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POLOTSK STATE UNIVERSITY

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DIMENSION
IN RESEARCH

ECONOMICS

Electronic collected materials
of XII Junior Researchers' Conference
(Novopolotsk, May 13 – 14, 2020)

Novopolotsk
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It is intended for trainers, researchers and professionals. It can be useful for university graduate and post-graduate students.

211440, ул. Блохина, 29, г. Новополоцк,
Тел. 8 (0214) 50-57-09, e-mail: inter.office.psu@gmail.com

Технический редактор Дарьянова Татьяна Александровна
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THE IMPORTANCE AND BENEFITS OF JOINT FACULTIES IN HIGHER EDUCATION

D. MAKHKAMOV, A. MALEI
Polotsk State University, Belarus
Tashkent Financial Institute, Uzbekistan

The article studies the reforms in the educational system of the Republic of Uzbekistan on the example of joint faculties and the benefits of Double degree program.

A key element in the evolution of mankind is education. Based on the quality of education, consciousness is formed, creativity is developed, and people's worldview expands. Each country pays special attention to its youth, worthily continuing the activities of their ancestors, only with the use of new ideas and more innovative approaches. In the Republic of Uzbekistan, a number of reforms of the educational system have been implemented in recent years. Big changes are taking place in higher education, since the training of independently thinking qualified personnel with up-to-date knowledge and high spiritual and moral qualities are the main tasks of higher educational institutions. The quality of education has to meet modern international standards. It is also necessary to note the importance of educating young people in the spirit of patriotism and high spiritual ideas, devotion to the ideas of independence, respect for national values, following the traditions of our ancestors in the field of education. We can see the affirmation of the value of upbringing in the words of President Shavkat Miromonovich Mirziyoyev: "We must bring up the youth to be worthy of our great ancestors, to be educated and enlightened individuals".

The formulation of the concept of the development in the higher education system of the Republic of Uzbekistan until 2030 proves the existence of reforms in this area. One of the important tasks of the development of the higher education system described in the ruling of the President of the Republic of Uzbekistan "On measures to introduce new management principles in the system of higher and secondary education" is the expansion and strengthening of international relations, the implementation of joint programs of cooperation between higher and secondary specialized vocational education [1]. Moreover, the goals are clearly set in the plans to improve the quality of higher, specialized secondary and vocational education, where one of the development priorities is "Organization of programs for issuance of the bilateral diplomas and creating joint faculties with the partnering higher educational institutions."

In 2019, to carry out these tasks, a number of joint faculties were opened by our institutes and universities in collaboration with prestigious higher educational institutions of foreign countries, based on the Double degree program. These foreign countries include:

- Tajikistan
- Russia
- Republic of Belarus
- France
- South Korea
- Indonesia
- Czech Republic
- China
- USA
- Germany
- Netherlands
- Slovakia
- Malaysia
- Thailand

This innovative education program was introduced not only in the institutes of the capital, but also gained distribution in the Republic of Karakalpakstan and many regions of our country. The double degree program is an effective method of improving the quality of education with the following advantages:

– Double degree. After the end of a training period, 2 diplomas are issued: a domestic diploma and a diploma issued by a country that is the official in this program. This contributes to the attainability of employment in foreign countries and the absence of the need for nostrification of the diploma, if you want to work in Uzbekistan.

– Tourism development. When visiting the partner countries for the Double degree program, students, teachers and university representatives expand their knowledge of the traditions, culture and sights of the Republic of Uzbekistan, thereby attracting other colleagues and relatives.

– The ability to intensively master a foreign language. Basically, education in joint faculties is conducted in a foreign language, which significantly increases the knowledge of the language not only to the perfect, but to the academic level.

– The increase in the effectiveness of interaction at the state level. An exchange of experience, knowledge, educational programs in the joint work of two higher educational institutions gives them opportunitiy for the development of their own relationships, as well as for the relations between the states.

– Improvement of the quality of education. With the cooperation of partner universities, after comparing the educational system, progressive methods applied by the partner university are introduced to identify shortcomings in certain areas of education.

– An increase in the number of youth having higher education. Nowadays, it is impossible to ensure the admission of all applicants to the universities of the Republic of Uzbekistan due to the limited possibilities of the sizes of their material and technical base and personnel. The opening of the new joint faculties will increase the number of applicants, thereby improving the general education rate of the population.

– Increasing the ranking of the education institution. The presence of foreign students, joint faculties and cooperation with foreign universities is an indicator of the prestige of the institution.

– Training of highly qualified personnel. In addition to studying abroad and obtaining two or more diplomas, students of joint programs receive a variety of positive experiences: they study according to new modern pedagogical methods and gain practical skills both within the framework of both domestic and foreign experience; join different systems of assessing the quality of education; learn to present themselves in a foreign language and feel and behave confidently in a new environment; studying in a cross-cultural environment; participate in student mobility programs.

In conclusion, it is important to note that the increase in the number of joint faculties in Uzbekistan is one of the main factors in modernizing our educational system.

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RECOMMENDATIONS ON REDUCING THE SHADOW ECONOMY IN THE REPUBLIC OF UZBEKISTAN BASED ON THE WORLD EXPERIENCE

D. MAKHKAMOV, A. MALEI, K. ASATULLAEV
Polotsk State University, Belarus
Tashkent Financial Institute, Uzbekistan

The article dwells on the types of shadow economy. The authors of the article analyse the causes of the occurrence and increase in the volume of the shadow economy. The authors of the article demonstrate how the world experience in a fight against the shadow economy is implemented in Uzbekistan.

The level of the development of a country first of all depends on the economic relations within a society, which develop under the influence of the applied mechanisms of public administration. Insufficient economic policy creates favourable conditions for the growth of shadow economy. The shadow economy is inherent to any economic system, both the command-and-control one and the market one. Many developed countries around the world tend to have some presence of the shadow economy, which demonstrates the relevance of this issue. In Uzbekistan, the volume of the shadow economy is currently estimated as high.

The shadow economy is represented by hidden economic activities not controlled by the society, the purpose of which is to extract super profits to meet both personal and group needs of a small part of the population. Consider the main types of the shadow activity in table 1.

Table 1. - The main types of shadow activity

The type of shadow economy	Definition
White collar" ("second")	Hidden, prohibited by the law economic activity of the workers of the "white" economy at their workplaces, which leads to hidden redistribution of the previously created national income. Carries out officially permitted types of economic activity. Entrepreneurship entities do not reflect a certain share of the shipped products and performed services in the accounting, statistical and tax reports
"Gray" (informal)	Permitted by the law, but not registered economic activity (mainly small businesses) in the production and implementation of ordinary goods and services. This is the most extensive sector of shadow economy. Examples are: fraudulently obtained income (miscounting customers at the salespoints, home registry, embezzlement, bribery), organizing clandestine shops. Concealment of the real amount of their salary and mandatory allocations to social funds and the budget from the labour resources accounting. Questionable financial transactions in order to withdraw funds to the offshore zones
"Black" (the economy of organized crime)	Illegal economic activity related to the production and implementation of the prohibited goods and services (smuggling, drug trafficking, hidden trafficking of fake alcohol and tobacco products, arms trade)
Corruption revenues in the public sector	Bribes for "resolving issues" to officials, representatives of regulatory bodies, as well as in the areas of healthcare, education, municipal and state services
Note. Source: (Россолов П.Г. Основные подходы к определению доли теневого сектора в экономике / П.Г. Россолов // Terra Economicus. 2011. Т. 9. № 3. Ч. 3.)[1]	

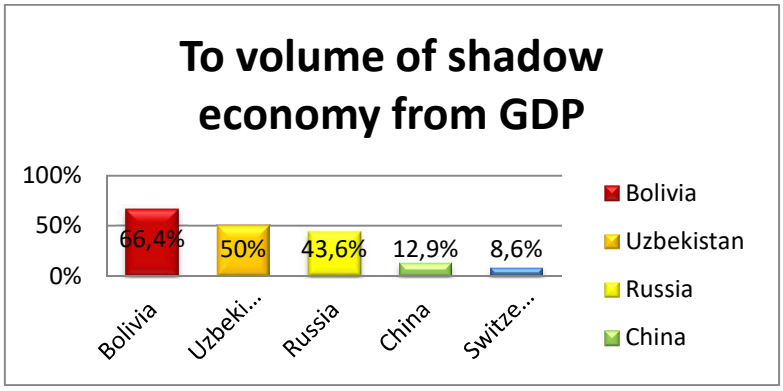
The main reasons for the existence of shadow economy are:

– increase in the administrative barriers to enter the market
– high tax rates

- "informal payments" upon getting a license, certificates
- systemic corruption
- financial crises
- rise in the unemployment
- inflation

It is also worth noting the main social factor for going into the shadows, which is dangerous for maintaining the integrity of the state, – loss of citizens' trust in governance bodies. If the authorities, while collecting taxes, do not properly provide decent social services in the field of medicine, education, and public services, then citizens lose the desire to pay allocations to the state budget.

In recent years, the shadow economy has been growing steadily. According to the Ministry of Economy and Industry of the Republic of Uzbekistan as of September 17, 2019, the shadow economy in Uzbekistan is estimated at 40-50% with respect to GDP. The global average level of the shadow economy is 17.2% of GDP, but this indicator differs from country to country. The graph below shows the levels of shadow economy[2].



