential is considered as part of the innovative potential of the region, which in turn is included in the intellectual potential of the region, as shown in figure 1.

A few authors are engaged in the study of this topic. N. Zaitseva [2] offers the following definition: "in the framework of the information economy model, the Internet potential is a factor that determines the state and possibilities of market development relations and economic systems of different levels, based on the widespread use of information and telecommunication technologies in the framework of the information economy model" [2].

As the main aspects in determining the potential, we note a fundamental importance of information as a factor, a widespread use of information technology, in particular the Internet in the economic activities of economic entities in the region.

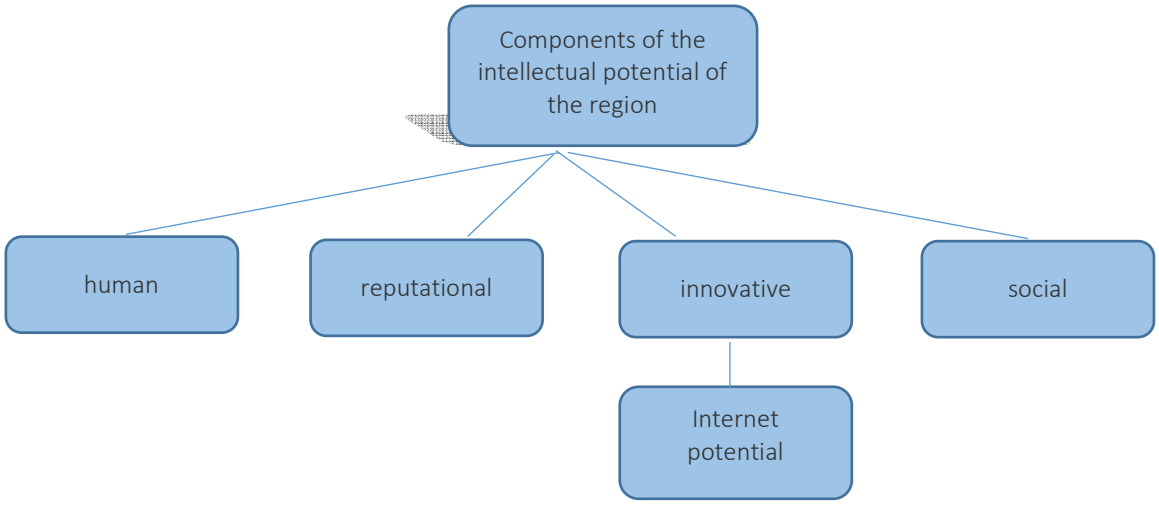

Figure 1. – Structure of intellectual potential of the region

Source: [11].

In our opinion, the definition presented by Zaitseva N. enables to specify the category "potential" on the basis of how it is interpreted. Thus, the Internet potential of the region can be considered as a set of tools and capabilities generated by the world computer network.

Essential characteristics of the category "Internet potential of a region", as well as its relationship with the category "information potential" will allow to more clearly identify their role in the development of a region, as well as to develop approaches to their assessment.

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UDC 332.1

POINTS OF ECONOMIC GROWTH AS AN INSTRUMENT OF STATE REGULATION OF THE DEVELOPMENT OF THE VITEBSK REGION

FERUZA BAZAROVA, ELVIRA VORONKO
Polotsk State University, Belarus

The article dwells on the concept of points of economic growth in the region. The characteristic of growth points presented in regulatory legal documents is given. The tools for overcoming the infrastructure and institutional barriers in the socio-economic development of regions are considered.

The current stage of development of the Republic of Belarus and its regions is characterized by rapidly changing environmental conditions, which necessitates the search for new methods and methods of management at all levels. In this regard, the formation of regional growth points, the development of which will contribute to the creation in the regions of an economic system with mechanisms for adapting and responding to environmental challenges, becomes an important tool.

The growth point (at the regional level) is understood as an urban center, which, in addition to providing services to the population, has a differentiated industrial structure capable of continuous development and improvement. On this basis, the center has the potential to increase economic activity, employment, number and income of the population [1].

The center of economic activity can also be called a growth point. The center is able to develop independently to the level when it becomes necessary to spread growth to the adjacent territories, and later on to less developed areas [2].

The need to form points of economic growth in the Republic of Belarus and its regions is reflected in the following regulatory documents:

1. National strategy for sustainable socio-economic development of the Republic of Belarus for the period up to 2030 [3].

2. The program of socio-economic development of the Republic of Belarus for 2016-2020 [4].

3. Sustainable development strategy of the Vitebsk region for 2016-2025 [5].

In this case, the growth points in these documents are considered individual regions, regional innovation and production clusters, business entities.

We give a characteristic of the growth points specified in the documents.

1. Regional growth points.

As stated in the Sustainable Development Strategy of the Vitebsk Region for 2016-2025, the key role in ensuring strategic priorities belongs to the points of growth of sustainability of regional development. The growth point is understood as a production / enterprise / complex of enterprises / branch of a regional economy or a project that can provide the maximum socio-economic and / or environmental effect that has a system-forming, including leveling nature for the territory [5].

The achievement of this kind of regionally oriented effects is associated with the introduction of innovative production technologies, the use of new management methods, the search for additional resources (natural, industrial, human, including local initiatives), as well as the choice of location taking into account the most pronounced competitive advantages of the territory.

The main points of growth of the Vitebsk region are considered existing and emerging complexes and clusters of 10 positions. Their development will ensure the strengthening of the main economic centers of the region - the cities of Vitebsk, Polotsk, Novopolotsk, Orsha, Glubokoe with the sub-center Pastavy, will give impetus to the development of regional centers that complement the basic planning framework of the region (Braslav, Verkhnedvinsk, Lepiel, Novolukoml) and rural areas. The new growth center will be the city of Miory due to the construction of a plant for the production of metal sheet and tinplate [5].

Note that as leading subjects, in addition to enterprises and organizations, educational institutions, including universities, are indicated. This is due to the fact that, as noted in [6], the transition to new business conditions implies an increase in the competitiveness of the country and regions through the effective use of knowledge, its generation, preservation and transfer, the creation of high-tech products and new technologies based on them.

Determination of growth points was carried out on the basis of a combination of quantitative and qualitative methods of analysis with the involvement of experts of high skill level. Based on the requirement of continuity of regional development, the most significant investment projects implemented in the region within the framework of state measures or on the basis of private initiative were also taken into account.

2. Business entities.

In the National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for 2030 there are directions for the development and allocation of productive forces for the period 2021–2030. In addition to the formation and development of regional innovation and production clusters, it is planned to develop new "growth points" with their effective integration into the regional and local economy with the integrated use of natural resources, scientific and technological potential, small and medium-sized businesses and non-profit structures [3].

In this regard, the specified strategy provides for the creation of favorable conditions for the development of entrepreneurial activity:

– small business development in the regions on the basis of franchising and subcontracting;

– formation of regional and local infrastructure for the support and development of entrepreneurship, including creation of a network of cluster development centers as its main element;

– introduction of forms of financial incentives for the priority areas of development of small and medium-sized businesses in the areas of production and the provision of social services;

– the development of new forms of organizational and technological interaction between small and medium-sized businesses (outsourcing, insourcing, crowdsourcing, etc.), which will significantly reduce the costs of production and circulation, increase the competitiveness of their products on the market, including external ones.

3. In *some regions*, the National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for 2030 envisages the formation and support of regional development centers by [3]:

- creation in cities, acting as promising growth centers for regional economies, industrial sites for organization by small and medium-sized business entities (SMEs) to produce goods (works, services);

- stimulating the cluster development of the regional economy, which will speed up the process of introducing new organizational forms of integration and cooperation of business entities engaged in various types of economic activity.

Also, this document assumes the *overcoming of infrastructural and institutional barriers in the socio-economic development of regions on the basis of* [3]:

1) development of public-private partnership in the form of combining public and private resources within the framework of socially significant regional projects, concluding special agreements (production sharing agreements, concession agreements, government contracts, investment contracts, etc.);

2) delegating part of the functions of local government and self-government bodies to the private sector and non-state non-profit organizations (public associations, foundations, institutions);

3) attracting business to solve social problems of the regions (health, education, culture);

4) further formation of regional infrastructure for the implementation of investment projects;

5) granting privileges, non-financial incentives, creating conditions for the inflow of investment resources;

6) the creation of regional structures to support investment activities, assist in the development, examination and support of investment projects;

7) expanding the practice of applying state grants and guarantees to investors participating in the implementation of regional programs and investing in the creation of new organizations of priority economic activities;

8) formation of investment openness and attractiveness of the region, its investment image.

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Economics

UDC 657

CLASSIFICATION OF METHODS OF COST ACCOUNTING AND CALCULATION OF PRODUCTION COSTS

DARJA FILICHKINA, LYUDMILA MASKO
Polotsk State University, Belarus

Classification of methods of production costs accounting and calculation of product cost is considered. Comparative characteristic of the ABC-method and traditional job-order costing is given. The standard-cost method is considered. Comparative characteristic of a "just-in-time" method and a traditional process method of cost accounting and calculation is given.

In domestic and world accounting practice and calculations of product cost, the great value is attached to questions of management accounting, including methods of planning and accounting of costs.

The method of calculation assumes the system of management accounting at which the product cost (works, services) and also the unit cost is determined. The choice of the method of calculation of prime cost is connected with the production technology, its organization, and features of products. However, in the course of studying of the interpretations of the concept of management accounting presented in scientific economic literature, normative legal acts of the Republic of Belarus and foreign countries, International Financial Reporting Standards it is revealed that there is no uniform determination of this economic category in literature.

Nowadays the classification of methods of production costs accounting and calculation of the product cost still is a subject of discussions therefore we find it possible to offer the following classification:

1. Traditional (job-order costing**,** process cost system, process method of cost accounting) methods.

2. New (nonconventional) methods (the ABC-method or account on business processes, account on "just-in-time" system, account on the last operation).

The traditional systems of calculation of prime cost were created when most enterprises produced a limited product range and the costs of main materials and the salary of main production workers were the main costs. Costs on service of production and the management, which are mainly indirect, were rather small therefore, distortions of production costs owing to their distribution in proportion to the salary to products were insignificant. Information processing cost, on the contrary, was rather high therefore, application of more difficult methods of distribution of overhead costs was unjustified.

In the conditions of market economy prerequisites for change of a method of distribution of overhead costs ripened:

– the range of products extended;

– as a result of automation of production the share of direct labour costs in the structure of product cost decreased and indirect costs increased;

– automation of registration processes allowed applying more difficult methods of distribution of overhead costs.

The above-mentioned circumstances also became prerequisites of emergence of new methods of costs accounting and calculations of prime cost.

Let's consider new approaches. We will carry out their comparative analysis.

The ABC-method (activity-based costing, accounting of cost of functions, business processes) is the calculation system considering operations as main accounting items of costs and calculation of product cost and determination of efficiency of business processes. The method of stage-by-stage distribution of indirect costs on product cost is used.

The subject of the analysis is industrial enterprises which primary activity is the production of motor-transport electronics.

The enterprise uses the job order cost accounting system for the accounting of costs. A comparative analysis of the ABC-method and the traditional job order cost accounting system is presented in Table 1.

Table 1. – Comparison of the ABC-method and traditional job order cost accounting system

Comparison criterion	ABC-method	Job order cost accounting system
1	2	3
Production activity (business)	Execution of orders for materials, operation of the capital processing and service equipment, quality control, etc. is divided into main functions and operations, for example	It is presented by a uniform complex of operations

Continued Table 1

1	2	3
Accounting item of costs	Operations necessary for implementation of the order	Order, products
Object of accounting	Intermediate – operations, total – products	Order, products
Base of distribution of overhead costs	For each type of activity its own cost object estimated in corresponding units of measure is chosen	Main salary (labor costs)
Number of steps of overhead costs distribution	Two	One
Control of costs on stages of their emergence	It is possible	It is complicated
Application	Difficult, but becomes simpler as a result of automation of calculations	Simple
Orientation to the tasks of	Management	Accounting

There can be an impression that the use of the ABC-method is the solution of all problems of costs accounting. Certainly, the ABC-method improves the system of costs accounting of an enterprise, leading to more exact data. However, there are also restrictions in its use:

1) The randomness in the choice of indicators of distribution. Critics of the ABC-method claim that some manufacturing costs can be distributed on products randomly since they are calculated only for the whole output. However, supporters of the ABC-method object that, despite this, anyway it gives more exact information, and it's an advantage.

2) The application of the ABC-method demands big costs of the research of operations, maintaining documentation, therefore in certain cases these costs can exceed the expected benefits. Therefore, the enterprise, which wants to use the ABC-method, has to correspond to certain characteristics for obtaining benefit from its use.

The system of accounting of prime cost can influence the increase in profitability of an enterprise in the following three directions:

1) identification of removable losses (adverse deviations) reducing the profit of an enterprise;

2) providing managers with exact data on cost of production on the basis of which the sales department can plan sales volume and establish the best prices;

3) minimization of the registration work connected with calculations.

The standard-cost system copes with the solution of all three tasks more successfully, than the former cost accounting system. Eventually, this system stimulates the work of all the staff of an enterprise.

The comparison of these methods allows drawing the following conclusions:

1. Both methods consider costs within norms.

2. Both methods assume accounting of full costs.

3. In accounting by the standard-cost method costs over the established norms belong on perpetrators or on results of financial and economic activity and do not join in costs of production, as at a standard method.

In "standard-cost" conditions the standards cannot be changed within a year. Their full revision is carried out once a year, usually before drawing up the cost estimate for the future period. Besides, the standard prime cost can be revised in case of a radical change of the production technology or enterprise capacity. At the standard method it is possible to reconsider norms within a year.

In contrast to the "standard-cost" standard accounting system is not focused on the implementation process (focused on production), and therefore does not allow to justify prices.

With the standard accounting method the total amount of deviations comprises 5-10% of accounting deviations and 90-95% of non-accounting ones. The analysis of prime cost is carried out on the basis of designed indicators which are not confirmed by any accounting data. It is deprived of any operational value and has the character of the subsequent historical review. The method of documentation of costs and revenues does not allow for detailed and prompt analysis of financial results.

To disclose the reasons for the change in any integral indicator, it is necessary to know the reasons for the changes in the particular indicators. It is possible only when the documentation that draws up, for example, all the costs incurred, directly answers the question of cause and effect relationships and the factors

determining the costs incurred. The information base of accounting does not provide proper performance of the analytical function of the accounting system to this day.

For example, using the order method, you can calculate both the full and the "cut" cost of the order, and the cost-and-effect calculation can be performed using information on both actual and standard costs.

It is also possible to use the synthesis of two accounting methods such as "direct costing" and "standard-costing", the result of which is a variant called "direct-standard".

Another unconventional approach to cost accounting and calculation is the "just in time" method. The "just-in-time" production system is based on a "just-in-time" management concept aimed at eliminating wasteful costs and continuously improving the production process.

The "just-in-time" management system is characterized by three key aspects:

1. The organization of business processes, contributing to the approximation of total costs to the value of processing costs.

2. Complete quality control.

3. The organization of the material flow, based on the orientation of the demand of the buyer.

An example of the effective use of the "just-in-time" approach is Japan. The method originated in Japan in the 40s of the twentieth century. Its emergence is associated with Toyota and the name of its vice-president Taiichi Ohno. Under the conditions of natural and economic constraints after World War II, Japanese manufacturers were looking for ways to use limited resources most efficiently, working on a cost-quality ratio.

"Just-in-time" calculation is a modification of the process method of cost accounting and production costs calculation (see Table 2).

Table 2. – Comparison of the "just-in-time" method and the process method of cost accounting and calculation

Comparison criterion	"just-in-time"	Process method of cost accounting
Insurance of stocks	No	Yes
Volume of stocks and procurement of material resources	Shows a current need	Determined by the formula of economic (optimal) order quantity
Market	Has priority	Has no priority
Stock availability of work in progress	No	Yes
Quality of products	Has no defective products	Small defect is allowed
Options of consolidated accounting	Does not allow accounting of semi-finished goods	Accounting of semi-finished products on special accounts
Storage and in-plant transportation costs	Minimized	Essential
Direct labour costs	Are included general production costs	Directly recorded to costs

The advantages of the "just-in-time" system are:

– reduction of stock level, and minimization of investments in raw materials and supplies. Ideal option is zero stocks;
– reduction of number of suppliers with a decrease in time and costs of negotiations;
– the use of long-term contracts with customers and reduction of costs of contracting;
– improvement of product quality;
– reduction of costs of internal movement of materials and finished goods;
– reduction of storage costs.

The "just-in-time" strategy also provides some other benefits, including non-economic ones. The use of the "just-in-time" approach by reducing costs and improving quality leads to an increase in the efficiency of the business process as well as in the competitiveness of the organization in the long run. However, when using it, the following difficulties are possible: it is difficult to avoid mistakes in the assortment and supply disruptions, and each such failure will lead to a halt in the production process with inevitable consequences in production conditions.

For the effective implementation of the "just-in-time" strategy, it is necessary to change the way of thinking of the whole team, which deals with production and sales. The traditional stereotype of thinking "the more, the better" should be replaced by the "the less, the better" scheme, if we talk about stock levels, the use of production capacity, the duration of the production cycle or the size of a production batch.

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Economics

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PRINCIPAL INDICATORS AND DEVELOPMENT TRENDS OF THE VITEBSK REGION. ECONOMY GEOGRAPHICAL DESCRIPTION OF THE AREA

GURBANMAMMET ATAYEV
Polotsk State University, Belarus

The article gives a positive assessment of the development of Vitebsk region, and also focuses on the strengths of the geographic location and natural resources. This, in turn, explains the favorable conditions for the development of small hydropower in the region, the production and export of building materials, the timber and wood processing industry, livestock, flax cultivation, fish farming, processing industries of the agro-industrial complex, development of tourism and recreation services.

Transport arteries pass through the region, connecting the largest and most developed economic regions of Russia with Europe. There two Europian transport corridors: Crete № 2 (Berlin - Warsaw - Minsk - Moscow), Crete № 9 (Helsinki - St. Petersburg - Kiev -Chișinău- Bucharest). Such large economic centers as Moscow, St. Petersburg, Kiev, Warsaw, Vilnius, Riga are located at a distance of 400–800 km from the regional center, the distance from the seaport of Klaipeda is 400 km. Railway junctions of Vitebsk and Orsha are of international importance. In these cities there are airports that provide the possibility of organizing cargo and passenger flights. The airport "Vitebsk" of category IV"B" class has a permit to operate in limited meteorological conditions and is able to accept all types of modern airliners.

The airport on the territory of OJSC "Orshansky Aviapremontny factory" has a class "B", and is capable of receiving aircraft in the daytime. The fiber-optic line from Orsha to Berlin, the Yamal-Europe gas pipeline runs across the region. The significance of the geographical location of the region has increased due to the increase in cargo flows Russia - Kaliningrad region of Russia.

As for significant industrial potential, industry is the basis economic complex formed on the territory of the region. The industry included 24.1% of the total number of employed populationin 2014, produced 58.6% of gross output, 33.6% of gross value added. The areas of specialization of the industrial complex of the region in the republican division of labor are oil refining and petrochemistry, the production of textile products (synthetic and linen materials, carpets and rugs), shoe making, machine-tool construction, electric power engineering, mining and processing of clay raw materials.

There are "Orsha fax factory", which produces almost 100% of flax fabrics of the republic, OJSC "Vitebsk wood factory», the share of products of which in republican volumes is more than 90%, a complex of shoe productions, producing more than 40% of republican volumes of this group, etc. All of them are located on the territory of the region.

There is the only Delarusian fur factory. For a number of other major trade factors, the region also holds a monopoly or dominant position in the republic. The production facilities of republican significance are OJSC «Naftan», including the factory «Polimir», OJSC «Polotsksteklovolokno», OJSC Lukoml GRES which have a decisive influence on the results of the economic complex of the region.

The industrial potential of the region is open and focused on foreign markets. For most types of products, exports account for more than 50% of the volume produced, for individual items (acrylic fibers, organic acids, polyethylene, fiberglass) exceeds 90%. Products of the oil refining and chemical industries prevail in the export trade structure.

Export-import operations are carried out with 100 countries of the world. The main trade partners of the region are Russia (59% of the total turnover), the Netherlands (24.5%), the United Kingdom (2.3%), Germany, China, Poland (1.5% each), Ukraine (1%).

Talking about developed agro-industrial complex, the region accounts for 17.2% of the republican area of agricultural lands. In terms of the quality of land resources, the region is significantly inferior to other regions of the republic; low bonitet of the soils is combined here with high congestion, clay soils, small contour and fragmentation of the plots. Under more severe climatic conditions, this significantly limits the possibilities of crop production. Work has been organized to optimize land use, part of the low-fertile arable land is transferred to natural lands, which allows to increase the feed base and develop the production of demanded agricultural products. The specialization of agricultural production in the region is dairy cattle breeding with developed pig breeding, poultry farming. The region specializes in flax cultivation in the republican division of labor.

The production capacity of the food industry allows to fully process the received agricultural products. Active modernization aimed at deepening the processing of meat and dairy, vegetable and fruit raw materials, increasing shelf life, introducing new types of packaging, ensures the competitiveness of products in the domestic and foreign markets.

As for a variety of raw materials suitable for industrial use, the region has more than one-third of republican peat reserves (1,135 million tons, 52% of which are within the protected areas), almost 100% of explored reserves of dolomites (approved reserves of 878 million tons with a depth of 2.5–4.5 to 35–38 m), 14% of republican reserves of building sand, 35% of explored reserves of sand and gravel material, 38% of balance reserves of clay raw materials, including 47% of developed reserves, more than 77% of republican sapropel reserves. A variety of mineral water sources has also been identified. Forest resources have significant potential – 39.5% of the land fund of the region is occupied by forests and shrubs (1,580.3 thousand hectares), the wood supply is estimated at 292.8 million m3; the total timber reserves in the forests of the region are about 1/5 of all Belarus reserves.

Availability of unique water resources and natural landscapes

In terms of surface water reserves, the region takes the first place in the republic; more than 90% of its territory belongs to the zone of the Belarusian Lakeland. The number of lakes is more than 1.5 thousand – 89% of all lakes in Belarus. Unique bogs of the region are called the "the lungs of Europe". Vitebsk region accounts for 22.3% of all specially protected natural territories of the republic. The region contains most of the Berezinsky Biosphere Reserve (Lepelsky and Dokshytsky Districts), the Braslav Lakes National Park (the Braslavsky District), 6 landscape, 4 biological and 11 hydrological reserves of republican significance, 60 reserves of local importance, 76 nature monuments of the republican and 166 local values. The Berezinsky Biosphere Reserve and 2 reserves - Osveysky (Verkhnedvinsky district) and Yelnya (Miory and Sharkovshchina districts) have the international status of Ramsar territories. The importance of recreational resources and landscapes of the region is increasing due to the practical absence of radioactive pollution in the region.

The presence of a sufficiently developed research potential and training system, corresponding to the structure of the socio-economic complex.

There are 4 institutions of the National Academy of Sciences of Belarus, 11 research and design departments of industrial organizations, 5 state institutions providing higher education and leading active scientific-research activities in the region. There multi-level training system from personnel of working specialties to top-level specialistshas been created: veterinary medicine, sewing, textile, footwear industry, mechanical engineering, machine-tool construction, instrument engineering, petrochemistry, energy, construction, information technology, and medicine. A number of institutions providing training for specialists with higher education are competitive in the international market of educational services. There are 2 science and technology parks operate on the basis of the EI "Vitebsk State Technological University" and the EI "Polotsk State University" on the territory of the region.

The level of medical care system is a fairly high and competitive in the foreign market in a number of areas (diagnostics, gynecology and obstetrics, cardiology, vein surgery, purulent surgery, neurosurgery, ophthalmology, urology, gastroenterology, dentistry).

A number of leading medical institutions of the region are equipped with equipment of world industry leaders: Siemens, Karl Storz, Drager, General Electric, Philips, Carl Zeiss, Fujinon, TOMEY. In combination with a high level of training, this allows the use of the latest medical technology in the diagnosis and surgical treatment. The region was the first in the republic to create a register of medical services provided, received a license and opened a medical tourism center. From 2010 to 2013 exports of services in the industry grew by more than 2 times. The effectiveness of the use of funds invested in health care in the region remains the highest in the country.

Competitive Recreation and Leisure Time Infrastructure

The network of health resorts, recreational organizations and leisure time organizations in the region includes 112 units, or 24.0% of all organizations of the republic. For the period 2005 – 2013 their number increased 1.5 times. There are 8 sanatoriums (including 1 - children's in Miory district), 32 recreation centers, 66 other recreational and recreational organizations on the territory of the Vitebsk region. The total capacity of the network of health resorts and recreational organizations at the end of 2014 was 6,675 beds. The largest organizations are located in Lepel, Polotsk, Vitebsk, Braslav districts.

According to the results of 2013, health resorts and recreational organizations of the region were recognized as the best in the country. At the same time, in the whole region, the proportion of trip vouchers sold to foreign citizens in 2013 amounted to 40.9% of their total number. The popularity and attractiveness of a number of organizations is very high. So, in the resort «Liotsy» (Vitebsk district), 81% of trip vouchers were sold

to foreigners, «Forest lakes» (Ushachy district) - 78.8%, «Lesnoie» (Dokshytsy district) - 64.3%, "Lepel Military Sanatorium" 58.7%. According to the group of organizations of recreation and leisure time in the Braslavsky district, a sustainable brand "Braslavskie ozera" was formed on the domestic and foreign markets.

Successful experience of the rural tourism development

The region is one of the leaders of the republic in this direction. In 2013, 502 agro-farmsteads operated in the region, or 23.9% of the total number in the republic. Since 2009, their number in the region has increased 1.8 times. The most intensively rural tourism develops in Braslavs, Glubokoe, Lepel, Miory, Polotsk, Postavy, Rossony districts, where 77.7% of all agrofood regions are concentrated.

Rich historical and cultural heritage

There are 931 immovable heritage objects included in the State List of Historical and Cultural Values of the Republic of Belarus, including 291 architectural monuments, 258 historical monuments, 4 - arts, 374 - archeology, 2 urban monuments (historical centers of Vitebsk and Polotsk), 2 reserved places (Yanka Kupala`s place of life and creativity in the village Levki, Orsha district, Berezinsky water system in Lepel district). This is 17.6% of the total number of these objects in the republic. The region takes the 2nd place among the regions of the country by the number of museums (27 units, 22 of which are located in the districts).

Multi-genre festival movement

A number of festivals have the status of international and more than 20 years of holding festivals history.

The International Festival of Arts «Slavianski bazaar in Vitebsk», the International Repinsky plein air, International Chagall Days, the International Music Festival named after Sh. I.Sollertinsky, International Festival of Contemporary Choreography in Vitebsk, International Festival of Organ Music and the International Festival of Old and Modern Chamber Music in Polotsk, International Festival of Folk Music and harmonicain Postavy are the most traditional and significant festivals. The regional festival of song and music of Dnieper region, Russia, Belarus and Ukraine, the festival of arts «Dzvina – Dvina – Daugava», the festival of guitar music «Minstrel» and others are widely famous.

Thus, the available natural resources and peculiarities of the territory of Vitebsk region provide favorable conditions for the development of small hydropower industry in the region, production and export of building materials, timber and wood processing industries, livestocl, flax farming, fish farming, processing industries of the agroindustrial complex, development of tourism and recreation and leisure time services, and and mud therapy.

The region is making active efforts to develop socio-economic potential based on the use of existing competitive advantages. Every year the volume of funds allocated for investments in the region amounts to about 20 trillion rubles, of which more than 7 trillion rubles are allocated for the modernization of production.

The priority areas of investment activity of the region are: the development of the production sector with the implementation of investment projects with a high proportion of high-tech and resource-saving technologies, export-oriented and import-substituting production; reconstruction and modernization of enterprises for the processing of agricultural raw materials, renewal of agricultural machinery; further development of the free economic zone "Vitebsk" with a focus on the creation of innovative industries; rendering assistance to foreign investors in the creation of new enterprises and industries; the intensification of work on attracting foreign credit lines; small business development; involvement in the economic turnover of unused property that is in the communal property of the Vitebsk region

Such areas as transport and logistics, energy, construction and production of building materials, agriculture, food production, trade, pharmaceuticals are the most attractive for investors. Investors are invited to discuss options for the use of agricultural land for the organization of the cultivation of grain crops, flax, rapeseed, vegetables, for laying gardens and berries.

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QUALITY OF LIFE IN THE REPUBLIC OF BELARUS

ALEXANDRA GOLUB, NATALIA BELORUSOVA
Polotsk State University, Belarus

Quality of life of the population is determined by the life potentials of the society, its social groups, individual citizens and the conformity of the characteristics of the processes, means, conditions and results of their livelihoods to socially-positive needs, values and goals.

Quality of life as a scientific notion comprises all the conditions of human existence: provision of material goods (food, clothing, housing), security, access to medical care, opportunity for education and development of abilities, state of the natural environment, social relations in the society, including freedom of expression and the influence of citizens on political decisions" [1, p.47]. The effectiveness of the state's social policy and, ultimately, the country's global rating depend on the quality of life. In this regard, the topic of the study is very relevant.

In some developed market countries, the quality of life is higher than in developing countries. In the countries with a model of socially-oriented market economy, the social aspects of the population's life and, accordingly, the quality of life are given more attention, since it characterizes the effectiveness of the state's social economic policy and, ultimately, the level of social development [2].

With the development of market relations, the center of economic development of the Republic of Belarus will be shifted to the regions, the importance of which is great, because the bulk of material benefits is created in them. At the same time, as market relations are formed, the level of regional development is uneven. This fact is explained by the following reasons: firstly, the peculiarities of regional development, and secondly, the selective attitude of state structures to the territories [3]. The regions have different bases of economic development, as well as different natural resource potential, composition and structure, territorial location of production, mentality, level of education of the population, especially local government.

The analysis of quality of life in the regions of the Republic of Belarus is based on the results of the calculation of the integral indices of quality of life by the rating method (ordinal scaling) and by the method of assessment developed by Belarusian scientists, which includes the following criteria: well-being, social security (or the quality of the social sphere), the quality of population, living conditions, environmental quality, natural and climatic conditions, legal protection and culture.

The analysis of quality of life allowed to carry out a research based on gradation and calculation of a rating of regions of Republic of Belarus on quality of life. Each region is assigned a rating score (one of the seven) for the group of each indicator that characterizes the quality of life of the population. The closer the indicator is to 1, the higher the quality of life of the population in the region is. The results are presented in table 1.

Table 1. – Rating of regions of the Republic of Belarus by quality of life

Indicators of Quality of Life	Brest Region	Vitebsk Region	Gomel Region	Grodno Region	City Minsk	Minsk Region	Mogilev Region
1. Welfare	4,50	5,30	5,83	4,00	1,30	2,17	4,50
2. Social protection	7	5	2	6	1	3	4
3. Population and health	2,3	6	3	4	3,5	4	4
4. Education	3,8	4,6	2,8	6,4	3,2	3,4	5,4
5. Housing conditions	4	5	6	2	7	1	3
6. Quality of products and services	4,14	3,71	4,14	3,29	4,57	3,14	4,43
7. Environmental situation	6	7	5	3	4	1	2
8. Legal protection	4	3	5	1	7	6	2
9. Culture	4	2	3	5	7	6	1
Consolidated rating score	**4,42**	**4,62**	**4,09**	**3,85**	**4,29**	**3,3**	**3,37**

Source: author's own research.

The highest positions in the ranking are held by Minsk (consolidated rating score is 3.3) and Mogilev region (consolidated rating score is 3.37). Basically, these regions are leading in such positions as ecological state

of the region and provision of housing. The weak economic position of some regions of the rating (Brest and Vitebsk regions) may be due to geographical location, underdeveloped infrastructure, etc. Graphical representation of the distribution of the regions of the Republic of Belarus on the rating scale is shown in figure 1.

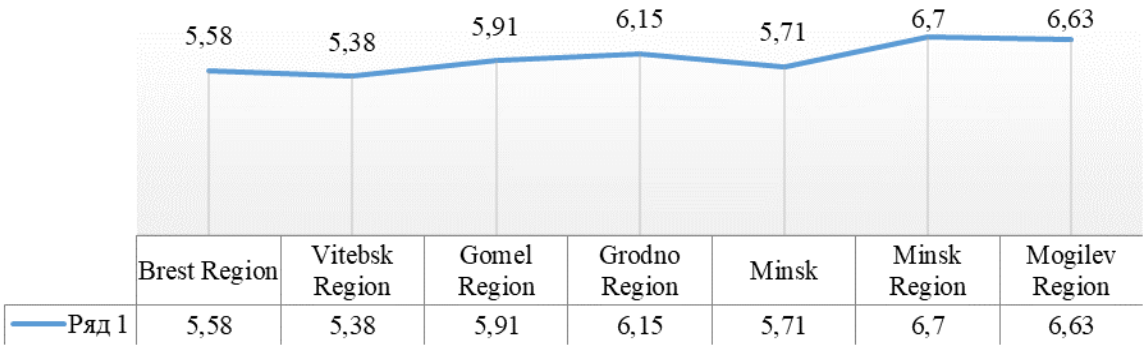

Figure 1. – Rating of the regions of the Republic of Belarus by quality of life

Source: author's own research.

Of course, determining quality of life of the population, any research focuses on the economic component and material benefits of a person. However, it should not be excluded that the quality of life is also an integrated social indicator. And it should find its manifestation in the objective and subjective satisfaction of a person with all the indicators of their life [4].

The state has a decisive role to play in this process. Social orientation of the development of the state is a vector of quality of life of the population. To this end, the necessary components on the part of the state should be considered such areas as:

- promoting the development of regions with low living standards;
- smoothing of fluctuations in the level of regional incomes;
- creating a comfortable living environment;
- implementation of environmental protection programs;
- creation of leisure facilities in remote regions;
- implementation of additional health programs in regions with low quality of life.

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Economics

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FINANCIAL RESULTS: ESSENCE, CLASSIFICATION AND COMPOSITION

VALIANTSINA GONCHAROVA, INNA SAPEGO
Polotsk State University, Belarus

Different approaches to the economic nature, composition and classification of the financial result are analysed and systematszed; definition of financial results is proposed; its composition was clarified, the author's classification of the financial result was developed.

Financial results are generalized results of economic activity of the enterprise. They serve as the main indicators of its effectiveness. Maintaining the required level of profitability is an objective regularity of the normal functioning of an enterprise in a market economy [1].

In the course of business activities, competitors of organizations get certain financial results. At present, it is generally accepted that financial results are expressed in several forms - profit and / or loss, income and / or expenses.

A number of issues of financial results are reflected in the regulatory documents of the Republic of Belarus, the Russian Federation, and the Republic of Kazakhstan. Various aspects of accounting were considered in the works of Russian (Yu.A. Babaev, I.P. Komissarova, V.A. Borodin and others) and Belarusian (A.V. Bugayev, A.V. Verigo and others) scientists. Recognizing the merits of the results of their research, it should be noted that some issues of accounting for financial results are not resolved and require further study. Before starting to study the issues of accounting for financial results it is necessary to understand such concepts as "Income", "Expense", "Profit", "Loss". Let's consider each concept separately in order to define the concept of "Financial result".

The analysis showed that the most often incomes are expressed in the form of cash; increasing economic benefits; sales revenue; values (amount); income in the form of interest rates.

Thus, revenues are money received by the state, business as a result of any activity for a certain period of time [2, p. 87].

One of the elements of the financial result is expenses. The analysis showed that the criteria for the essence of this concept are the following

- enterprise costs;
- losses (damages);
- cash;
- reduction of economic benefits.

According to the author, this concept is most accurately described by such scientists as S.A. Lukyanova, E.S. Sokolova and O.V. Sokolova. From their point of view, expenses are a decrease in economic benefits as a result of the disposal of assets and (or) the emergence of liabilities, leading to a decrease in the organization's capital, with the exception of a decrease in deposits as decided by the participants (property owners) [3,4].

In addition to the above mentioned concepts to the financial result as a result of sales of products, works, services and goods include the concept of loss or profit. In accordance with regulatory documents and many experts, the following criteria for the concept of profit are identified:

- total income;
- comparison of all income and expenses;
- final financial result;
- excess of income over costs;
- net income.

The study made it possible to define this concept. Profit is the amount of excess of income over the expenses of the organization received by the organization for the reporting period [5, p.36].

Exploring the concept of loss, the author highlighted the following criteria for the essence of this concept: exceeding the sum of costs; total income minus expenses; damage (loss); decline in welfare; comparison of the amount of turnover. However, losses mean the excess of the total amount of costs for the production and sale of goods (work, services), property rights and non-operating expenses [6].

Summarizing our research, we believe that the most often authors define a financial result as

- the difference between income and expenses;
- profit or loss;

- information on the income and expenses of the organization;
- results of economic activity;
- comparison of revenue with costs;
- production costs.

In each source, the definition of the concept of "financial result" is interpreted differently. After analyzing each opinion, we believe that the financial result is the algebraic sum of profit or loss from current activities related to the sale of products, works and services, income and expenses from other current activities, investment and financial activities.

Having defined the essence of the concept of "financial result", it is necessary to consider its classification and composition.

The following classification features proposed by some authors can be distinguished:

- By homogeneity of business transactions that form taxable income;
- In relation to the reporting period of the formation of the taxable base;
- According to the sources of formation by the main types of activity of the organization;
- For the period of formation of indicators of financial results;
- According to the composition of the elements forming the final financial result;
- According to the nature of income taxation;
- According to formation sources used in accounting;
- By ways to disclose additional information;
- By the nature of the distribution of profits [7].

This classification allows us to understand the diversity of the essence of the parties that this category reflects, as well as the variety of forms in which it appears.

For accounting purposes, you can use the classification according to the instruction number 102, as well as the proposed author's definition.

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Economics

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PROBLEMS OF THE FORMATION OF STRATEGIC MANAGEMENT IN ORGANIZATIONS

HALINA YARYHINA, INHA ZENKOVA
Polotsk State University, Belarus

This article discusses the problems of strategic management that are encountered in an organization at the time of development and implementation.

The organization's strategy determines the priorities of the strategic objectives, the allocation of resources and the sequence of steps to achieve the strategic goals. The main point of the strategy is to transfer the organization from its present position into the desired and predictable future state.

Strategy provides answers to key questions about the essence of the organization.

What is our business today?

What is our market position?

What should our business be like tomorrow?

What do we need to do to achieve our aims?

Currently, there are many organizations that provide the same services or sell similar products. Organizations need to plan for strategic management over the long term in order to survive, grow and become better. The firm must control not only the state of affairs within the organization, but also develop a long-term strategy allowing to notice the changes that are occurring in the sphere of their activity.

In the American Business Encyclopedia in the «Mission» section, there is a link to the «Strategy formulation» section. In the «Strategy formulation» section it is said that «this concept is vital for the well-being of a company or organization. It allows us to develop a plan through which the goals of the company are achieved». Thus, the definition of strategy begins with the establishment of the mission of an enterprise, expressing the philosophy and meaning of its existence. In the American company *Federal Express*, delivering parcels, it is recognized: «Everything that we do must be done no later than tomorrow». Clear and intelligible. And the official philosophy of General Electric is the statement: «Progress is our main product». General Electric produces the most modern type of equipment. As soon as a new product appears on the market, General Electric ceases production of the existing one, but more obsolete, and tries to develop an even better one.

Strategic management is a type of management, based on human potential. It orients production work to customer needs, responds flexibly and implements timely changes in the company that meet the challenge of the environment and allow you to achieve competitive advantages, thanks to which the organization survives in the long term and achieves its goals [1, p. 124]. However, strategic management has certain drawbacks and limitations, since it does not have universal application in all situations when solving any tasks.

Problems that may arise during the development of strategic management:

1. Large time and resources for the implementation of the organization of strategic management. It requires the development of a system and the implementation of a process of strategic planning, public relations and marketing research, which are costly but extremely important.

2. Organizations in the implementation of strategic management are placing significant emphasis on strategic planning. In fact, it is important to implement a strategic plan, and this requires the development of an organizational culture (strategy implementation), a certain flexibility in the firm.

3. Strategic management does not provide an absolute picture of the future. Strategic management shows what state the organization should be in, what position it will take in the market, but will not be able to give a detailed description of the internal and external position in the future.

4. Strategic management cannot be reduced only to a set of routine procedures and schemes, as it also includes the professionalism of employees, the art of leading employees to achieve strategic goals, the active involvement of all staff in the implementation of the objectives of the organization.

5. The negative consequences of strategic planning mistakes are heightened. [2, p.12]

In modern Russian society the mechanism of strategic management is in its infancy, while without the developed strategy, the organization will not be able to function effectively in the market.

At the second stage, when creating a strategic management system, an organization faces a problem, like the lack of technology for developing an organization's strategy based on the results of a strategic analysis.

The strategy, being developed, must be addressed to execution. To do this, the company must create a mechanism for its implementation. This mechanism provides for appropriate personnel, legal, organizational,

informational, technical and methodological support. The complexity of the mechanism depends on the depth and scale of the changes that should be made in the organization. Naturally, this mechanism does not exist in isolation of the current enterprise management system; it seems to «dissolve» in this system, giving special features to the latter. Therefore, identifying the state and features of the control system, you can get an indirect description of this mechanism.

At this stage, the organization takes the following steps:

– development of strategic analysis technologies;

– transition from analysis to solution. If the organization solves the first problem, it proceeds to the next stage;

– lack of a mechanism for implementing the strategy. You can develop a good strategy, but there is no guarantee that it will be implemented. The organization has the task to build a development mechanism that will allow implementing the developed strategy. At this stage it is necessary to;

– gain skills in the implementation of the strategy;

– create a development mechanism;

– create a motivation system for the implementation of the strategy [3, p. 48].

Strategic management as a type of management does not exist in its pure form, it is closely associated with other types, and mainly with such as creative, innovative management, project management and crisis management. Of course, it is impossible to imagine strategic management without marketing analysis and without marketing as a type of management.

Thus, strategic management for the organization plays an important role. Managers need to build a policy for the implementation and use of strategic management. Do not forget about the problems that may be on the way to effective strategic management, direct employees to develop an effective strategy for the development of the organization.

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Economics

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THE SYSTEM AND MECHANISMS OF MASTERING INNOVATIONS IN CROP PRODUCTION OF PSKOV REGION

IVAN VOIKU
Pskov Agricultural Research Institute, Russia

The article outlines the theoretical aspects of the system of mastering innovations in agriculture, defines the basic premises of its formation. The process of mastering innovations presented in the form of a sequence of four interrelated stages. The list of the main participants of the system of mastering innovations in crop production of Pskov region and the interaction between them is presented.

New macroeconomic challenges and the need to improve existing market relations requires new business forms, innovative approaches to managing the development of regional agro-industrial complex based on innovation.

The stagnation of the main sectoral indicators, the deterioration of the competitiveness of agro-industrial enterprises in Russia is largely owed to a lack of sufficient flow of innovation and finance and investment support of their mastering. The solution of this problem lies in the activation of innovative processes at the Federal, regional and municipal levels.

In accordance with the Concept of the long-term social and economic development of the Russian Federation until 2020 innovation is defined as the leading factor of economic growth in all sectors of the economy [1].

The implementation of this basic programming document requires the formation of a national innovative system, consisting of elements such as a system of scientific research and development, integrated with higher education, malleable to requests from economy, engineering business, innovation infrastructure, market institutions of intellectual property, innovations promotional mechanisms and others [2].

The main condition of the national innovative system formation is ensuring the primary and large-scale mastering innovations – one of the five phases of the life cycle of both product and process innovations.

The primary (pioneer) mastering innovations are the implementation of the development results into production, which involves the following steps [3]:

1. Technological mastering – individual production of new products needed in single quantities, mastering of the mass production of new products, commissioning of new constructions, technological processes and managerial systems, the practical use of new methods;

2. Industrial mastering - achievement of the planned capacity and designed volume of the usage of innovations;

3. Industrial and technological mastering includes development and approval of technological and organizational project, prices, engineering specifications, standards, norms for consumption of resources, and preparation of construction and construction and installation works, installation of new equipment. Managerial and engineering support of production besides organizational and technical measures includes staff training and retraining, provision of consulting and implementation services.

Economic mastering is the achievement of the final results of scientific and technical development, designed socio-economic efficiency of innovations.

Economic mastering ends with the achievement of the planned capacity and economic indicators: materials-output ratio, energy-output ratio, labor capacity, production cost, profitability, capital productivity ratio. At this stage of mastering the additional work on elimination of the shortcomings, revealed in the process of industrial and technological mastering is implemented, the activation of the human factor, the formation of the essential (corresponding) innovative climate are taken place.

Large-scale mastering is the economic mastering on a large scale in enterprises, where it's effective, accompanied by dissemination of information, copying of documentation, materials and equipment, staff training and retraining [3]. At this stage the innovation is beginning to bear real effect.

The use of the systematic approach involves the compensated accumulation and distribution of innovative potential, which includes material, labor, financial, information resources, at each stage of the process of mastering innovations. Furthermore, the basic principle of the systematic approach is the consideration of an open system with input and output, controlling and controlled subsystems.

The elements of the system of mastering innovations are innovative and productive structures, organizational and economic mechanisms of implementation, techniques and tools [4].

The mechanisms, presented as a set of forms and methods, sources, tools, and leverage, in particular, are the link of any system.

Economic mechanisms (financial security and taxation of the participants of innovation processes) are designed to create the conditions for expanded reproduction of agricultural production. Organizational mechanisms aim at the formation of adaptive and accurate organizational system of management of the innovation processes in industry [5].

All this are the general approach to the definition of system and mechanisms of the mastering.

The mastering innovations in crop production is to apply advanced agricultural technologies, varieties, fertilizers and crop-protection agents, new machines and mechanisms at each stage of cultivation of cultivated plants.

Pskov region is one of many regions of Russia, requiring innovative approaches to the solution of acute problems, including problems of the development of the crop production.

Despite the low commitment to innovation across the board in the crop production, the region already has the experience of the effective mastering innovations.

The yield index of the Limited Liability Company "Idavang" - one of the most innovatively active enterprises – is above the average not only on regional and Russian indexes, but also comparable to the yield indexes of the regions of black soil zone (fig. 1). It is interesting to note that the very yield index is the leading resulting indicator of innovative activity.

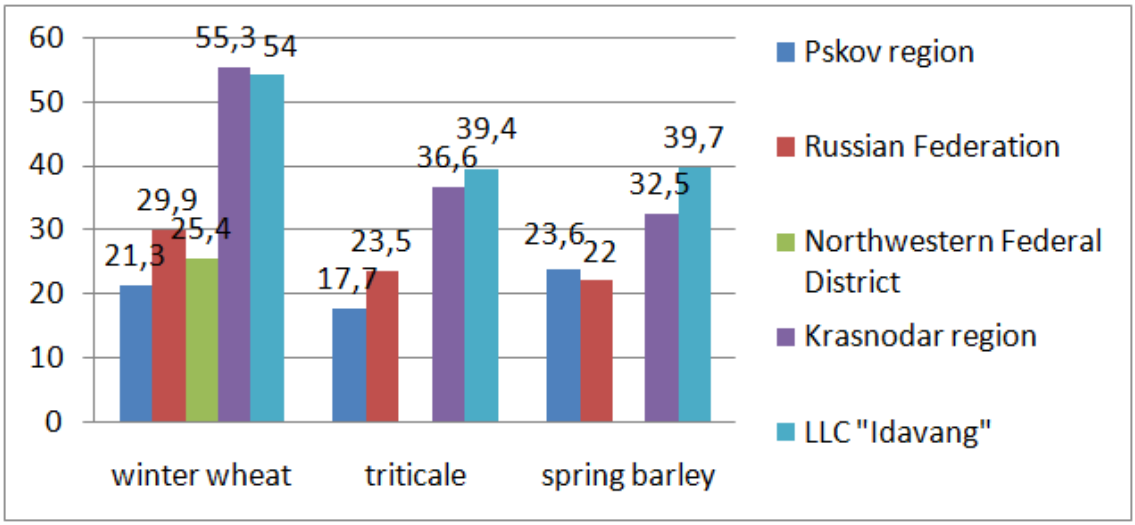

Figure 1. – The comparison of yield indexes of the major crops of the Limited Liability Company "Idavang" with similar indexes of Pskov region, the Russian Federation, Northwestern Federal District and Krasnodar region

The enterprise produces crops on the area of more than 4.5 thousand hectares, using only 12 harvesters operated by 35 mechanics, uses agrometers – specialized equipment for organic manuring of the soil with the hose method, which allow to exclude contact of nutrients with the air. At the stage of inception the enterprise has invested in the soil preparation to crop rotation 13260 rubles per hectare.

In addition to the Limited Liability Company "Idavang", also the Peasant Farm "Prometey", the Limited Liability Company "Pankratovskoye", the Agricultural Production Co-operative "Svetoch" and the Agricultural Production Co-operative "im. Suvorova" are innovatively active enterprises of the region. These enterprises are actively implementing new crop varieties, use new types of fertilizers, new crop-protection agents, new machines and technologies.

The positive experience of innovatively active enterprises must spread on all agricultural enterprises of the region. The system of mastering innovations, model of which is presented further, is aimed to accelerate this process.

The proposed system is dynamic in nature, i.e. considering the process of mastering as a sequence of the certain stages. Besides, the system is goal-oriented, i.e. acting in accordance with goals, clearly defined by higher-order systems, and open using linear and nonlinear relationships between their basic elements (fig. 2).

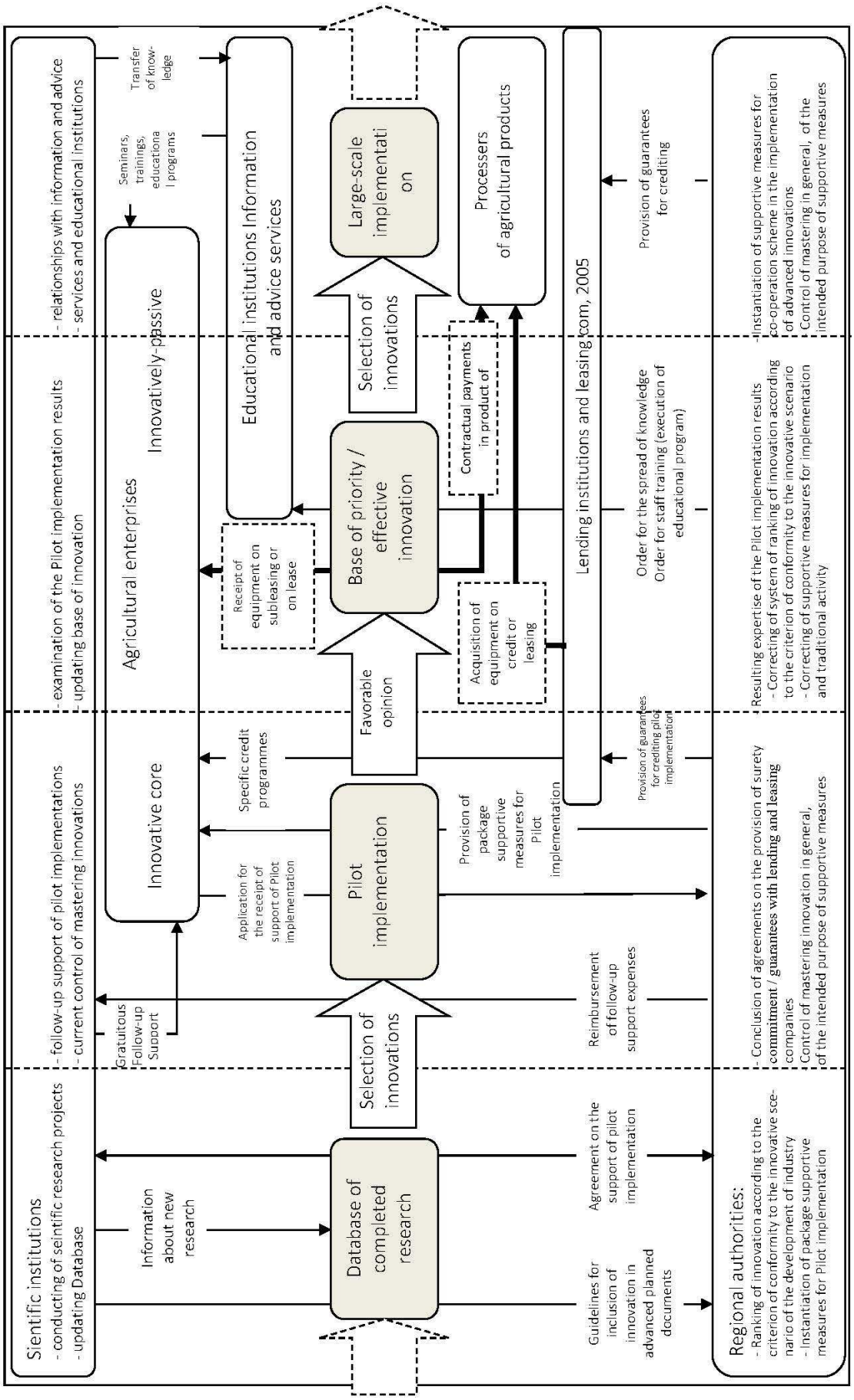

Figure 2. -- The model system of mastering innovations in the crop production in Pskov region

Thus, figuratively, the process of mastering is divided into four stages [6]:

1. Formation of a database of completed research. The main task is periodic information sharing about the advanced innovations from scientific institutions of the regional authorities, preparation of sound recommendations on enabling innovation in the sectoral and subsectoral development programs of crop production of Pskov region. The recommended innovations should be ranked by the regional authorities according to the criterion of conformity to the innovative scenario of the development of sector or subsector.

2. Pilot implementation. Testing innovations under production conditions is conducted mainly by agricultural enterprises of the innovative core. The very agricultural enterprises have the maximum opportunity for implementation of innovative crop varieties, application of new means of protection and fertilizers, the purchase of new machinery, implementation of innovative technologies in the crop production.

3. Formation of the base of priority / effective innovation. Current control of the pilot mastering innovations is provided by a scientific institution, the final control - by the regional authorities. Then, the representatives of the regional authorities form a council of experts to make decisions about the effectiveness of the mastered innovations and the feasibility of the further large-scale implementation. Information about all the innovations that received a favorable opinion is sent to the Database of priority innovations – the alternate Database of the completed research, subjected to the selective treatment by the pilot implementation during the particular period of time.

4. Large-scale implementation involves the use of proven innovation which gives the guaranteed result. The long stage of the mastering innovations ends with a complete replacement of the previously implemented innovation by fundamentally new one.

Key economic mechanisms, allowing to link all the innovation, production and other structures in the proposed model, can be [6]:

– Provision of state guarantees on a competitive basis at the expense of the regional budget for investment projects approved by Administration of the region;

– Provision of tax advantages in the form of lower payment of the corporate property tax for implemented investments;

– Establishment of preferential rates on taxes (on property and profits of organizations) for investment projects approved by Administration of the region;

– Innovative grants for implementation of innovations;

– Subsidies on reimbursement of the part of expenses for the development and implementation of innovative technologies;

– Subsidies on reimbursement of expenses of the real estate lease or the use of unique equipment on a competitive basis;

– To compensate for scientific institutions expenses related to the provision of services to subjects of innovative activity;

– Others.

– Model system of the mastering innovations also provides for a perfection of the organizational mechanism of innovation processes development [6]:

– Formation of cooperative relationships between financial institutions, processers and agricultural enterprises, involving the implementation of various innovations;

– Conclusion of contracts between regional authorities, scientific and educational institutions, information and advice services on the realization of special training programs, holding of seminars, other forms of replication of new knowledge;

– Formation of the principles of the distribution of volumes of state support for large-scale implementation of innovations in crop production.

Undoubtedly, the proposed model system and mechanisms of mastering innovations in crop production of Pskov region have a number of significant assumptions and limitations. However, in general, they define the key participants of the innovative development of the industry and the prospects of their relationship.

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THE USAGE OF THE RESULTS OF NOVOPOLOTSK INVESTMENT ATTRACTIVENESS EVALUATION TO DEVELOP PRACTICAL RECOMMENDATIONS FOR ITS IMPROVEMENT

IRINA GRABLEVSKAYA, ELENA LISICHONOK
Polotsk State University, Belarus

The author substantiates the need to assess the investment attractiveness of the town, which will allow to formulate recommendations for its improvement. The results of evaluation of investment attractiveness of Novopolotsk in comparison with other cities and towns of Vitebsk region (Vitebsk, Orsha, Polotsk) are presented. The factors that negatively affect the investment attractiveness of the town are highlighted. Based on the selected factors, the recommendations aimed at improving the investment attractiveness of the town of Novopolotsk are formulated.

The need to increase the investment attractiveness of the town (region) due to its importance for the active attraction of investment, which will ultimately contribute to the strengthening of the competitiveness of the town (region). Evaluation of the investment attractiveness of the region (town) will identify the factors that reduce it, which in turn will create the basis for the development of practical recommendations aimed at improving the investment attractiveness of the region (town).

The studied approaches of domestic and foreign authors, reflecting the essence of the category "investment attractiveness of the region" allow us to draw the following conclusions:

1. Investment attractiveness of the region is often considered as a set of factors and conditions.
2. Investment attractiveness is presented as a combination of two characteristics: investment potential and investment risk.

To analyze and highlight the weaknesses of Novopolotsk, the author used the method of ranking.

The essence of the ranking method is as follows: according to the selected parameters, the places of the regions for each indicator are determined. The total rating of regions is formed by the sum of the places occupied by the region in all parameters. The highest rating is assigned to the region with the minimum number of positions. When using the ranking method, Novopolotsk was compared with other major cities and towns of Vitebsk region (Vitebsk, Polotsk and Orsha).

Investment attractiveness of the town is formed from two groups of indicators that determine the indices: investment potential and investment risks. This approach should be recognized as the most common among domestic and foreign authors. This approach, for example, adhere to Mikhail Kovalev and Alina Yakubovich [1], as well as the rating Agency RAEX ("Expert RA") [2].

The investment potential of the town reflects the possibility of investing in non-expendable assets, including investments in securities for profit.

The main components of the investment potential of the town are four micro-index-potential (private potential): resource and labor, institutional, consumer and financial, each of which is characterized by its own group of indicators.

Investment risk of the town is a set of factors under the influence of which there is a probability of unforeseen financial losses in the face of uncertainty of the results of investment. The main components of the investment risks of the town are three microindex-risk (private risk): social, environmental and financial, each of which is characterized by its group of indicators. The algorithm for calculating each of the indicators included in the composition of private investment potentials and investment risks is presented in the source [1].

The analysis is based on statistical data for 2017. The data of the National statistical Committee of the Republic of Belarus were used for the analysis.

The following indicators were used to assess the investment potential:

– characterizing the resource and labor potential: the index of the population in working age; the index of the population under the age of the able-bodied; the index of security of housing; the index of input of housing; the index of investments in fixed capital; the index of growth rate of contract works;

– characterizing institutional potential: index of retail space provision; index of the number of small enterprises; index of the number of places in public catering facilities;

– characterizing consumer potential: retail turnover index;

– characterizing financial capacity: the profitability index of realized production; index of nominal wages; the index of profitability of the organizations (enterprises); the index of exports.

The analysis carried out by the author in the context of this system of indicators shows that Novopolotsk has a fairly strong investment potential. However, there are indicators for which Novopolotsk is inferior to certain cities and towns of Vitebsk region, for example, the index of the population under the age of the able-bodied, the index of housing, the index of the growth rate of contract work, the index of the number of small organizations (enterprises), the index of the number of places in catering facilities, the index of retail trade, the index of profitability of sold products. Accordingly, here we can see the reserves for strengthening the investment potential, the use of which will increase the investment attractiveness of Novopolotsk, which is the largest industrial center of the Republic of Belarus.

The following system of indicators is used to assess investment risks:

– characterizing social risk: index of natural increase (decrease) of the population; unemployment rate; mortality rate;

– characterizing environmental risk: environmental pollution index;

– characterizing financial risk: index of overdue accounts receivable; index of overdue accounts payable; index of loss-making organizations (enterprises).

As the analysis has shown, the most problematic form of investment risk in Novopolotsk in 2017 remains an environmental risk, whereas the position of the town on the other indicators is quite high. For example, Novopolotsk is characterized by the lowest level of financial risk of all the cities and towns affected in the study.

The author's analysis of the investment attractiveness of Novopolotsk revealed its weaknesses, i.e. factors that reduce the attractiveness of the region:

– smaller relative to other cities under study proportion of the population younger than the able-bodied, which in the future may complicate the reproduction of labor resources in the region;

– somewhat smaller compared with the compared cities of the Vitebsk region, the provision of housing for the population, which implies the need for more active construction and commissioning of housing.

– some weakening of the town's position on the provision of retail space and places in public catering facilities. This fact may indicate that in the compared cities of Vitebsk region the sphere of trade and public catering is developing more rapidly than in Novopolotsk. This is also demonstrated by the town's insufficiently strong position in terms of retail trade turnover;

– a small number of small organizations relative to other cities, which implies the availability of reserves to enhance the development of small business in Novopolotsk;

– low efficiency of product sales, which is manifested in a small level of profitability of products sold and indicates the need to search for reserves of its growth;

– a high level of environmental contamination that can create problems with the health of the population of the region and weaken the working potential.

Based on these weaknesses, we can conclude that in this direction it is necessary to improve the position of Novopolotsk and direct the efforts of local authorities and management. This will increase the investment attractiveness of Novopolotsk relative to other cities and enhance its socio-economic development.

Therefore, the main recommendations to improve the investment attractiveness of Novopolotsk should be aimed at:

– implementation of demographic policy in terms of increasing the birth rate, especially since this problem is relevant for all regions of the Republic of Belarus;

– intensification of construction and commissioning of housing, which will not only increase the provision of housing, but will also contribute to the development of construction and increase the efficiency of construction organizations in the region;

– more active development of trade and public catering, which will also contribute to the growth of the efficiency of this type of economic activity;

– intensification of the development of small and medium-sized enterprises;

– increasing the efficiency of product sales;

– activation of the environmental policy of the largest industrial organizations in the region (open joint stock company "Naftan" and JSC "Naftan" Polymir plant), which will help to reduce the volume of emissions of pollutants into the air, as well as reduce other negative consequences of the impact of these organizations on the environment in the region.

The implementation of these areas will contribute to the revitalization of the petrochemical cluster. In the program of socio-economic development of the Republic of Belarus for 2016-2020, Novopolotsk is defined as a center of economic growth and investment in the Vitebsk region. Currently, a whole list of strategic policy documents is being developed, among them – the concept of the strategy of socio-economic development of

the town until 2035. The strategic goal of all the work being done by the administration of the Navapolatsk puts the strengthening and expansion of internal communication and increasing the investment attractiveness of the region.

The expansion of the FEZ "Vitebsk"will also contribute to the efficiency of the organizations of the region (town). Earlier, five sections of Novopolotsk were included in the FEZ "Vitebsk". Among them the territory of OJSC "Izmeritel", "vitebskhlebprom" Novopolotsk bakery branch, part of the industrial zone, the territory of Sochi and the village of Borovukha. In September 2018, JSC " Polotsk-Fiberglass "also became a resident of the free economic zone"Vitebsk".

Thus, increasing the investment attractiveness of Novopolotsk will contribute to the growth of competitiveness of the region, and thus improve the standard of living and well-being of the population of the town.

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Economics

UDS 332.81

HOUSING FUND OF THE REPUBLIC OF BELARUS: COMPOSITION, STRUCTURE, FEATURES OF REPRODUCTION

OLGA KAMECKO, SVETLANA IZMAILOVICH
Polotsk State University, Belarus

The article considers the structure of the housing stock of the Republic of Belarus, its composition. The mechanism of reproduction is described, the main problems of housing stock reproduction are indicated. Formed recommendations to address the problems of reproduction of the housing stock, based on international experience.

Residential houses located on the territory of the Republic of Belarus, as well as residential premises in other buildings, form the housing stock. In accordance with [1] (article 1), the housing stock is the totality of the dwellings of public and private housing funds.

The housing stock consists of:

– the state fund, which in turn is divided into republican and municipal;
– the private fund, which includes property of citizens and non-governmental organizations.

State housing stock is provided to citizens only on the basis of contracts for renting residential premises, and often their privatization is impossible. That is, the actual use of the living space is carried out by citizens, but within the framework of what is permitted by the state.

There are cases of exclusion from the housing stock, for example, in the case of transferring residential premises to non-residential premises - for trading, transferring it to office space, as well as in the event of the destruction of residential premises, etc.

There are a number of premises that are not included in the housing stock – cottages, gardens, hotels, holiday houses and other similar places, as well as illegally constructed buildings, since the inclusion in the housing stock occurs only after its state registration.

The structure of the housing is presented in table 1.

Table 1. – The structure of the housing stock of the Republic of Belarus

<table>
<tr><td colspan="4">Housing stock of the Republic of Belarus</td></tr>
<tr><td colspan="2">State Housing Fund</td><td colspan="2">Private housing</td></tr>
<tr><td>Republican housing stock</td><td>Communal housing stock</td><td colspan="2">Citizens' Housing Fund</td><td>Housing fund of non-state legal entities</td></tr>
<tr><td rowspan="2">• Part of the housing stock owned by the Republic of Belarus</td><td rowspan="2">• Part of the housing stock that is in communal ownership (owned by administrative and territorial units)</td><td colspan="2">• Part of the housing stock owned by citizens:</td><td rowspan="2">• Part of the housing stock owned by legal entities of non-state ownership</td></tr>
<tr><td>o Individual housing stock</td><td>o Housing fund owned by legal entities created as private owners, created as private owners, built or acquired at the expense of their funds</td></tr>
</table>

Statistics indicates a low quality of living conditions, therefore, a low quality of reproduction of fixed assets of housing.

Reproduction is a continuous process of renewing the housing stock and preventing its premature wear. Ways of reproduction in this area are discussed in Figure 1.

New construction is the main means of expanded reproduction, i.e. qualitative increase in funds.

The concepts of "reconstruction", "modernization", "overhaul" have the right to an independent existence, although during repair and construction works, overhaul and modernization are often carried out simultaneously.

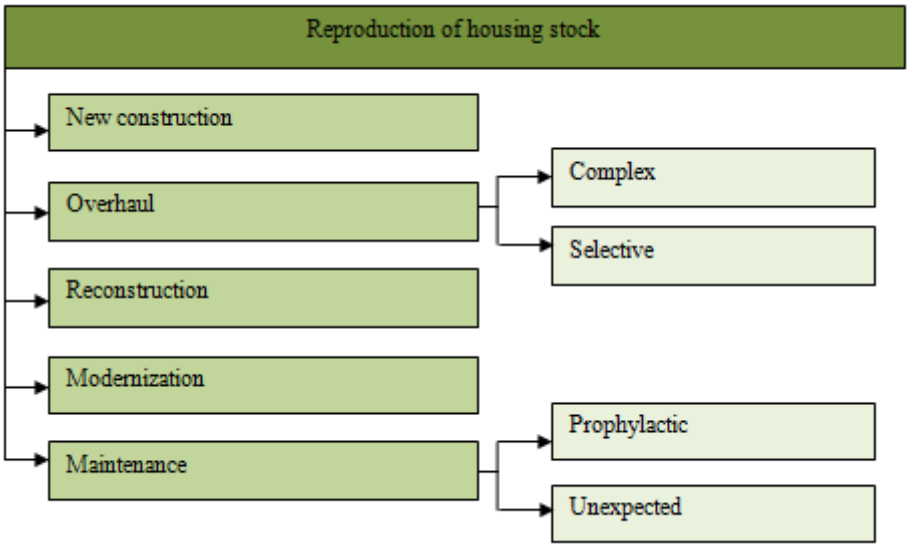

Figure 1. – Ways of reproduction of housing stock

Overhaul should include the repair of faults of all worn out elements, their restoration or replacement with more durable and economical ones, which improve the operational performance of the buildings under repair (except for the complete replacement of stone and concrete foundations, load-bearing walls and frameworks). Subdivided:

– complex - in the most valuable stone buildings;

– selective - covers the individual structural elements of the building and engineering equipment.

Renovation - (in addition to the overhaul) the following:

– re-planning of premises (redevelopment), construction of superstructures (volume increase), buildings and extensions (expansion), partial disassembly of them if necessary;

– increasing the level of engineering equipment, including the reconstruction of external networks;

– improvement of the architectural expressiveness of buildings, as well as improvement of the adjacent territory;

– expansion of existing and construction of new buildings and structures for utility and service purposes;

– construction of new buildings and structures of the main purpose, which are included in the complex of the object instead of liquidated.