Graph №1. – The volume of the shadow economy of the world for 2019 year

According to the IMF rating (a specialized UN unit, which calculates the size of the informal economy and publishes annual dynamics of change), Switzerland takes the first place in the low level of shadow economy. At the bottom of the ranking is Bolivia[3]. *The Republic of Uzbekistan is not officially included in the ranking of countries according to the level of informal economy*, but had Uzbekistan been included in the IMF rating based on the assessment of the Ministry of Economy, our country would occupy the 152nd line out of 159 countries. The reasons for such low rate are:

1. Taxes. Firstly, the Republic of Uzbekistan has a high tax burden that impedes the development of the economy, in particular, the marginal rate on investments is 49%. Secondly, the high tax rate on the wage fund leads to the concealment by taxpayers of the actual number of employees and wage fund (50% from the nominal salary level). Also, frequent changes in tax rates, the absence of internationally recognized concepts of taxation and the imperfection of tax control lead to citizens deviating from paying taxes;
2. Low level of trust in the governance bodies and the financial system;
3. High level of corruption;
4. Lack of confidentiality in the banking system and the tax authorities [4];

President of Uzbekistan Shavkat Miromonovich Mirziyoyev noted that a large amount of shadow economy negatively affects the development of Uzbekistan. "Everyone knows about the presence of a large volume of shadow economy - both entrepreneurs, and buyers, and deputies. Fighting this will create favourable conditions for legal business. As a result, working officially will be profitable, convenient and simple" [5].

It is very difficult to cope with unofficial activities, given the scale of distribution. The fight against shadow economy should be comprehensive and address various aspects. Focusing the measures in only one direction (for example, focusing on strengthening control) can not only fail, but also lead to opposite consequences – such as the growth of shadow economy. International experience in the fight against shadow economy shows that different countries have different methods for solving these problems, for example:

- In Latvia, a certain mechanism is being developed that could form a database of customers, who spent more than two thousand dollars in cash.
- There is also the practice of an active transfer of salary payments to a card account, which makes it impossible to illegally withdraw money to other countries and avoid taxation.

– Italy has also approved payment by cards of goods and services for an amount from two thousand euros.

– In the UK there is an organization that brings together 200 agents working on the verification of high incomes of the population.

– The US government has created a special organization for identifying tax evasion from the money, which is later exported abroad.

– Stricter requirements for tax deduction applications in industries with high risks of going into shadows (Canada, Sweden, UK, USA).

– A way to expand the use of the practice of using data from "the third parties" in identifying "conspicuous" consumption (ultra-expensive goods and luxury goods) is in practice in Australia.

– Publication of the names of major tax evaders in the public domain – "naming and shaming" policy (UK).

– Create a system of standards or model indicators for industries, that would show the ratio between costs and output is practised in Australia.

– Sweden practises the forced use of employee registers with the obligatory indication of the employees' personal data, the hours worked, the type of activity of the organization and its name;

– Additional fines for taxpayers who have previously been convicted of tax evasion (UK);

– One of the most successful measures in the fight against the shadow sector is also the creation of voluntary programs to break from the shadow for large enterprises. The emphasis in such programs is put on reducing the penalties for the voluntary withdrawal of funds from offshore companies [6].

Given international experience, we propose the following measures to reduce the shadow economy in the Republic of Uzbekistan:

– Forced use of the certified cash registers for the organizations, which use cash

– Forced use of employee registers with the obligatory indication of the employees' personal data, the hours worked, the type of activity of the organization and its name – introduction of the personalized accounting following an example of the Republic of Belarus;

– Increased use of the practice of using data from "the third parties" in identifying "conspicuous" consumption (ultra-expensive goods and luxury goods);

– Introduce payment for goods and services for an amount from two thousand euros in a cashless order (debit card);

– Creation of voluntary programs to get out of the "shadow" for large capital with a limited period of income legalization;

– By further optimization of the tax burden with a reduction in the share of indirect taxes to 35%;

– Optimization and simplification of tax legislation in order to ensure its stability and predictability for taxpayers;

– Identification of conceptual problems in the context of specific taxes, the introduction of the world's best practices and global trends in taxation (BEPS, automatic exchange of tax information, MLI, CbCr, CFC, TPO, etc.);

– Improvement of the tax control procedures and consideration of tax disputes by the introduction of ICT and automation tools, as well as advanced training of tax authorities.

Achieving these goals is possible only in the correct and planned distribution of tasks, which requires the development of "road maps" for a sharp decline in shadow economy. Moreover, the inclusion of our country in the IMF rating on the level of informal economy will give a real assessment of the level of shadow economy in Uzbekistan, recognized by an international organization. Which, in turn, will show the transparency and development of the economy of Uzbekistan.

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Economics

UDC 368.2

TELEMATICS SYSTEM IN USAGE BASED MOTOR INSURANCE

D. SELIAZNIOVA, I. ZIANKOVA
Polotsk State University, Belarus
A. RAHMANOV
Deputy Chairman of the Board of Directors, Baku, Azerbaijan

The purpose of this article is to demonstrate the fundamental principles of technology that contributes to the creation of new billing models in the field of auto insurance. The potential of such a system is demonstrated by the example of a real case project implemented in Eastern Europe.

The insurance industry, at least when it comes to auto insurance, has reached a mature stage in the life cycle. Fierce competition and lack of product differentiation lead to a significant decrease in revenue for the majority of existing and established insurance companies on the market. Insurance companies may suffer loss of income primarily for two reasons [1]. First, prices in these markets are likely to fall [2]. Second, pricing does not correspond to individual risk [3]. For example, there are people who drive 35,000 km a year and pay the same price as people who drive less than 10,000 km a year. This has led to a paradigm shift in traditional insurance policies, offering new ones based on the use of UBI insurance policies.

UBI is based on a variety of data, such as mileage, speed, location, time, total trip duration, G-force, etc., extrapolated from telematics devices. This data can be predictive and companies can gain a competitive advantage by analyzing driver behavior [1]. UBI products are still new in some markets, and in order to introduce them to the relevant markets, insurance companies will have to make a lot of effort to increase the acceptance of UBI [4], [5].

Importance of rich telematics data. Telematics data is used to determine the policyholder's insurance premium for the vehicle. The insurance company needs more extensive data to better quantify risk and understand driver behavior. This is very important for the insurance company to differentiate this data and for their UBI systems to collect the correct telematics parameters. In addition, it may allow insurance companies to improve their billing methods by matching individual price and risk more accurately.

Insurance telematics depends on the accuracy of the received GPS data (Global Positioning System) from the telematics device. Various environmental factors such as atmospheric effects, clogging of the sky, etc. can cause certain problems in the accuracy and reliability of GPS data. This may lead to a corresponding risk of loss of income for the insurance company.

"Context" refers to environmental factors, such as the location where certain events occurred, road conditions, weather conditions, and their overall contribution to risk. The environmental factor was identified as fundamental to the latest generation of UBI and a better understanding of driver behavior [6]. It would be fairly easy to explain why disruptive events on a crowded highway are more risky than disruptive events on some local road. But it may be more difficult to explain other types of events with different environmental characteristics. Therefore, it is necessary to implement a UBI system that could differentiate such events and provide more accurate information to insurance companies for invoicing.

To better understand driving behavior, you need to make extensive data available to the insurance company. As a result, insurance companies can't only measure traditional telematics parameters (mileage, speed, acceleration, breaking events, etc.), but also measure how people actually drive and analyze driver behavior more accurately by contextualizing the data obtained. Using more accurate data leads to an improved method of determining the cost of insurance, which reduces rating errors that occur when grouping drivers into General actuarial classes [7].

The next-generation solution for telematics-based insurance. Various UBI solutions have been implemented around the world. One of the papers on UBI provides a comparative analysis of 24 main UBI solutions [16]. The main drawback is that these solutions tend to analyze only traditional telematics parameters to assess driver behavior. Table 1 contains a summary list of UBI solutions and their key features.

In addition, UBI solutions, such as in Canada and Spain, take into account several levels of risk over a 24-hour time period [9], [13]. This approach can suffer from many pitfalls, which leads to a bias in the alignment of individual risk and price. This is because, for example, disruptive events during a rainy night may contribute to a greater overall risk than disruptive events during a sunny day. Many of UBI's current decisions can lead to inconsistencies in price and individual risk matching. The environmental factor is fundamental for the next generation of UBI.

Table 1. – Summarized list of UBI solutions implemented worldwide

Insurance company	Country	Name of the UBI program	Insurance concept	Technology platform	Data transmission
AIOI [8]	Japan	Pay as you drive	Distance-based vehicle insurance	G-book (telematics subscription service provided by Toyota Motor Corporation)	Mobile data service
Aviva [9]	Canada	Autograph	Insurance is based on traditional telematics parameters with several levels of risk within 24 hour period.	Device connected to vehicle diagnostic port	Universal serial bus
AXA [10]	Italy	Autometrica	Distance-based vehicle insurance	GPS-based	Mobile data service
Generali [11]	Italy	Protezione Satelitare	Insurance is based on traditional telematics parameters	GPS-based	Mobile data service
AXA Winterthur [12]	Switzerland	Crash Recorder	Recording events	Event-data recorder	Data retrieved from event-data recorder
MAPFRE [13]	Spain	YCAR	Insurance is based on traditional telematics parameters with several levels of risk within 24 hour period.	GPS-based	Mobile data service
RSA Insurance Group [14]	United Kingdom	More Than Green Wheels Insurance	Insurance is based on traditional telematics parameters with several levels of risk within 24 hour period.	Device connected to vehicle diagnostic port	Mobile data service
Uniqa [15]	Austria	Safeline	Insurance is based on traditional telematics parameters with several levels of risk within 24 hour period.	GPS-based	Mobile data service
WGV [16]	Germany	Young & Safe	Insurance is based on traditional telematics parameters with several levels of risk within 24 hour period.	GPS-based	Mobile data service

The new paradigm of motor insurance billing. Usage-based auto insurance policy billing appears in the literature under the following abbreviations: UBI (Usage Based Insurance), PAYD (Pay As You Drive), PHYD (Pay How You Drive), MHYD (Manage How You Drive) or PHHYD (Pay How and How much You Drive). The main characteristic of all these reductions is the billing of car insurance products basing on new sets of information, such as miles traveled, time of day, and driving behavior, among others.