Modernization is a set of measures for carrying out work similar to reconstruction, with the exception of changes in the volume and purpose of buildings.

Current repair - the goal: protection of objects from premature wear; is - in a systematic and timely work. By types of work is determined by:

1) the current preventive (planned) repair, detected and planned in advance on the implementation time, volume and cost; repair and painting of roofs, replacement of drainpipes, partial repair of windows and doors, cleaning of impurities and painting of facades, staircases; this is the basis of the normal functioning of the building; frequency - no more than 3 years;

2) current unforeseen repair, detected during operation and carried out as a matter of urgency; elimination of the consequences of accidents, damage to structures and components.

Thus, we formulate the problems common to all European countries, including the Republic of Belarus, when carrying out reconstruction in the housing stock [2].

– Economic problems: low economic efficiency of investments, high costs, long payback period, high pre-investment costs; insufficient funding.

– The set of technical problems: the complexity of the work in the reconstruction, especially for buildings, monuments, low level of professionalism of contractors.

– Organizational problems - the tenants' consent for the reconstruction and the need for temporary relocation of tenants.

– Problems of information support - lack of knowledge and practical examples on energy saving and

other measures for the rational use of resources.

– Social problems - the growth of social standards for the quality of housing.

The formation of an effective process of reproduction of the housing stock requires decisive measures. A variant of such actions can be sustainable construction. In the key to the construction of new objects, it is able to mobilize all the effective functions of real estate.

Sustainable construction is, in turn, the evolution of green building development, with an emphasis on accounting for the entire life cycle of a building. Thus, sustainable construction involves the creation and stable provision of a comfortable artificial human environment while maintaining the natural environment throughout the "life" of a building: from design to demolition [3].

At present, improvement of the living conditions of households in the republic is increasingly identified with the acquisition of housing by them.

Such an approach has found a certain consolidation in the regulatory legal acts and public opinion is formed in accordance with it. Positive experience in solving the housing problem shows that rational and efficient use of the housing stock can only be ensured with the development of the housing market, in which housing is presented as a subject of property and housing services, that is, rental housing.

The ability of households to rent housing provides the opportunity for free movement of labor resources and contributes to their more efficient use. Consumers of such housing, as a rule, are the most dynamic part of the society, to which, first of all, young citizens, as well as households that do not have income for the purchase of housing in property, belong. Rental housing as a way to meet housing needs most fully meets the conditions of employment of citizens, for example, who are military personnel, elected to a position, temporarily sent to work in another locality, etc. The functioning of the rental housing market is an important factor in ensuring the possibility of dynamic socio-economic development of society.

This also ensures efficient use of public funds allocated to the housing sector. Improving the living conditions of citizens in need of social protection and state support should be based on the consideration of their real housing security and the possibilities of society [4].

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UDC 334.01

5 LEVELS OF LOGISTICS SERVICE

VERONIKA KASHLEY, ANASTASIYA KUISH, PALINA LAPKOUSKAYA
Belarusian National Technical University, Minsk

In this article the types and features of logistics service providers are investigated. The principles of gradation of these operators are considered. Besides the main problems of transition from one PL provider to another one in the Republic of Belarus are analysed.

The active development of trade, the expansion of the purchase markets and products sales at the companies cause the necessity of involvement of intermediaries in the field of the organization of delivery and warehousing of freights. In turn, the most intense competition between the leading cargo carriers forced the latter to look for new ways of fight for the client, and services of PL providers become one of such mechanisms today. To carry out the assessment of activity of each operator, it is necessary to reveal their distinctive features which are reflected in the following comparative table 1.

Table 1. – Main characteristics of five levels of logistics service

Level of provider	1PL	2PL	3PL	4PL	5PL
1	2	3	4	5	6
Type	Companies cargo owners	Transport enterprise, freight terminals, warehouses, forwarding agents, agents, customs brokers	The firms rendering complex logistics service	Integrators of a complete cycle	Integrators of a complete cycle based on Internet logistics
The rendered services	Cargo transportation	Proceeding from a field of activity: cargo transportation, lease of storage facilities, information services, maintenance of freights, documentary registration	Multifunctionality	The integrated multifunctionality, complexity of services	
Access to sales markets	Local, regional	Local, regional	Interregional	Global, delivery "from a door to a door"	Global, by means of the Internet
Assets	Tangible assets: own park of motor transport	Assets are material: vehicles, motor depots, storage facilities, warehouse equipment, means of loading/unloading, etc. Non-material assets: reputation, information, etc.	Shift from ownership of assets to ownership of information	Shift from ownership of assets to ownership of information	Information management in a common information space
Relationship in a supply chain	-	Single transactions, annual contracts	Long-term relations (3-5 years)	strategic partnership	Virtual enterprise
Competitiveness	-	Separate	Cooperations of logistic intermediaries, alliances	Several large alliances in the market [1,2]	

Continued Table 1

1	2	3	4	5	6
Examples in Belarus	Protractor, Imekstreyd, Mediterenianshipingkampani, Karatekspedition, RALADOS PLUS, "BRESTVNEShTRANS", "GARDATRANS", "UNITED PASCRELL SERVICE (BI UAY)", "LOGUS VOSTOK", "PRIOR LOGISTICIAN", "AERO-STAR"	FORBELATRANS, ORIONBEL, "M&M MILITTSER & MYUNH", VIPTRANSSPEDISHN, BELEKSLOGISTIK, MEDITERENIAN SHIPING KAMPANI, NORTHROP, "BUREAU OF EXPORT", "HELLMANN EASTERN EUROPE", SIFUDSERVICE, "DIESV TRANSPORT", ALEVTRANS, INTERTRANSAVTO, "EMONS EXPEDITION", MOGILEVKHIMVOLOKNO, ADLERGROUP	"BELINTERTRANS THE TRANSPORT AND LOGISTIC CENTER", AVANTREYL, BELTAMOZHSERVICE, DZHENTISPEDISHN, TRANSGRUPPLOGISTIK, KRAFTTRANS, "HUNDRED LOGISTIK", "T.E.L.S. IS BIUAY", BELMAGISTRALYAVTOTRANS, GRADALOGISTIK, "ASTRA WEISRUSSLAND", "TRANSKONSALT BREST", "PRIMVEY", VESTTRANSLAYN, "TRANSREYLBCH" [3]	-	-

Considering the experience of some of the most developed countries, it is possible to draw a conclusion, that the transfer of a part of logistics services to other organizations is really effective. It is called outsourcing of logistics services and means the transition from activity of First Party logistics (1PL) – autonomous logistics to more high-class logistics: 2PL–3PL–4PL–5PL. It allows to get the following benefits:

– the concentration on profile activity;
– the use of effective methods and the modern infrastructure concentrated in the specialized logistic companies;
– the exception of the costs connected with development of own merchandising of structures;
– flexible and timely reactions to the changed requests of consumers;
– the transfer of risks on activity of the logistic operator;
– the reduction of duration of operating and logistical cycles;
– cost reduction of the address.

The gradation of providers of services on 4 types assumes gradual extension of the list of the rendered services. So, the Second Party Logistics (2PL) provider renders traditional transportation services and to management of storage facilities. Third Party Logistics (3PL), except transportation of goods, carries out warehousing, an overload, renders additional services with considerable added value, uses subcontractors (contract logistics). The integrated logistics of Fourth Party Logistics (4PL) – covers planning processes, managements and control of all logistic streams (information, raw materials, materials, products and the capital). The uniform operator with long-term strategic objectives unites all participants in supply chains. Fifth Party logistics (5PL) uses possibilities of the Internet as uniform virtual platform for the solution of logistic tasks [4]. Today in Belarus there are following problems of transition from one pl-provider to another:

– the deficiency of investments into development of infrastructure;
– the absence of the market of 3PL-services (provider of logistics services of the third level 3 PL solve problems of a full and complex logistic service, use any kinds of transport, have the railway vehicles, own terminal complexes in ports or on railway stations and storage facilities);
– the absence of system integrator of level 4PL (logistic provider 4 levels - the logistic companies which perform all functions of logistic provider of the third level and plus perform "management function".);
– insufficient qualification of personnel;
– the imperfection of the legislation;
– excessive administration customs and other types of control;
– high taxes and other expenses.

Besides these reasons, it is also necessary to mention the weak integration into the international and European logistics systems, which limit cargo flows. Exporters prefer to send the shipment directly, passing TLC. Sanctions, which are imposed on the Russian Federation, limit presence of our carriers in the market and have significant effect on transit cargoes. All this leads to reduction of external cargo flows. There is a wish to pay

attention also to insufficient development of road infrastructure, seasonal and temperature restrictions for the movement of heavy-load transport [5].

Thus, the problem resolution of development of 4 and 5 levels of logistics service in the Republic of Belarus will be promoted by the organization of procedures of voluntary certification of logistics services on compliance to requirements of STB 2306-2013. Availability of the certificate will promote creation of a favorable image of logistic provider, will provide him with additional benefit and will allow to systematize participants of logistics service according to the European and national standards.

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Economics

UDC 658

THE DEVELOPMENT OF INFORMATIONAL FLOWS IN THE LOGISTICS SYSTEM OF THE RUE «BELTAMOZHSERVICE»

KATE KAZACHONOK, POLINA LAPKOVSKAYA
Belarusian National Technical University, Minsk

The RUE «Beltamozhservice» is the largest operator in the market of logistics services in Belarus. The article analyzes the types of information flows used at this enterprise, proposes the introduction of a unified information network to improve the operation of the logistics service enterprise as a whole and proves the feasibility of this introduction.

A logistics information system (LIS) is a system of records and reports – whether paper-based or electronic – used to aggregate, analyze, validateand display data (from all levels of the logistics system) that can be used to make logistics decisions and manage the supply chain.

Informational flows associated with the organization of production and distribution of goods can be divided into flows of individual enterprises (micro level) and flows of the interorganizational, regional and interstate level (macro level).

The creation of a unified information network (UIN) is pursued by the following goal: to automate the transfer and processing of information in an enterprise's logistic information system, which will make the enterprise more competitive [1].

The creation of UIN involves the creation of:

– local area network (LAN);
– structuring cabling system (CS);
– telephone systems (TS) [2].

The following three levels can be distinguished in the Unified Information System.

The first level - this is the level of the workplace, for example, jobs in the departments of logistics, declaration, forwarding, the customs department. At this level, certain operations are carried out with controlled information flows and document flow.

The second level - this is the level of the production site, warehouse, etc., where the processes of processing, marking, packaging, bar-coding in the WMS system and transportation of cargo units take place.

The third level is the system of transportation and movement of cargo units as a whole from loading onto the vehicle to arriving at the designated place [3].

At RUE «Beltamozhservice» information flow exists in the form of paper and electronic documents (media). As a software logistics process is used by 1C: Accounting, ACCESS, Microsoft Excel, and proprietary software used in the technical Department. This software does not allow to effectively automate the management of all technological processes of the modern warehouse complex.This is due to the following shortcomings in the organization of information support of logistics:

– errors;
– not full availability of all required information;
– no timeliness;
– the inability to store information in electronic form, for its subsequent operational transfer.

Thus, we can draw the following conclusions about the state of the information logistics system of the RUE «Beltamozhservice»:

1) the system contains closed zones (especially in transport logistics);
2) there is no strict hierarchy, control levels are blurred;
3) functions of external relations has not been given a specific level of the hierarchy;
4) the software product used in the enterprise to ensure logistics processes does not allow to effectively automate trade and warehouse operations.

Figure 1 shows the flow pattern of the main flows in the logistics system of the RUE Beltamozhservice.

In our case, the first level includes the departments of logistics, Declaration, freight forwarding Department, accounting and control Department, financial management. The second level includes a temporary storage warehouse and a customs warehouse. And the third level, respectively, includes: carrier, place of delivery and place of loading at the customer.

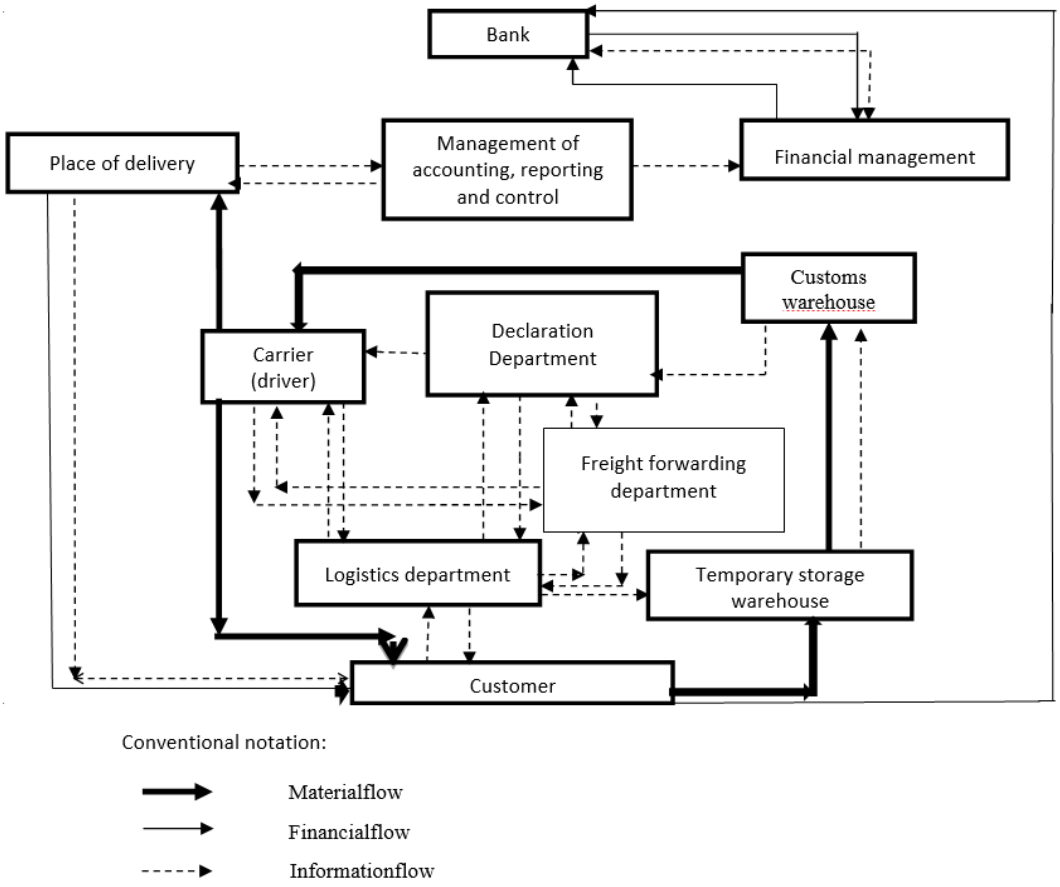

Figure 1. – Scheme of movement of the main flows of the logistics system of the RUE «Beltamozhservice»

With the introduction of EIS at the first level between the departments of logistics, Declaration, as well as freight forwarding Department permanent and quick access to incoming information to the enterprise will be organized. Table 1 shows the average time spent on a single freight order processed by a single worker.

Table 1. – Average time spent on one freight order

Average time of consideration of the customer's order in the logistics Department, hours	Average time of preparation of relevant documents in the Declaration Department, hours	Average time of organization of transportation by freight forwarding Department, hours	The average time of document transfer between departments, watch	Total time spent on order, hours
0,5	0,75	1,5	0,25	3

Based on the data table, one order takes three hours. Working time is 8 hours. That is, during the working day the employee can accept and place three orders, and prepare documents for two orders. If you take the number of working days in a year equal to 252, the employee in one workplace takes 673 freight orders a year.

Based on data from table 2.2 in 2017 the RUE «Beltamozhservice» in Minsk implemented 7757 transportations.

With the introduction of UIN, the time for ordering is reduced by 1.08 hours. Consequently, the acceptance and processing of orders will be done in 1.92 hours. During 8 working hours the employee can process and complete 4 orders instead of 2.67 with the old system. This will allow to process 11 thousand 88 orders a year. Thus, the number of transportations produced will increase by 43 percent, with regular receipt of orders.

Based on these data, it can be argued that the introduction of a single information system in the logistics service enterprises is appropriate.

Internal production unified information system will ensure the adoption of sound management decisions. It will be structured to provide relevant information on each of the sections of the RUE «Beltamozhservice». Manual and automatic collection of data generated during transportation and preparation of documents will be carried out quickly and with a high degree of reliability [4]. The creation of UIN will allow the company to reduce the time of document circulation, facilitate communication with suppliers and consumers, make the processing of information by employees more efficient, and accordingly increase sales revenue and profit of the RUE «Beltamozhservice» [5].

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UDC 657.1

RADIOACTIVE WASTES AND THEIR ECONOMIC ESSENCE, CLASSIFICATION AND SOURCES OF EDUCATION

ANASTASIA KHARCHENKO, MARINA PRIMAKOVA
Polotsk State University, Belarus

The approaches to the definition of the economic essence of the concepts of "waste", "radioactive waste" are considered, analyzed and systematized, the author's concepts of these categories are developed and proposed, their author's classification is given, the sources of radioactive waste formation are identified.

It is not easy to imagine human economic activity, which would not be accompanied by the formation of waste. Both in industry and in the energy sector waste is an integral part of the production process, so there is a need to take into account and systematize data on the formation and movement of waste, which, in turn, requires a competent definition of the concept of "waste".

To determine the essence of this concept, we have considered various approaches to the essence of the category of "waste", proposed in the normative documents of the CIS countries, the works of various authors and other sources. On the basis of the studied literature, we have given our definition: waste is a substance or processing, which are formed as a result of household or industrial activity of a person and are not used at the place of its formation, thus completely or partially lose their consumer properties.

Waste can be different. There are different approaches to waste classification, however, in all these approaches the following categories of waste should be distinguished: production waste and hazardous waste.

Production waste is waste generated in the process of implementation of legal entities and individual entrepreneurs of economic activity, by-products and related products of mining and mineral processing.

Hazardous waste is waste containing in its composition substances which have any dangerous properties or their totality, in such quantity and form that these wastes themselves or when coming into contact with other substances may represent a direct or potential danger of harm to the environment, health of citizens, property due to their harmful effects.[1]

And one of these hazardous wastes is radioactive waste.

After studying the various literature on radioactive waste, we found that its main features are radioactivity and unsuitability for further use. It should be noted that radioactivity is spontaneous decay, decomposition of atomic nuclei of some chemical elements, accompanied by emission of particles and electromagnetic radiation [2]. On the basis of this, we have given our definition of radioactive waste: radioactive waste is unsuitable for use substances or processing, which are formed as a result of human economic activity, the content and activity of radionuclides in which exceeds acceptable levels.

An important aspect for the accounting of radioactive waste is their classification, since the correctness of the classification depends on the correctness of the classification of radioactive waste to a particular object of accounting. But as radioactive waste is categorized as "waste", there is a need to start classifying waste production as objects of accounting.

Having considered the classifications proposed by various sources, the author's classification of waste was developed. Waste can be classified according to the following criteria (own development based on sources [3,4]):

- by origin: organic waste of natural origin, waste of mineral origin, waste of chemical origin;
- by the source of formation: waste of various branches of economic activity;
- hazard class: 1st to 4th grades;
- recycling opportunities in the enterprise: recyclable, difficult to utelize, non-utilized;
- if possible, further use: returnable, irrevocable;
- for the intended purpose: waste of various uses;
- in relation to economic processes: waste at the stage of preparation, waste at the stage of production, waste at the stage of implementation;
- in relation to the production process: waste of the main production, waste of auxiliary production, waste of servicing production;
- in relation to the technological process: waste arising at different stages of the technological process.

After studying and analyzing various sources, we found out what the main criteria for the classification of radioactive waste is allocated by the legislation of the Russian Federation and most of the authors, and on this basis developed a classification of radioactive waste, given in table 1.

Table 1. – Classification of radioactive waste

Classification criteria	Classification groups
By the ratio of risks associated with radiation exposure to the costs associated with their disposal	Removable
	Special
According to the aggregate state	Liquid
	Solid
	Gaseous
The composition of the radiation	α- radiation
	β- radiation
	γ- radiation
	neutron radiation
By degree of activity	Low-level
	Intermediate level
	High-activity
At the time of life	Short-lived
	Average
	Long-living

Note: own development based on sources [5, 6].

We have identified the following main sources of radioactive waste:

– industry (oil industry, gas industry, etc.));
– energy;
– medicine;
– natural sources of radiation.

In the course of the work, the approaches to the economic essence and classification of the categories "waste" and "radioactive waste" were studied, analyzed and systematized; the author's definitions of the nature of waste and radioactive waste and their classification were proposed, the sources of their origin were considered.

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STRATEGIC FOUNDATIONS FOR BUILDING A STRATEGIC SYSTEM FOR MANAGING INTELLECTUAL PROPERTY IN THE FASHION INDUSTRY

ANNA KHVOROSTYANAYA, VLADIMIR KVINT
Lomonosov Moscow State University, Russia

By this analytical study, the author aims to develop recommendations on the formation of an intellectual property management system in the creative sector of economy.

In the XXI century the global economic system has undergone a number of global and qualitative changes. Social institutions have a growing influence on the development of post-industrial economy. Long has been intellectual activity of people a criterion of economic efficiency as creativity of a human can be a factor enhancing innovation capacity and expanding the technological capabilities of production. The post-industrial economy is inextricably linked to the development of creative industries [2]. Many companies in the fashion industry attained exalted aims on their origin market – reaching new heights in economic development while constructing high bandwidth retail network and building intense customer communication. Though once they had faced the stagnation trend caused by market over- saturation posing a serious challenge to the ability to undertake previous tasks and gain new goals. Purposely to preserve financial stability and amplify sales pace the new markets dilation could be the best way out. Cultural and creative industries (CCI) help to drive the digital economy, form creative multipolar world, structure creative hubs, boost cities' attractiveness and bring forth talents. The creative economy deals with intangible assets, which values reflect in the brands and services. Over the past decade, structural transformational processes have taken place in the economy, as a result of which the role of intellectual activity has significantly increased, which, in turn, has led to the rapid development of creative industries. The high potential of creative industries today is not only noted by experts, but is also being actively discussed in society. The global market for the fashion industry continues to evolve: new design projects are emerging, markets for retailer and supplier networks are forming, and local centers for regional fashion are being created. Currently, the issues of building a successful local business are the most acute in the conditions of macroeconomic instability and fluctuating trends in customer preferences. In the domestic fashion industry, there is a huge potential for development that can give impetus to the acceleration of the transition of the traditional commodity economy to an innovative development model based on the commercialization of intangible assets. Fashion economics is a set of economic tools used in conjunction with creativity to create new forms and works, as well as to translate creative images and ideas into real products, the formation of public opinion and demand for them, the organization of advertising companies that promote their future purchase.The management of modern fashion business, in other words, the business of fashion goods, and, in particular, the key asset for it, designer brands, is an independent scientific and practical problem, the importance of which has steadily increased over the past decade. For a successful company operating in the fashion industry and the luxury goods market, a clear understanding of the price segment and business model for building an investment strategy is necessary [3]. Also there is a vital need to highlite the role of intellectual property.

Intellectual law in the fashion industry is a legal field that covers a wide range of issues that arise throughout the life cycle of a commercial product — a piece of clothing or an accessory. Legal aspects of the fashion industry also include such areas as textile manufacturing, modeling and design, the media, as well as the cosmetic and perfume industries [4]. The issue of protection of intellectual property in the creative economy, and in particular in the fashion industry is increasingly becoming the subject of discussion of scientific discussions and the practical side of business in connection with globalization, the development of emerging markets and entrepreneurial expansion. For successful existence in the conditions of increasing international competition, it is vital for fashion industry companies to explore their competitive advantages, which for this field of activity are mainly expressed in intangible assets. Intangible assets are strategic resource necessary to improve competitiveness, as well as the economic and information security of the enterprise. Specifying the main strategic objects of intellectual property of enterprises of the industry are commercial product, brand and technical innovations.

The following intellectual property objects, which contain the main competitive advantages of the industry, have strategic importance for the activities of companies in the modern fashion industry:

– Commercial product - a unique result of applied intellectual creativity, associated with significant financial investments that must be justified in terms of the market and customer satisfaction;

– A brand (including trademarks and trademarks) is a communication tool that plays a central role in shaping the image and business reputation of the company, building its relationship with consumers;

– Technical innovative solutions - in the conditions of modern trends are key factors influencing the intensive economic growth of an enterprise [5].

The issues of monitoring and controlling the use of a trademark are of great importance, especially in the fashion industry, due to the fact that they are directly related to reputational risks. For fashion products with a long service life, the application for a registered industrial sample can be the best way to build a unique design protection system. Brand characters play a very important role not only for a large but also for a start-up company in the fashion industry. Strategic branding in the fashion industry is the process of creating a successful brand that will force potential customers to see the company as the sole supplier of solutions to their problem or need. The strategic goals in branding will be the creation of a strong emotional bond between the client and the commercial product of the company, the creation of motives for making a permanent or periodic purchasing transaction. For example, some people buy certain brands to build and maintain their personal or professional image. Most of the agents in the fashion industry communicate with their customers through their trade names and fiercely protect them by officially registering trademarks. Technical innovation solutions can in a fair degree provide strategic competitive advantages for the industry.

The strategic use of new tools of the intellectual property system can play a decisive role in establishing dominance and strengthening positions in the market. The protection of intellectual property is particularly relevant in such an industry, as fashion, the development and development of which is a masterpiece of intellectual property. The protection of intellectual capital in the form of intangible assets serves to increase revenue through the sale, licensing and commercialization of new products in order to increase market share, increase profitability and reduce the risk of intellectual property violation by third parties [6].

In the business environment, creative solutions and innovations are the main source of competitive advantages for many enterprises, especially from creative industries. Given the modern aspects of competitive behavior, the strategic priority of fashion industry companies is to minimize the risks associated with the unfair use of the results of their intellectual activities, which could potentially or really damage the image and business reputation of an enterprise. Therefore, leaders and fashion strategists of companies specializing in the production and sale of wardrobe items must promptly identify the most valuable intangible assets, determine their importance for the business, and also identify those that form the basis of the company's intellectual property system and should be carefully protected. In other words, it is necessary to develop an intellectual property management strategy within the company.

As part of this study, the strategic foundations for building an intellectual property management system is based on the use of the financial engineering methodology of the well-known Russian economist and strategist V.L. Kvint [7].

The system is proposed to build a strategic management system for the intellectual property in the following functional blocks - Strategic planning, strategic motivation and strategic monitoring and control.

The list of tasks for strategic planning is quite extensive:

– Management and financial accounting of non-material assets (further - NMA);

– Identification of the NMA;

– Determination of priority results of intellectual activity for further evaluation;

– The economic valuation of the value of a company for the installation of a balance;

– Market valuation of the value of nm for determining the price of the transaction in the NMA;

– Financial calculation of compensation for potential damage, assigned to the owner of exceptional rights.

The assessment aspect is especially relevant mainly for American companies in the fashion industry, the production and marketing complex of which is not fully integrated and calculated on licensing activities. By accounting for intangible assets in the balance of the enterprise, the assets of the enterprise increase, liquidity and creditworthiness increase, and the tax burden is optimized (the profit tax decreases due to the amortization of assets).

In aspects of strategic motivation a set of motivational measures or author's remuneration for employees should be developed who are employed in the company in the department of creating new designs of the

design, which will play a significant commercial role in market conditions in the future. The list of issues to be addressed in the last block is also extensive:

- Conducting patent research;
- Ensuring the direct protection of the NMA [5].

The study of the strategic aspects of intangible assets and the formation of the intellectual property management system is of scientific and practical interest in order to develop effective strategies for the development of companies in the fashion industry.

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Economics

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INNOVATION AS THE BASIS FOR INCLUSIVE GROWTH

MARIA KNAP, INGA ZENKOVA
Polotsk State University, Belarus

High rates of social exclusion and poverty are important challenges for many development strategies in developing countries. However, significant inequalities, high levels of poverty and social exclusion in many developing countries, despite successful innovation experiences, suggest that the innovative opportunities that are being built are not necessarily comprehensive. Many developing countries have successfully developed "excellence", while the vast majority of firms and individuals lack even basic innovation capabilities, leading to wage inequality. At the same time, however, innovative products targeted at or created by low-and middle-income groups should be used to address inequalities. The global Competitiveness index (The Global Competitiveness Index) is a global study that accompanies its ranking of countries in terms of economic competitiveness. It is based on the methodology of the world economic forum, which defines national competitiveness as the ability of the country and its institutions to ensure stable rates of economic growth, which would be stable in the medium term. Representatives of the world economic forum point out that the competitiveness of national economies is determined by numerous and very diverse factors. The study presents two indices on the basis of which country rankings are compiled: the global Competitiveness index (GCI) and the business competitiveness index (BCI).

In the growing global competition of national economies, the prospect of a strategic victory is real only for those countries that realize and realize the competitive potential of universal inclusion. The underestimation of the practical importance of the process of enclavization it is generated by the inversion character of the formation. Inclusiveness is usually limited to the sphere of education and even considered as a phenomenon of some social charity, which is a dangerous misconception [1].

An inclusive market economy ensures that all population groups, defined by gender, age, geographical location and other factors, have fair and full access to labour markets, financing and, more broadly, equal economic opportunities: at the company level, this is linked to standards of conduct and decision-making that recognize (and, in essence, exploit) the full potential of different people, customers and suppliers; at the economic level, this requires that legal frameworks, institutions and policies be free from bias and actively contribute to reducing barriers to economic participation. Therefore, when we talk about promoting an inclusive market system, we are referring to the efficient allocation of human resources.

Economic inclusion directly contributes to the achievement of the seven sustainable development goals, especially those related to inclusive and equitable education, gender equality, inclusive economic growth, infrastructure, inequality within countries, inclusive human settlements and institutions [2].

Income inequality has risen to unprecedented levels in many OECD countries over the past three decades. Promoting inclusive growth is at the top of many governments ' agendas, as high levels of inequality have a negative impact on welfare and growth [3].

In order to assess economic inclusion, the inclusive development index (IDI), proposed at the world economic forum in Davos 2018 (WEF), was developed. The index measures 107 countries in terms of growth, equity and sustainability. This is done for the reason that economists and policymakers rely too much on GDP as the indicator of economic development of countries to the detriment of the standard of living of people.

Economic policy priorities should be reoriented to more effective counteraction to insecurity and inequality, which accompany technological changes and globalization, the WEF announces a new index. It is sustainable, inclusive progress, accompanied by an increase in the income of the population along with the growth of its economic opportunities, security and quality of life, that should be recognized by politicians as the main goal of economic development – not GDP growth. This includes new tools to assess the effectiveness of such policies.

The inclusive development index is based on 12 indicators, grouped into three groups, which assess the level of economic development better than one indicator of GDP growth. Three main parts of IDI:

– growth and development (including GDP, employment, productivity, life expectancy));
– inclusion (median household income, poverty and inequality));
– intergenerational equity and sustainability (level of savings, demographic burden, public debt and environmental pollution) [4].

The first group of characteristics, called "Growth and development", indicated:

1. GDP per capita (in us dollars for 2010);
2. Labor productivity-GDP per employee (in us dollars);
3. Life expectancy;
4. Employment of the working age population (percentage).

In the second group of characteristics «Inclusiveness» are marked:

1. Income stratification factor (distribution) in society (0 - full equality, 100-complete inequality);
2. Poverty level;
3. The coefficient of stratification of society on the distribution of wealth (0-complete equality, 100-complete inequality);
4. The median daily consumption of households (an indicator based on purchasing power, it divides the population into two halves: those who spend above and below this bar).

In the third, final, group of characteristics under the General name "Intergenerational justice and sustainability" are presented:

1. Adjusted net savings (calculated according to the scheme: the reserves of natural resources plus education expenditure and minus resource consumption, depletion of energy reserves, the damage from emissions is indicated as a percentage of gross national product);
2. Greenhouse effect of GDP (CO_2 emissions per dollar of gross domestic product produced by the country's economy);
3. Public debt (as a percentage of GDP));
4. Demographic burden (ratio of dependent citizens aged 0 to 15 and over 64 years to the total number of able-bodied population).

Of all 12 indicators, group indices are formed first, and after their addition, the final indicator is obtained as an arithmetic mean [5].

According to this index, the first place is Germany (0.915), the second – Australia (0.904), the third – New Zealand (0.901). At the same time, the Republic of Belarus is on the 29th place out of 189 countries with the human capital development index equal to 0.807, which is 2 points lower than Russia (0.814) [3].

From this we can conclude that in the Republic of Belarus the population of the country is quite literate.

Financial literacy is an important element of literacy. The low level of financial literacy of the population has a negative impact not only on the consumers of financial products, but also on the state, business and the economy as a whole. Because of this, inequality of the population and their incomes may arise [4]. In recent decades, income inequality has increased in almost all countries, but at different rates, which suggests that institutions and policies affect the formation of inequality [5].

At the same time, the growing inequality caused by the modern processes of globalization threatens to expand and exacerbate various kinds of conflicts – national and interethnic [6]. Hence the need for a significant change in the quality of economic growth and development. If we talk about individual countries, growth should affect the widest possible segments of the population, not only the richest and most economically active, i.e., acquire the property of "inclusiveness".

"Inclusive growth" (Inclusive Growth) is the official UN term. Ensuring economic growth, employment, social equality and protection through effective public administration and public institutions is inclusive growth [7].

According to the author, the functions of inclusive growth will be:

1) assessing the level of inequality that affects well-being and growth;

2) assessment of living standards and education of the population;

3) assessment of labor productivity and foreign economic indicators, such as GDP, which determine the pace of economic development of the country.

These functions will help to reveal and evaluate the impact of "inclusive" factors on economic growth.

Summary. Proposals to address the problem. It is necessary to raise the standard of living of the population, which is due to the growth of production of goods and services. It is also necessary to increase the amount of resources used and the level of scientific and technological progress that allows the production of new, highly efficient goods and services. In our opinion, in order to effectively use innovation in the Republic of Belarus, it is necessary to stimulate innovation. The state promotes innovation through appropriate fiscal, tax, monetary, customs and other policies.