Benefits of using UBI. UBI programs offer many benefits to insurers, consumers and society. More closely linking of insurance premiums to the actual characteristics of individual vehicles or fleets allows insurers to estimate premiums more accurately. This increases accessibility for lower-risk drivers, many of whom are also lower-income drivers. Fewer miles and safer driving also help reduce the number of accidents. Regardless of the UBI program, the UBI value is immanent not only for the user, but also for the entire ecosystem, as shown in table 2. The strengths of these technologies dominate their weaknesses today.

Table 2. – Categories and description of the advantages of using UBI program

Benefits	Description
Social benefits	Reduce accident frequency and severity; reduce accident response time; track and recover stolen vehicles; establish fault to improve equity in settling claims; reduce driving, pollution, traffic congestion and energy consumption
Economic benefits	Reduce chance of accidents; enhance efficiency of claims processing ; enable early detection and prevention of frauds; enable pricing based on risk profiles
Environmental benefits	Increase use of congestion-free routes and limit vehicle usage; reduce fuel consumption; improve vehicle maintenance; reduce CO2 emissions
Benefits for insurance providers	Correct risk misclassifications; enhance pricing accuracy; retain profitable accounts; fight fraudulent claims; enable lower premiums; reduce claim costs; differentiate brand
Benefits for users	Reduce premiums; demonstrate safe driving habits following an accident; value-added services (vehicle diagnostics, stolen vehicle recovery, emergency services, teen driver monitoring etc.)

Real life telematics systems implementation. Vehicle telematics is a technology for transmitting, receiving and storing information about vehicles using information and communication technologies [17]. Vehicle's telematics is based on M2M (inter-vehicle) communication and is the exchange of data between remote devices using a wired and / or wireless communication network for telemetry and remote control [18]. The availability of computing power and network connectivity in cars and mobile terminal devices has led to an explosion of available applications and services for users [19].

Data collection process. Data is recorded by a special telematics device. Most of the data used by the driver, the policyholder, or any other interested person is extrapolated from the basic set of raw data received by the telematics device.

Data precision and reliability. The billing process is one of the key processes in insurance telematics products. The billing process for insurance telematics depends to a large extent on the accuracy of the GPS data received from the telematics device. However, the quality of GPS data depends on environmental conditions. In fact, this may lead to a corresponding risk of income loss for the insurance company or even for the holder of such insurance. For this reason, contextualizing data received from a telematics device is the second most important aspect of ensuring accurate and reliable data for use by the system. Data is contextual with the help of improvement of algorithms of GPS data and matching map. Throughout this process, many deviations caused by environmental factors that affect the accuracy of GPS data can be eliminated, which significantly improves the overall reliability of the data. As it follows from the above, choosing the right data processing solution in insurance telematics is of paramount importance for the insurance company.

Results and discussions. The main purpose of the study was to provide an overview of the technical solution and basic data model for the billing process. The presented technical solution includes an environmental factor for better contextualization of the collected data. Collected, extrapolated, and processed data allows you to more accurately quantify the risk and understand the driver's behavior. This allows for a more consistent assessment of individual risk, thereby improving the billing process.

Conclusion. Research suggests potential for both insurance companies and drivers. UBI policies can be useful, especially in emerging markets. In addition, emerging markets have great potential, and insurance companies will have to actively implement new business models. The most important part for insurance companies is to recognize the importance of the environmental factor in reconciling individual risk and price. The presented telematics solution, although implemented in Eastern Europe, should be easily adapted in other countries.

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Economics

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THEORETICAL FOUNDATIONS OF IMPROVEMENT OF BUSINESS PROCESSES OF ORGANIZATION

K. ATAEV, I. ZIANKOVA
Deputy Chairman of the Board of Directors, Baku, Azerbaijan
Polotsk State University, Belarus

The article dwells on the Business - process: concept, essence, classification.

Improving production and management activities in order to increase the effectiveness of an organization requires understanding of the term "business process", which makes up the conceptual apparatus of the research subject area.

To a large extent, the success of any organization depends on the effective implementation of business processes. In conditions of increasing competition, continuous improvement of business processes is necessary. The choice of methods and tools for improving business processes determines the result and effectiveness of an organization.

The term "business process" was introduced by E. Deming at the end of the 20th century. Currently, this concept is used by many authors in their studies. Table 1.1 shows various approaches to the definition of the concept of "business - process".

Table 1.1. - Approaches to the definition of the concept of "business process"

Author, source	Definition
E. Deming Quote from [1]	Any types of activities in the organization.
M. Porter Quote from [2]	A business process is an entity that is defined through entry and exit points, interfaces, and organizational devices, partially including devices of a consumer of services (goods in which the cost of a service / product is being increased)
M. Robson, F. Ullah [3, p.10]	A business process is a systemic closed process, which is a stream of work that flows from one person to another, and for large processes, from one department to another
M. Hammer J. Champi [4, p.14]	A business process is a systemic closed process, which is a stream of work. This process has a beginning ("input"), a certain number of stages of activity and the result of work obtained "at the exit"
E.G. Oyhman, E.V. Popov [5, p.12]	A business process is a set of internal steps (types) of activity, starting with one or more inputs and ending with the creation of products necessary for the client and satisfying them in terms of cost, durability, service and quality. Or: a complete stream of events in the system that describes how the client starts, leads and ends the use of the business
I.I. Mazur V.D. Shapiro [6, p. 21]	A business process is a system closed process
V. A. Gagarsky [7]	A business process is a regularly repeating sequence of interrelated activities (operations, procedures, actions), which are used to use external resources, create value for the consumer and give him the result.

Source: compiled by the author on the basis of the study of economic literature.

An analysis of the abovementioned definitions showed that they do not adequately express common points, the essence of the concept of "business process", characteristic of an industrial organization. To clarify the definition of the business process essence, we will consider the elements of the business process, their content.

In the majority of the abovementioned definitions, the following things are indicated as elements: input of the business process, resource, consumer (client). Yu.F. Telnov [8, p.5], and S.M. Kovalev [9] relate to the elements

that are directly involved in the implementation of the business process the following things: the head of the business process, the conversion function, resource, input object, result, event.

A business process is an object that functions under the influence of

subject - the head of the business process - an official or collegial management body that has at its disposal the resources necessary to perform the transformation function, and is responsible for the result of the business process.

A conversion function is one or more actions (operations) carried out in a logical sequence and aimed at changing the input object to a result with certain characteristics using resources.

Input object - an object sent from the supplier to the disposal of the owner of the process for further acquiring new features.

Result - an object directed at the disposal of the consumer, after giving him the relevant characteristics.

Resources are subjects in relation to the input object, under the influence of which the input object changes its characteristics.

An event is information that reflects the fact that the resources and input objects are ready for the conversion function, changes in time and space of the properties, characteristics of the input object, completion of the conversion function and obtaining results. An event performs an informational or procedural function.

For each state of the input object that is affected by the transform function, call descriptions of the other transform functions must be specified. Events act as management functions of the transformation and direction of material, financial, information and labor flows.

Imagine a generalized model of a business process in Figure 1.1.

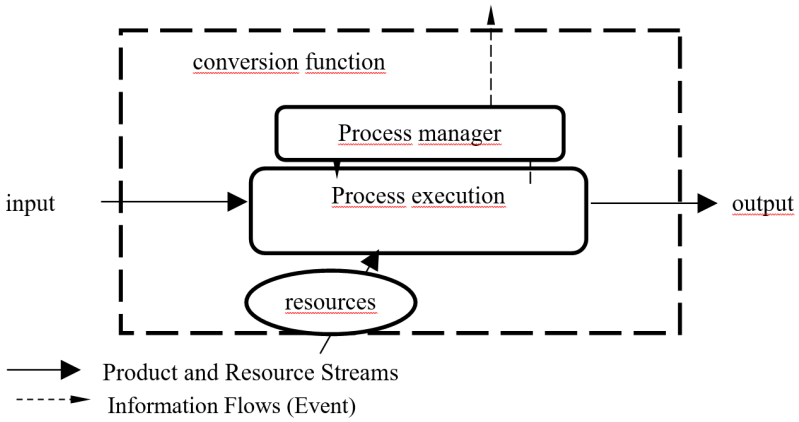


Figure 1.1. – a Generalized model of the business process

Source: authoring.

Thus, in our opinion, a business process can be defined as a function of effectively converting an input object into a result, which is performed using resources under the guidance of the process owner, with the subsequent reflection of the completion of the conversion with the help of the event.