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ORGANIZATIONAL PERFECTION AS THE BASIS OF ORGANIZATIONAL CHANGES

VIKTORIIA KRALIA, OLHA PODOLSKA
Kharkiv Petro Vasylenko National Technical University of Agriculture, Ukraine

The main purpose of the organization is to meet the needs of the environment. The activity of the organization is considered successful, if it achieves its goals. External environment is susceptible to change, their needs change, so the requirements for the functioning of the organization are also changing. To achieve success, the organization must meet these requirements and be able to adapt to them promptly and adequately. Inconsistency with the environment will also cause changes in its activities, but the destructive character of the organization can lead to the liquidation of this organization. Besides external factors, the organization is influenced by internal factors which serve as impulses for the development of the organization [6-7].

Task formulation. Effective management of organizational change means to provide the purposeful activity of the organization, constantly improving and developing it, and achieving success. But it is exactly the perfect structure of organization that success of realization of organizational changes depends on [1, 2].

Results, their discussion and perspectives.

At the 58th Congress of the American Quality Association James Harrington presented 5 main components of organizational perfection, that reveal the essence of the theoretical foundations of managing change in the organization:

1. Process management.
2. Project management.
3. Change management.
4. Knowledge management.
5. Resource management.

Knowledge represents one of the most valuable assets of any organization and that is why a quality management is needed. Knowledge that creates the basis for gaining competitive advantages from the company, since any ready-made technologies can be copied and transferred to the most remote corner of the world instantly. Economic indicators of the company depend on the rational management of resources and assets of the organization. And the full use of the company's potential is possible only on condition of the effective concerted management and perfection of all constituents and cooperation between them. Consequently, the concept of organizational perfection aims at continuous improvement of the organization by managing the listed components.

Process Management – The concept of process approach is the basis of almost all methodologies for improving the organization. Under the process, we understand the sequence of actions to convert incoming data to the output, during which added value is created. That's exactly what makes the basis of everyday activity of the organization. To manage the process, the requirements for the characteristics of the output between the process manager and the customers must be established and agreed, requirements are set for the input characteristics of the process between process manager and suppliers, process parameters are defined, which must convert the input resources into the output product, the adjusted feedback between process and consumers, process and suppliers, a built-in system for measuring the parameters of the process throughout its path. These mandatory conditions must be fulfilled in the development of any process. However, most organizations do not form a majority support processes in advance. They are developed after they are needed. Most employees often follow the path of the least resistance, so over time they begin to operate at the minimum acceptable level.

Project management - production processes determine the activities of the organization, and projects provide a means to improve them. Projects have an important value critically, that is why it is impossible to underestimate importance of their timely completion, the result of that is creation of high-quality products. Organizations with an automated management system that have implemented project management standards and established project management offices (PMO) significantly reduce cases of closing projects, increasing their budget, or extending deadlines. The most important projects include projects of modernization and restructuring of production processes.

The most common reasons for failure are projects [8, 9].

Inability to observe the schedule of work execution through:

– Rejection of the duration of work from the planned;
– Lack of work in the work schedule;
– Delay in performance of previous works;
– Changes in the content of the project.

Improper use of resources due to:

– Lack of specialists;
– Ineffective distribution of time;
– Incompliance of performers with qualification requirements.

Ineffective project portfolio management, consisting of:

– Incorrect selection of projects in a portfolio.

In most large organizations, several projects are executed at the same time, and projects can be interconnected, requiring the same resources. Requirements and project timetable may change. It does not allow organizations to manage each project in isolation and forcing them to use a portfolio approach to managing all projects while ensuring optimal allocation of performers and priorities between them. This project management must ensure their effective integration into daily operations, which combines projects, resources and knowledge of the organization to achieve common goals.

Change Management - that organization changed really, top management must be the first in business to show their ability to change. The organization must have a change management system, the main tasks of which are [11]:

– Identifying the need for change;
– Identifying ways of making changes;
– Implementation of change.

Most modern organizations have not yet fully realized the need for integrated change management systems. Top management must clearly present, which changes are necessary for organizations, and understand that the simple improvement of processes is not the right thing. These are the fundamental principles of the organization. This means that the company must have a clear vision of its strategic future, understand the nature of the driving forces of its business and their mechanisms of action, and determine trends in changing the main factors affecting business [3].

Knowledge management, in the modern terms of knowledge, is the key factor of success of the organization. The Internet and modern information technologies open up unprecedented opportunities to access the information. But most of the organization's knowledge can`t be documented, as it is a personal experience of people who do certain work. This knowledge of the dismissal of an employee can be lost forever. Therefore, there must be a knowledge management system that allows to filter out unnecessary information and knowledge necessary to save and accumulate. Taking into account that the amount of information is endless, management system must be concentrated round the knowledge which is the base for the company. Knowledge is understood as a collection of experience, rules, traditions, values, expert judgments, intuitions, representing the working environment and serve for further experience and information.

Resource Management - Every task, every project in the organization needs the necessary resource support. The number and variety of resources used by the organization makes it extremely difficult to manage them [5].

Conclusion. In the conditions of the rapid development of technology and technology, dynamic changes, the development of interdependence in the management of the principles of importance becomes the desire for organizational change as an opportunity to hinder stagnation and ensure the effective use of all available resources of the organization. The main source of all these features is change management, aimed at sustainable and effective development of the organization.

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Economics

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CURRENT MODELS OF INNOVATION DEVELOPMENT

SVETLANA KUSKOVA
Kharkov Petro Vasylenko State Technical University of Agriculture, Ukraine

This article is devoted to the study of contemporary models and innovative strategies of different countries in the world and Ukraine in particular. This publication examines three basic models of innovative economic development and offers the necessary steps for building an innovative model of Ukraine.

Introduction It should be noted the need for a significant reorientation of the economy in the modern areas of technology development at the current stage of Ukraine's development. The National Model of Innovation Development, which should take into account the individual characteristics and potential of the Ukrainian economy, should play a leading role. To do this, you need to explore the models of innovation development, which are widespread at the present stage of world globalization.

Task formulation. The purpose of the article is to reveal the essence and peculiarities of innovative models of development of the leading countries of the world and to apply their experience in constructing an innovative model of Ukraine's economic development.

Methods of research. When the article was written, it used general scientific methods of research, methods of systems and comparative analysis were used, on the basis of which the analysis of the essence of innovative models of economic development of the leading countries of the world was carried out, and measures were proposed for constructing an innovative model of Ukraine's development.

Results, their discussion and perspectives. The change into an innovative model of development is the most characteristic feature of the current stage of the global economy. The main subject of innovative development of the national economy is the state, which determines its choice of a model. The state creates conditions for increasing the innovation potential of the country, defines priorities in scientific and technological activities and supports their development through a system of financial, credit and tax instruments, creates informational institutional mechanisms of resource support innovation.

The existing scientific potential of Ukraine is able to ensure its economic progress, but, unfortunately, the low level of innovation activity slows this process. The main problems of modern innovation policy of Ukraine are:

- insignificant demand for innovation;
- imperfection of the financing scientific research system;
- absence of efficient organization and management of new products;
- inconsistency of innovation projects which prevents the growth of efficient use of limited resources.

Studying the features of economic development American scientist M. Porter identified four stages of economic development of the national economy [1]:

1. The development on the basis of production factors.
2. The development based on investments.
3. The development based on innovation activity.
4. The development as a means of increasing prosperity.

The peculiarity of innovative development of Ukraine is that different sectors of Ukrainian economy are at different stages, and therefore they need to develop differentiated development strategies.

A certain type of economic development corresponds to each of these stages: extensive, intensive and innovative. Practical realization of innovative economic development involves the formation of a development model.

The innovative model of economic development is the theoretical expression of innovation priorities, areas, structures, systems, motivation, strategies, mechanisms that aim to create the innovative type of development of the national economy. Its realization involves research providing long-term development programs, the creation of the innovation financing mechanism, the realization of marketing concepts in the departments of innovation, the implementation of innovative programs, creating advanced information management system, solving strategic social and public problems. Innovation activity affects the level of economic development of any country: those countries benefit in today's globalized process that chose an innovative model of economic development as the main priority of long-term strategy to increase the competitiveness of the country.

The innovative model is a special system of relations, institutes and institutions that create the right conditions for science and technology within the limits and under the influence of certain state innovation policy. There are three main models of economic development:

1. The resource model. It is used without high-tech production, consists of three interconnected components: natural resources, manufacture and money.

2. Innovative model. It consists of the transformation of money into knowledge, knowledge into innovation and innovative product in the money.

3. Intellectual and donor model. It has some features of the innovative model, which does not include the production stage.

Having analyzed the model of economic development, we can conclude that the most effective is the innovative model, despite the competitiveness of countries in the world.

The formation of the innovative model of economic development in each country is influenced by many factors, both external and internal environment, but despite the variety of models of national economies there are three main models in the world.

The first model provides guidance on science reserves and realization of large-scale targeted projects that cover all stages of the research and production cycle. Target policy involves the use of an appropriate range of measures without targeting specific areas. The main thing is to exclude factors that have a negative effect on innovations irrespective of the economy sectors.

This model is brightly represented in the USA. So, in 1898 the American industry operated only 139 research laboratories, and 20 years later their number was 692 [2]. In other words, in the USA economy there was a rapid increase in the number of scientific departments of private companies in the early twentieth century. In the future, large enterprises have realized the importance of their research laboratories to create new products that provide competitive advantages.

During this period scientific research laboratories of corporations became the main dominant element of the innovation system that was formed. This innovative system was introduced by several hundreds of corporation's research facilities in the mid 20s of the twentieth century in the United States. The dominance of market factors of the areas of innovation in the early stages of capitalist economy is characteristic for European countries as well.

The peculiarity of the formation of the USA national innovation system in the late XIX - early XX century is a close relationship of industry and universities. Active government policy on universities, especially research ones, and powerful financial support provided a privileged education system in the USA [3-4].

At the end of the twentieth century the stage of formation of the new features of universities in national innovation systems began, - various technology transfer centers were created and developed: innovation centers, technology parks, incubators of new technologies which contributed to the selection of promising scientific research and extension of new technologies for the benefit of small and medium businesses. At the same time, venture finance began to apply this form of interaction between scientists and entrepreneurs.

The second model involves innovative development orientation to spreading innovation, creating a favorable environment for innovation, rationalization of economic structure.

A major expansion of the network of public research laboratories and institutions, increasing the share of public funding and strengthening the regulatory functions of the state in science became the push accelerating the evolution of national innovation systems in the second half of the twentieth century.

These trends are most clearly manifested in the UK, Germany and France [2].

This period is marked by the stimulation of import of technical innovations, training and assignment of experts abroad, bonus system, technical expertise and advice at public expense, which in turn contributed to the establishment of high standards of technological development and scientific and engineering activities in the fields of national economy.

The third model of innovative development is focused on stimulating innovation through the development of innovative infrastructure software perceptions of scientific and technological progress and coordination in various economic sectors in the field of science and technology, including the small business to the innovation process by entering the technological chains of large enterprises.

This model is characterized by the stimulation of specific priority industries. The main element of state regulation and innovative economic development tool is plans for economic and social development and comprehensive programs that take into account the strategic directions of the country's development [5]. The technological development of Japan was carried out by the strategic directions of innovative development, and although these mechanisms appeared over twenty years ago, some of them, with some modification, can now be used in solving similar problems in Ukraine.

Based on the experience of the Japanese economy we can identify the most effective mechanisms for the promotion of innovative development:

- parallel implementation of scientific and technical programs;
- strategic international alliances, techno;
- creating telecommunication networks;
- risk capital and venture capital investment;
- selective import encourage etc.

The principle of parallel implementation of research programs is linked to the solution of tasks, including these:

- creating competition among developers;
- joint efforts;
- maintaining permanent contacts between enterprises, developers.

The purpose of strategic international alliances is gaining access to the latest international developments, promotion companies located in the country, but belong to foreign owners, joint scientific research.

Creating a techno focuses on development of the regional economy, modernization of depressed areas, strengthening the integration of science and industry.

Current indirect methods of regulation involve the promotion of scientific and technical integration, the development of innovation infrastructure, developing long-term technology forecasts, simplification of innovative companies creation.

The global crisis has exacerbated the urgency of accelerating the innovation process for companies, industries and national economies in general. The crisis is causing new redistribution of total world economic space. Therefore, discussions around innovative development model are now translated into concrete strategy for states and companies that expect to win in the competition for markets in the post-crisis period [6-7].

Thus, the modern innovation process has a complex multidimensional character. The application of any model of innovative development system essentially depends on macro and microeconomic conditions of business activity of certain economic agents - members of the modern innovation process. The sources of innovation at this stage may be research and knowledge gained in the process of learning by doing. The elements of innovation model of a country should be logistical, financial, organizational and human capabilities, social and psychological factors of a group.

The innovative way of economic development of Ukraine is the most advanced means of achieving economic growth. The most developed countries follow this way; there are all preconditions for its implementation in Ukraine. A continuous and purposeful process of searching, generating and implementing innovations is at the core of the innovative development that makes it possible not only to increase the efficiency of social production, but also change the ways of its development fundamentally.

But it is also necessary to mention that the construction of a model of innovative development to achieve the competitiveness of Ukraine in the global world economy needs strengthening innovation oriented industrial policy. The purpose is to overcome significant differences between the existing potential of the innovative development (significant opportunities for effective scientific research in terms of the development of higher education, the level of research institutions, the number and qualifications of scientists and engineers) and low efficiency of its use.

Conclusion. It can be concluded from the above that the creation of an innovative model of economic development in Ukraine will require enormous effort, resources, political will and mobilization of high society. The success of a country or company depends on its ability to find its position in the marketplace to offer more competitive products than other market participants. This is possible only in conditions of high innovational support of the national economy and individual companies. Ukraine will become a high-tech country with an innovative model of economic growth, providing the adequacy of industry to scientific and technical achievements of post-industrial society. To overcome the substantial backlog of Ukraine from developed countries as for productivity in all sectors of the economy, renew fixed assets, and implement energy-saving technologies can only be based on industrial innovation. Creating a coherent industrial and scientific-technological complex will contribute to the full satisfaction of the internal needs of the country and exports of high technology products.

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ECONOMIC ESSENCE, COMPOSITION AND CLASSIFICATION OF CRYPTOCURRENCY AS AN OBJECT OF ACCOUNTING

LIYA LAVRINOVICH, INNA SAPEGO
Polotsk State University, Belarus

The approaches to the economic essence, composition and classification of cryptocurrency are analyzed and systematized; the definition of cryptocurrency is suggested; its composition is clarified; the author's classification of cryptocurrency is developed.

Human society is impossible to imagine without money. Money is a specific product of maximum liquidity, which is the universal equivalent of the value of other goods or services. The development of money is inextricably linked with the development of all human civilization. Goods, products and weapons, coins of various types from bone to gold, paper banknotes, stocks – this is only a small part of what was and is still used as money.

With the development of computer technology and communication networks, the world has entered the era of "electronic money". Coins and banknotes are gradually being replaced by plastic payment cards, and on the Internet there are many payment systems that were originally created only for electronic payments, such as PayPal, WebMoney, Yandex.Money. Currently, digital currencies are not issued by national central banks.

Five years ago, there was no such thing as bitcoin. Currently, due to the increased activity in the use of electronic means of payment, Internet wallets, Internet banking systems and other types of "virtual cash", interest in the cryptocurrency in question has grown significantly [1].

Before you begin to study the issues of accounting for cryptocurrency, you need to understand such concepts as "Cryptocurrency" and "Bitcoin". It is necessary to consider each concept separately in order to define the concept of "Cryptocurrency".

According to various authors, cryptocurrency is considered as digital currency; financial asset; digital sign; digital exchange, the currency which is extracted by complex mathematical research.

The analysis showed that a cryptocurrency should be understood as a digital currency that can be stored in electronic wallets and which is obtained by mathematical calculations defined by a circle of users.

Since Bitcoin is the first and most famous among many cryptocurrencies, the symbol and flagship of the cryptocurrency world, as well as the currency of the same name that circulates within the system, then we will look at its essence in more detail. Authors view Bitcoin as payment system; digital currency; cryptocurrency; electronic cash.

As a result of the analysis, the author came to the conclusion that Bitcoin is one of the most popular cryptocurrencies, which is at the same time a payment system that uses the same payment currency mined by mining.

For accounting purposes, the composition and classification of cryptocurrency is important [2].

The most common cryptocurrencies are:

– bitcoin BTC;

– alternative cryptocurrencies (altcoins) – electronic money created as a means of payment based on the blockchain technology. Created as an alternative to Bitcoin. In turn, altcoins are divided into basic ones, altcoins with heightened anonymity, altcoins created for fast and free transactions;

– tokens - coins created on the basis of something blockchain. A token is a unit of account that is used to represent a digital balance in an asset. Tokens are recorded in a database based on the blockchain technology, and they are accessed through special applications using electronic signature schemes.

Tokens are divided into (a) tokens-"shares" used as an investment vehicle, the number of which determines the share of your participation in the project, and (b) tokens-"currency" used for calculations and rewards within the project ecosystem.

For investing and mining cryptocurrency, they need to mine. Mining cryptocurrency is the generation of new coins, which is carried out in the process of performing mathematical calculations of hash functions for carrying out transactions by the nodes of the cryptocurrency network. To release new coins, they need to be calculated; it is necessary to prepare the blocks and form information. Miners provide their own computing power to perform calculations. There is a formation of new coins, which are launched into circulation. Next, authenticity is verified, then the miner receives a reward in the form of cryptocurrency.

The main components for obtaining cryptocurrency include:

– Online wallet. It can be downloaded from the official developer resource of a specific digital currency. It is a password protected container in which the proceeds will be stored.

– Software package. At the moment there are different mining programs available on all popular operating systems.

– Registration in the online pool of miners. Members of these communities combine their computing devices to improve their performance. The resulting coins are divided between all participants.

– Registration in the online exchanger. It will be necessary for those who want to immediately convert virtual coins into ordinary money.

– Reliable internet connection.

– A place to install equipment.

– Equipment for mining cryptocurrency. This may be a desktop computer, but it is better to use special computers designed for this purpose. Ordinary PCs, laptops, gaming consoles or mobile gadgets not only do not provide sufficient performance, but they also cannot be used for their intended purpose during mining - the process takes up all the resources of the device.

– High-quality cooling. Good ventilation is also required to remove hot air from the room. Mining makes the "machines" work at 100% load, which causes increased heat transfer. Therefore, it is important to keep the room cool [5].

There is no doubt, cryptocurrency has both advantages and disadvantages. The advantages of cryptocurrency include such positive points as availability of cryptocurrency because electronic money is available at any time, and at the same time, it is impossible to freeze the account or withdraw the cryptocurrency. You can check the accuracy of the operations performed at any time. Thanks to open code, anyone can earn virtual coins. The following advantage is anonymity. Unlike classic electronic money, operations with which are easily tracked, it will not be possible to get information about the owner of a cryptocurrency wallet. Only the wallet number and limited information on the amount in the account is available. Hacking, forging, or carrying out other similar manipulations with virtual currency will not work – it is reliably protected, thus reliability is one more plus. In most cases, commission is charged solely on a voluntary basis. Moreover, as a rule, cryptocurrency is issued in a limited volume, which attracts increased attention from investors and eliminates the risks of inflation due to excessive activity of the issuer. Thus, cryptocurrency is not subject to inflation and in its essence is a deflation currency. Cryptocurrency is an independent currency. Nobody regulates its issue and does not control the movement of funds in the account. This feature attracts many members of the Network. There is no fee for transferring funds between countries.

The disadvantages of cryptocurrency include a number of negative points. The first one is the difficulty controlling transfers. Banks and other supervisory and monitoring authorities do not have the ability to control operations for the release and movement of cryptocurrency. Then goes the risk of prohibition. Government structures are cautious about cryptocurrency. Many countries have imposed restrictions on its use, and a fine may be imposed on violators. It is also necessary to remember that there is no possibility to cancel the payment. The following minus is volatility. Cryptocurrency is unpredictable, as it depends on current demand, which, in turn, may change as a result of changes in legislation and due to other factors. For this reason, there are fluctuations in the price of virtual money. Another disadvantage is the danger of loss. The “key” of access to electronic money is a special password. If you lose it, the crypto coins that are in the wallet become inaccessible. Besides, there is also a lack of warranty. Each user is personally responsible for their savings. There are no regulatory mechanisms, so in case of theft, to prove something and return the money will not work. There is no general organizer of trade, which reduces the credibility of the cryptocurrency. Furthermore, cryptocurrency is not secured.

Since an important prerequisite for proper accounting is a scientifically based classification, we have proposed the following classification of cryptocurrency: (a) transactional: free, paid, hidden; (b) transaction rate: large, small.

Nowadays there is no single opinion on where to consider cryptocurrency, as recently appeared. According to various economists, cryptocurrency can be viewed as cash, cash equivalents, financial instrument, stocks, intangible asset.

If you consider cryptocurrency as cash, then, in accordance with regulatory documents, cash is understood as cash balance on hand, on settlement, currency and other bank accounts, including demand deposits, therefore cryptocurrency cannot be attributed to cash, so as no bank deals with the issue of this currency.

Cash equivalents also cannot be attributed, since cash equivalents are highly liquid financial investments that can be easily converted into a known amount of cash, subject to an insignificant risk of changes in value. Cryptocurrency is subject to significant risk of value change.

A financial instrument is a contract, at the conclusion of which a financial asset is simultaneously generated by the first organization, and by the second organization - an equity instrument or financial liability. Cryptocurrency also can not be a financial tool, since it does not ensure profit at the contract level.

Intangible asset is accounting objects that do not possess physical properties, but bring income permanently or for a long time. Cryptocurrency can not be an intangible asset, since it cannot constantly generate income, including because of the constant price volatility, and in general does not meet the conditions for recognition of IA [4].

Based on the studied regulatory documents and economic literature, it can be concluded that the organization should consider cryptocurrency on the balance sheet as short-term financial investments. Cryptocurrency meets the conditions for recognition of short-term financial assets. Also, in many respects, accounting for cryptocurrency coincides with securities. This is due to the fact that the rate of cryptocurrency is unstable, so you can protect yourself from losses of various kinds.

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LOGISTIC MANAGEMENT OF INTERNATIONAL AUTOMOBILE FREIGHT CARRIAGE

MARYIA YATSYNA, JOHN BANZEKULIVAHO MUHIZI
Polotsk State University, Belarus

In market conditions, an important requirement of the consumer of transport services is timely and high-quality delivery of cargo. It is possible to fulfill the specified conditions with the use of logistics. Using the achievements of logistics in transport is the key to improving the efficiency of the Belarusian transport complex and enhancing its integration into the global transport system.

Keywords: *logistics, transportation, international automobile freight carriage, automobile transport, transport infrastructure.*

Transport is one of the economic subsystems of the national economy. It serves as the material basis of production relations between individual countries and regions of the world for the exchange of goods, acts as a factor organizing the world economic space and ensuring the further realization of the territorial division of labor.

The role of various types of transport is due not only to the intensive development of trade and economic relations between countries, an increase in the volume of foreign trade and transit traffic, the technical level of the transport system and the quality of services provided, but also the state of the world economic situation, price changes for the main types of export-import products and increase living standards of the population.

Automobile transport transports goods by road and has a significant scope for the delivery of products over short and medium distances, and over long distances, when you need to transport specific types of goods and at the same time reduce the time of their delivery.

However, road transport is the most time-consuming and costly mode of transport due to a relatively low carrying capacity and the capacity of vehicles. The cost of transporting goods in road transport is much higher than in water and rail transport [1, p. 207].

The process of managing international road freight transport is a set of individual activities aimed at streamlining and coordinating all the elements of this type of traffic in order to achieve the objectives of the organization.

The management process solves two main tasks: tactical is to maintain stability, harmonious interaction and performance of all elements of the international road transport of goods by road; strategic ensures the development and improvement of this aspect of the organization. The management process consists of four interrelated functions: planning, organization, motivation and control.

International road transport is one of the most profitable and fastest growing segments of the Belarusian market. Over the past 10 years, the number of operators involved in it (transport companies engaged in international cargo transportation) has increased 80 times. During this time, foreign currency deductions of international road carriers to the budget increased 5 times and the number of units of equipment in their car fleet increased tenfold. Currently, more than 35 thousand people are employed in this industry. A feature of international road transport is that they, as a rule, are carried out on the basis of intergovernmental agreements that the Republic of Belarus has with almost all European countries. At the same time, it was possible to agree with the European Union that the services provided to non-residents on the basis of universal permits.

But such an activity involves a collision with a large number of complex tasks, such as poor development of transport infrastructure, lack of roadside service, and road conditions. All of the above skills adversely affect the delivery of goods, which affects the cost and time of transportation. To solve existing problems, organizations seek to design and build logistics systems.

The most popular type of freight traffic with mills and plants in Europe and the CIS is the automobile type. Recently, multimodal transportation has become popular. International transport over long distances of this type is carried out in several stages, namely, automobile and air, road and sea means [2, p. 94].

International freight transport involves a constant crossing of borders, which requires organizations to perform flawlessly at all stages and stages.

One of the important nuances is the organization of the receipt of information about the exact location of the goods and goods in any particular location.

As a rule, the process of delivery of goods in international trade includes:

1) transportation of goods from the internal production point to the border point (port) of the exporting country;

2) international transit or sea transportation from the point of exporting country to the border point (port) of the importing country (if no common land border is established between these countries);

3) transportation from the border point of the importing country to the internal point of consumption of goods.

The organization of international transport begins with the receipt of an application from the shipper, containing information about the goods being transported and the basic requirements for transportation. The basis of the carriage is the conclusion of the contract. A freight contract usually has the following structure:

1) the Subject of the Agreement;
2) obligations of the parties;
3) the procedure for payment for services;
4) responsibility of the parties;
5) the term of the contract;
6) the legal addresses of the parties [3, p. 122].

Transport operations are considered international if they are related to the movement of foreign trade cargoes to external segments of the transportation route (relative to the country of purchaser and buyer country) (that is, section B-C is present) (Fig. 1).

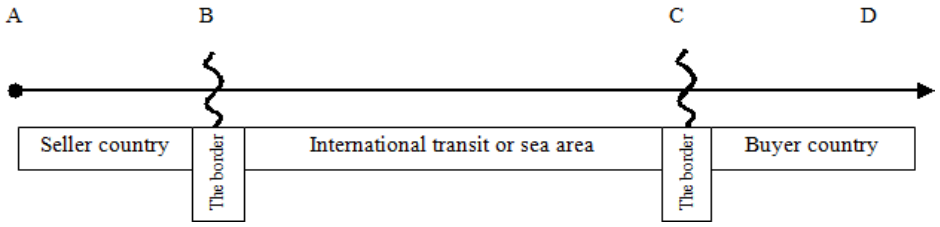

Figure 1. – Diagram of the process of delivery of goods in international trade [4]

In assessing the effectiveness of managing international road freight transport, a number of indicators are used, for each organization the set of these indicators is individual. This situation is due to the specifics of the enterprise, the presence or absence of the necessary base for the calculation of certain indicators.

The efficiency of use of the vehicle can depend and be determined on the one hand by the perfection of its design and the compliance of the operating conditions - transport, road and climate. On the other hand, it depends on the organization of transportation: the length of time in the outfit, the number of days of work per year, the rational organization of transportation routes, the mechanization of loading and unloading operations, the length of downtime during reception or delivery, maintenance, repair, etc.

The efficiency of road transport consists of the following components: the degree of satisfaction of the needs of enterprises in the transport of goods, efficient use of rolling stock and efficient use of loading and unloading facilities [5, p. 76].

In this way, international road transport has great and serious development prospects, discussed both at the bilateral level and in the international arena. Consequently, domestic legislation, its correct understanding and application play an important role in the implementation of transport in international road transport.

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ESSENCE, CLASSIFICATION AND ACCOUNTING OF WATER USE IN ORGANIZATIONS PURCHASING WATER FOR PAYMENT

VOLHA YAKIMETS, INNA SAPEGO
Polotsk State University, Belarus

Approaches to the economic essence of the concepts "water resources", "water management", "water consumption" and "water use" are analyzed and systematized. The concepts that most accurately reflect the content of the above definitions are analyzed and developed.

In the Republic of Belarus, considerable attention is paid to the rational use of water resources as an integral part of the country's economic potential. Rational use of water resources, especially freshwater, is one of the acute global problems of the world economy.

The use of water by economic sectors leads, on the one hand, to positive consequences, since there is an opportunity to carry out the production process, create new types of finished products, perform work, provide services, and, on the other hand, they have negative consequences, as pollution of water resources occurs, which ultimately violates the state of water resources. Since the pollution of water resources in most cases occurs through industry, a necessary factor in the development of an effective management system is the availability of integrated accounting for water user organizations.

Currently, a number of water management issues, namely, environmental, managerial and financial accounting, are reflected in the regulatory documents of the Republic of Belarus. Various aspects of accounting were considered in the works of Russian scientists (A.I. Belousov, O.G. Gainutdinov, V.F. Paliy, Y.V. Sokolov, etc.) and Belarusian ones (D.A. Pankov, V.I. Strazhev, O.S. Shimova, etc.).

Before embarking on the study of water accounting issues, it is necessary to understand the above concept, since a different conceptual apparatus is used in this area. Therefore, in practice there are the concepts: "water resources", "water economy", "water consumption", "water use". At the same time, having investigated the above concepts, the authors came to the conclusion that for the purposes of accounting, the concepts of "water use" and "wastewater disposal" should be used.

According to T.F. Efremova, Y.I. Fedinsky, V.P. Teplova, I.V. Zherelina water use is "the use of water bodies to meet the needs of the population and economic activity", which coincides with the definition given in the Law of the Republic of Belarus No. 341-3 [1]. However, according to the water code of the Republic of Belarus, water use should be understood as the use of water resources and the impact on water bodies when carrying out economic or other activities [2].

In accordance with GOST 17.1.1.03-86. "Protection of Nature. Hydrosphere. Water use classification "for water use the following classification criteria are established: water use goals; water objects; technical conditions of water use; conditions for the provision of water bodies for use; nature of water use; method of using water bodies; impact of water use on water bodies [3].

For the concept of developing accounting for water use as a system, we offer the following classification for a water user organization (Table 1).

Table 1. – Classification of water from the organizations – water users

Water use		
For water use purposes	*According to technical conditions*	*By way of use*
- industrial needs	- without the use of structures and devices	- no withdrawal of water
- drinking and household		

Source: own development based on the studied literature [3].

Water supply from centralized water supply systems, admission of wastewater to the centralized sewage systems is carried out in the presence of the agreement "Provision of water supply and sewage services", which is between the WSS organization and the subscriber for one year. It specifies the rights, obligations, responsibilities of the parties, as well as the procedure for calculating and the cost of water and wastewater services provided [4].

Payment for services rendered, as a rule, is made for actually consumed water. To do this, in accordance with the contract for the provision of water supply and wastewater services, water-measuring devices were purchased and installed.

A local water company issues an invoice to the water user organization to pay for the services rendered, which indicate the amount of water consumed, its price, the cost of water supply and drainage, including and without VAT.

Accounting for water use from water user organizations that purchase water without withdrawal from the plumbing sector for a fee is currently reflected in Table 2.

Table 2. – Water accounting organizations

The content of the business transaction	Dt	Kt
Payment made for the use of water	60	51
Reflecting water use as a cost	20, 25, 26	60
Reflection of VAT for the use of water	18	60

Source: own development based on the studied literature.

However, this system does not allow calculating how much water one or another type of cost accounts for, so we propose the following method for reflecting water in the accounts.

According to the Law of the Republic of Belarus "On Accounting and Reporting", each business transaction is subject to registration by a primary accounting document [5], therefore we offer the following accounting documents:

1) to take into account the receipt of water to issue a receipt order on the basis of the invoice, which will reflect the amount of water received by the organization, its price, cost, name and supplier code;

2) to account for the use of water, it is proposed to draw up a certificate on the use of water, which will contain information on how much and how water is used in the enterprise;

3) at the end of the month, enter data on water use in the Water Distribution Statement of Cost Center. This report will show the measurement date, the meter readings, the amount of water used the price for it and its cost, as well as information on how much water was used for one or another type of cost.

For synthetic water, accounting it is necessary to open a separate subaccount to account 10. For example, subaccount 13. Then, in accounting, you should make entries as in table 3.

Table 3. – Accounting for water use from organizations that purchase water for a fee

The content of the business transaction	Dt	Kt	The document confirming the business transaction
Payment made for the use of water	60	51	Payment order, contract
Water accounting	10/13	60	Receipt order, invoice
Reflection of VAT for the use of water	18	60	
Capitalization of water in production	20, 25, 23, 26	10/13	✓ Water use certificate for cost centers ✓ Statement of water distribution by cost centers

Source: own development based on the studied literature.

During the work, the approaches to the economic essence of the concepts "water resources", "water management", "water consumption" and "water use" were analyzed and systematized, the concepts that most accurately reflect the content of the above definitions were analyzed and developed. The author's classification of water use for accounting purposes and their own method of reflecting water in accounting for organizations that purchase water from organizations of the plumbing sector for a fee were suggested.

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Economics

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METHODS OF MODELING AND OPTIMIZATION OF BUSINESS PROCESSES

OLGA PRACHKINA, EKATERINA NARUTA, POLINA LAPKOVSKAYA
Belarusian National Technical University, Minsk

It is really important to understand the way of building and improving of business process in nowadays situation of globalization of production. Appropriate knowledge and minimizing are the main things to make the system work. Analyzing methods of functional modeling were researched and involved in the created system. The analyzed and the improved systems were compared.

Business process modelling represents an important part of information system development and evolution within organisations. This is primarily due to the need of organisations to be able to readily and flexibly adapt their processes to change induced by both internal and external factors [1].

A business process is a collection of linked tasks which find their end in the delivery of a service or product to a client. A business process has also been defined as a set of activities and tasks that, once completed, will accomplish an organizational goal.

For modeling business processes several different methods are used. They are based on structural and object-oriented approaches to modeling. However, the division of the methods into structural and object is rather arbitrary, since the most developed methods use elements of both approaches. The most common methods include:

- method of functional modeling SADT (IDEF0);
- IDEF3 process modeling method;
- DFD data flow modeling;
- ARIS method;

Method of functional modeling SADT (IDEF0);

The basis of many modern methodologies for business process modeling includes methodology of SADT. It is a set of rules and procedures designed to build a functional model of an object of any subject area. The functional model SADT displays the functional structure of the object, i.e. the actions it performs and the links between these actions. The main elements of this method are based on the following concepts:

- Graphic representation of block modeling.
- Strictness and accuracy.
- Separating the organization from the function, i.e. exclusion of the influence of the administrative structure of the organization on the functional model [2].