Inputs of a business process — objects that change during the process (materials, procurement, information, etc.) that are transformed by the process to create output flows. Output streams are the results of the process (products, services, etc.), i.e., the result of the conversion of input streams. Also the output streams are indicators of the effectiveness and efficiency of the business process - indicators of the product, process efficiency and customer satisfaction.

The resources of the business process are contributing factors distributed by the owner of the business process during the planning of work on the process and taken into account when calculating the effectiveness of the process, as the ratio of the resources spent on the obtained result of the process (people, information, equipment, materials, facilities and environmental requirements).

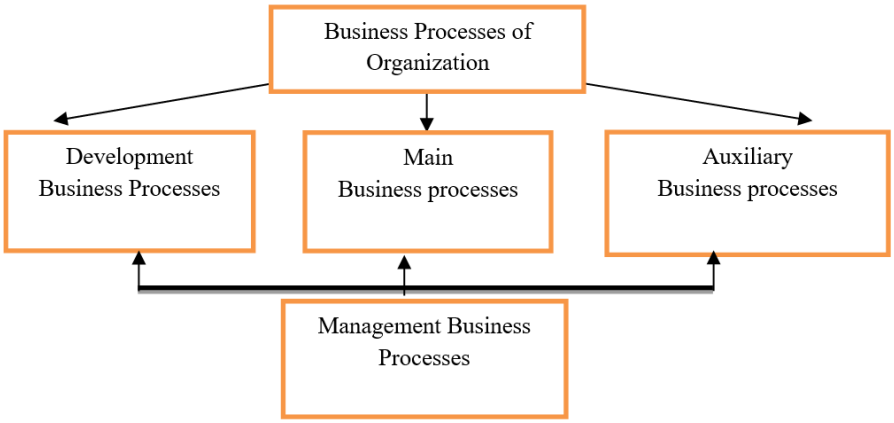
An analysis of the classifications of business processes as a complex phenomenon presented in the literature of the topic allows us to consider them from different points of view. Table 1.2 presents systematic approaches to the classification of business processes.

Table 1.2. – Approaches to the classification of business processes

Author, source	Classification criteria		Types of business processes
V.V. Repin V.G. Eliferov [1, p.29]	in relation to process consumers		internal and external
	in relation to the value added		main adding value and auxiliary adding value;
	by level of consideration		upper level, detailed and elementary.
CM. Kovalev V.M. Kovalev [nine]	in relation to business process technology		productive providing
	in relation to the type of flows		basic ones associated with the movement or with transformation of material flows
			management processes related to the movement or to transformation of information flows
V. A. Gagarsky [7]	by degree of hierarchy	simple	basic, auxiliary, reference
		detailed	main related
			auxiliary providing
			managing development processes
A.V. Scheer [10, p. 19]	by key categories of core processes	order logistics	order processing; calculations, basic needs planning, material management; capacity planning; capacity regulation, issue of orders; detailed schedule planning; production data collection; quality control and monitoring
		new product development	product requirements; product design; construction; comparison of work schedules, technical planning control; programming; machine and work management, tool management, warehouse management; transportation management; Maintenance; quality assurance
A. Björn [11, p.17, 23-25]	by hierarchy		production, management and support
	in relation to value creation		primary (core), creating value of organization
			supporting (auxiliary), not creating directly added value
			development processes that allow to create a value chain in the main and auxiliary processes at a new level of indicators
	actual business processes		subgroups of the main processes: product development, customer requirements, fulfillment of orders, customer service
			secondary, divided into groups of support processes and development processes
M. M. Cane [12, p.45]	by role in providing the main function of the organization		basic - create value for the consumer
			auxiliary - ensure the functioning of the main processes

Source: compiled by the author on the basis of the study of economic literature.

Summarizing the various approaches, we single out the most common and often used in practice classification of descriptions of business processes, in which business processes are distinguished, depending on the area of activity of the organization: main, auxiliary, management processes and development processes (Figure 1.2):



The definition of the main business processes is carried out from their consumers - subjects using the results of the process. According to V.V. Repin [1, p.40] for the consumer of the process the quality, cost and time of providing the result of the process are important.

Auxiliary processes ensure the implementation of basic business processes, create products and services for the internal consumption of the organization, without adding value directly, increasing the cost of the product (service, information), being inherently costly. S. M. Kovalev referred to them: personnel management; document management; technical and service maintenance of equipment; communication provision; financial and accounting support; administrative support; legal support; security and other processes [9].

By definition of E.E. Oykhman [5, p. 47] development business processes are projects that are implemented once and end their existence, new projects replace them, and this situation repeats many times. Management business processes cover the whole range of management functions at the level of each business process and the organization as a whole, ensuring its survival, competitiveness and development. Distinctive features of management business processes is their typical structure, which is represented by a standard chain of management cycle, consisting of five stages: planning, organization, accounting, control, regulation. In addition, management business processes are determined by the specifics and strategy of the organization, as well as the number of management objects that exist in the organization and which must be managed.

Managing impacts of a business process are regulatory documents or activities that define, regulate and / or affect a business process. They cover procedures, methods, plans, standard methods, strategy and legislation.

The analysis allowed us to draw the following conclusions:

1. The analyzed definitions ambiguously interpreted the essence of the concept of "business process of an industrial organization".

2. The author's vision of the essence of the business process of an industrial organization was presented, as well as a generalized model of the business process and the characteristics of its elements: the head of the business process, the conversion function, resource, input object, result, event.

3. Various approaches to the classification of business processes were systematized.

4. The most common classification of business processes by the criterion of the activity area of the organization is acceptable as it reflects the essence of a business process.

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Economics

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INTERACTION OF MARKETING AND LOGISTICS IN PRODUCTION AND ECONOMIC ACTIVITIES OF THE ENTERPRISE

K. PAPLAUSKAYA, J. BANZEKULIVAHO
Polotsk State University, Belarus

The article dwells upon the economic essence of marketing and logistics, points out the interaction between these two concepts in ensuring the promotion of enterprise products on the market by linking the consumer, transport and supplier to a mobile, techno-technological and planned-economically coordinated system with subsequent increase in the efficiency of product sales and profitability of the enterprise as a whole.

Keywords: *marketing, logistics, interaction, product promotion, marketing tasks, logistics tasks, flow control, material flow, logistics efficiency*

Talking about the essence of marketing is quite difficult. Foreign and domestic economic literature contains several hundred definitions of this phenomenon. The term "marketing" comes from the English word "market" and refers to activities in the market, market conduct. Marketing as an economic category has a very capacious content, that is why many people confuse its essential and functional characteristics.

In the economic literature, classic and modern definitions of marketing as an economic category can be distinguished. In the classical sense, marketing is defined either as an entrepreneurial activity that controls the promotion of goods and services from a producer to a consumer or a user, or as a social process by which the demand for goods and services is forecasted, expanded and satisfied through their development, promotion and implementation. These definitions are somewhat limited. Their genetic disadvantages consist in exaggerating the role of product distribution and distribution channels, underestimating the interaction of buyers and sellers and the impact on marketing of various social groups (trade unions, shareholders, consumer associations, etc.) [1, p. 18].

The purpose of modern marketing is not to sell a product or service in any way (including cheating a buyer), but to satisfy customer needs. Marketing is aimed at attracting new customers, promising them the highest consumer value, and retaining old customers satisfying their ever-changing needs.

Depending on the scope and object of application, the following types of marketing are distinguished:

• Internal marketing: domestic sales of goods and services;

• Export marketing: additional research of foreign sales markets and sales services for efficient export;

• Import marketing: a special kind of market research to ensure highly efficient procurement;

• Scientific and technical marketing: associated with the implementation and purchase of the results of scientific and technical activities (patents, licenses, etc.);

• Direct investment marketing: studying the conditions for investing abroad and attracting foreign investment;

• International marketing: selling or purchasing a product from a national enterprise in another country;

• Marketing in the field of non-profit activity: creating positive public opinion regarding specific individuals, organizations, places or ideas [2, p. 56].

The main objectives of marketing include:

- research, analysis and assessment of the needs of real and potential consumers of the company's products in the areas of interest to it;

- marketing support for the development of new products and services of the enterprise;

- analysis, assessment and forecasting of the state and development of markets in which the company operates or will operate, including research on the activities of competitors;

- the formation of the assortment policy of the enterprise;

- development of the pricing policy of the enterprise;

- participation in the formation of strategies and tactics of market behaviour of the enterprise, including the development of pricing policies;

- sales of products and services of the enterprise;

- marketing communications;

- service maintenance [3, p. 24].

Marketing begins long before the enterprise has a finished product. Marketing begins when managers identify the needs of people, calculate their intensity and volume, determine the ability of the enterprise to meet them. Managers continue to work on the product throughout its entire life cycle. They are trying to find new consumers and retain existing ones, improving the consumer qualities of the product, and using reports on sales volumes and feedback for this purpose. If the marketing specialist worked hard, i.e. correctly understood the needs of the client, created a product that meets the requirements of customers, set a reasonable price, correctly distributed the product and conducted an advertising campaign, it will be very easy to sell such a product.

In modern conditions of market management, the relationship of the enterprise with most other market entities should be based on the principles of marketing.

The main principles of marketing include the following:

• Scientific and practical research of the market and production and distribution capabilities of the enterprise;

• Market segmentation: the company identifies the most acceptable market segment (a homogeneous group of consumers), in relation to which it will conduct market research and promote its product;

• Flexible response of production and implementation: involves a quick change depending on changing market requirements, the elasticity of supply and demand;

• Innovation: involves improving and updating the product, developing new technologies, introducing new methods of working with consumers, entering new markets, updating advertising, new distribution channels, new methods of distribution of goods;

• Planning: involves the construction of production and distribution programs based on market research and market forecasts [1, p. 184].