IDEF3 process modeling method

Method IDEF3 was designed to simulate the performance of a sequence of actions and the relationship between them in the process. IDEF3 models can be used to drill IDEF0 functional blocks without decomposition diagrams. IDEF3 method allows to decompose the effect several times, to provide documentation of the alternative process streams in a single model.

IDEF3 is a way of describing processes using a structured method that allows an expert in the subject domain to present a state of affairs as an ordered sequence of events while simultaneously describing objects of direct relevance to the process.

IDEF3 is a technology well suited for collecting data required for structural analysis of a system.

Unlike most business process modeling technologies, IDEF3 has no hard syntactic or semantic restrictions, which make inconvenient description of incomplete or non-integral systems. In addition, the author of the model (system analyst) does not need to mix his own assumptions about the functioning of the system with expert statements in order to fill gaps in the description of the subject area.

IDEF3 can also be used as a business process design method. IDEF3 modeling organically complements traditional modeling using the IDEF0 standard methodology. Currently, it is becoming increasingly common as a completely viable way of constructing models of designed systems for further analysis by imitation methods. [3]

DFD. Data flow modeling

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be

used to analyze an existing system or model a new one. Like all the best diagrams and charts, a DFD can often visually "say" things that would be hard to explain in words, and they work for both technical and nontechnical audiences, from developer to CEO. That's why DFDs remain so popular after all these years. While they work well for data flow software and systems, they are less applicable nowadays to visualizing interactive, real-time or database-oriented software or systems.

ARIS method

ARIS. The current trend is the integration of a variety of modeling techniques, which manifests itself in the form of the creation of integrated modeling tools. One of such tools is a software product called ARIS (Architecture of Integrated Information Systems), which was developed by the German company IDS Scheer. To construct these models types both ARIS modeling methods are used along with various well-known methods and languages of modeling, in particular UML.

UML contains the extension mechanisms for adaptation of specific modeling language to the specific requirements of the developer without having to modify the metamodel. The presence of mechanisms to expand distinguishes of UML modeling tools from such as IDEF0, IDEF1X, IDEF3, DFD, because arbitrary interpretation of the semantics of model elements is not allowed. UML language is also used in the method of business process modeling; technology is part of Rational Unified Process (RUP) of IBM Rational Software Company. This method is aimed primarily at creating a basis for the formation of the software requirements, provides the construction of two basic models: a business process model (Business Use Case Model) and Business Analysis Model.

Modeling process can begin with any of models' types. The basic business model ARIS – eEPC (extended Event-driven Process Chain, is an extended chain of model processes). ARIS eEPC notation is an extension of IDEF3notation. Business process in the notation of eEPC is a stream of consistent performed work (procedures, functions), arranged in order of their performance. The actual duration of the procedures in eEPC is not visually recognized. It is necessary to use other description tools, such as MS Project, to get the information about the actual duration of the processes.

The models in ARIS are diagrams, elements of which are a variety of objects – "function", "events", "structural units", "documents", etc. Connections of certain types can be made between certain types of objects ("perform", "make a decision", "should be informed about the results", etc.). Each object corresponds to a specific set of attributes that allow you to enter additional information about a particular object. [4]

There are many approaches to modeling business processes. Each of which is suitable for certain situations and conditions. In our research, we used the IDEF0 process modeling method.

This is a list of the most common methods of analysis and optimization of business processes.

– SWOT analysis (analysis of the strengths and weaknesses of the business process);
– The method of analysis of cause-effect (Ishikawa diagram - Cause and Effect Diagram);
– Benchmarking;
– Crowdsourcing;
– Reengineering
– Analysis and optimization of the business logic of the process;
– The method of functional cost analysis (FSA analysis);
– Simulation (dynamic) modeling method;
– Calculation and analysis of the complexity and duration of the business process, the calculation of the optimal number of staff in the business process;
– Analysis and optimization of business processes based on KPI indicators, statistical methods.

Based on last year's research [5], where business processes were reengineered on the "Belmagistralavtotrans", evaluate the effectiveness of reengineering by the method of calculating the financial stability. This method is usually used to evaluate competing enterprises. In this work, we evaluate the variants of the working day model, using the models "AS IS" and "TO BE" instead of competing enterprises.

Application of the method:

– you can give each business process a weight, according to the importance of the operation, so that the sum of the weights for the employee is one;
– estimate from 1 to 10 each business process in the studied models, according to the effectiveness of its implementation;
– sum up the indicators for all processes performed during the day;
– evaluate the result.

The results of the analysis are presented in table 1.

Table 1. – Complaining systems AS IS and TO BE

Results of the Analysis	Weight	AS IS	TO BE
Searching for the loading	0,2	9/1,8	9/1,8
Comparison of cargo parameters and documentation for cargo	0,05	6/0,3	7/0,35
Adapting of freight rates for a new route	0,1	6/0,6	7/0,7
Communication with the shipper	0,2	5/0,1	7/1,4
Search and conformation of the rolling stock	0,1	5/0,5	6/0,6
Conformation of the application	0,05	4/0,2	6/0,3
Verification of transportation data and issuance of waybills			
Control by calling the driver	0,1	9/0,9	9/0,9
Checking and drawing up the acts of done work	0,05	4/0,2	5/0,25
Providing acts of done work to the customer to pay	0,05	4/0,2	5/0,25
Sum of weights	1		
Total sum		5,2	7,05

When analyzing the business processes, the advantage of the TO BE model (by 35%) becomes obvious, which shows the effectiveness of the reengineering of business processes in the enterprise. When switching to an online platform, the average time will be reduced by 29 minutes, as the time spent searching for cargo and confirming rolling stock is reduced, which further improves the efficiency of the processes.

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UDC 658.1

COSTS OF THE ENTERPRISE: THE ESSENCE AND NEED FOR CONTROL

OLGA SHKRED, IRINA POZDNYAKOVA
Polotsk State University, Belarus

Currently, both in the Republic of Belarus and abroad, there has been a growing interest in cost management. The article is devoted to the problem of assessing the economic nature of costs as one of the urgent tasks of enterprises in modern market conditions. The classification of costs and management technologies is proposed.

In a market economy, the basis of economic development is profit. It's the most important indicator of the efficiency of the enterprise, the source of its life. The functioning of the enterprise in modern conditions of market competition with the highest possible level of profit is possible only with an integrated approach, starting from the moment of its planning and ending with the distribution and use of profits remaining at the disposal of the organization.

Profit-a summary indicator of the financial results of economic activity is one of the main economic categories; it is a surplus of revenue from the sale of goods over the cost of their production and sale [1]. The achievement of the best financial results by the company at the expense of internal reserves, namely by reducing costs, can be a decisive factor in its successful operation in modern conditions. Costs are the main limitation of profit and at the same time the most important factor affecting the volume of production and sales of products manufactured at the enterprise.

In the Republic of Belarus, the problem of reducing costs at enterprises is important, as noted in the Program of development of the industrial complex of the Republic of Belarus for the period up to 2020. This Program provides measures to reduce the cost of production and sale of products, goods, works and services for the development and approval of industry; implementation of measures to reduce the share of fuel and energy resources in the cost of production (goods, works, services); introduction of industrial organizations of the system of motivation of employees for saving all types of resources, etc. [2]. The National strategy for sustainable socio-economic development of the Republic of Belarus for the period up to 2030 also states the need to reduce costs and save resources of enterprises in the future.

In the economic literature and in practice, along with the category of "costs", such concepts as "expenses" and "spendings" are used. Often the definition of one of these concepts is given through another, moreover, often there is an identification of these concepts. In foreign practice, this term, used by many authors, as a rule, is distinguished. We present the main approaches to the definition of the above mentioned concepts.

As you know, the theory of costs was developed by the English economist David Ricardo. In his work "The beginning of political economy and taxation" (1817), he first put forward and justified the theory of comparative costs of production, according to which the international division of labor should be based not on the absolute, but on the comparative advantages of a country in the production of a product. D. Ricardo argued that the real value of the goods is equal to the cost of production. According to his teaching, production costs should be understood as the cost of means of production, that is, objects and means of labor, in other words, in the concept of "production costs" he included both labor costs and capital costs [6].

One of the founders of economic theory as a science Adam Smith defined costs as the average social cost per unit of production in an average enterprise or as the average cost of all enterprises in the industry.

Representatives of the Austrian school (Friedrich von Wieser) developed a subjective theory of the costs of alternative opportunities, according to which the actual costs of production of this product are equal to the highest utility of the benefits that society could get if it used differently spent production resources [6].

In institutional theory (John Bates Clark, John Atkinson Hobson), overhead costs are studied in detail, the concept of "human costs" is introduced, which are measured by the abilities of workers and the quality of working conditions.

Representatives of neoinstitutionalism (Ronald Harry Coase, Kenneth Joseph Arrow) developed the theory of transaction costs, which mainly relate to the sphere of circulation [6].

Later the problems of production costs to varying degrees were affected by such scientists and economists as John Stuart Mill, Pierre-Joseph Proudhon, Robert Torrens, etc. [7].

Jorg Baetge considers the relationship of concepts such as "payments"," spending"," expenses"," costs", which, in his opinion, represents the definition of categories in dynamics. According to Eugen Schmalenbach, the relationship between the concepts of "expenses" and "cost" is presented as follows: expenses are monetary expenses as a result of economic activity, and expenses are actually confirmed costs that calculate the actual cost of production [2, p.20].

The main idea that unites the development of theories of economic analysis is that accounting and analysis of economic activity should be addressed in the future. It follows from this that only the most significant, natural costs should be taken into account for the purposes of a prospective analysis. This idea was embodied in the concept of natural costs, the founder of which is recognized as an American engineer in efficiency and business theorist Harrington Emerson. Practical experience of application allowed him to draw the following conclusions about the advantages of the method:

– it gives the chance to optimize stocks of material values;
– helps identify hidden reserves;
– provides comparability in the analysis of economic trends;
– stimulates the work of the team.

The basic rule of the method was that "all expenditures in excess of the established standards should be attributed to the perpetrators and should never be included in the cost accounts". The rule was formulated by Henry Laurence Gantt within the framework of the standard-cost concept. The meaning of the Gantt rule contrasts sharply with the traditional view expressed by Jerome Lee Nicholson and John Francis Deems Rohrbach: "the cost of production should include all the costs of running the enterprise, if only they want to get the actual cost." This principle was later developed in management accounting [8].

In the course of the analysis of economic literature, as well as regulatory documents, it was revealed that there is often an identification of such terms as "costs", "expenses" and "spending". In the Russian language historically these concepts were not separated. There is also no clear understanding of these terms among scientists and practitioners.

Most often, the cost is understood as the resources spent on specific purposes, in value terms.

The majority of authors in this definition distinguish three important provisions:

– costs are determined by the quantitative and qualitative use of resources, i.e. reflect how much and what resources have been used;
– to ensure the proportionality of the various resources, their value should be presented in monetary terms;
– the definition of costs is always correlated with specific goals and objectives.

Cost classification makes it possible to correctly calculate the cost of production and to assess the effectiveness of the use of resources in all areas of activity.

The grouping of costs by economic elements is necessary for the analysis of financial results of economic activity of the enterprise. It shows what is spent and how much, without specifying the needs. It sets the total cost of the enterprise, but does not specify the direction of costs directly to the production of a particular product.

The classification of the calculation items of expenditure is used to calculate the unit cost of a certain type of product. This type of classification reflects the target areas of use of resources and the specific costs of the enterprise for the manufacture and sale of a unit of a certain type of product.

Depending on the purposes for which the cost information is used, it can be classified into three areas, which are presented in Table 1.

Table 1. – Classification of costs by areas

To determine the cost, financial results:	For management decision making:	For control and regulation:
- Direct and indirect - Production costs and the expenses of the period - General and overhead - And nicklachey included in the cost	- Constants and variables - Relevant and irrelevant - Margin and differentiated - Alternative and non-alternative - Operational and administrative	Controlled and uncontrolled

Source: own elaboration based on data from [3, p. 6].

The division of costs in the first direction of classification, to determine the cost and financial results of the enterprise, is given in Table 2.

Table 2. – Cost classification to determine cost and financial results

Classification feature	Types of costs
Direct	- raw materials - parts; - basic wages of workers - other
Indirect	- heating and lighting - remuneration of managers - depreciation - other
Production costs	- for implementation, in particular: - direct materials - direct wages - purchase price of goods for sale
The expenses of the period	- administrative - marketable - marketing - depreciation of buildings

Source: own elaboration based on data from [3, p. 7].

The importance of costs as a factor affecting the results of the company, makes the most relevant study of scientific approaches to cost management.

Cost management is an understanding of where, when and how much resources the enterprise consumes and a forecast of where, why and how much additional resources are needed [4, p. 379]. The control is performed through the analysis, control, planning, forecasting, cost savings, and increase the impact of costs.

The classification of cost management technologies is shown in figure 1.

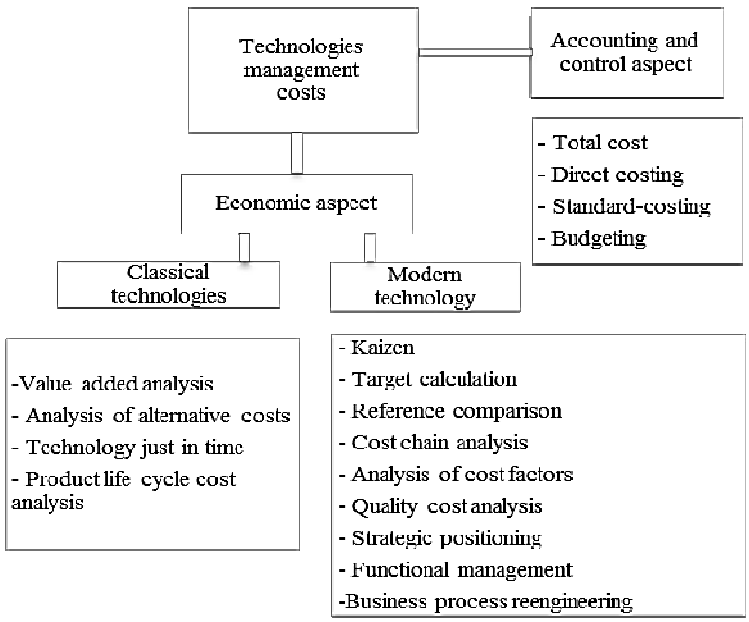

Figure 1. – Classification of cost management technologies

Source: own elaboration based on data from [5].

It should be noted that none of the existing methods of cost management alone can fully provide the management and accounting functions that are necessary for the organization of an effective cost management

system. Therefore, for the organization of an effective cost management system, enterprises need to combine different methods of cost management in order to create the most effective management system.

At present, cost management at most enterprises is carried out in a non-systematic manner. One of the main problems is the imperfection of cost accounting, the disadvantages of which include: a high degree of generalization of information and the inability to detail it, and low efficiency, which does not allow to ensure the prevention of costs.

The creation of an effective cost management system, the need to introduce new forms and methods of management requires the creation of a special Department for cost management in enterprises. In foreign practice, this Department is called the controlling service. The activities of the Department should be aimed at the operational collection and analysis of the information necessary for cost control, the development of new forms of information collection and primary accounting documents, the examination of management decisions, as well as to the strategic objectives of the enterprise.

The use of modern cost management technologies, taking into account the characteristics of the enterprise and an integrated approach to cost management, will allow the organization to achieve competitive pre-property and high economic performance.

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UDC 338

DERIVATIVES IN THE REPUBLIC OF BELARUS: OPPORTUNITIES AND CHALLENGES FOR NON-FINANCIAL ORGANIZATIONS

PAVEL PANKOU, LUDMILA MASKO
Polotsk State University, Belarus

The article deals with the directions of application derivatives in the non-financial organization. The factors constraining the use of derivatives by non-financial organizations in the Republic of Belarus have been considered.

Introduction. In many cases derivative financial instruments may be interesting for the non-financial organizations, for which transactions in the exchange and OTC (over-the-counter) financial markets can't be referred as the main activity. The specificity of a derivative market may be described in the following way: the risk of price changes of underlying asset is traded here, while the underlying remains unaffected. Demand is formed by hedgers, who are interested in obtaining stable and predictable cash flows in the future and try to protect (hedge) the value of their assets, which depends on the movement of market variables (accordingly, hedgers are interested in transferring market risk to a third party). On the other hand, hedge funds and professional traders are ready to take risks in order to profit from short-term fluctuations in market variables on the basis of complex technical and fundamental analysis [5].

If the current activity of a non-financial organization isn't exposed to changes in market variables (commodity prices, exchange rates, interest rates, etc.), the organization may consider the derivatives market as a source of additional income, which involves the transformation of the financial department into a separate profit center. Otherwise, the company may be interested in applying hedging using derivatives. Thus, the sphere of derivatives has a potential reserve for improving the current activity of non-financial organizations, which is practically not used in Belarussian business-practice. The aim of this research is to consider and analyze opportunities and problematic aspects of derivatives application in non-financial companies.

The main part. As noted above, derivatives may be used for speculating or hedging purposes. It is very important to separate these two goals at the level of organization, because different systems of planning, organization and control of relevant transactions should be used for hedging and speculation.

Initially, in our opinion, it is necessary to consider the sphere of generating speculative income with derivatives. It is obvious that, in the presence of available funds and sufficient competence of the financial department, organizations of any industry will be interested in obtaining additional income in the derivative market (provided that the yield on speculative operations will exceed the yield on risk-free investments). From our point of view, the most significant aspect here is the fact that the finance department in this case becomes an independent profit center in the organization. In ordinary circumstances a finance department executes functions that ensures the normal operation of the enterprise, namely it has to [3]:

– develop financial and credit plans;
– make payments to customers;
– perform economic work aimed at improving the efficiency of production;
– monitor the implementation of long-term financial forecasts and financial plans, rational use of production resources, compliance with financial discipline;
– analyze financial and economic activity of the enterprise through systematic analysis of accounting, statistical and operational reporting.

But if persons responsible for corporate management have decided to allow the structural unit to work in the derivative market for getting additional income, it is necessary to separate this department from those, which aren't aimed at generating profit itself. It is necessary to protect managers from the temptation to carry out risky transactions without proper risk management procedures. When managers know that they are limited in certain money amount for speculative operations, all transactions are controlled by an independent structural unit and there is a clear bonus system for conducting profitable trading operations, in this terms we can say that obtaining speculative income in the derivatives market has a chance to be successful. Otherwise, it is better to invest in risk-free assets.

On the other hand, derivatives may be interesting to non-financial companies in the context of risk reduction through hedging. As noted above, hedgers seek to pass unacceptable risks to a third party (speculators) for a fee. This process is similar to the classical insurance scheme, but hedging risks are primarily related to market variables and related cash flows.

As noted by Stulz (2013) " ... quite often losses on derivatives with well-thought-out hedging are considered as a failure in the risk management system. Although the company applies hedging because it cannot predict what result will bring the asset, liability or future cash flow that is exposed to market risk in the future. And to avoid this uncertainty, organizations resort to hedging, while if the market movement is favorable for the company, then the hedging instrument will have an offsetting loss" [1].

In other words it is impossible to consider hedging only from the position of profit or loss on the hedging instrument (derivative), it is also necessary to take into account the change in the value of the hedged item. Since the value of the hedged item and the hedging instrument in an effectively constructed risk management system should move in opposite directions and provide the company with a stable level of income with a high probability [5].

In theory hedging can have a positive impact on the company's operations by directly increasing profits or by ensuring stable operating activity. Let's consider how these statements are consistent with the practice of non-financial organizations. For example, the Bodnar study (2011) provides information on the objectives of the risk management strategy. Thus, for 705 companies in the non-financial sector around the world, the main objectives are to increase the expected future cash flows; avoiding large losses from unpredictable price changes; increase in the value of the company [9, p. 48]. The objectives of risk management are presented in more details in figure 1.

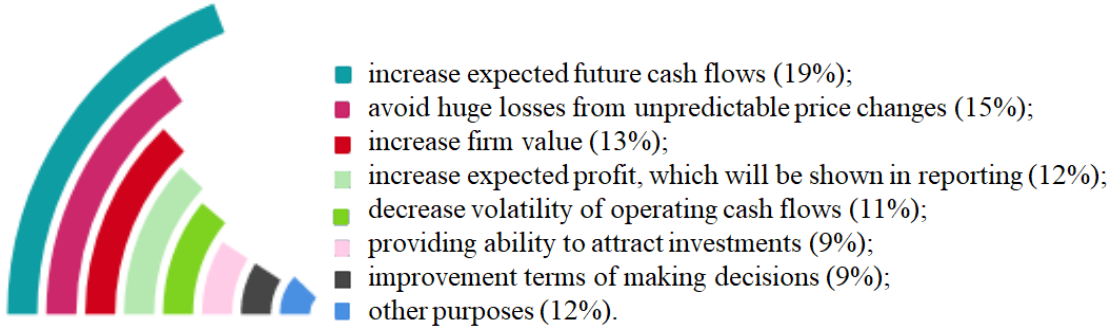

Figure 1.– Risk management objectives for non-financial companies worldwide

Source: [9, p. 48].

It should be noted that the achievement of these goals can be provided both with the application of hedging using derivatives and with the help of operational hedging (for example, when costs and revenues are denominated in one foreign currency) or other methods of risk management. Choice of a specific risk-management instrument in general depends on the specifics of the company's activity.

As noted by Bodnar (2011) 71% of companies from the extractive sector of the economy, 67% of the manufacturing sector and 46% from the service sector use derivatives in their risk management strategy [9, p. 49].

Also it is necessary to understand that the process of hedging is quite complex and requires consideration of various factors. This complexity is caused by the fact that hedging instruments are derivatives, such as forwards, futures, options or swaps. The Bodnar study (2011) provides information on the reasons for the refusal in the number of companies derivatives usage (respondents could choose several reasons). The results are shown in figure 2.

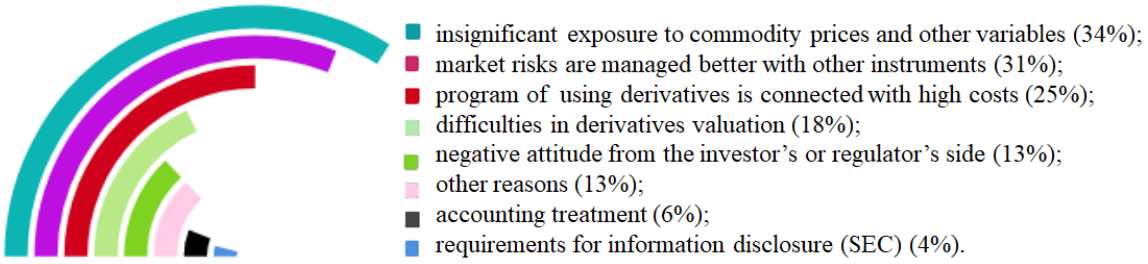

Figure 2. – Reasons for rejection from derivatives in risk-management strategy

Source: [9, p. 50].

The first three reasons from this rating can be attributed to the main reasons for the refusal to use derivatives, and they depend mainly on the specifics of the company's activity. If we turn to the Republic of Belarus, such authors as Sidorenko [7], Demidenko [4], Usefulchek [8] agree that the obstacles to the development of hedging institution in the country are the imperfection of the accounting and taxation in this area, difficulties in developing hedging strategy itself, underdevelopment of derivatives exchange and OTC markets, low level of corporate risk management in this area. Let's consider these problematic aspects in more detail.

Despite the introduction of international financial reporting standards (IFRS) as technical regulations on the territory of Belarus since January 1, 2017 the national system of accounting and reporting in the field of derivatives still doesn't provide a clear accounting of these instruments, therefore, doesn't facilitate the receipt by users of reporting relevant information on the opened market positions [6]. Despite the introduction of the National standard "Financial instruments" from January 1, 2019, certain significant aspects related to the use of derivatives in the practice of business entities remain unsolved. For example, based on the definition of a financial instrument it is necessary to include not only futures, forwards, options, swaps, but also ordinary contracts for the supply of goods in the future, the price of which is related to market variables (oil quotes, for example), respectively, to revalue them according to paragraph 15.2 and paragraph 18.2. For comparison IFRS 9 "Financial instruments" unambiguously defines that ordinary contracts for future delivery are not within the scope of IFRS 9. Also, organizations that used IAS 39 "Financial instruments: recognition and evaluation", which is taken as the basis of the Belarusian standard, note that accounting for this standard is more difficult than under the rules of IFRS 9, as a result in near future it will be necessary to change National standard according to IFRS 9.

Secondly, the regulation of transactions with derivative financial instruments in the field of taxation in the Republic of Belarus affects the value added tax and income tax, applicable only to banks, and income tax for individuals. In the taxation of income of non-financial organizations there is no any features related to income tax. At the same time, it can be noted that in the Republic of Kazakhstan, in Russian Federation and in the United Kingdom the legislation, governing the calculation and payment of income tax to a greater or lesser extent defines the features of transactions with derivative financial instruments, including those used for hedging.

Thirdly, from the point of view of civil law, nowadays operations with net-settled derivatives can be qualified as wager transactions, judicial protection for which is not provided. For comparison, in the Russian Federation this gap was eliminated in 2010 by the introduction of the corresponding norm in the Civil code of the Russian Federation (paragraph 2, article 1062).

With regard to the implementation of the hedging transactions themselves, we note that the issue is more concerned with the OTC market, because on the exchanges the contracts of the futures market section are standardized and there are well-established mechanisms for ensuring the fulfillment of obligations. Complexity can be caused by OTC contracts, where there is more flexibility, however, can be disputable moments concerning the order of calculations, determining the prices and terms of collection the debt from the defaulter. The best way to protect against disagreements in this case will be to prescribe all significant aspect in the contract, while the reference rules are better to change for full-fledged formulations, which will help to better understand the essence of the transaction.

Fourthly, the Belarusian authors name the low level of corporate risk management as one of the reasons for the underdevelopment of derivatives market. It should be noted that it is rather difficult to assess this level, especially within the country; therefore, here we should speak about the fact that the management of non-financial organizations of the Republic of Belarus is focused on solving critical issues related to current activities. While reducing exposure to non-core commodity or currency risks through hedging may improve the efficiency of an organization, but it is not a critical aspect of their operations. No doubts that if there is a clear in implementation and well-understood in possible benefits hedging strategy, every manager won't refuse to use derivatives, but so far everything remains very confusing

Conclusions and directions for further research: solution of named problems will allow the economy to distribute risks between economic agents more effectively. In our opinion, one of the possible approaches here is to consider in detail possible hedging strategies for major players or large groups of the non-financial sector of the Republic of Belarus. In specific examples should be included following questions: the order of reflection in the accounting of hedging operations, tax consequences, the effect for a particular organization, as well as management aspects – especially the planning, organization and control of hedging operations at the corporate level. The combination of such example-strategies will provide understanding benefits from hedging both at the macro and micro levels.

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UDC 339. 186

THE ROLE OF PROCUREMENT WITHIN A COUNTRY'S LOGISTICS SYSTEM

PAVEL PAZNIAKOU, ARTSIOM KACHALAU, PALINA LAPKOUSKAYA
Belarusian National Technical University, Minsk

The main objective of the article is to give an insight into the main procedures behind public procurement and procurement in general. To date, the public procurement market of Belarus has several shortcomings. The article defines the problems existing in Belarusian public procurement system and describes different legislative procedures that would improve it.

Procurement logistics is the process of providing a company with the necessary resources. In fact, procurement is one of the most important links of any trade with production network. Without appropriate materials there will be no production, without production there will be no sales. Thorough preparation of a procurement plan is a key to the future development of an enterprise. Procurement logistics starts with the study of market demand to define optimal production plan and determine the amounts of necessary resources.

All procurement procedures can be divided into two categories: tactical procurement operations aimed at eliminating possible shortages of resources, and strategic operations aimed at the development of future relations with potential suppliers.

The functionality of procurement logistics is very broad and includes such functions as forecasting the need for supplies, the formation of a strategy for their acquisition, supplier selection, adjustment and conclusion of supply contracts, supply control, quality control of the supplied raw materials, payment for supplies and delivery services, maintenance of optimal amounts of inventory in warehouses. Therefore, procurement logistics is closely connected with other departments of an enterprise such as marketing department, production, accounting, legal department and finance department [1].

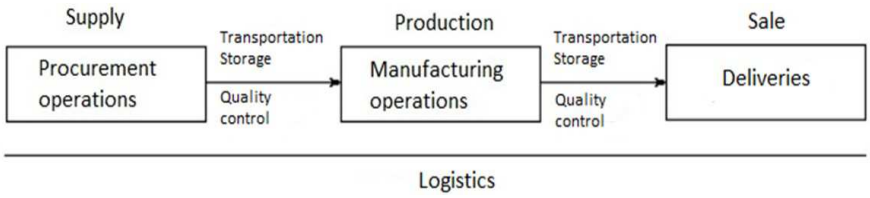

Figure 1. – Logistics chain

The functions of procurement logistics are determined by the objectives an enterprise faces. Traditionally these functions include maintenance of continuous supplies of production resources, optimization of procurement costs, purchase of quality raw materials and effective management of suppliers.

At the initial stage of procurement, it is necessary to solve the "make or buy" problem, that is, to determine whether it will be profitable for a company to produce goods or services on its own or to purchase them through an intermediary.

It is also important to choose a supplier. The ratio between price and quality of products, reliability of the supplier, compliance with delivery schedule, the distance between the consumer and supplier, creditworthiness and the overall financial health of the supplier, the availability of spare capacity – all these criteria must be considered for the correct supplier selection [2].

In addition to the selection of the best provider, there are many ways to reduce other procurement costs and streamline the whole procedure. One of such methods is the ABC-analysis. This method allows of the differentiation of the purchased resources into three categories in accordance with their contribution to the production process:

A – 20% of the items accounts for 70% of the annual consumption value of the items,

B – 30% of the items accounts for 25% of the annual consumption value of the items,

C – 50% of the items accounts for 5% of the annual consumption value of the items.

Only after the differentiation of the resources is it possible to introduce such a supply system as the "Just-in-time" system. The essence of the system is that while there is no demand for the products, neither these products nor the resources required for their productions are accumulated. The use of the "Just-in-time" system

allows of the reduction of costs in procurement logistics as it reduces the need for warehouse space, the number of warehouse operations and the need for warehouse staff. However, this system is not that profitable for suppliers that have to increase their quality control costs and the suppliers that find it unprofitable to have unstable schedule of deliveries of small batches to remote consumers.

The "Just-in-time" system implies that private companies conclude contracts based on long-term relationships with their suppliers. For a state-owned company the sourcing of resources requires their acquisition through the network of contractors and subcontractors chosen through the set of special procedures. The underlying reason for this difference is that this matter concerns the money of taxpayers.

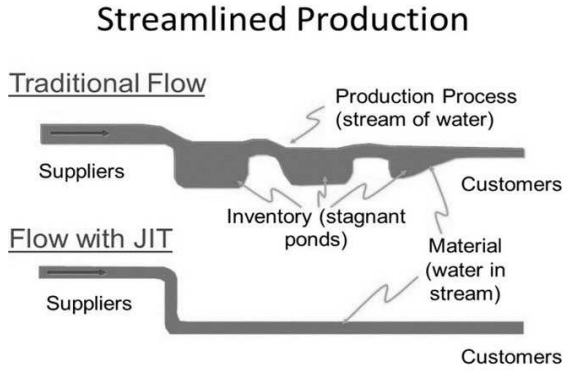

Figure 2. – "Just-in-time" system [3]

Public procurement is the acquisition of goods and services by state-owned companies through budgetary funds. Public procurement can be of any scale, ranging from the purchasing of paper to the acquisition of high-value machinery. This method of procurement provides suppliers with a highly reliable buyer in the form of government, which will ensure complete and timely payment.

The procurement conducted by state-owned companies is different from the procedures mentioned above, meaning that each stage requires separate consideration with the maximum level of transparency and efficient management of taxpayers money. Generally speaking, public procurement consists of four major stages: planning, application disposal, offers receiving and contract conclusion.

According to the World Trade Organization, the public procurement market, on average, accounts for roughly 15% of a country's GDP and therefore the success of its operation directly affects the pace of modernization and economic growth. In Belarus, public procurement accounts for 10% of its GDP. The cost of all contracts within public procurement in 2018 amounted to 6.58 billion Belarusian rubles, which is 0.5% more than in 2017 (6.55 billion) [4]. The Ministry of Antimonopoly regulation and trade deals with public procurement issues. There are 6 types of procedures that are carried out within public procurement:

– open competition is a transparent and competitive way to choose a supplier, in which any interested supplier can submit its proposal.

– closed competition is a nontransparent and competitive method of procurement in which all suppliers are invited individually by the buyer and are obligated not to disclose the information concerning goods and services being purchased since these goods and services constitute state secrets.

– electronic auction is a transparent and competitive way to choose a supplier on electronic trading platforms. Electronic auctions are held on electronic trading platforms by operators determined by the Council of Ministers of the Republic of Belarus.

– the request of price offers is a competitive method of supplier selection whereby the winner is the participant that proposes the lowest price offer.

– single source procurement is a method of supplier selection, in which the customer selects a single supplier.

– exchange trading-purchases of goods are executed on commodity exchanges.

To date, in the system of public procurement in Belarus there is a big problem concerning procurement from one source, i.e. procurement in which there is no competition. In the structure of public procurement, purchases from one source account for 5.3 billion rubles (an increase of 3.5%), which is 80.5%. With an increase in the share of purchases from one source, the share of competitive procurement procedures has declined: purchases using open electronic auction – by 9.6%, open tender – by 21.6%.

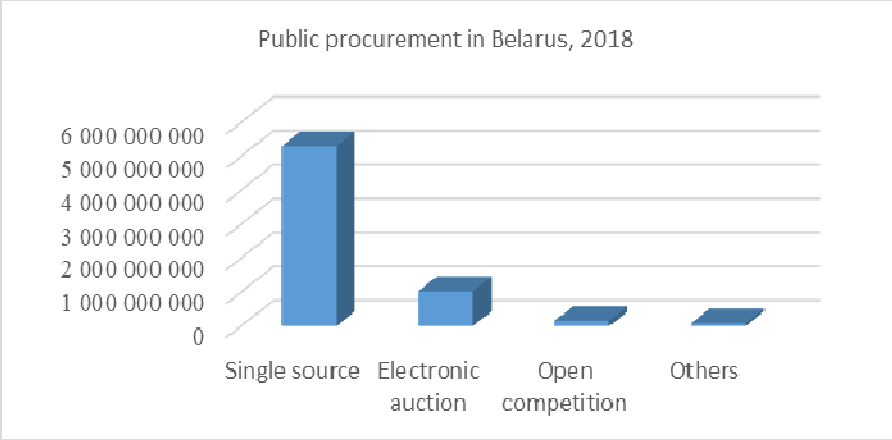

Figure 3. – Public procurement in Belarus

Every year the competition decreases, which reduces the quality of goods and services, as well as creates a favorable environment for unscrupulous suppliers and customers. According to the international organization Transparency International, Belarus loses from 600 to 800 million dollars in public procurement annually, which is about a quarter of all costs.