Management of enterprise behaviour on the basis of marketing principles should ensure work in a dynamic, continuous mode, providing flexibility and adaptability of the enterprise to turbulent changes in the market environment.

The purpose of enterprise behaviour management based on marketing principles is to identify promising areas of its activities in the market that provide competitive advantages with minimal resources.

Thus, marketing should be considered as economic, social, managerial and technological processes based on the following basic principles:

• Continuous study of the state and dynamics of the market;

• Adaptation to market conditions, taking into account the requirements and capabilities of end users;

• Active market formation in the areas necessary for the enterprise.

Speaking about logistics, it should be noted that modern logistics has a lot of definitions and is interpreted as the science of the rational organization of production, transport and distribution, which comprehensively covers the issues of supplying the enterprise with necessary material and technical resources, organization of production, distribution and sale of finished products from a system perspective. In addition, logistics is seen as a process of planning, organizing and implementing inexpensive and rational delivery of goods from places of production to places of consumption, control of all transport and other operations in the logistics system, information management [3, p. 66].

In the standard of the Republic of Belarus STB 2047-2010 "Logistic activities. Terms and definitions" [4, p. 2] the following definition of logistics is given; "Logistics is a complex of sciences about the ways and methods of managing material, information, financial and other flows with the aim of optimizing commodity distribution through the rational interaction of production, transport, banking, customs, information and other subsystems of the economy."

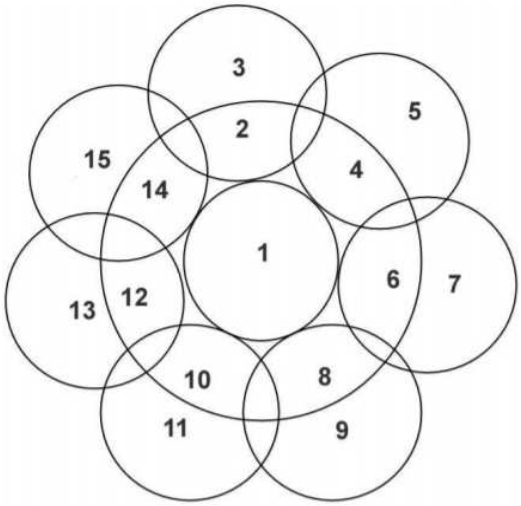
The tasks of logistics arise from aspects and its functional areas. From here one can imagine the general and particular tasks of logistics, united by one goal - minimizing the total costs of managing material flow as part of the logistics process.

The general tasks of logistics include:

- creation of a material flow, financial and information flow management system;
- control over the movement of material flows;
- development of a flow control strategy;
- forecasting;
- determination of the imbalance between consumption and production capabilities;
- organization of transport;
- organization of after-sales support;
- organization of storage facilities;
- the purchase of raw materials, materials, semi-finished products [5, p. 604].

In addition, it is worth mentioning such particular tasks of logistics as the creation of minimum stocks, minimizing the storage time of products in stocks, minimizing transport time, etc.

When implementing the abovementioned tasks, logistics interacts with other functions of the enterprise. The functional environment of logistics is presented in fig. 1.



1 - logistics; 2-15 - logistics environment (sales, supply, transportation, warehousing, procurement of raw materials, material and technical supply planning, production planning, product quality improvement, production planning and management, storage systems, marketing, customer service organization)

Figure 1. – The functional environment of logistics [6, p. 88]

The following requirements are imposed on logistics as a promising direction of enterprise development:

• Link of logistics to corporate strategy;

• Improvement of the organization of movement of material flows;

• Improvement of the information system: admission of the necessary information and its timely technical processing;

• Effective personnel management;

• Close relationship with other enterprises participating in the supply chain;

• Accounting for profits from logistics in the system of financial indicators of the enterprise;

• Determination of optimal levels of quality of logistics services [5, p. 714].

Therefore, logistics is a system of strategic management of material, financial, labour, information, service and legal flows in the processes of supply (purchase), transportation, storage, production, distribution, service of materials, components and finished products. Therefore, the most important task of logistics is the justification and creation of effective organizational forms and methods for managing all these flows.

Since one of the main functions of logistics is to coordinate supply and demand, this, of course, shows the close interaction of marketing and logistics, which is confirmed by the following principle: "Marketing forms demand, and logistics realizes it."

Thus, logistics reflects the integration of two areas of activity - the demand presented by the market and the proposal put forward by the enterprise.

The logistic approach to functional planning at the enterprise involves the allocation of a logistics service that manages the material flow, starting from the formation of contractual relations with the supplier, and ending with the delivery of finished products to the consumer.

More significant interaction between logistics and marketing is the following main tasks that are solved at an enterprise by the marketing service:

1) analysis of the external environment and market research;

2) consumer analysis;

3) implementation of commodity, pricing, distribution and communication policies.

If the first two tasks can be solved by the marketing service without the participation of the logistics service, then the third task should, of course, be solved by marketing and logistics together. The demand revealed by marketing should be satisfied in a timely manner through fast and accurate delivery (quick response technology), and this quick response to the demand that arises is possible only with an established logistics system. Logistics provides the physical movement of goods in demand to the consumer.

Logistic integration allows you to deliver the required product to the right place at the right time at minimal costs.

Thus, logistics complements and develops marketing, linking the consumer, transport and supplier to a mobile, techno-technological and planned-economically coordinated system. Logistics and marketing are, therefore, two equal concepts with different tools and subjects of interest, but with a single field of functional application and common end goals. In other words, these are two parallel paths leading to the same goal. Their essence is closely intertwined in the process of satisfying the needs of consumers at optimal costs. The marketing functions answer the question "what is needed?", and the logistics functions answer the question "how to do this?". With the optimal simultaneous use of marketing and logistics, not only increases the efficiency of sales of the enterprise, but also the profitability of the enterprise as a whole.

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Economics

UDC 657.1

RADIOACTIVE WASTE: REFLECTION IN ACCOUNTING

A. KHARCHANKA, M. PRIMAKOVA
Polotsk State University, Belarus

The procedure for handling radioactive waste and its disposal is considered, and the author's description is given definition of radioactive waste, and also shows which business operations will be taken into account- to participate in accounting in the process of radioactive waste management.

Nuclear energy, medicine, industry, etc. – sources radioactive waste (RW) resulting from human activities, a lot of. Therefore, there is a need for RW accounting, it is important for organization of competent handling (including timely disposal) of these waste.

Having studied the approaches of various sources, we found that radioactive waste (RW) - is unsuitable for use substances or waste that are formed as a result of human activities, content and activity of radionuclides in which exceeds acceptable levels.

According to various subject literature, waste can be returned and irrevocable, if possible, they are divided into subject monetary value wastes and wastes that do not have a monetary value, but accounted for in quantitative expression.

Having studied and analyzed the sources [1,2], we found out the essence irrevocable waste and came to the conclusion that waste is called irrevocable, which at the current level of technology, technology and organization of production impossible or impractical to use or implement on the side. From this it follows that RW will be classified as "non-repayable waste".

According to foreign practice (namely, the practice of the Russian Federation), irretrievable waste not subject to evaluation. They are shown only in quantity as the difference between weight of raw materials, basic materials and semi-finished products taken into production, and weight received products and returnable waste. In the absence of returnable waste - as the difference between the weight of the products received and the weight of raw materials, basic materials and semi-finished products taken into production [3].

Irrevocable waste also includes technological losses. RAO will are technological production losses for oil and gas industry. Technological losses will be included in materials containing RW, when written off to production, as shown in table 1.

Table 1. – Write-off of materials containing radioactive waste into production

DT	CT	Contents of the operation
20,23	10	transferred to the production of materials, there are radioactive waste
Technological losses in excess of the norms will be taken into account separately		
91	20,23	excess technological losses have been written off

Note: in-house development based on the source [4].

RW is hazardous waste. According to international experience, enterprises that produce hazardous substances as a result of their business activities need appropriate licenses for self-destruction. Or transfer such waste for recycling (if, for example, there is no license).

Utilization of raw materials will be carried out by processes such as storage, transportation, disposal. Depending on the method chosen by the disposal organization, disposal may include processes such as cementing, glazing, compression, incineration of hazardous waste, etc.

Since processing leads to cost formation, we believe that this should be reflected in accounting. Since these costs can be associated with the current activities of the organization, in our opinion, they should be attributed to the cost of production. After - write-off of production costs to other expenses for current activities.

Thus, the procedure for accounting for radioactive waste in the accounts will be reflected as follows (table 2).

Waste accounting is conducted in the context of the reporting period (month, quarter, year). Reportable the data must contain the incoming and outgoing residue of the amount of waste, as well as reflect the movement

of waste during the reporting period. Account information about waste is reflected in the form of quantitative indicators. If you measure the actual amount of waste cannot be measured, then the accounting indicator determined on the basis of accounting records, acts of acceptance and transfer, contracts [5].

Table 2. – A reflection of the disposal of radioactive waste in accounting

DT	CT	Contents of the operation
Reflection of radioactive waste disposal in the accounting records of the organization that is the owner of these raw materials		
If an organization transfers its own RW to another organization for disposal		
20	60	the organization's work on waste disposal is taken into account
18	60	"Input" VAT
If the organization independently disposes of its own RW		
20	70, 69, 76, 10, 60	the organization's expenses for waste disposal are taken into account
90/10	20	formed the cost of waste disposal
68/2	18	accepted for deduction of" input " VAT
20	68/1	environmental tax accrued
99	90/11	financial result is reflected
Reflection of radioactive waste disposal in the accounting records of an organization that is not the owner of these raw materials and is engaged in disposal as a business activity		
20	70, 69, 76, 10, 60	the organization's expenses for waste disposal are taken into Account
90	20	formed the cost of waste disposal
90	68/2	VAT is charged on the cost of disposal
68	18	accepted for deduction of" input " VAT
62	90/7	works on waste disposal were accepted by the customer, and revenue was accrued
20	68/1	environmental tax accrued
90/11, 99	90/11, 99	financial result is reflected

If the organization independently disposes of its own RW

Note: own development.

According to the experience of the Russian Federation, based on the Basic rules of accounting and control radioactive substances and radioactive waste in the organization (NP-067-05), for organizations should keep records of radioactive waste, such as, how:

* log of radionuclides discharged from wastewater;
* log of radionuclides released into the atmosphere;
* RW accounting log (except spent CRS (closed radioactive sources));
* RAO accounting log in the form of spent CRS.

There is also a need to conduct an inventory of radioactive waste, the results of which should be recorded in the act of inventory of radioactive departures.

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UDC 338

THEORETICAL FOUNDATIONS OF SOCIAL ENTREPRENEURSHIP N THE CONDITIONS OF AN INCLUSIVE ECONOMY

D. HLUSHANINA, K. HALIASHOVA
Polotsk State University, Belarus

This article describes the development of social entrepreneurship in the Republic of Belarus, discusses its problems and barriers. A list of directions for solving these problems based on the experience of foreign countries is presented.

Introduction. In recent years, a renewed interest in social entrepreneurship has appeared in Belarus. Experts attribute this to the following reasons: "global trends related to the development of social entrepreneurship, which intensified with the beginning of the new millennium; the demographic crisis, which together with the economic crisis increased the load on the social service system; increasing social activity of citizens, the development of new social technologies" [8]; "Modern social problems and issues addressed in society have led to the need to create new economic units - subjects of social entrepreneurship, which adhere to certain principles in their activities, meet modern business requirements and contribute to solving social problems" [2, p. 165]; in 2014, the TALAKA platform was created, within the framework of which the training project "Social Entrepreneur" was implemented.

Today, there are many definitions of social entrepreneurship, which indicates the relevance and high interest in this area. To understand the essence of this issue, you need to analyze various approaches to the definition of this concept. (table 1).

Table 1. – Approaches to the definition of social entrepreneurship

Author	Content
M.A. Makarchenko	"Social entrepreneurship is an area of activity in which the implementation of economic activity is aimed at solving important social problems through the effective functioning of economic entities" [1, c. 36]
E.V. Vankevich	"Social entrepreneurship is a type of entrepreneurial activity aimed at innovative solutions to social problems or achieving social goals." [2, c. 165]
J. Robinson	"Social entrepreneurship is a process that allows us to solve a specific social problem posed." [2, c. 165]
A.A. Moskovskaya	"Social entrepreneurship is a new way of socio-economic activity, which combines the social purpose of the organization with entrepreneurial innovation and achieving sustainability." [3, c. 15]
E.V. Popov	"Social entrepreneurship is a set of interrelated activities aimed at solving social problems by developing the commercial activities of economic agents." [4, c. 382]
P. Charland	"Social entrepreneurship is the ability to take the lead, organize some social and economic mechanisms, and accept the risks of failure." [5, c. 11]
G.Diz	"Social entrepreneurship is determined by taking on the mission of creating and maintaining social value, identifying and using new opportunities to realize the chosen mission. Implementation of a continuous process of innovation" [5, c. 11]
M.B. Poltavskaya	"Social entrepreneurship is a qualitatively new phenomenon that has arisen at the junction of the country's social and economic systems, designed to solve the dilemma: how to combine activities for the sake of public welfare with activities for profit?" [6, c. 136]

Source: compiled by the author.

Based on our critical analysis, we formulated the following definition of social entrepreneurship: social entrepreneurship is a type of activity aimed at proposing innovative solutions to social problems of society, on a self-sustaining basis, in the absence of external funding and the help of charitable organizations.

Organizations focused on solving social problems, or the so-called "social enterprises", appear around the world. However, there is very little information available to judge which countries actually stimulate social entrepreneurship, and which countries still have room to grow. To fill this gap, the Thomson Reuters Foundation, in cooperation with Deutsche Bank, UnLtd and the Global Social Entrepreneurship Network, conducted the first global assessment of expert opinions on the comfort degree of social enterprise in countries.

According to [7], the criteria for evaluating countries with the best development of social entrepreneurship may be:

- social impact;
- innovativeness;
- self-sufficiency and financial stability;
- scalability and replicability;
- entrepreneurial approach.

In accordance with these evaluation criteria, the rating of countries with the best development of social entrepreneurship is as follows [7]:

1) USA;
2) Canada;
3) United Kingdom;
4) Singapore;
5) Israel;
6) Chile;
7) North Korea;
8) Hong Kong;
9) Malaysia;
10) France.

Belarus is not in the top 45 of this rating.

Due to the fact that social entrepreneurship is a boundary concept between entrepreneurship and charity, in our opinion, it is necessary to adhere to the approach presented in Figure 1.

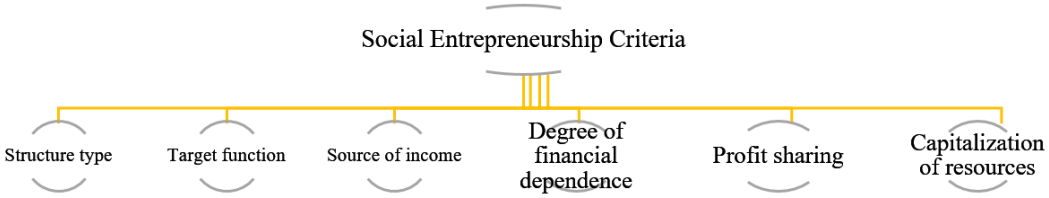

Figure 1. – Social Entrepreneurship Criteria

Source: compiled by the author based on [10]

At an early stage in the study of the phenomenon of social entrepreneurship, researchers identified two types of social enterprises: those based on pure charity and those based on pure commerce. A little later, with the resumption of interest in this area, many approaches to the classification of social entrepreneurship forms appeared, which have their own characteristics and depend on the share of the commercial component in their activities.

Three main models of social entrepreneurship are distinguished [10]:

1) built-in - entrepreneurial activity is fully aimed at implementing a social mission;

2) integrated - entrepreneurial activity combines the implementation of a mission and the expansion of a business or covering operating expenses;

3) external - entrepreneurial activity is aimed at making a profit, which acts as a source of financing social programs.

Types of social enterprises based on the share of the commercial component in business [8]:

1. Commercial enterprises established by non-profit organizations to assist in the achievement of the statutory goals of these organizations.

2. Commercial enterprises created in partnership with foreign companies for the achievement of social goals.

3. Entrepreneurship in the form of workshops, etc., carried out by religious organizations to achieve the goals for which they were created, as well as consistent with these goals

4. Individual entrepreneurs, positioning themselves and acting as social enterprises.

5. Commercial enterprises created without the participation of public organizations, pursuing social goals.

In 2015, the largest number of commercial enterprises in Belarus was established by non-profit organizations to assist in the achievement of the statutory goals of these organizations [8].

The third approach to the classification of forms of social entrepreneurship [9]:

- non-profit organizations with commercial components (commercial activity can be oriented towards covering costs in the implementation of non-commercial social activity (commercial activity is integrated into social activity) or is aimed at generating income);
- social enterprises (organizations of a commercial type created in order to reduce or mitigate the scale of social problems, which are characterized by innovative activity, financial discipline, determination of a market company; in their activities, social enterprises use market and entrepreneurial approaches to stimulate social evolution and create a public good, strategic planning, innovation, determination and discipline);
- socially responsible business (fulfills two goals: creating a public good and making a profit (the degree of influence on the decision-making of market incentives, the amount spent on the social functions of funds can vary widely); sometimes socially responsible entrepreneurship can be considered as a social enterprise (for example if it is a subsidiary of a non-profit organization created to implement the goals of the parent company));
- corporate social responsibility (activity of commercial enterprises seeking to profit and, at the same time, participating in charity (such activities can be profitable by increasing the capitalization of the company), which helps to increase profit, achieve market goals, and also solves social development tasks (sponsorship, volunteering, launch of grant programs); this activity has a positive impact on the image of the enterprise, motivates staff, contributes to the achievement of the business goal).

As we see, the approaches to the classification of social entrepreneurship of different authors are mostly the same, only additional types of enterprises are added, depending on the characteristics of the economies of different countries.

At the moment, in the Republic of Belarus there are many problems and barriers to the existence of such an activity as social entrepreneurship. Among the main reasons for such low popularity of social entrepreneurship in Belarus is the "absence in the Republic of Belarus of legislative and normative acts defining special conditions (requirements) for the activities of social enterprises, which is why social enterprises do not have the ability to compete with traditional business. Also, the lack of cheap and long money necessary for the development of the enterprise plays a negative role in the development of the business of social enterprises, there is no microfinance and subsidies. And consumers themselves choose the product without taking into account the status of the producer organization [8].