The re-evaluation of the existing public procurement procedures and the legislation regulating it should become a priority task, in which it will be possible to achieve high economic indicators and significantly improve the quality of goods and services supplied. These innovations will take place within the framework of the creation of the e-government and the creation of an IT-country.

The new version of the law on public procurement of goods (works, services), which will enter into force on July 1, 2019, will allow to improve the mechanisms of public procurement at a legislative level and thereby ensure transparency of their conduct and reduce the number of unscrupulous intermediaries. The entire procurement system will be reviewed with a view to making changes that will improve it without changing the main principles.

All stages of the procurement process will gradually move to an electronic format in accordance with global trends, which will increase the transparency of all transactions and reduce organizational costs. Since the introduction of the changes, the new state information and analytical system (GIAS) will begin its work. The main task of the group will be the analysis of all public procurement procedures to ensure their transparency. The time for preparation and submission of proposals will be halved and the times for consideration of complaints will be reduced by a factor of three.

One of the most important parts of the new edition will be the regulation of one source procurement. If the organization conducts procurement, in which certain conditions of delivery, payment, subject and requirements to the participant are defined, then these conditions will no longer be able to be changed. Open access to the GIAS will ensure both state and public control of all purchases.

The period during which unscrupulous suppliers are placed in a special list, which does not allow companies that violate the provisions of the law to participate in public procurement, will be doubled. This period will now be 2 years.

Some 10-20 thousand specialists in the field of public procurement will have to undergo additional training to meet the new realities regulated by the new law edition. To reduce the number of violations, each customer will be required to create a special unit or appoint an employee with the appropriate qualifications in the field of public procurement [5].

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UDC 331.5

GREEN ECONOMY IN THE REPUBLIC OF BELARUS: PRINCIPLES, FEATURES AND PROSPECTS FOR IMPLEMENTATION

LYUBOV PIMENOVA, INGA ZENKOVA
Polotsk State University, Belarus

The article deals with the national program documents on the green economy, the basic principles of green economy are highlighted, the features and prospects of implementation of the green economy principles in the Republic of Belarus are defined.

The concept of "green" economy has become a priority of sustainable development of many countries of the world community. The commitment of the Republic of Belarus to the principles of "green" economy is enshrined in the national policy documents, including the National strategy for sustainable social and economic development for the period up to 2030, approved at the meeting of the Presidium of the Council of Ministers of the Republic of Belarus (Protocol No. 3 of February 10, 2015). [1] In addition, the country has approved a national action plan for the development of a "green" economy in the Republic of Belarus until 2020. [2]

According to the National strategy, the main goal of the first stage of its implementation (2016 – 2020) is the transition to a quality balanced growth of the economy on the basis of its structural and institutional transformation, taking into account the principles of the "green" economy, the priority development of high-tech industries, which will become the basis for improving the competitiveness of the country and the quality of life of the population. [2]

The concept of "green" economy is considered as a system of the following principles:

1) Fairness and objectivity, both within and between generations;

2) Coherence with the principles of sustainable development;

3) Preventive approach to social and environmental impacts;

4) Assessment of natural and social capital, e.g. internationalization of external costs, green accounting, lifetime costs and management improvements;

5) Sustainable and efficient use of resources, consumption and production;

6) The need to achieve existing macroeconomic objectives through the creation of green jobs, poverty eradication, competitiveness and growth in key sectors. [3]

The implementation of the employment policy based on compliance with these principles of the "green" economy can provide not only stabilization in the labor market by creating new "green" jobs, but also reduce environmental and social risks.

The joint report of UNEP/ILO/IOE/ITUC gives a broad definition of green jobs as all jobs that meet the principles of decent work that promote the conservation and quality restoration of the environment, whether in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency. In practice, these jobs reduce energy and raw material consumption, limit pollutant emissions, minimize waste and pollution, preserve and restore ecosystems, and enable enterprises and communities to adapt to climate change. [4]

It is also worth noting that these jobs should not only be "green", but also meet the criteria of decent work, i.e. high-quality jobs that guarantee decent wages, safe working conditions, stable employment, acceptable prospects for career growth and respect for human rights.

The development of the "green" economy as one of the sources of "green" employment allows to create a huge number of additional jobs in various fields of activity. Various fields of activity are described in Figure 1.

For example, one of the achieved results of the project "Promoting the transition of the Republic of Belarus to a green economy" was the creation of 50 new green jobs and provision of 270 people with additional employment. [5] There are also opportunities for new vacancies in other areas of activity.

Much attention is paid to the development of clean energy through the use of alternative sources of its production, including wind, water, solar, biomass. Currently, the Republic of Belarus has 65 wind turbines with a total installed capacity of 56.7 MW, 50 hydroelectric power plants, the installed capacity of which is 33.5 MW, 17 biogas plants (25.7 MW), 31 solar power plants (37 MW). [1]

Electric transport is widely used. Thus, the number of electric cars in Belarus by 2025 according to the optimistic scenario will be 32.7 thousand, including 30.82 thousand passenger electric cars and 1.88 thousand

electric buses. At the same time, the Republic of Belarus has sufficient industrial potential for the production and (or) Assembly of electric vehicles, traction motors and charging stations. [1]

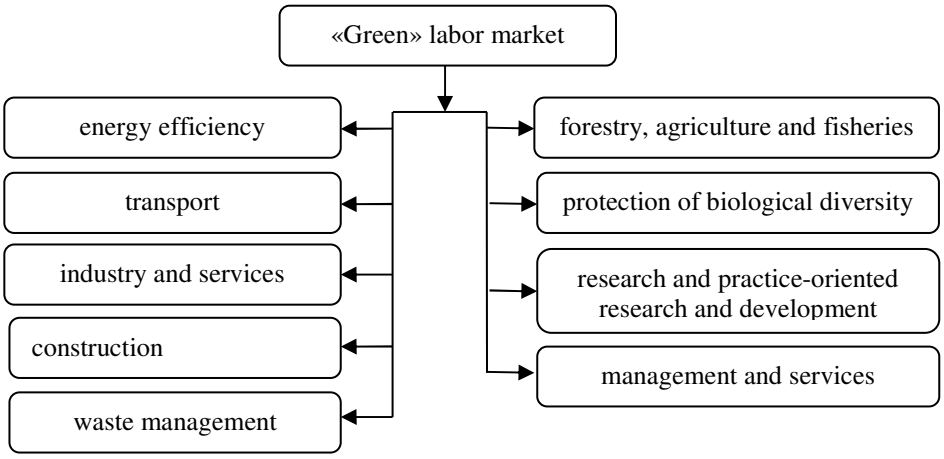

Figure 1. – Fields of activity of «green» labor market

According to expert data, there are currently 6 exporters of organic products in Belarus (export of birch juice, medicinal herbs, wild berries), about 10 producers (farms, personal subsidiary farms, educational and experimental facilities, etc.) are engaged in the production, sale of organic products (vegetables, berries, goat milk, yogurt, pond fish and cereals). [1]

In the field of construction, the reconstruction of existing facilities and the construction of new energy - and resource-saving buildings are widespread. According to the state program "housing Construction" for 2016 – 2020, approved by the resolution of the Council of Ministers of the Republic of Belarus of April 21, 2016 № 325 (national legal Internet portal of the Republic of Belarus, 04.05.2016, 5/42009), it is provided that by 2020 multi-apartment housing will be built only in energy-efficient performance. [1]

Recycling and reuse of waste is widespread. Employment in the field of waste management and recycling is expanding simultaneously with the increase in the amount of waste caused by the growth of the population and industry. Today in the Republic of Belarus annually more than 40 million tons of waste (industrial waste and municipal solid waste) are generated. Investments in this industry will increase employment and reduce the negative impact on the environment, primarily by reducing the area of land under landfills. [1]

ILO experts say that the transition to a green economy can have a significant positive effect on the labour market. It is expected that the transition to more environmentally sustainable development will create about 60 million new jobs in the coming decades.

However, the data transition to a" green "economy will lead to the loss of jobs that do not meet the criteria of "green" jobs in other sectors of the economy.

The solution to this problem is based on the following principles:

– forecasting of changes, analysis of demand in the labor market and development of the forecast of needs in the future;
– change in the training system;
– establishment of legal protection mechanisms.

Therefore, a lot of important task is the need to transform existing jobs to the requirements of the "green" economy.

The promotion of green employment through the creation of green jobs and the transformation of existing jobs to the requirements of the green economy is one of the tools for the implementation of the main objectives of the national strategy for sustainable development aimed at creating a socially balanced economy based on knowledge and conservation of natural resources.

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Economics

UDC 657

THE ECONOMIC ESSENCE OF REVENUES AND EXPENSES FROM CURRENT ACTIVITIES

ANASTASIJA POLESHCHUK, LUDMILA MASKO
Polotsk State University, Belarus

The article deals with the different approaches to the subject of the study, the essence of the problem of formation of income and expenses from current activities. According to the results of the study, a comparative characteristic is presented, which has been the theoretical basis of the proposed author's definitions.

In the Republic of Belarus, the main regulatory document regulating the accounting of income and expenses is the instruction on accounting of income and expenses approved by the Resolution of the Ministry of Finance of the Republic of Belarus of 30.09.2011 No. 102. This instruction is an element of state regulation of accounting and reporting in the Republic of Belarus and is used in the recognition, evaluation and disclosure of information in accounting and reporting for income and expenses, in accordance with international financial reporting standards.

Since the economic element "income" has no unambiguous definition, based on the analysis, we systematize the characteristic features of the concept "income" in table 1.

Table 1. –Analysis of the concept of "Income"

Resource	Increase in economic benefits (assets) or decrease in liabilities	The flow of money and material values	Revenue less costs	Added value
1.Law of the Republic of Belarus " on accounting and reporting»	+	-	-	-
2.Position on accounting "Incomes of the organization" PBU 9/99	+	-	-	-
3. Accounting standards 15 "Income" No. 290	+	-	-	-
4.Tax code of the Russian Federation	+	-	-	-
5.Ushakov D. N.	-	+	-	-
6.F. A. Brokgauz, I. A. Efron	-	+	-	-
7.M. Macmillan	-	+	-	-
8.Alain Baton, Antoine Cazorla, Christine Dollo, Anne Marie Dre	-	+	-	-
9.Economics of enterprise. Textbook for universities. M., "Banks and exchanges", UNITY,	-	-	+	-
10. G. P. Zhuravleva	-	+	-	-
11.P. S. Yeshchenko,I. Palkin	-	-	+	-
12.I. M. Lemeshevsky	-	+	-	-
13. Raizberg B. A., Lozovskiy L. S., Starodubtseva E. B.	-	+	-	-
14. A. N. Azilian	-	+	-	-
15. T. A. Frolova.	-	-	+	-
16. K. Marx	-	-	-	+
Total	25%	50%	19%	6%

Note: Own development based on the study of special economic literature and regulations.

As can be seen from table 1.1, the normative documents of the Republic of Belarus, the Russian Federation, the Republic of Ukraine on accounting treat income as an increase in economic benefits (assets) or a decrease in liabilities. Thus, the instruction on accounting of income and expenses approved by the Decree of the Ministry of Finance of the Republic of Belarus dated 30.09.2011 No. 102 (hereinafter – instruction 102) establishes that income is an increase in economic benefits during the reporting period by increasing assets or reducing liabilities, leading to an increase in the equity of the organization, not related to the contributions of the owner of the property (founders, participants).

The authors of the economic dictionaries Raizberg B.A., Lozovskiy L.S., Starodubtseva E.B., Ushakov D.N. F.A. Brokgauz, I.A. Efron, M. McMillan, A.N. Azilian, as well as authors of textbooks on Economics Alain Baton, Antoine Cazorla, Christine Dollo,Ann Marie Dreux,G. P. Zhuravleva, I. M. Lemeshevskaya share the opinion that income is the money or goods received as a result of any activity for a certain period of time.

From the point of view of the authors of textbooks on Economics C. P. Yeshchenko, I. Palkin and Frolova, T. A., income is the revenue from sales of products (works, services) minus material costs.

The famous financier of the 19th century Karl Marx in his work "Capital" (1867) expresses an interesting and not similar to all the above opinion about the concept of "income" expresses.

K. Marx defines income as the surplus value resulting from the movement of capital. This is explained by the fact that capital needs to continuously produce surplus value and constantly reproduce it in order for it to continue to exist. Having created surplus value, capital must be applied again to re-create it, etc. Therefore, capital produces surplus value again and again and reproduces it. The surplus value acts as a constantly reviving fruit of the capital in motion, as a constant income from capital, as a profit [1].

In our opinion, the most accurately reflecting the essence of the concept of income is the definition provided in Instruction 102 that income is an increase in economic benefits as a result of the receipt of assets (cash, other property) and (or) repayment of obligations, leading to an increase in the capital of this organization, except for deposits of participants (property owners).

The financial result from current activities is the main component of the overall financial result along with the financial result from investment and financial activities. Current activities – the main income-generating activities of the organization and other activities not related to financial and investment activities [5]. The financial result from current activities is defined as the difference between income and expenses from current activities. Therefore, it is important to understand the concepts of "income from current activities" and "expenses from current activities".

Based on the analysis of approaches to the concept of "income from current activities" of the authors of special literature on accounting and regulatory documents of the Republic of Belarus, the Russian Federation, we will make an analytical table 2.

Table 2. – Analysis of the essence of the concept " Income from current activities»

Resource	Sales proceeds	Income from sales	Result of management from the main activity
1.Instructions for accounting of income and expenses from 30.09.2011 №102	+	-	-
2.Position on accounting "Incomes of the organization" PBU 9/99	+	-	-
3. A. O. Levkovich	-	+	-
4. O. V. Grishchenko	-	-	+
5.T. A. Frolova	+	-	-
Total	60%	20%	20%

Note: own development based on the study of special economic literature and regulations.

Instruction on accounting of income and expenses, approved by the Ministry of Finance Of the Republic of Belarus from 30.09.2011 №102 (ed. resolution of the Ministry of Finance of 08.02.2013 № 11) recognizes income from current activities revenue from the sale of products, goods, works, services, as well as other income from current activities [3]. Approximately the same definition is found in the Regulation on accounting "Income of the organization" PBU 9/99, approved by the Order of the Ministry of Finance of the Russian Federation of may 6, 1999 № 32n (ed. Order of the Ministry of Finance of Russia from 08.11.2010 No. 144н).

The author of economic literature, T.A. Frolova also characterizes income from current activities as revenue from the sale of products (works, services) minus material costs [9]. This approach to the concept of "income from current activities" takes 60% of all the studied approaches. By 20% in the total amount occupied by the definition of the concept of "income from current activities" as income from the sale of finished products, goods and semi-finished products of its own production and as a result of management of the main activity (V.

Grishchenko). We will agree with the majority. Thus, in our opinion, the income from current activities is the revenue from the sale of goods, works, services received in the course of the current activities of the enterprise.

The company, operating in the market and receiving income, must bear the costs. In the analytical table 3, we systematize the characteristic features of the concept of "expenses".

Table 3. – Analysis of the essence of the concept " Expenses»

Resource	Reduction of economic benefits (assets) or decrease in liabilities	Costs	Amount spent to pay for goods or services	Using resources to generate income
1.Instructions for accounting of income and expenses from 30.09.2011 №102	+	-	-	-
2.Law of the Republic of Belarus "on accounting and reporting»	+	-	-	-
3. Accounting standards 16 "Expenses" No. 318	+	-	-	-
4.Tax code of the Russian Federation	-	+	-	-
5.Tax code of Ukraine	+	-	-	-
6.E. E. Rumyantseva	-	+	-	-
7. A. B. Borisov	-	+	-	-
8. A. G. Gryaznova	-	+	-	-
9.B. A. Raizberg, L. S. Lozovsky, E. B. Starodubtseva	+	-	-	-
10.M. E. Medvedev	-	+	-	-
11.Graham Bets, Barry Brindley, S. Williams	-	-	+	-
12.A. C. Igoumennikov	-	-	-	+
13.N. P.Moshenko	+	-	-	-
14.The concept of accounting in the market economy of Russia	+	-	-	-
15.Y. V. Sokolov,F. F. Butynets, L. L. She, D. A. Pankov	-	-	-	+
16.O. V. Grishchenko	-	-	-	+
Total	44%	31%	6%	19%

Note: own development based on the study of special economic literature and regulations.

Instruction No. 102 defines expenses as a decrease in economic benefits during the reporting period by reducing assets or increasing liabilities, leading to a decrease in the equity of the organization, not related to its transfer to the owner of the property, the distribution between the founders (participants) [3].

Law of the Republic of Belarus of October 18, 1994 N 3321-XII "on accounting and reporting" (ed. Law of the Republic of Belarus of 26.12.2007, No. 302-W) treats the expenses as a reduction of assets or increase in liabilities, leading to a reduction of capital [7]. Virtually the same definition of costs is given in the regulatory documents of the Russian Federation and the Republic of Ukraine and by the authors of economic literature B. A. Raizberg, L. S. Lozovsky, E. B. Starodubtseva, N. P. Moshenko.

In terms of A. B. Borisov, A. G. Gryaznova, M. E. Medvedev, expenses are costs, or expenses of the enterprise, leading to a reduction in its equity (capital) or to increase its liabilities in the process of economic activities[4]. The tax code of the Russian Federation recognizes expenses as reasonable and documented expenses.

Another group of authors, whose views should be combined into one, explain the essence of costs as the use of resources to generate income. The representatives of this group are A. C. Igolnikov, Y. V. Sokolov, F. F. Butynets, L.L., D. A. Pankov, O. V. Grishchenko. Thus, expenses of the organization are the cost of used resources that are fully spent within a certain period of time to generate income [6].

Thus, on the basis of table 1.2, we conclude that in most of the studied sources (44%) there is a definition of expenditure as a decrease in assets or an increase in liabilities, leading to a decrease in capital. The second place was divided by two interpretations of the concept of "consumption": costs in the course of economic

activity (31%) and the use of resources to generate income (19%). In third place-the amount spent to pay for goods or services (6%).

Thus, in our opinion, expenses are reasonable and documented expenses of the enterprise in the course of economic activity aimed at obtaining income.

As noted above, income is closely related to expenditure. Therefore, we analyze the different approaches to the essence of the concept of "expenses from current activities". To do this, we systematize the characteristic features in the analytical table 4.

Table 4. – Analysis of the essence of the concept "expenses from current activities»

Resource	Costs related to income from current activities	Costs associated with implementation	Total cost of sales
1. Instructions for accounting of income and expenses from 30.09.2011 №102	+	-	-
2. Regulation on accounting "expenses of the organization" PBU 10/99	-	+	-
3. A. V. Gartvik	+	+	-
4. V. N. Zhukov	-	-	+
5. G. G. Zavileisky	-	-	+
Total	40%	40%	20%

Note: own development based on the study of special economic literature and regulations.

As can be seen from table 1.4, the instruction on accounting of income and expenses, approved by the Resolution of the Ministry of Finance of the Republic of Belarus dated 30.09.2011 №102 (ed. resolution of the Ministry of Finance of 08.02.2013 No. 11) recognizes as expenses on current activities part of expenses of the organization relating to the income on current activities received by the organization in the reporting period. A. V. Gartvik in the definition of expenditure from the current activity calls them costs of implementation, aimed at generating income.

In the Regulations on accounting "Incomes of the organization" PBU 9/99, approved by Order of the Ministry of Finance of may 6, 1999 № 32n (ed. Order of the Ministry of Finance of the Russian Federation of 08.11.2010 №144n) costs for ordinary activities are the costs associated with the manufacture of products and sale of products, purchase and sale of goods [8].

Wn.Zhukov and G. G. zavileisky believe that the costs of current activities are the total cost of output and sold products.

Summing up, it should be noted that in 40% of the studied sources there is a definition of expenses from current activities as expenses related to sales and expenses related to income from current activities. Second place-total cost of sales (20%).

We also note that, in our opinion, all interpretations are equally applicable to the definition of "expenses from current activities". However, in our opinion, the instruction on accounting of income and expenses most precisely expresses the essence of expenses from the current activity.

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UDC 336.7

THE IMPACT OF FINANCIAL RISKS ON THE PROFITABILITY OF A COMMERCIAL BANK

TATYANA POLTORAK, ANASTASIA VERIGO
Polotsk State University, Belarus

The article reveals the influence of Belarusian banks financial risks on banks profitability.

In current economic conditions, bank system's functioning of any state is associated with various kinds of uncertainties in internal and external environment, which means, it's associated with risks. This category was studied by scholars from various economic schools: Keynesianism, representatives of the classical school and marginalism. And now, the relevance of this term's study doesn't require confirmation. Based on our previous research, it can be noted that the risk is understood to mean the probability, or rather the risk of losing by a bank its resources, shortfall in income or making additional expenses as a result of certain financial transactions, as well as the probability of impact on human values due to some solutions.

In the course of their activities, banks face a set of different types of risks, varying in the place and time of occurrence, external and internal factors affecting their level, and, consequently, the methods of their analysis and methods of their description. All types of risks are interrelated and have an impact on the activities of a bank.

While classifying bank risks, the question of the limits of each individual risk is still acute. An example is the difficulty of determining the threshold between interest rate risk and liquidity risk. The most logical and stepwise approach to risk classification is presented in the Risk Management Standard, created in the UK (The Institute of Risk Management). The selected method is formed on the separation of groups of homogeneous risks, for each of which are given its inherent external and internal factors [1].

Schematically, this classification can be presented in the following form (fig. 1).

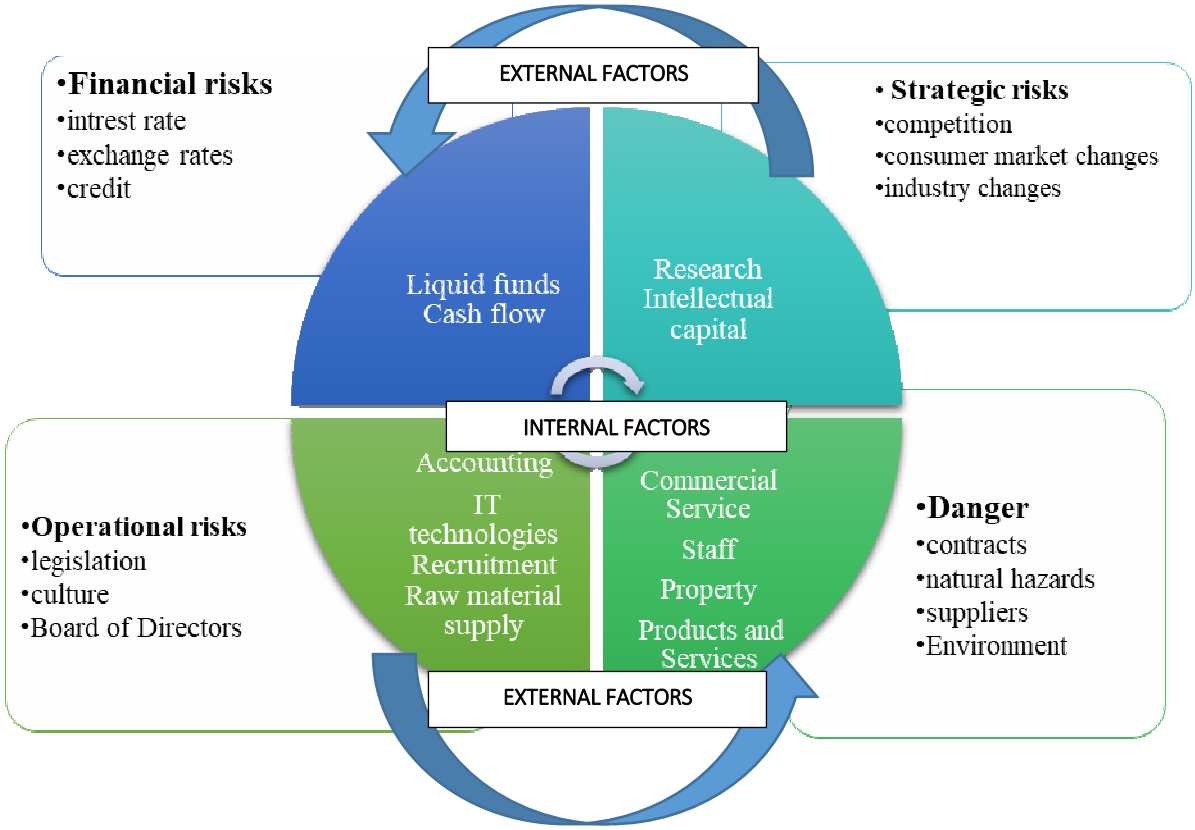

Figure 1. - Risk classification according to the Risk Management Standard [1]

However, in general, the classification of financial risks which are characteristic to commercial banks of the Republic of Belarus can be represented using the following scheme (Fig.2):

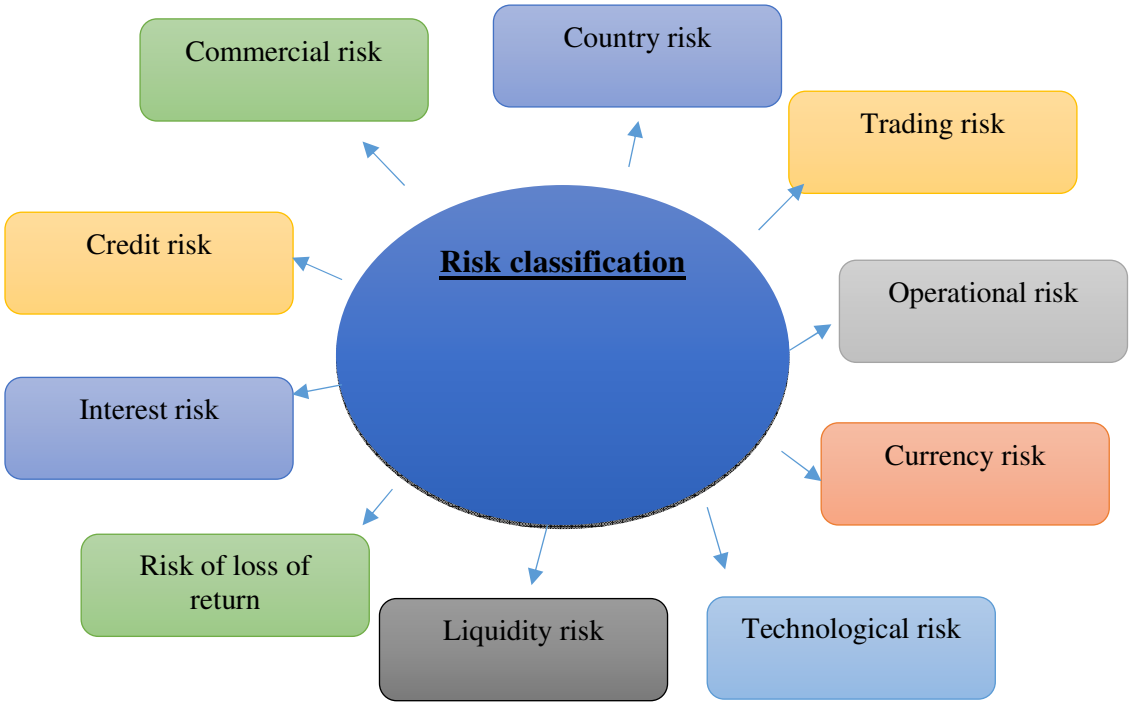

Figure 2. – General classification of financial risks of a commercial bank

Source: author's own development.

Currently, there is a large number of classification criteria and types of bank risks, but this is a scientific classification. Belarusian commercial banks in their reporting reflect an even narrower classification. There are, as a rule, credit, currency, interest, operational and liquidity risks.

Let's consider the impact of each of the selected types of risks on the profitability of a commercial bank.

Credit risk is the risk of no return or late payment on a bank loan. Credit risk may arise for each individual loan provided by a bank, or for the entire loan portfolio of a bank (aggregate credit risk).

Any commercial bank is interested in high profitability of a loan portfolio. As credit risk has a direct impact on this profitability, it is important to assess the impact of credit risk on the profitability of a loan portfolio. This work should be carried out systematically in order to be able to take prompt action to prevent negative processes accompanied by credit risk.

Currency risk is associated with the uncertainty of future interest rate movements, i.e. national currency prices in relation to foreign ones. It influences borrowers, lenders and investors who make transactions in currencies different from national currency. It includes economic risk (risk of changes in the value of assets or liabilities of a firm (or bank) due to future exchange rate changes), transaction risk and transfer risk.

Currency risk is taken into account while assessing the cost of a bank's capital by recalculating cash flows based on forecasted currency risks. The volatility of the exchange rate affects the market value of the bank through the inflow / outflow of capital, and, consequently, its profitability. If the national currency loses in its value, the domestic assets of a bank, including shares denominated in national currency, become cheaper. Depreciation will lead to an increase in the cost of capital and an increase in the demand for it. In addition, banks carry out active and passive operations in foreign currency, which contributes to currency differences after recalculation. Based on this, cash flows generated in foreign currency must be converted into evaluation currency either at forward rates or at the spot rate of the valuation date.

Interest rate risk is the risk that the average cost of a bank's borrowed funds, i.e. deposits and borrowed money associated with the provision of a loan may overtake the average interest rate on loans over the life cycle of the loan. It includes positional and structural risk.

This risk affects bank earnings, economic value of assets, liabilities and off-balance sheet instruments. Future changes in interest rates contain not only the possibility of deterioration the financial situation of a bank, but also the possibility of improvement of this situation. Interest rate risk management includes both asset and liability management. However, this management is limited by the requirements of liquidity and the risk of the loan portfolio of a bank, as well as price competition of other banks. Liability management is difficult due to the limited choice and size of debt instruments that bank can successfully place among its depositors and other lenders at any time, as well as due to price competition among other banks and NCFO for available funds. Changes in the level of interest rates can damage the profitability of a bank, increasing its financing costs, reducing revenues from assets and reducing equity capital.

Operational risk is the risk of loss in the result of inadequate or erroneous internal processes, actions of employees and systems, or external events. Operational risk is a broad discipline, close to good management and quality management. Operational risks affect customer satisfaction, reputation and shareholder value, while at the same time increase business volatility. However, operational risk is considered as manageable in order to keep losses within a certain degree of risk tolerance (i.e. the degree of risk that an organization is willing to take to achieve its goals), determined by balancing the costs of improvement versus the expected benefits. Therefore, there might be the impact of this risk on the profitability of a bank, but this will be adjustable and minimal.

Liquidity risk is the risk due to the fact that a bank may not be sufficiently liquid or may be too liquid. The risk of insufficient liquidity is the risk that the bank will not be able to fulfill its liabilities in a timely manner or this will require the sale of certain assets of the bank on unprofitable conditions. The excess liquidity risk is the risk of losing incomes by a bank due to an excess of highly liquid assets, but in the situation when there are few assets or they don't have income as a result of unjustified financing of low-income assets at the expense of attracted resources.

Any corporation has the goal to obtain the highest possible level of income, which, in turn, is usually accompanied by a high level of risk and a decrease in liquidity ratios. The effectiveness of any financial or business transaction and the value of its attendant risk are interrelated. The tasks of synchronous achievement of the required profitability and liquidity, as a rule, come into conflict. In reality, the desire of a bank to increase profitability causes a decrease in liquidity. Thus, the impact of this type of risk on profitability will be significant.

Due to the nature of its activities, a bank faces financial risks that in one way or another affect the profitability of a bank. Profitability, liquidity and risk are the "three whales" on which the work of a bank is based and which conflict with each other, therefore, the management of a bank is faced with the issue of effective optimal management of these categories, as they are reflected in the bank's performance and characterize its competitiveness in the financial market.

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Economics

UDC: 330. 3

OBJECTIVE INTEGRATION FACTORS OF BELARUSIAN POLICY ON THE EXAMPLE OF CREATING A STATE UNION WITH THE RUSSIAN FEDERATION

RENATA SARVARI, INGA ZENKOVA
Polotsk State University, Belarus

At the present stage, international economic integration has reached global proportions. The success of the development of national economies in recent years directly depends on the participation of countries in these processes. In this regard, the globalization of the world economy and its impact on national economic systems are becoming part of macroeconomic analysis.

Integration processes and interactions at the interstate level have always been associated with quite complex, multi-stage and long evolutionary transformations - differences in state and economic systems, in management, in the political traditions of their participants. As our own and international experience shows, regional integration of neighboring countries is more dynamic, durable and successful, when their common interests entail a gradual transformation of different economies towards their rapprochement. At the same time, the similarity of political cultures will become the driving force of this union, along with the general interests of socio-economic development.

According to the practice of international cooperation, depending on the level of integration, countries use such forms as "community" and "union". Moreover, the union is created with interest in the most profound international economic integration, when the main goal of the participating countries is the formation of a new intergovernmental association in the form of a single confederative or federal state with a corresponding common economic, informational, legal space, common market, government bodies implementing supranational union functions. The type of association, as a rule, is determined on the basis principles of interaction and positive or negative characteristics that can influence the integration processes. However, the advantages or disadvantages of any association cannot be identified outside the real conditions of its occurrence, that is, without taking into account the most important factors that predetermined the creation and prospects for the further development of this association. In this regard, it is of undoubted interest to analyze the specific socio-historical environment in which the alliance of Russia and Belarus arose, as well as the most important factors giving an idea of how it meets their vital interests [1].

The beginning of the large-scale integration of Russia and Belarus was laid on April 2, 1996 in Moscow, when Presidents B. N. Yeltsin and A. G. Lukashenko signed the Treaty on the Community of Belarus and Russia. The parties decided to form a deeply integrated political and economical Community in order to unify economic, political and intellectual resources of the two states. And already on April 2, 1997 in Moscow, the presidents of Russia and Belarus signed the Treaty on the Union of Belarus and Russia. A new phase of construction began, which was characterized by the development of its institutional framework, the structuring of functions, the definition of future tasks [3].

The key component of the Union State is the budget. It is executed in accordance with the Procedure for the formation and execution of the budget of the Union State. The Border and Customs Committees, the Committee of the Union State for Hydrometeorology and Monitoring of Environmental Pollution, the Commission for Tariff and Non-Tariff Regulation under the Council of Ministries of the Union State have been established and are working. In order to create a single economic space, a gradual rapprochement of the main indicators of economic development and living standards of the population is ensured; annual and medium-term forecasts of socio-economic development of the Union State, forecast balances of supply and demand for the most important products, as well as balances are developed and approved by the Union State Council of Ministers of fuel and energy resources of the Union State.

However, the legal basis is clearly not enough for integration to develop fully. It is necessary to take into account and use economic, political and social factors in order for the Union to become full and viable.

Analysis of international integration processes makes it possible to identify the following reasons that most often underlie the integration [3]:

- general economic interests,
- related or general ideology, religion, culture,

– close or common nationality,
– the presence of common threats
– the presence of common borders, geographical proximity,
– the urge to integrate, artificially pushing unification processes.

In most cases, there is a combination of several factors. For example, the process of formation of the Union State to one degree or another was influenced by all mentioned factors.

When forecasting the prospects for the development of economic relations between countries, at least the analysis of the macroeconomic status and development trends of the countries participating in the integration association should be taken into account, which more fully and objectively reflects the causes and future prospects of such integration. Thus, the analysis of such factors as the structure of the economy, trade relations, investments, cooperation of production and migration will allow an objective assessment of the present and an assessment of the future of the Union State of Russia and Belarus [4].

The most important factor in the integration processes of Russia and Belarus is the complementarity of their economies. In the sectoral structure of Russia and Belarus, industry occupies the main place - 23.1% and 26.8%, respectively. At the same time, the ratio of the mining and processing industries of Russia and Belarus is particularly significant. These indicators are presented in the table 1.

Table 1 - The structure of industry, in% of the total

Industry	Russia	Belarus
Extractive	38,7	1,1
Processing	61,2	98,9

Source: National Statistical Committee of the Republic of Belarus, Federal State Statistics Service of Russia.

The development of mutual trade is also promoted by a dynamic solution of border, customs, and tax problems. In Belarusian-Russian relations, the role of rapidly developing interregional cooperation is increasing. The activities of the Interdepartmental Coordination Council on Border Cooperation with the Border Countries of the Republic of Belarus, the Coordination Council on International Foreign Economic Relations and Border Cooperation under the Administration of the Bryansk Region were aimed at expanding cooperation in this area. Thus, within the framework of cross-border trade, cooperation was carried out between the Bryansk and Gomel agricultural engineering plants, which established the production of modern agricultural machinery. Interregional cooperation is also reflected in one of the areas of cross-border cooperation - the cross-border formations "Euroregion Neman" (the Kaliningrad region is included in the Euromanion "Neman") and "Euroregion Dnipro" (includes the Bryansk region).

A fuller realization of the mutual export opportunities of Russia and Belarus is directly linked to the prospect of modernizing Belarusian industry and the active participation of Russian capital in the privatization of Belarusian enterprises. The investment climate in Belarus (administrative barriers, the high cost of registering enterprises and the difficulty of opening them, high taxes), as a rule, does not attract potential Russian and foreign investors. Investors also have a negative attitude towards the practice of unofficial payments and other forms of extra-budgetary financing of social facilities [5].

The next factor contributing to integration is investment activity, which is relevant and interesting both to Belarus and Russia. However, it should be noted that foreign direct investment (when one foreign company creates a subsidiary in another country) has greater efficiency and return, as they allow to receive income not only in the present, but also in the foreseeable future with much greater return. At the same time, the main distinguishing feature of such investments is that they cover not only the movement of resources, but also the transfer of control over property. This is the main stumbling block in Belarus, where they even part with unwilling or unclaimed state property with great reluctance. In addition, in Belarus there is already a tendency to a shortage of highly skilled labor, and its cost is constantly growing. If 10 years ago the problem was not so acute, then today the level of training of Belarusian specialists, especially middle managers, no longer meets the expectations and requirements of foreign investors. Young professionals, as a rule, are not fluent in business foreign languages.

In connection with the above data, it can be noted that the efficiency of construction and management of the Union State depends on ensuring equal conditions for managing Belarusian and Russian enterprises.

The creation of a favorable investment environment in both Russia and Belarus is seen as an especially important area.

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UDC 339.138

ESTIMATION OF THE EFFICIENCY OF INTERNET-USER INTERACTION WITH ADVERTISING INFORMATION

GLEB SERADA, NATALIA BELORUSOVA
Polotsk State University, Belarus

The article describes the factors affecting the effectiveness of network advertising, presents a pyramid of the formation of real buyers from visitors to the Internet site, key indicators for evaluating the effectiveness of Internet advertising. Yandex.Metrica and Google Analytics are considered as systems of statistics and analysis of website traffic. A number of activities are offered for more accurate assessment of the effectiveness of online advertising.

Marketing activities of any organization today are impossible without the use of the Internet, and the role of the Internet in marketing is constantly increasing. Today, almost all business entities, regions, individual sectors of the national economy are striving to make themselves known on the Internet [1, p. 885]. Traditional marketing tools that are used on the Web are becoming more effective, and the Internet provides businesses with new opportunities to establish and maintain relationship with partners, search for necessary information, electronic commerce, and promote goods and services.

The online advertising market in Belarus has been showing a steady growth for several years. One of the main advantages of online advertising is that it is initially cheaper than other types. When developing an online advertising campaign, the following factors affecting its effectiveness should be taken into account:

- placement on the page, size and the format of advertising;
- subject of the resource, demo portrait of the audience;
- server quality;
- correct operation of the redirect service to the advertiser's site;
- unrecorded visits;
- user screen resolution;
- usability of advertising content.

Advertising may not be visible to the user without additional scrolling of the screen in the browser, which necessitates separate attention to the choice of location, size and format of advertising, since these parameters affect the "visibility" and the degree of impact on the user. The theme of the resource, the demo-portrait of the audience influence how much the creators of advertising get to the target audience and thereby form the initial attitude to advertising. The quality and speed of loading the site directly depends on the quality of the server. Unrecorded visits create inaccuracies in the assessment, in particular, users can get the page and / or banners from the cache, and the server will not fix the request and display of the banner. At a lower resolution screen user than in the advertising message, it may not be visible.

Figure 1 shows the pyramid of the formation of real buyers from visitors to the company's website.

Figure 1. - Pyramid of formation of target consumers from visitors to the Internet site

The implementation of promotional activities is always associated with costs and these funds are not always used in the best way. Such a situation can be avoided by conducting a systematic assessment of the effectiveness of advertising and timely taking the necessary measures aimed at increasing its effectiveness. The ambiguity of the definition and interpretation of the concept of advertising effectiveness largely depends on the advertiser's goals in a specific marketing situation. Since Since all goals are ultimately related to the reaction of consumers to advertising, it is advisable to attribute the concept of advertising effectiveness primarily to the effectiveness of its impact on the consumer. The advantages of online advertising, such as targeted advertising and the ability to automate many advertising impacts, significantly reduce the cost of an advertising campaign. Interactive advertising content forms a positive image of the company with the consumer, and free access to statistics allows you to evaluate the effectiveness of decisions made.

Key indicators used to assess the effectiveness of online advertising can be obtained using Web site analytics. Web analytics is a useful tool to effectively track the impact, response, and overall effectiveness of online advertising for collecting and systematically analyzing data.

Yandex.Metrica and GoogleAnalytics are currently the most popular systems for statistics and analysis of website traffic. In most cases, they show similar data. The only difference is in the interface, attribution models and report lists. But it is quite often possible to meet cases when some data are not in one system, but they are in another.

In order to properly assess the traffic of your site, you must periodically look at and analyze a number of metrics and measurements, which include the following (the first word in the list indicates the name of the metric in Google Analytics, and in brackets in Yandex Metric):

- visits (visits);
- page views (views);
- average length of visit (time on site);
- unique visitors (visitors);
- average viewing depth (viewing depth);
- bounce rate (refusals);
- new visits (new).

The "Visits" indicator shows the total number of visitors who were on the analyzed web resource for a certain period of time.

The parameter of page views gives average-arithmetic data on the number of pages of the site that were viewed by all visitors in general. That is, this is the average value of the number of seen pages of a web resource for a certain period of time.

Unique visitors – this is a necessary indicator that can allow to evaluate your blog in terms of the importance of the resource in the eyes of search engine users and regular readers. Among the unique visitors are visitors who have at least one visit.

The parameter of the average depth of view reflects the average number of pages of a site seen by a person.

In Google Analytics, Bounce Rate means visiting one page of a site without performing any actions (transactions). In Yandex Metric, this parameter is calculated quite differently. The bounce rate for it is the proportion of visits in which only one page view took place.

A high bounce rate indicates that there is untargeted traffic on the landing page, or there are technical problems with the landing page, for example, "went" layout on mobile devices.

The "New Visits" parameter shows the number of unique visitors who visited the site for the first time in a certain period of time.

Every marketer should know which indicators of the effectiveness of online advertising should be monitored first. After all, the goal of any advertising on the Internet is lead generation, that is, getting the most "leads" from the site. Lead is the number of reactions (requests, calls, chats) from the landing page. According to modern research on the topic of this article and using the obtained statistical and economic data, you can calculate the main generally accepted indicators of the effectiveness of Internet advertising [2, 3, 4]:

1. Conversion describes the proportion of visits during which visitors performed a targeted action (for example, they sent registration data, placed an order, etc.).

The conversion rate is defined as the ratio of the number of applications to the number of visitors to the landing page. Reference points for online stores – from 0,5 % to 1,5 %. For a one-page site is considered the normal conversion in the corridor from 3 % to 20 %. Conversion depends on the subject, quality of traffic and a unique value proposition on the site.

2. The main indicator of online advertising is CTR (Clik Through Rate). Simply put, this is the attitude of the users who saw your ad to the users who clicked on it.

CTR is measured as a percentage and is defined as the ratio of the number of clicks on an ad to the number of its hits.

CTR is an important indicator that measures the effectiveness of advertisements and the quality of traffic that a site visits by an advertisement. It is important to know that incorrect selection of the target audience and key phrases for which advertisements will be shown will lead to a low click through rate (CTR).

The main task of the advertising manager is to track the CTR and work on improving it through ads, key phrases and banner placement sites.

CTR has the so-called reference points or average norm: on the search – 3-15 %, in the banner network CTR – 0,3-1%. It is important to understand that CTR is not always from 3 to 15 %. If the traffic is tuned to the target audience by hot requests (for example, to buy a house in Polotsk), then the CTR will be higher. On the contrary, if the traffic is near target (by portraits of the target audience targeting and placement topics), the CTR will be lower. Reference points serve as a guideline for identifying advertising errors. For example, if the "hot" CTR traffic is below 3 %, this is a signal that something is wrong with the ads. For example, the ad text is not developed or the title does not catch the audience. For banner advertising, the CTR is lower than for advertisements in search results. The main reason – banner advertising has ten times more hits.

CTR allows you to evaluate which sites and ads bring more user transitions. Statistics of impressions, clicks and CTR is available in standard Google AdWords reports and Yandex.Direct, both in terms of campaigns and specific keywords.

3. CPC (Cost per click) is the price per click. This is the actual cost per click that the advertiser pays for the ad. This indicator is defined as the ratio of advertising costs to the number of clicks on advertising. It can also be calculated as the cost per thousand impressions. This value is one of the fundamentals of pricing in online advertising.

4. CPA (Cost per Action) – the cost of the target action, i.e. how much the target action is costing the advertiser. This indicator is determined by the ratio of advertising costs to the number of targeted actions performed.

For example, for attracting 100 visitors to the site, they paid 200 dollars; only 20 of them performed a targeted action, which means that the CPA will be 10 dollars.

If the site has correctly configured goals, then you can track their achievement, conversion, ratio, and cost of the target action in Google Analytics and Yandex.Metrica.

CPA underlies such indicators as CPL and CPO.

5. CPL (Cost per Lead) cost of obtaining lead – user contact details. Calculated by the ratio of advertising costs to the number of leads received.

For example, the consulting company paid 6,000 dollars to attract 1,200 visitors to the site, only 60 of them sent a feedback form to their contacts, which means that the CPL costs 100 dollars. At the same time, it is necessary to understand what percentage of leads is converted into company customers. You also need to divide the number of leads that you received through online advertising from those that came through other channels.

6. CPO (Cost per Order) or CPB (Cost per buyer) – the cost of the order made. This indicator is calculated as the ratio of advertising costs to the number of transactions.

For example, the online store paid 1200 dollars to attract 100 visitors, only four of them placed an order, which means that the CPO is 300 dollars.

7. ROI (Return of investment) – a key indicator of online advertising, the return on investment, reflecting the profitability of investments. It is defined as the ratio of profit to advertising costs.

ROI above 100 % means working in profit. ROI less than 100 % means that advertising does not pay off. If advertising is conducted on the online store, then you can calculate the ROI separately for each product. Thus, we calculate the product group, which brings the maximum profit and vice versa.

8. The same indicator – ROMI (Return on Marketing Investment) – the coefficient of return on investment in marketing, estimates the profitability of advertising. The formula is similar to ROI, with the difference that the revenues used by advertising campaigns are used as profits, and the volume of the marketing budget is used as expenses.

The presented indicators should be used to assess the economic effectiveness of Internet advertising. For the evaluation of communicative effect, you can use a short questionnaire to determine how the customer learned about the product or service. Another possible method is to provide clients with on-site special promotional codes entitling them to discounts and serve individual client ID [4, p. 133].

Modern entrepreneurs are sufficiently aware of the indicators to measure the effectiveness of Internet advertising, but use them without any system, selecting specific indicators trying to form and evaluate the effectiveness of activities in the field of Internet marketing [4, p. 131]. Therefore, using an integrated approach to assess the effectiveness of online advertising will most fully reflect the degree of economic and communicative impact on consumers, identify the strengths and weaknesses of advertising campaigns, increase business efficiency through a comprehensive analysis of the results of advertising campaigns on the Internet and using this data planning and carrying out subsequent advertising campaigns.

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OUTSOURCING: ITS CONCEPT AND TYPES

VICTORIA SHVAIKO, ELVIRA VORONKO
Polotsk State University, Belarus

The article defines outsourcing, a new form of development of industrial and economic relations, which is used in various activities. The main reasons for the transition of organizations to outsourcing are highlighted.

The modern world economy is characterized by a high degree of economic interdependence of countries. This interdependence is caused by changes in the organizational structure. Transnational trade and investment are formed. The field of information technology is booming. This allows you to quickly manage the flow of information between companies in one country and abroad. Information technologies contributed to the emergence on the world stage of a new economic model - outsourcing.

In recent years, outsourcing has begun to penetrate into the organizational structures of management with farming a number of functions out. Its use makes it possible to enhance the competitiveness of organizations by reducing costs, streamlining production and management, and focusing on innovation.

In the literature, outsourcing (from English outsourcing: using an external source and/or resource) is defined as a business practice in which services or job functions are farmed out to a third party [1].

Some authors [2, 3] understand the outsourcing managerial decision, that is, consider outsourcing as a management decision on the withdrawal of a function or process from an enterprise or organization that meets development goals.

Other researchers propose to interpret outsourcing as the transfer of processes and functions [4], implying at the same time the rejection of the independent execution of a process or function and its transfer to a third-party organization.

Anikin B.A. and Rudaya I.L., the authors of the book «Outsourcing and Outstaffing: High Technology Management», interpret outsourcing as a sequence of organizational decisions, the essence of which is the transfer of some previously independent functions of an organization or activities of an external organization or it is customary to say «to a third party» [5].

It should be noted that in the scientific literature there are a number of terms similar to outsourcing: *shrinking* - reduction, organization compression; *downsizing* - reducing the organization; *deleyering* - reducing the number of management levels; *spin off* - the allocation of units of business or "unfastening" structure; *externalization* - the transfer of control over the performance of any function of the company specializing in this field. However, they all represent only a special case of applying the outsourcing methodology.

Outsourcing adheres to the following principles: Effectiveness, Efficiency, Economics. It allows you to increase the efficiency of the enterprise as a whole and use the freed up organizational, financial and human resources for the development of new directions or concentration of efforts that do not require increased attention.

Today there are many types of outsourcing in the world; many of them are successfully used in Belarusian enterprises. In each specific organization, the processes that are transferred to third-party companies may differ significantly, and it depends on the specifics, industry, goals and objectives of the companies. Some types of outsourcing are shown in table 1.

In fact, there are many methods of how to divide such a business model as outsourcing. It is necessary to choosea model of organization of outsourcing relationships, taking into account the characteristics of the organization. Despite this, the main types are manufacturing, business process outsourcing and IT outsourcing. The experts of the Outsourcing Institute (USA) highlight the outsourcing of information technologyas the founder of modern outsourcing and the modern marketin their research.

At present, outsourcing in education is of particular relevance, since education is the most important component of the indicator "quality of life" [9, p. 70], which makes it necessary to constantly increase its level. The use of outsourcing in education can increase its level. The established cooperation of universities and organizations will lead to the effective use of their existing resources. Cooperation will contribute to the development of the region and increase its competitiveness. [9, p. 72]. Moreover, this form of cooperation between universities and organizations will contribute to a closer interaction of stakeholders, which is important for high-quality training of specialists at the present stage of development of our country and the world community as a whole [10, p. 400].

Table 1 –Types of outsourcing

Type	Meaning
Production outsourcing	the transfer to an outside organization of the products or its components production, partial or complete
IT-outsourcing	the transfer to the third-party organization in whole or in part of the functions of servicing the information needs of the organization
Accounting outsourcing	the transfer to the outside organization of the functions related to the organization, accounting and reporting at the enterprise outside the company
Logistics outsourcing	the acquisition of a third party inventory management services, transportation of goods, its storage and all business processes associated with these operations
HR outsourcing	the transfer of third-party organization functions related to the selection and search for employees (as well as staff leasing and outstaffing)
Business Process Outsourcing	the transfer to an outside organization of certain functions necessary for running a business, but which are not essential, i.e. transfer of non-core business processes (advertising, storage and processing of information, etc.)
Outsourcing in education	the transfer to a third-party organization of a non-core type in order to minimize the expenses of an educational institution

Source: compiled by the author on the basis of references [1, 6–8].

Organizations resort to outsourcing for various reasons. There are some of them:

1. *Cost reduction*. The ability to reduce costs in an organization by transferring part of the functions to a third-party organization is often the main and sufficient condition for switching to outsourcing. In this case, the effect of cost reduction prevails over the other reasons, since it is most quickly felt from the point of view of financial costs. But for this it is necessary to first analyze the situation on the largest costing items, taking into account not only direct costs, but also indirect costs.

2. *Improving the efficiency of individual functions*. The third-party organization will do its job more professionally. This is facilitated by its narrow specialization in this area and the presence of highly qualified specialists.

3. *Transfer of fixed costs in the variables.* There are two aspects of motivation. First, there is a redistribution of risks, some of which are transferred to the involved organization. Secondly, due to the use of the finished infrastructure of another organization, overhead costs are reduced (the costs of supporting the activities of its own divisions are reduced).

4. *Release and redistribution of resources.* When part of the functions are transferred to a third-party organization, the company releases a number of resources: fixed assets, working time, space, cash, etc. Thus, the enterprise has the opportunity to redistribute them and redirect to the most significant processes that will help increase the value of the enterprise.

5. *Using global experience.* In this case, outsourcing allows enterprises to use the accumulated best practices in ensuring both core and non-core processes, which, in turn, is a significant factor in the development of relations with foreign investors.

Outsourcing is used actively by leading corporations of the world. Today, it is the largest corporations, such as Ford, British Petroleum, Procter & Gamble, Dell. Excel and others, as a result of outsourcing, have achieved impressive results (increased profits by reducing costs, increasing the overall activity of their companies, reengineering, etc.).

It can be concluded that outsourcing enables an organization to focus on solving its main tasks - increasing competitiveness, promoting its goods and services on the market. It allows you to increase the effectiveness of the organization by reducing costs, accelerating adaptation to the external environment, improving the quality of goods and services, reducing risks.

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Economics

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PROPERTY INSURANCE OF LEGAL ENTITIES AND DIRECTIONS FOR ITS DEVELOPMENT IN THE REPUBLIC OF BELARUS

VICTORIYA PASTUKHOVA, SERGEY BOSLOVYAK
Polotsk State University, Belarus

Insurance market, being a part of financial system, involves practically all aspects of social activity. It is regarded as one of the most significant national priorities because it is aimed to promote stable development of economy and social sphere.

Insurance coverage is a protective economic mechanism designed to support industry and people's living standards. Today's development stage of insurance market in the Republic of Belarus started in 2001 and it is characterized by continuity in the result of national economy stabilization, and also due to quality structural changes, caused by the introduction of new types of mandatory insurance.

As of February 1, 2019 at the insurance market of the Republic of Belarus there were 18 insurance companies conducting business, including 2 – maintaining insurance types that pertain to life insurance.

The insurance companies' contributions for direct insurance and coinsurance comprised 1 203,3 millions of rubles in the year 2018. The growth rate of insurance contributions over the year 2018 compared with the year 2017 amounted to 112,4%.

The dynamics of insurance premiums and growth rate of insurance contributions is presented in figure 1.

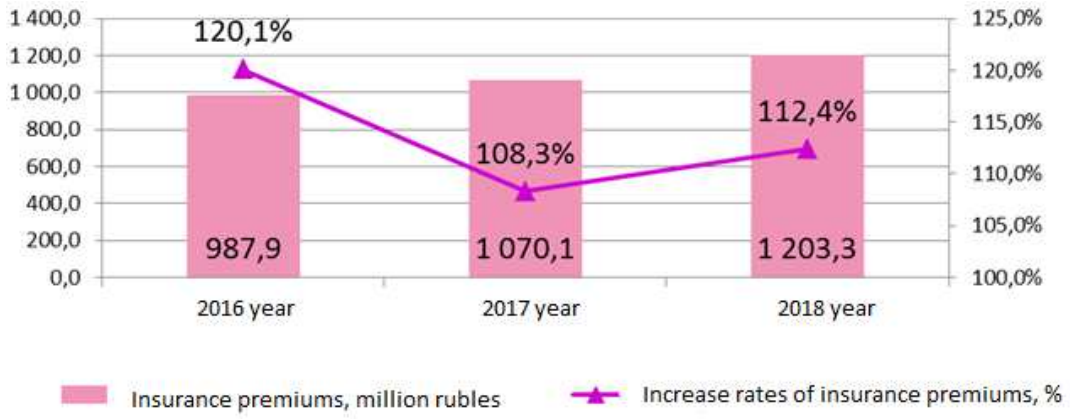

Figure 1. – Dynamics of insurance contributions and growth rate of insurance contributions

Source: personal research based on the data [5].

As for voluntary insurance types, the insurance premiums comprised 715,9 millions of rubles within the year 2018. Recently there has been a remaining tendency of outperforming growth rate of insurance premiums for voluntary insurance, as a result their share in Insurers' Total Portfolio has amounted to 59,5%, having increased by 2,9 percentage points in comparison with the year of 2017.

The structure of insurance contributions is shown in figure 2.

The share of property insurance amounts 54,8% in the structure of insurance contributions related to voluntary insurance.

The insurance contributions' structure of voluntary insurance types in the year 2018 in shown in figure 3.

In general, we can observe an increasing amount of insurance contributions for insurance of property interests of legal entities. This is explained by the fact that the level of insurance law awareness of many business owners has risen considerably. The reason for this is very simple. If at the growing market an owner, when he had loss occurrence, could withdraw the funds from turnover and resolve his current financial problems, he could also take a loan at quite a reasonable interest rate, but nowadays both that ways turn out to be extremely complicated. Because that legal entities are particularly concerned about the effectiveness of any

processes, the majority of those who are money conscious looked closely namely at the insurance mechanism– relatively non-expensive and quite comprehensible way of solving complex and unexpected issues.

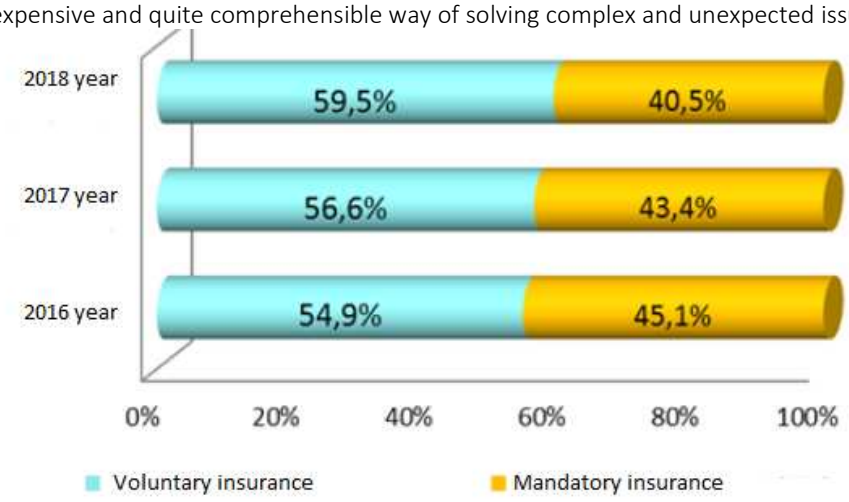

Figure 2. – The structure of insurance contributions

Source: personal research based on the data [5].

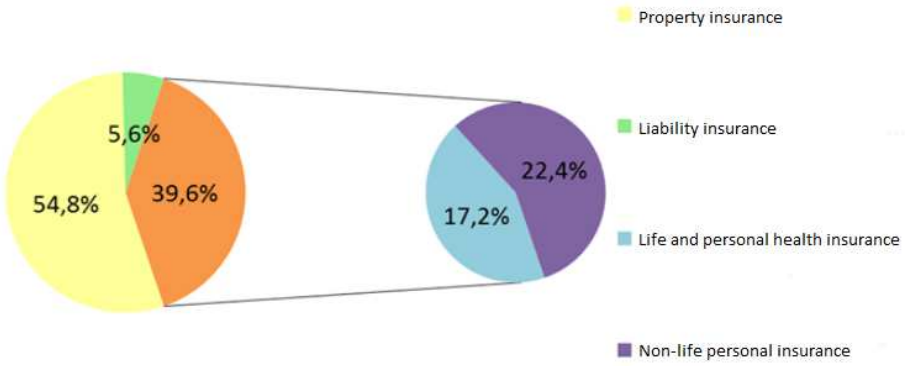

Figure 3. – The insurance contributions' structure of voluntary insurance types in the year 2018

Source: personal research based on the data [5].

The data shows that property insurance portfolio of legal entities in general remains stable, which is determined by a large segment of pledged property insurance (clients have to insure this property as required by bank loan agreements), and also by a definite share of international property insurance programs which continue to operate. While explaining the relative stability of this portfolio, we should note that many large companies have signed long-term loan agreements and therefore continue to take loans actively today, as a result, continue to insure pledged property.

It should be noted that during instability periods the size of the insurance companies has great significance. Roughly generalizing we can say that small firms cut down the property insurance expenses more decisively than large ones. Many clients of insurance companies during the crisis refused insurance services at all, however large business, dealing with the attraction of foreign investments, because of its specificity is not subjected to this tendency. Small companies, which insured office equipment, furniture, infrastructure of occupied areas during prior to the crisis times, at present often refrain from such move, saving funds.

Nevertheless, all this does not mean that small business does not use insurance services at all. Among clients from small business segment there are plenty of those who either have already experienced the consequences of technogenic and natural factors or unlawful acts from third parties, or the such problems were faced by their environment.

Thus, the analysis of property insurance market in the Republic of Belarus has shown that as a whole we can observe positive dynamics in the development of property insurance types. However, despite this positive dynamics, the real growth of insurance contributions has been effected at insufficiently high rates from the viewpoint of its potential. This growth only to a small extent was determined by objective causes – by awareness of importance of insurance agreement as reliable and non-expensive coverage for financial losses upon occurrence of adverse events in life, by increase of insurance culture and development of the insurance market itself.

The development of insurance business in the Republic of Belarus should be directed towards the increase of the role of insurance in economic social life by achieving the implementation level of insurance functions, corresponding to the social and economic level of the country's development.

The required qualitative and quantitative changes of the condition of the Belarusian insurance market the author recommends to accomplish by achieving the following strategic targets:

– the development of insurance market and enforcement of its continuity;

– increasing confidence to insurance companies from the national and foreign investors;

– maximal approximation to the international standards in fulfilling supervision over insurance companies, defined by International Association of Insurance Supervisors (IAIS).

To achieve the given targets the author suggests to resolve the following major tasks:

1. Increasing the capitalization of insurance companies by means of internal and external sources.

The increase of equity of insurance companies is one of the most important conditions that provide sustainable development and continuity of insurance market, its capacity growth.

The capitalization of insurance companies is recommended to increase by means of internal and external sources. The internal sources of capitalization boost for insurance companies are their profit and investments in insurance business of residents of the Republic of Belarus. The external sources of capitalization boost for national insurance companies – the investments of non-residents of the Republic of Belarus.

2. Providing the stimulation of demand on insurance services, mainly at voluntary insurance types.

The author suggests, on the one hand, to implement a policy aimed at the increase of people's insurance culture and perception of insurance companies as reliable guards in case of emergencies, on the other hand – to provide high quality standards of services offered by insurance companies.

The enhancement of public insurance culture is recommended to carry out by the development of regional insurance network all over the territory of the Republic of Belarus. The success in competition for potential clients depends primarily on the timelines of an insurer to arrange consistent contact with customers.

The availability of branch network will allow an insurance company to build its own regional policy in a more professional way in relation to an insurance coverage customer, since branches provide reliable data on the state of insurance field, on regional specifics.

3. Forming fair competition environment.

The state of competitive environment on insurance market is called to promote to improve the quality of insurance services, to reduce their cost, to actively implement new insurance products. To develop competitive environment on insurance market we offer to take actions towards creation of equal opportunities for state and private insurance companies, also to expand foreign capital representation on national insurance market.

4. Insurance law improvement.

To develop insurance legislation we suggest creating the unified system of law acts in insurance field, defining clear terms for interaction of clients and insurers, providing a possibility for all entities of insurance relations to equally defend their rights.

We recommend the increase of the role of insurance business to accompany with heightening of requirements for reliability and stability of insurance companies. Herewith the main consideration must be paid to the degree of their risk exposure which they face in their business.

5. Transition to risk-oriented supervision and evaluation of capital adequacy level of insurance companies based on principles devised by International Association of Insurance Supervisors.

The main task in the development of insurance supervision, providing the increase of financial stability of insurance market, is the expansion of requirements system, defining admissible risk parameters, accepted by insurance companies.

6.Enhancing the infrastructure of insurance market and information technologies.

The increase of amount of insurance premiums received and the boost of insurance market capitalization are suggested to be accompanied by the relevant development of its infrastructure, by upgrading proficiency of insurance business specialists, also by advancing of information technologies.

The development of information technologies in insurance business must be directed towards the increase of effectiveness of insurance business, also towards expansion of the range of insurance services offered to clients.

From this perspective we suggest the following:

– ·the development of branch network of insurance companies, selling insurance products directly;

– ·the enhancement of the training system, retraining and advanced training of staff members of insurance field, and also arrangement of thematic conferences, seminars, aimed at proficiency improvement of insurance market players;

– ·the creation and development of data analysis systems, providing possibilities to carry out marketing research of insurance companies and market in general, also implementation of modern technologies in promoting insurance products.

The successful fulfillment of given measures will allow:

– ·to create effective and competitive insurance market, promoting the achievement of goals of social and economic development of the Republic of Belarus;

– ·to increase demand on insurance services, primarily on voluntary insurance lines;

– ·to create fair competitive environment on insurance market, to stabilize financial sustainability of insurance companies;

– ·to form stable, consistently functioning, complying with present-day demands of the society and the state, insurance services market;

– · to enhance the role of insurance business in the solution of social and economic tasks of the state.

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Economics

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INTERNATIONAL SUPPLY CHAIN MANAGEMENT AS A BASIS FOR SUSTAINABLE DEVELOPMENT OF SUBJECTS OF FOREIGN ECONOMIC ACTIVITY

VIKTORYIA DUBEIKA, JOHN BANZEKULIVAHO MUHIZI
Polotsk State University, Belarus

The article discusses the concept of the international supply chain management as one of main ways to improve the efficiency of export-oriented business entities in conditions of globalization of the economy. The advantages of well-planned international supply chain and factors influencing the process of their formation are noted. The main stages of the international supply chain management are described. Indicated on ensuring continuity and sustainability of production, long-term systematic development of subjects of foreign economic activity for building reliable international supply chain.

Keywords*: international logistics, international supply chain, sustainable development, subject of foreign economic activity, information flow.*

Due to the rapid development of the market economy, there is an increasing interest in logistics and supply chain management to ensure a continuous, timely and accurate delivery of goods to their destination in order to save time and financial costs of their delivery.

Under the supply chain should be understood many links that are interconnected information, financial and material flows. The supply chain begins with the purchase of raw materials and ends with the sale of finished products (works, services) to the final consumer. Consequently, the supply chain is formed by several business entities [1]

The key task of logistic management is optimal supply chain management in order to optimize costs, delivery time of inventory items, as well as improve the quality of service. The supply chain describes how the goods come to the organization from the suppliers, how they move within the organization during the execution of the corresponding logistics operations, and how they are then sent to the final consumers.

The concept of "supply chain" is applied to the movement of any inventory values in the organization of any form of ownership and sectoral affiliation. The purpose of the supply chain is to meet the needs of the consumer with optimal costs.

Supply chain management includes the following important questions:

- increasing the degree of strategic importance of logistics;
- carrying out global operations and increasing the level of international competition;
- integration of organizations and activities;
- change in logistics management requirements when performing new types of operations;
- improvement of communications;
- identification of new requirements for e-commerce;
- increased attention to product quality and customer service;
- solving environmental problems [2, p. 56].

The concept of "international supply chain" refers to international logistics. International logistics is a strategic management of international supply chain, i.e. integration of logistic activities of organizations-supply chain links (operating, financial and marketing functions) and control over material, financial and information flows across borders and over the borders of various countries.