In foreign countries, to solve the problems of social entrepreneurship there is a fairly large number of funds involved in supporting social enterprises. The most famous is the Ashoka Foundation. Ashoka is an international non-profit foundation operating under the laws of the District of Columbia (USA), a global association whose activities are aimed at finding, supporting and financing individuals and organizations operating in the field of social entrepreneurship.

Ashoka is the first organization to systematically support entrepreneurial social initiatives, popularizing the phenomenon and the phrase "social entrepreneurship" itself.

According to data for 2015, the fund had its own assets in the amount of 72.8 million US dollars. And the number of members from 70 countries (according to the organization itself), for 2014 amounted to 3,000 people.

Ashoka Foundation has supported many social initiatives, their creators and leaders.

Ashoka supports social entrepreneurs at three levels [11]:

1. Provides financial and professional assistance.

2. It unites communities of social entrepreneurs to interact, help each other and bring their ideas to a higher level. Captures and promotes best practices.

3. Promotes the creation of the infrastructure and financial systems necessary to support and grow the civilian sector and to spread social innovation globally.

In modern conditions, the main directions necessary to support the sphere of social entrepreneurship are [13, 14]:

1. Development and improvement of the legislative and regulatory framework for creating conditions for the development of social entrepreneurship;

2. The establishment of optimal tax rates for both social entrepreneurs and the country's budget to stimulate the growth of their activities.

3. The possibility of financing unemployed citizens who want to start their own business.

4. Expanding the opportunities for social entrepreneurs to participate in the implementation of state orders and orders of state corporations.

5. Holding regional forums on the development of social entrepreneurship with the allocation of financial support for particularly promising projects.

Thus, in Belarus it is necessary to create a system of state support for social entrepreneurship, which will contribute to the further formation and development of this sphere in the interests of the national economy.

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UDC 368.01

RECOMMENDATIONS FOR IMPROVING PLANNING IN AN INSURANCE ORGANIZATION

I. TARASEVICH, S. IZMAILOVICH
Polotsk State University, Belarus

Currently, planning and forecasting are the most effective ways to minimize insurance risk. In the framework of this article, an analysis of the organization of planning and forecasting in insurance is performed. As a result, some weaknesses in organization were revealed and ways to improve the situation were found.

The market is a complex economy mechanism, including a system of economic relations, the participants of which can make decisions and act in conditions of considerable uncertainty and various economic risks. The insurance market is not an exception: uncertainty is caused not only by unpredictability of common risks inherent in the economy, but also by particular ones, such as the occurrence of insured events and their consequences. One of the most effective ways to minimize uncertainty is planning.

Planning in insurance is an attempt to predict the formation of insurance reserves as an indirect indicator of the economy effectiveness in the country, the source of insurance payments.

Planning in an insurance company can be divided into several stages which are shown in the following diagram.

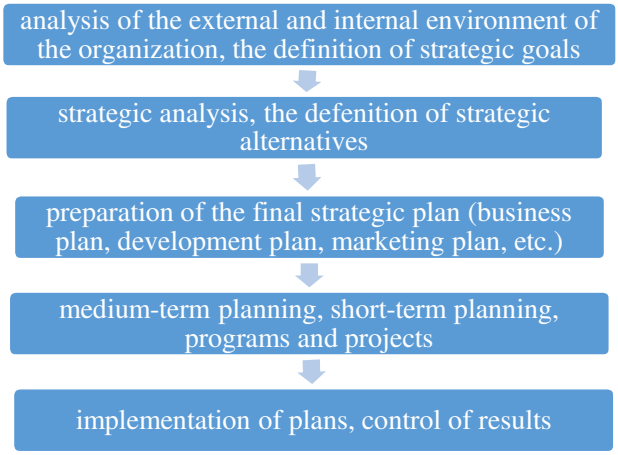

Figure 1. – Stages of planning the activities of the insurance organization

Currently, the following methods can be used in insurance: balance sheet, normative, target-oriented, economic and mathematical modelling. The plan of the insurance organization is a planned balance of income and expenses (financial results and their planning).

Financial planning in an insurance organization is a set of measures for the analysis, evaluation, forecasting of the results of direct insurance, reinsurance; forecasting of the activities, connected with temporarily free funds of insurance reserves management operations; and other activities not prohibited by law.

The results of financial planning are: a system of strategy, tactics, politics, rules, procedures, budgets; socio-economical, technical forecasts of the control object developing and external environment; short, medium and long termed targeted programs. The specifics of financial planning are determined by the following factors: the formation and usage of insurance funds; planning the amount of insurance premiums and payments based on the uncertainty of concluding insurance contracts and possibility of insurance events; reinsurance activities due to the application of variability of plans and their developing methods.

Operational planning in the insurance organization should be aimed to ensure comprehensive regulation of financial and economic activities and is identified with financial planning for a certain period.

Forecasting the activities of insurance organization is as important as its planning. With the developing of market economy in our country, forecasting the development of insurance operation becomes especially relevant.

A forecast is a probabilistic, but highly certain assessment of the future of the insurance organization, based on a priori information on its development and conditions.

The main regulatory document governing the planning of the insurance organization in the Republic of Belarus is the Order of the Ministry of Finance of the Republic of Belarus of December 19, 2006 No. 450 "On approval of the Recommendations for the development of forecasts for the development of insurance organizations for five years and Recommendations for the development of business plans for the development of insurance organizations for a year" (As amended on December 29, 2012, No. 414).

The organization of planning and forecasting was analysed according to the Belarusian Republican Unitary Insurance Company «Belgosstrakh». The analysis showed that the organization of planning in this insurance company is well developed. Nevertheless, there are some disadvantages.

One of them is including retired insurance contracts in the base for bringing planed and forecasted indicators. Retired insurance contracts are prematurely terminated insurance contracts and contracts with a validity period other than 1 year.

One more disadvantage is failure to meet planned and forecasted indicators of insurance premium income. This is the result of using divided system of including accrued and actually received insurance premiums in the entire amount of indicators.

And the last disadvantage which was found during the analysis is the failure to fulfil the plan for the receipt of insurance premiums on voluntary property insurance of legal entities and voluntary medical insurance.

Thus, the analysed insurance organization needs to address the weaknesses of planning and forecasting.

In order to improve the planning and forecasting process, «Belgosstrakh» can do the following:

1. Exclude retired insurance contracts from the base for planned indicators. Retired insurance contracts are prematurely terminated insurance contracts and contracts with a validity period other than 1 year.

2. Replace the fragmented system of inclusion of accrued and actually received insurance premiums in the base of the performance of the reported indicators. It is necessary to bring forecasting indicators to insurance agents, as well as for the entire separate division, i.e. accrual basis.

This would let the administration of a separate division solve the problem of managing and controlling the implementation of forecast indicators in general for separate divisions of «Belgosstrakh» and for the whole organization, because in this case the planned indicators, forecast indicators in general for separate divisions are reached.

3. In order to stimulate the sale of insurance services and fulfil the sales plan in the representative offices of «Belgosstrakh» we propose to draw. After this, the percentage of fulfilling the plan for insurance premiums should increase, which will allow representative offices to carry out the assigned tasks for contributions.

4. Improvement in bringing the plan in terms of the number of insurance contracts concluded due to exclusion of retired insurance contracts with a validity period other than 1 year from the base for calculating.

5. Improving the methodology for bringing forward-looking indicators in terms of bringing the assignment under insurance contracts to separate units in the planning period. Based on the analogy, taking into account the amount of accrued insurance premiums in the reporting period, it is necessary to exclude from the base the actual number of insurance contracts that will be taken as the basis for bringing the assignment for contracts in the planning period, contracts with a validity period other than 1 year, as well as terminated ahead of schedule and terminated insurance contracts.

The proposed planning methodology will show the real, rather than artificially overestimated, number of insurance contracts for the period taken into account to achieve the planned indicators, thereby tracking the reliable growth of insurance contracts, and will also help to achieve the forecast growth rates of the republic's insurance market.

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UDC 378:33

THE IMPACT OF THE DIGITAL ECONOMY ON EDUCATION

I. HOJIYEVA, N. MURODOVA
Navoiy State Pedagogical Institute, Uzbekistan

The article analyzes the changes in the education system, in the development of digital economy and requirements for digital literacy in education.

Keywords: *digitization, digital literacy, internet environment, individualization of education, educational process.*

The question of "digitization" is the most important and it is embodied in many spheres today, and in the conditions of the development of today's Digital Economy, science shows that its contribution to it is enormous. Science dictates the need for its development, its digitization, its transformation into money in the virtual world and the digitization of education as well. According to the decree of the President of the Republic of Uzbekistan of October 8, 2019 № PF-5847 "On the concept of development of the higher education system until 2030", the education system has also envisaged the wide spread and scale of use of Information Technology, which has the necessary conditions in the 21st century. [1]

Digitization of the economy does not only mean the transition from the "analog" era to the digital world, but also the translation of data and processes into the digital world. Therefore, the digitization of the education system is not only limited to the creation of a digital copy of the usual textbooks, but also means the digitization of the document circulation and the possibility of accessing the entire continuous education system on the high-speed internet. And this is only a check with the creation of an electronic copy of the textbooks, a new look at the educational system, the need for a radical turn, the approach to education itself.

It indicates the need for answers to questions such as:

what and how to teach?