The object of the study of international logistics are international supply chains, the links of which are the subjects of foreign economic activity from different countries. The subject of study of international logistics is of the international supply chain management.

The international supply chain management can be viewed as designing, planning, executing, monitoring and monitoring the activities of economic agents in the international supply chain in order to create net worth, build a competitive infrastructure, use international leverage tools, synchronize supply with demand and improve the efficiency of the international supply chain as a whole.

In today's conditions of globalization of the economy, the international supply chain management is becoming an effective tool for improving the efficiency of business entities operating in the external market. The rapid development of the world market, toughening of competition, the requirements for improving the quality of customer service and the continuous growth of their inquiries pose new challenges for foreign economic

activity. In order to maintain competitiveness and strengthen its competitive advantages, a modern business entity needs to optimize all the processes of value creation - from the supply of raw materials to the service of the end user. To solve these problems, the management of subjects of foreign economic activity and refers to solutions for supply chain management. This is the part of the business associated with the optimization of the movement of the product from the moment of its creation (including the entire preparatory period) to the moment of its implementation to the end user.

Supply chains arise not only to improve the quality of customer service, but also to bridge the gaps that occur in cases where suppliers are located at a great distance from consumers. In addition to the movement of material resources between geographically distant business entities, international supply chains can eliminate the disparity between supply and demand, as well as simplify the movement of material resources.

The benefits of well-planned international supply chain are obvious and are as follows:

– Logistic operations are carried out in the best places for this, regardless of the location of customers;
– By concentrating the process of logistic operations, manufacturers can save on scales;
– Producers do not store large stocks of finished products, as they pass it along the supply chain closer to final consumers;
– Wholesalers place large orders, while manufacturers reduce the cost per unit of production, which makes it possible to give customers discounts;
– Wholesalers keep stocks of many suppliers, which gives retailers (retailers) the opportunity to choose the products they need;
– Wholesalers are placed closer to retailers and react more quickly to their orders;
– If wholesalers reliably supply products, then retailer stocks can be minimized;
– Retailers can perform small operations that allow them to more quickly respond to consumer requests;
– Carriage is simplified and cheaper. it will be carried out in large quantities;
– Economic entities can gain experience in performing specific types of operations [2, p. 75].

As for the formation of the international supply chain, they are based on export and import transactions that determine the effectiveness of the operational, marketing and financial functions of logistic management.

The following factors influence the formation of international supply chain:

– large geographical distances and temporal differences;
– coverage of several national markets;
– placement of elements of the logistics network in the territories of different countries;
– the great potential reported by the variety of supply and demand conditions.

A necessary condition for the creation of international supply chain is the transition from international economic integration through the internationalization of enterprises to a common logistics system [3, p. 167–169].

Four main spatial factors influence the formation of the international supply chain - this is globalization, technology, demand, macroeconomics.

In any case, when creating the international logistics chain, technology development plays a large role along with globalization processes in the broad context of macroeconomics.

Association of business entities of different states in the international supply chain should be considered in two perspectives:

1) in terms of the situation in which the subject of the transaction is a particular product or service, regardless of the country of origin;

2) from the position of business entities that constantly cooperate among themselves, who are going to change the profile of production or the market for the sale of their products [4, p. 53].

The spatial dimension of the structure of the international supply chain is determined by the location of enterprises-links of the logistics chain within the city, region, country and internationally.

An important condition for the formation of the international logistics chain is the division of risk between its links, the definition of hard and soft factors that determine the effectiveness of business entities in international logistics. This implies a search for coincidences between key and auxiliary logistic operations, hard and soft factors contributing to their execution.

You should also clearly understand the stages of the international supply chain management, which are divided into planning, procurement, production, delivery and return.

As part of planning, sources of supply are clarified, a synthesis and prioritization of consumer demand is made, reserves are planned, requirements for the distribution system are determined, as well as the volumes of

production and supplies of raw materials, materials and finished products. The task to produce independently or to buy should be solved at this stage. Decisions relating to all types of resource planning and product life cycle management are also made at this stage. These processes make it possible to find a balance between supply and demand in order to devise a course of action that best meets the requirements of procurement, production and delivery.

At the procurement stage, key elements of supply management are identified, suppliers are assessed and selected, supplies are checked for quality, contracts are concluded with suppliers. It also includes processes related to the receipt of material resources, such as transportation, similar control, storage and posting. It is important to note that actions to manage the supply of goods and services must meet planned or current demand.

The production phase includes the implementation and management of structural elements, which implies control over technological changes, management of production facilities (equipment, buildings, etc.), production cycles, production quality, production shift schedule, etc. It also defines specific production procedures, such as the actual production procedures and cycles, quality control, packaging, storage and production (intra-plant logistics). All components of the processing of raw materials into finished products must meet the planned or current demand.

The delivery phase consists of managing orders, a warehouse, and transportation. Order management includes the creation and registration of orders, the formation of value, the choice of product configuration, as well as the creation and maintenance of a customer base, along with the maintenance of a database of goods and prices, and the management of debtors and creditors. Warehouse management involves a set of actions for the selection and packaging, packaging, creating special packaging for the client and shipment of goods. The infrastructure for managing transportation and delivery is determined by the rules for managing channels and orders, regulating the flow of goods and controlling the quality of delivery. All these processes must be aligned with planned or current demand.

At the return stage, the structural elements of product returns (defective, redundant, requiring repair) are determined, both from production to purchase and from delivery to production (determination of the product's condition, its placement, request for return authorization, scheduling of returns, direction for destruction and recycling). These processes also include some elements of after-sales service [5, p. 95].

Proceeding from the above-mentioned stages, the following divisions are often created by the subjects of foreign economic activity in order to organize and control the supply of goods:

- order management;
- order fulfilment management;
- supply management;
- manufacturing planning management;
- logistic management.

The main responsibilities here in the international supply chain management is to integrate the above structural units into a single system, to assist in resolving issues related to the execution of orders at various stages, delivery, export and import of goods. The international supply chain management is a specific management strategy to ensure the synchronization of individual links of international chains, to optimize the time and cost of supplying goods.

Thus, the international supply chain management is to control and plan all the activities of an enterprise for the supply of goods to the foreign market from the moment of the conclusion of the contract and the placement of the order until the moment of delivery of the goods to the final consumer. Also a very important role in the international supply chain management is played by modern information systems and technologies in the form of information flows, which are used to plan the purchase of raw materials and components, monitor the implementation of orders and synchronize all supply chains as a single system. Information systems and technologies allow you to monitor inventory, to ensure the appropriate document flow and the formation of the necessary shipping documents for transportation. With the use of information systems and technologies, a high degree of optimization of operations in international supply chain is achieved, and the time and cost of fulfilling orders is reduced. Information technologies and technologies make it possible to integrate and synchronize the entire international supply chain at a significantly higher level and minimize the resources consumed.

Reliable international supply chain ensures the continuity and sustainability of production, the long-term systematic development of subjects of foreign economic activity. Properly formed international supply chain allows you to increase sales, improve the quality of supply and attract new customers. Consequently, the

management of international supply chains plays a key role in modern international business, providing a real tool for the development of the international division of labour and world trade.

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Economics

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THE RESEARCH OF ORGANISATION LOGISTICS SYSTEM QUALITY

VOLHA DUBINKA, TATSIANA PIVAVAR, PALINA LAPKOUSKAYA
Belarusian National Technical University, Minsk

This article describes the theoretical foundations of the research of organization logistics system quality. The main theme of this research is the logistic system of JSC 'Belmagistralavtotrans'. In the course of the study, the indicators of the quality of the organization's logistic system were developed, as well as measures aimed at improving the quality of the organization's logistic system.

The problem of manufactured and sold products quality in the modern economy is increasingly coming to the fore. The solution is in the focusing the attention of enterprises which the quality management services are functioning for.

Quality that meets the requirements of consumers and the achievements of scientific and technological progress, determines the competitiveness of the enterprise, and at the same time commercial success and sustainable financial condition. Competition makes us constantly improve the quality of goods and services and develop the operational and strategic policy in the quality field. Products of good quality provide sales and reimbursement of costs incurred, so the activities aimed at achieving competitive quality, are an integral part of the production and commercial activities of the enterprise. The role of quality in overcoming crisis situations both in the economy as a whole and in individual enterprises is great. Crisis management should contain measures of an innovative nature in the field of quality, because the quality at optimal cost, helps to overcome the crisis, financial recovery of the enterprise. An important role in solving the quality problem is played by the state, creating a regulatory framework for standardization and certification, ensuring the protection of consumer rights [1].

Increasing the complexity of products has led to an increase in the number of estimated properties. The center of gravity has shifted to a comprehensive test of the functional abilities of the product. In terms of mass production quality was considered not from the standpoint of a single instance, but from the standpoint of the quality standard of all products produced in mass production. With the development of scientific and technological progress which resulted in the automation of production there were automatic devices to control complex equipment and other systems. There was a concept of "reliability". Thus, the concept of quality is constantly evolving and refined.

The relevance of the quality problem is constantly increasing, which is a consequence of the objective development of productive forces at the present stage of development of society which is characterized primarily by the following:

1. Further development of competition. When supply exceeds demand, the quality becomes the most important factor of competitiveness.

2. The rapid development of science and technology, which leads to a significant increase in the complexity of the products, the quality of which ensures its effective use and operation [2].

3. The complexity of production processes as a result of the use of modern equipment, mechanization, automation and computerization, which requires a qualitatively new approach to the organization of production and ensures high quality of products.

4. Expansion of branch, inter-branch and international specialization and cooperation which can be effectively carried out only in the conditions of ensuring high quality of production and accessories.

5. The growth of production and the increase in the number of industrial enterprises.

6. The product quality largely meets the material and spiritual needs of the person, the success or failure of companies in their satisfaction.

7. Sharp aggravation of the ecological situation, the depletion of natural resources. The relevance of this direction is due to the fact that the development of material production is accompanied by a continuous increase in the amount of waste. To remove them, an average of 8 – 10% of the cost of production is spent, on a large scale are removed from the turnover of land, etc. which is to achieve the optimal level [3].

It is noticeable that the problem of assessing the quality of logistics systems is currently important both for the individual organization and for the economy as a whole. In the activities of enterprises improving the

quality of logistics systems is an urgent task, the solution of which allows to achieve positive results of economic indicators. A high assessment of these indicators depends on changes in their growth rates, which need to be monitored. The decline in the growth rate of economic indicators, as a rule, is associated with the failure to meet the requirements for quality and parameters, the gradual slowdown in the level of competence of staff, the professional level of service providers, awareness of participants in the logistics process, the degree of satisfaction of market needs in specific types of logistics services, with the difficulties of finding sustainable mechanisms for quality and cost management.

In accordance with the scientific results of economic research, the procedure for measuring the quality of logistics systems is not sufficiently specified and requires the development of approaches in addressing issues related to the development of effective methods of quality assessment, management of a set of logistics services, the assessment of logistics services, the regulation of the quality of logistics systems. The efficiency of the logistics system increases if the problems of assessing its quality are solved. Management of parameters and improvement of the system elements are the primary actions in achieving this goal.

Quality is a complex concept that characterizes the effectiveness of all aspects of activity: strategy development, organization of production, marketing, etc. the most important component of the entire quality system is the quality of products.

Quality from beginning to end is directly related to the economy. Almost all decisions in the field of quality, quality improvement programs and quality management activities are associated with economic costs and make sense if they lead to an acceptable economic effect for the enterprise; especially in conditions of restrictions of raw materials, energy, labor and other material resources the most effective way to improve production efficiency is to improve product quality.

The logistics concept of quality provides, on the one hand, the application of the principles and methods of logistics for quality management, and on the other hand, the formation of the logistics system of the relevant organization and adequate management effects on quality as an object of management. Therefore, such a concept should organically combine logistics and quality.

Improving the quality and complexity of logistics services largely depends on the level of development of logistics infrastructure and efficiency of its use. In order to optimize the infrastructure of logistics centers, it is necessary to place them in transport hubs, taking into account commodity and transport flows [4].

It is clear from these observations that it is necessary to develop a system of indicators that would fully provide information on the quality of the organization logistics system. There is a need for a single set that would assess various quality indicators, ranging from the geography of transportation and staff skills to determining the time of the information's flow.

The high dynamics of the external environment dictates its requirements for the logistics systems of the enterprise. It is particularly important to achieve a high quality of the logistics system now. In each logistics system periodically there are processes that reduce the quality of the system as a whole. Therefore, in order to eliminate these processes, special measures are taken, specialists are involved to optimize the logistics of the enterprise in order to improve its quality.

In connection with the need to develop a system of quality indicators of the logistics system of the organization this work was written with the purpose to study the quality indicators of the organization logistics system, as well as ways to improve it on the example of JSC 'Belmagistralavtotrans'. To achieve this goal, the theoretical foundations of the study of the quality of the organization logistics system were described; the logistics system of JSC 'Belmagistralavtotrans' was studied; the quality indicators of the logistics system of the organization were developed as well as proposed activities aimed at improving the quality of the logistics system of the organization.

In the course of the study the following quality indicators were determined by the links of the logistics system of the organization (Table 1):

Table 1 – Quality indicators

Link of logistics system	Indicator
1	2
1. Procurement	1) supplier Reliability; 2) Frequency of supply; 3) fulfilment of supply obligations; 4) rhythm (regularity of the supply); 5) completeness of delivery.

Continued Table 1

1	2
2. Transportation	1) geography of transport; 2) rolling stock characteristics; 3) means of communication and computers; 4) staff qualifications; 5) reducing the cost of transportation.
3. Storage	1) logistic service; 2) modern means and communication systems; 3) staff qualifications/
4. Distribution	1) organization and implementation of procurement; 2) supply control; 3) procurement budget preparation.
5. Production	1) quality of sources and raw materials; 2) quality of design and engineering; 3) quality of manufacturing (processing); 4) control of finished products.
6. Information	1) the motion of the information flow; 2) the direction of movement; 3) credibility; 4) transmit and receive speed; 5) flow rate, etc.

For the analysis of the logistics system links the list of indicators of logistics system quality of the organization is presented in Table 2.

Table 2. – Quality Indicators of the logistics system of JSC «Belmagistralavtotrans»

Quality indicator	Explanations	Alteration
1	2	3
1) transportation geography	Belarus, Germany, France, Netherlands, Belgium, Denmark, Austria, Italy, Switzerland, Spain, Poland, Slovenia, Czech Republic, Slovakia, Hungary, Russia, Ukraine, Moldova, Lithuania, Latvia, Estonia, Portugal, Kazakhstan, etc.	The geography of transportation is planned to expand.
2) characteristics of rolling stock	The average age of the vehicle fleet is 3.1 years. 77% of cars meet Euro-5 standard, 15% - Euro-6 standard.	Compared to 2013, in 2014 the days in operation have increased by 15.8%. Hours of work have increased by 19 %. The total mileage of the car has increased by 19.4%. The volume of traffic has increased by 3.3%. Freight turnover has increased by 10.7 % . In 2014, the average daily mileage has increased by 3.1%. This indicator was influenced by the increase in the proportion of downtime in the outfit by 12.8% and the increase in the average duration of work by 10.4%. Total load capacity increased by 14.6%. The coefficient of production of cars on the line increased by 6.7%.
3) communications and computers	Modern computer equipment and Internet technologies are widely used. All vehicles are equipped with GSM-communication and satellite GPS-navigation systems, through which information is exchanged with drivers and the location of the vehicle is constantly monitored.	It is planned to use updates to existing systems.

Continued Table 2

1	2	3
4) personnel qualification		In 2014, the number of employees increased by 20 people compared to 2013. The number of employees who were trained in 2014 compared to 2012 decreased by 35 %. The largest proportion of workers who improve their skills are workers. And since 2010, their number has increased in 2012 by 3 times and in 2014 by 2 times.
5) the decrease in cost of transportation		In 2013, the profit increased by 7.15 % compared to 2012. In 2014, the profit decreased by 7.99 % compared to 2013. The greatest specific weight in the structure of total cost are such factors as salary 51.23%, fuel 28.74%.
6) logistics service	The service level is calculated by the following formula: $n = \frac{m}{M} \cdot 100\%,$ (1) *n* - service level; *M* - quantitative assessment of theoretically possible volume of logistics services; M=80 *m*-quantitative assessment of the actual volume of logistics services, m=15	Level of service: 15/80·100% = 18.75%

In conclusion, it should be noted that the quality of the logistics system of JSC 'Belmagistralavtotrans' is at a high level. The company is constantly working on the development and improvement of methods and means of enterprise management aimed at ensuring the required level of quality. To improve the quality of the logistics system of the analyzed enterprise, it is possible to offer the development of the logistics service of the organization. Based on the analysis of the logistics system of JSC 'Belmagistralavtotrans' and its quality, we can offer a solution for the development of container transportation of this organization with China. This procedure will lead to additional funds raised in the country (government agencies, transport companies, ports and other participants in the transport process), in particular JSC 'Belmagistralavtotrans'. For the Belarusian client, this delivery option will also be advantageous, despite the higher through rate compared to other options, since the delivery time is minimal, which will lead to a rapid turnover of the product in the markets, and an increase in the profit of the consignee. Thus, the quality indicators of the logistics system of the organization were developed and measures aimed at improving the quality of the logistics system of the organization were proposed.

As a result of the analysis and generalization of scientific publications, both domestic and foreign experts in the field of logistics, it was found that the rationale for the problem of assessing the quality of logistics systems is theoretical, methodological and applied nature, which confirms the need for the formation of an appropriate system based on modern methods and models. Therefore, the development of a system for assessing the quality of logistics systems, implying the formation of scientific approaches to its functioning, is an important area of scientific research.

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Economics

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MODERN TECHNOLOGIES OF STRATEGIC MANAGEMENT IN ORGANIZATIONS AS A BASIS OF SUPPORT OF CHANGES

YAUHEN HAIDAU, MARINA HAIDAVA
Polotsk State University, Belarus

A model linking the operational and strategic levels of management in an organization in a highly dynamic environment. It connects the mission, vision and strategy of the organization with evaluations of the results of current activities, thereby enabling the rapid adoption of managerial decisions, the tools that are applicable to the organization to support ongoing changes.

Introduction. Strategic management, according to one of the latest definitions of the leading consulting organization McKinsey, is a constantly reproducible management activity aimed at the formation of an optimal integrated set of actions throughout the organization to create sustainable competitive advantages [1].

Today, the external environment is changing much faster and more dramatically, which puts new demands on the approaches used in developing strategies.

There is no universal strategy for all organizations, just as there is no universal algorithm for strategic management. Every organization is one of a kind and the process of strategy development is unique for every organization. This is due to the organization's market position, its internal capacity, the behavior of competitors and customers, the dynamics of its development, the characteristics of goods or services, the state of the economy, cultural environment and many other definitions [2].

One example of a new generation of methodological approaches to strategy development is a strategy that combines analytical methods with processes and tools that provide creativity, dynamism and an interested attitude to the work of the organization's staff. This approach to developing a strategy has three fundamental differences from the traditional one:

– creation of a substantive part of the strategy, based on the vision of the future of the organization and ambitious goals;

– taking into account the behavioral aspects of the organization's personnel and managing them in order to ensure compliance with the goals;

– continuous process of change management, based on a balanced system of criteria.

The problems of constant development and constant changes in the organization in the 21st century came to the fore. An effective means of solving these problems were business-engineering technologies, which formed the basis for new approaches to management. The financial-oriented management, which has prevailed until recently, is replaced by a new "innovative management", which presupposes a constant restructuring of enterprises with a view to realizing the chosen strategies. In the most advanced organizations, financial success began to be seen as a side effect of a successfully implemented strategy. The profit criterion became necessary, but insufficient. The share of non-financial and non-quantitative business estimates increased, and in the strategy they became dominant.

In addition, if in the traditional planning the future is determined from the past (based on the trends of the previous development), in today's strategic planning, the present is determined from the future. Traditional planning models are good for stable and relatively easily predictable development or evolution of the environment. However, revolutionary nonlinear changes that occur or can occur every day cannot be accounted by traditional mathematical methods. And these changes need not only to foresee, but also to react to them faster than others.

Previously undeniable advantages of prosperous enterprises - a stable organizational structure and well-established processes - now turn into a drawback, since the inertial organization does not allow responding in a timely manner to changes in market requirements.

The most advanced organizations themselves provoke this mobility, constantly introducing innovations. The aggravation of competition in the world and domestic markets has given rise to a special tactic and strategy of industrial organizations for which the accumulation, reservation and timely use of innovations has become a primary tool in the struggle for markets. Overseas management innovations are introduced everywhere, which are much cheaper than technological and innovative ones. It is no accident that the European Commission stated that managerial innovation will be one of the main factors of increasing competitiveness in the world

market in the coming years [3]. As an innovative management approach, industrial organizations need more widely implement the process approach in management; it is advisable to master the methods of business process reengineering.

Strategic decisions related to the serious restructuring of business organization began to be taken more than once in five years, but almost every year - sometimes and more often.

Therefore, the most urgent were the following tasks:

– choice of development directions with the help of modern technologies of strategic monitoring, analysis and strategic decision making;

– an accurate representation of the organization of activities that is necessary to carry out the changes;

– coordination of strategic and operational management tasks, for which the strategic block sets targets.

The general principles of implementing modern approaches to strategic management are based on the widespread use of information technology. The strategic model, the most important part of the technology of business engineering, includes a consistent series of concepts from a carefully designed mission - the vector of the determining direction of the organization's development to the construction of a harmonious system of indicators that forms the correct "adjustment" of workers to a strategy that guarantees a true strategic focus.

Any enterprise is a purposeful socio-economic business system in which strategic installations should be spelled out explicitly.

Nevertheless, as a rule, organizations do not explicitly express the formulated strategy or its elements are expressed very fragmentarily, and most of this important information is "in the heads" of the top management and the owners of the organization. The setting of strategic management usually begins with the extraction, structuring and introduction of this information into the model, as well as its integration with information obtained from external sources.

Usually the following stages of building a strategic business model are distinguished:

– identification of the internal and external environment of the organization, justification of the initial activities (determined by the market demand, the capabilities of the organization and its aspirations);

– formation of a "development vector" (directions of potentially possible expansion of activities);

– description of business credo (principles of interaction of the organization with all parties interested in its activities).

The identification of this information and allows to form the Mission of the organization as an invariant of behavior (development vector + business credo), which allows making correct decisions at the moments of change. Moreover, the work on modeling the strategy is moving along three axes:

– I want - aspirations of the system (values of the subject - desires and limitations);

– I can - the capabilities of the system (evaluation of available and available resources, technologies, skills and experience);

– it is necessary - the needs of the environment (evaluation of the market and wider environment of the organization).

In addition, it is desirable to have a comprehensive strategic evaluation of decisions, comparing the external and internal environment of the organization (the "it is necessary" and "I can" axes). This can be done using a SWOT-analysis matrix, which is also supported by business modeling tools.

The SWOT-analysis matrix provides the organization's leaders with a structured information field in which they can strategically orient and make decisions. The most attractive thing in this method is that the information field is formed directly by the leaders themselves, as well as by the most competent employees of the organization on the basis of generalizing and harmonizing their own experience and vision of the situation.

As a result of building such a model, the company receives the following structures of valuable information:

– systematized factors of external and internal environment, which significantly influence the activity and direction of the organization's development;

– systematized knowledge about the directions of business development and the basis for choosing such a direction.

Such a strategic analysis and revision of the business development vector should be of a permanent nature - it is conducted either periodically, or when significant events occur in the external and internal environment.

The next task is to identify the goals and indicators that characterize the achievement of strategic success in selected areas (areas) of activity.

We will proceed from the fact that at present the universally recognized goal of the highest level is the value of the organization. Most modern management technologies already use a cost approach to business valuation.

To build a model of the goal tree leading to this "strategic success" it is recommended to use the Balanced Scorecard (BSC) methodology - a balanced scorecard [4]. Structuring knowledge using standard methodologies is a very useful technique, at least at the stage of creating a knowledge management system. In most cases, only by mastering the standards can you go to more individualized systems.

The BSC methodology has become one of the main discoveries of modern management theory, made in the early 90s of the 20th century. This methodology was also based on the fact that in the decision-making process, managers and owners are increasingly demanding information not only of a financial nature (as in traditional financial-oriented management). In the conditions of rapidly developing markets and the most intense competition, non-financial information, based on the assessment of the company's intangible assets, is becoming increasingly important, and modern management can increasingly be described as "innovative".

According to the BSC methodology, branches of the target tree form the so-called "critical success factors" of the organization - KFS. Knowledge, i.e. an explicit definition of these factors will allow us to constantly monitor trends in behavior and organize activities in such a way as to influence the change of these factors in a favorable direction.

In addition, the existence of a system of KFS allows us to compare with them the significance of any activity (any organization processes).

The quality of implementation of key processes must also be monitored. Therefore, for measurable goals (at least, lower levels), measurable indicators should be identified that can determine the degree to which the goals are achieved. Sometimes they are called "key performance indicators" (KPI).

Building a "goal tree", selecting KFS and KPI structures the most important level of the organization's business model - the level at which the transition from "strategy to action" takes place.

Conclusions and suggestions. Thus, the proposed model allows linking the strategic and operational levels of management, to form a true strategic focus. It connects the mission, vision and strategy of the organization with evaluations of the results of current activities, thereby enabling them to quickly make management decisions aimed, if necessary, to adjust the situation as soon as it becomes necessary.

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EFFICIENCY OF USING THE RESOURCE POTENTIAL OF AGRICULTURAL ENTERPRISES

SVETLANA ZAIKA
Kharkov Petro Vasylenko State Technical University of Agriculture, Ukraine

Effective functioning of agricultural enterprises is impossible without economically feasible development of its resource potential. Increasing the level of effectiveness of the use of capacity plays a leading role in the successful resolution of economic and social problems, achieving the main goal of production - increasing profitability. In the article the theoretical and methodical principles of effective use of resource potential of agricultural enterprises are investigated and the most significant component of it is determined.

Introduction. Economic efficiency of agriculture is expressed in its purpose - providing the population of the country with food in accordance with the recommended level of their consumption.

In order to protect national interests, it is necessary to ensure the food security of the country, increasing the production of agricultural products by domestic producers.

The development of a market economy, the integration of Ukraine into the world economic space make it necessary to increase the competitiveness and quality of agricultural products, which implies a significant increase in the efficiency of the use of the resource potential of agricultural entities. Therefore, studies aimed at improving the efficiency of using the resource potential, creating conditions for its sustainable reproduction, are relevant and have important national economic importance.

Task formulation. Studying the main elements of the resource potential of agricultural enterprises and the effectiveness of their use in order to produce high-quality and competitive agricultural products to meet the needs of the population.

Methods of research. When the article was written, various methods of economic research were used: dialectical, abstract-logical, monographic and others.

Results, their discussion and perspectives. When studying the resource potential of an agricultural enterprise, it is important to evaluate the effectiveness of its use as a whole and assess the effectiveness of the use of individual factors of production.

It should be noted that a systematic approach to the consideration of the resource potential involves the achievement of effective activity with the interconnected, streamlined and balanced interaction of all its elements. Therefore, all elements of the resource potential can be both main and auxiliary.

The variety of different classifications of resources and approaches of scientists presented in the scientific literature is the result of the development of economic thought and scientific and technological progress. As a result, the productive forces and production relations are improved; the process of interaction of elements of the resource potential of an agricultural enterprise is complicated; attitudes of scientists to certain elements of the resource potential are changing.

In agricultural production, the composition of the resource potential of an agricultural enterprise, the assignment of its elements to a particular species or group is made in accordance with their nature, purpose and use, and also depending on the approaches of researchers.

In the composition of the resource potential, some scientists include land, labor resources, fixed and circulating funds, funds, reserves, values, reserves, material and technical resources, while others also include bio-potential, funds and labor resources, bioclimatic potential, information and energy resources.

Foreign researches in assessing the resource potential are based on the system of values. M. Porter substantiated that the formation of competitive advantages is carried out in the process of creating values and singled out five stages of economic activity that create the main values: marketing; manufacturing products; logistics; distribution, delivery, warehousing; after sales service [1].

The principles for assessing the resource potential are also associated with the following methodological areas: statistical models that allow establishing a link between production resources and production results; standardized values of providing agricultural organizations with kinds of resources. It is defined as the quotient of the resources to the average group or base value; economic evaluation of resources. Resource availability is defined as the sum of economic assessments [2].

Methods for assessing the resource potential of A.V. Ulezko consist of three stages: analysis of individual resources, their potential, possibilities of use and determination of the most effective option for combining resources; identifying factors limiting the growth of production efficiency, identifying unused reserves and

translating them into investments, calculating the effective update option; a study of the performance of the enterprise due to investment attractiveness [3].

Along with various types of resources, the resource potential is characterized by the degree of use of these resources and the ability to create beneficial effects.

There are many approaches to determining the economic effect. Scientists propose to calculate it as net income, gross income, gross output, final product, main commodity output, commodity output minus purchased feeds, gross output minus feed stock, etc.

The economic efficiency of agricultural production is expressed by the criteria, or signs, by which the effectiveness is evaluated, and indicators.

The opinions of agricultural economists on the issue of determining criteria, indicators of resource use efficiency and its essence are very contradictory, which complicates their choice in the analysis.

In the process of studying the efficiency of production, scientists came to the conclusion that this category is closely related to expanded reproduction and reflects its process, and also characterizes the level of achievement of the main goals implemented within the framework of economic laws applicable to expanded reproduction [1, 4].

Some scientists believe that it is necessary to use the ratio to the cost of labor (both living and materialized) gross output, gross income or net income as a criterion of efficiency [1, 4].

Some scientists consider the intensive development of agriculture to be the basis for increasing production efficiency. Efficiency characterizes the results of production, and intensification reflects the ways to achieve them [5-6].

Many consider profit to be the criterion of economic efficiency, and generalizing indicators of efficiency - the ratio of profit to cost or level of profitability, expressed as a percentage; the ratio of profit per unit of capital (resource) costs.

In agricultural production, it is important to analyze the indicators characterizing the amount of profit per unit cost of a resource: the level of profitability of fixed assets, tangible working capital, the rate of profit as a generalizing indicator (the ratio of profit to the value of fixed and working capital).

However, according to some researchers, these indicators ignore the time factor that affects the results in terms of inflation. The level of profitability can change with a change in the absolute value of profit, while in determining the production efficiency, the first place is the growth of the mass of profit [2].

Resource potential of agricultural enterprises is characterized by absolute indicators of the average annual number of people employed, acreage and areas of agricultural land, the number of heads of agricultural animals, the cost of basic production assets and the cost of working capital.

The calculation of indicators of resource productivity or cost recovery is a necessary step in determining the efficiency of resource use. The following indicators are used: gross output, profits, gross income, including in relation to the main production assets, material costs, 100 hectares of agricultural land, arable land, etc. Also use a system of additional, auxiliary indicators - cost and profitability of individual products , productivity, productivity of animals, feed return, etc.

Making the maximum profit is the main goal of each enterprise; therefore, agricultural producers seek to optimize production volumes and reduce costs.

Some scientists believe that the definition of economic, industrial and technological, industrial and economic and socio-economic efficiency is the most common methodological approach in assessing the effectiveness of systems. Scientists have proposed various approaches to assessing the use of resources in agricultural production and the calculation of indicators of their efficiency. The choice of indicators and methods depends on the specific features of the organization, its specialization and other factors [2, 4].

The directions of increasing the efficiency of labor utilization in agricultural production are: the introduction of integrated mechanization, the expansion of training of qualified personnel, the development of social infrastructure, the reduction of the influence of the seasonality factor, the development of processing and product sales.

The efficiency of land use depends on many factors. It is associated with the diversity of the results of labor, and therefore is a complex economic category. Apply indicators of arable land use, indices of agricultural production, the dynamics of production, etc.

As natural indicators of land use efficiency, we suggest considering crop yields, production of meat, milk and other products per 100 hectares of agricultural land. As estimated indicators - the production of gross and marketable products per 100 hectares of agricultural land, profit, production costs per 100 hectares of agricultural land in monetary terms, incl. material costs, labor costs [7].

In assessing the efficiency of land use, many researchers apply the cumulative efficiency score as the ratio

of the crop yield ratio (the ratio of the yield of a particular object to the average) to the cost ratio [3].

People allocate material resources along with land.

Material resources are represented by the main production capital, material circulating assets, energy capacities and other indicators.

The peculiarity of the formation of material resources in agricultural production consists in the frequency of use of fixed assets in crop production due to seasonality, which contributes to an increase in production costs, leading to an increase in the capital intensity of production.

Currently, the factors limiting the possibility of increasing agricultural production are: the poor state of the machine and tractor fleet, as the most active part of material resources; low level of equipment with tractors, combine harvesters, trailed, mounted implements and other agricultural equipment, high physical wear and tear; reduced fertilizer use; excess of disposal of equipment over its receipt. This leads to a decrease in the volume of work performed, an increase in the time taken to perform technological operations, an increase in the cost of maintenance and repair, an increase in equipment downtime.

The growth of the efficiency of the work of agricultural organizations depends on increasing the level of technical equipment, the power supply, the use of modern production technologies and management, the modernization of the material and technical base and the intensification of production.

Scientists consider it possible to lower prices for resources for agricultural production by developing the market for material and technical resources, creating wholesale markets, expanding leasing and direct contractual relations with manufacturing plants, and creating machine and tractor stations [5].

The efficiency of the using of material resources is measured by many indicators. These are energy supply (amount of energy capacity per unit of crop area), power supply (amount of energy capacity per worker), and level of mechanization (ratio of the amount of mechanized work performed by machines having mechanical engines to the total amount of work expressed in percent). The level of mechanization of production processes in animal husbandry is defined as the ratio of the livestock of animals that are serviced using mechanisms to the total population.

The effectiveness of the introduction of new agricultural equipment is determined by the reduction of labor costs, operating costs, specific investments and the payback period of additional investments.

A significant improvement in the efficiency of material and technical resources is achieved with the implementation of the following areas: reducing the loss of resources; increasing the productivity of agricultural land and animals; the use of modern technologies for the production of agricultural products that reduce the use of resources and waste; improving the quality of agricultural products; the use of highly efficient business methods.

Conclusion. The material base of the agricultural organization is the most important, most significant component of the resource potential. Technical and technological factors of production, the level of energy intensity and progressive methods of using equipment and materials contribute to the most effective involvement in the production process of other factors - land, labor, funds and natural resources.

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