If a person receives and digitizes audiocassettes, this does not mean that they will be a part of the digital economy. Because digital literacy is the most important part of modern education.

Literacy is a concept familiar to everyone. According to the most general definition, this is the level of having basic cognitive abilities:

-reading,

-writing.

However, with the development of technology and the complexity of the information space we have, these terms are becoming synonymous. International organizations that are trying to classify the skills necessary for a modern person, touch on the importance of digital, information and scientific literacy. Often types of literacy complement and enrich each other.

digital literacy means

-the creation and use of content through digital technologies,

-including computer programming skills,

-the search and exchange of information, communication with other people.

There are different criteria for the development of digital literacy. For example, according to USA professor Henry Jenkins, digital literacy means:

-understanding how human and digital technologies interact with a computer,

-understanding device characteristics,

-and understanding digital information dissemination and social media characteristics. [2]

In his opinion, it is important to understand:

-the cultural context of the Internet environment,

-the ability to communicate in online communities,

-the ability to create and distribute content,

-the use of digital technologies for self-development.

In this sense, we can see that digital literacy is also a source of self-development. People who do not have such a culture and literacy will not be protected from the flow of digital information and will not know how to convert it into money.

In order to a live long and happy life in the digital economy, a person must have a culture of information consumption, for example, people must have the ability to make the right choice between a simple storyline and the novel named as "The past days" of Abdulla Qadiriy (a great Uzbek writer), to do this they must be able to understand the needs and nature of these works.

Obviously, digital literacy is a complex set of skills, for its development it is not enough to update the program on "Informatics" or to re-equip the educational system technically. And without the development of these sectors, unfortunately, the basis of the digital economy will also be weak. The younger generation is more interested in digital technologies and pay attention to the reality of the society, and this in due time leads to the collapse of their perception of the real labor market, so education system needs to take into account their digital literacy and the analysis of everyday life.

Therefore, the individualization of education can lay the foundation for the development of the digital economy as well. If the development of digital technologies is, first of all, excluded from the production of workers of "regular" labor, then the system of mass education, which trains specialists in one program, will be insignificant.

In addition, experts believe that the digital economy requires the development of skills for

-self-organization,

-self-planning,

-self-promotion,

and this is done through the individualization of education, which, in its turn, should be considered.

Digital technologies that enter the educational system allow to individualize the learning process both at the stage of mastering new materials and at the stage of controlling individual results. There are such opportunities due to the emergence of such projects as "mobile e-school".

This is a social network for

-teachers,

-students,

-and parents,

and it is an indication that the educational content, assessment and feedback systems with which the educational process should be digitized and coming to an online view of the educational methodological support system. In order not to stay on the edge of the digital economy, it is necessary to learn

-what,

-when,

-and how, each person must decide for himself.

Digital technologies provide tools for the development of mixed education, a strict classroom lesson, which is the same for every curriculum and every student has the same time to master it, overcome the limitations of the system. It is true, that in a public school, these opportunities are rarely realized. The reader, for the students themselves, too, seems to be more interested in a virtual scientist than in real lessons. [3].

The digital economy is radically changing the labor: where the computer is being replaced. For people who are dismissed, the road to self-employment, especially digital technology, creates new opportunities for the organization and development of business.

In addition, in the near future, regular changes in the profession will become the norm, and being in one professional field will require readiness for training. The concept of Continuing Education shows that human life is not divided into the period of study (before receiving a diploma) and work, and education becomes a continuous process throughout life. In order for continuous education to become a vital norm, the structure of online education and the attitude of society towards education must change. If the first task is the digitization of online platforms, software, content, then the second will be directly related to the development of internal motivation of a person. And it is important to start from the primary classes and have an interactive learning screen.

The digital economy requires not only the "digitization" of individual processes from the educational system, but also an approach that sets new goals, changing the structure and content of the educational process.

Due to the processes of globalization, that is, the incomparable acceleration of the pace of life, the exchange of high-level information, the development of the world civilization, the enormous reforms and creative work carried out in our country, the members of our society are obliged to work tirelessly on themselves, to be modern, creative, initiative and entrepreneur, to get acquainted with the information. Therefore, in the era of the digital economy, education and knowledge are of particular importance, which necessitates the seriousness of its participants, the solidarity with the times, the awareness of innovations, the wider use of digital information, and optimization process. Knowledge, qualifications of student youth, skills must definitely meet the requirements of the digital economy.

For this, they must be able to work at an excellent level on electronic devices and have the skills to work quickly. Individual education also gives its effect. As a result of this, they will be able to independently study the sciences that are of interest to them without problems. While in order to make the right choice within most data, they require digital culture and digital literacy. And in this case, teachers, parents are required to carry out the correct explanatory work with youth.

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Economics

UDC 338

OPPORTUNITIES FOR NON-FINANCIAL ORGANIZATIONS OF THE REPUBLIC OF BELARUS IN THE DERIVATIVES MARKET

P. PANKOV, L. MASKO
Polotsk State University, Belarus

The current state of derivatives market in Belarus has been analyzed. For better understanding the necessity of hedging and its practical importance the organization as an open system has been considered. In this system the model of hedging the most significant risks arising in the current activity of non-financial organizations has been developed.

Managing the organization in market environment is a complex task that can be performed successfully not mainly with the help of management tools, but it should be based on understanding of common truths and knowledge of possible variants of the situation development. In modern conditions any organization is closely connected with the environment and depends on it both in terms of its resources and in terms of consumers. Openness of both individual organizations and the economy as a whole is associated with many risks that are caused by external factors. Derivatives provide an effective method of transferring risk from parties that do not want to be exposed to this risk to market participants, who are willing to accept it.

The impact of external environment and the necessity of coordination within the organization require making management decisions constantly. Management is understood worldwide as the process of planning, organization, motivation and control necessary to achieve the company's goals. Theory and practice of management allow us to present economic entities of any level as open systems. The characteristics of management activity on the enterprise as on the open system may be presented in the following form (figure 1).

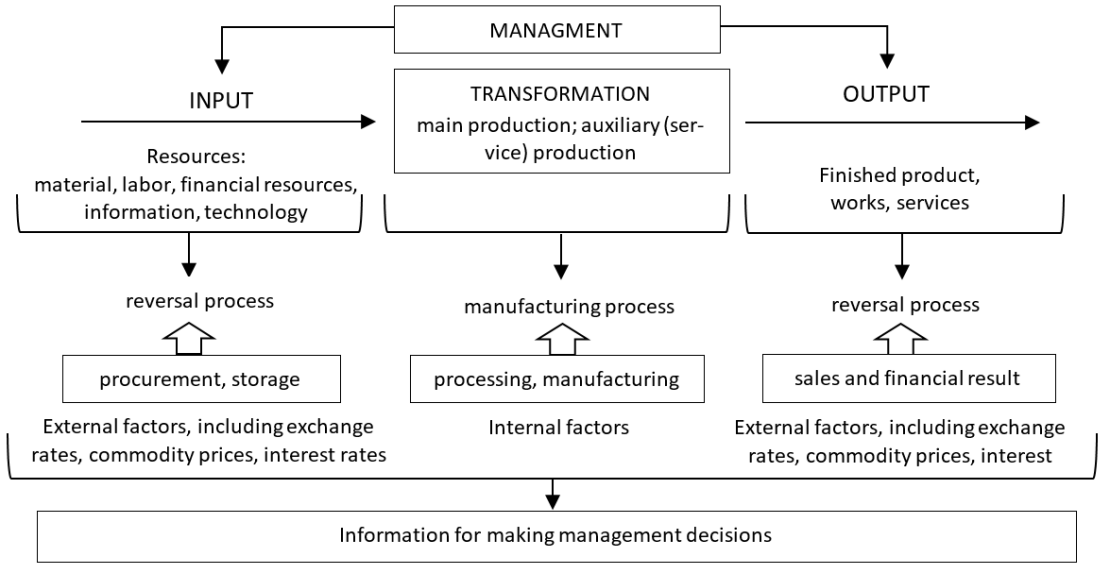

Figure 1 – Characteristics of the opened management system

Source: own development based on [1]

Depending on the field of activity, market variables (exchange rates, exchange prices, interest rates) can have significant impact on the final result of the company's performance indicators. Moreover, exposure to the risk of adverse movement of market variables can occur both at the stage of procurement and at the stage of sale of goods or services.

It is evident that the planning function will be implemented better if the probability of occurrence of the planned scenario is higher. In this case, hedging with derivatives allows the company to plan the result that won't be affected by market risk. On the other hand, when hedging, the organization consciously abandons the potential

profit, that's why not the entire volume of future cash flows is hedged, but only a part of it. However in general, as noted earlier, non-financial organizations are more interested in protecting against market risks, which is associated with the movement of relevant exchange rates, commodity prices, interest rates, rather than in obtaining speculative income from short-term market fluctuations.

In assessing hedging effectiveness, it is necessary to take into account the changes in the value of the hedged item, while consideration of only profit or loss of the hedging instrument (derivative) doesn't take into account the purpose of hedging. Because the cost of the hedged item and hedging instrument in an effectively built risk management system should move in opposite directions and provide the company with a stable level of income with a high probability [2].

The most evident directions of hedging for non-financial organizations in the Republic of Belarus are protection against currency and price risks faced by exporters and importers, or by organizations working with exchange traded commodities. Potential areas of hedging risks that arise in the terms of current activity in non-financial companies are presented in figure 2.

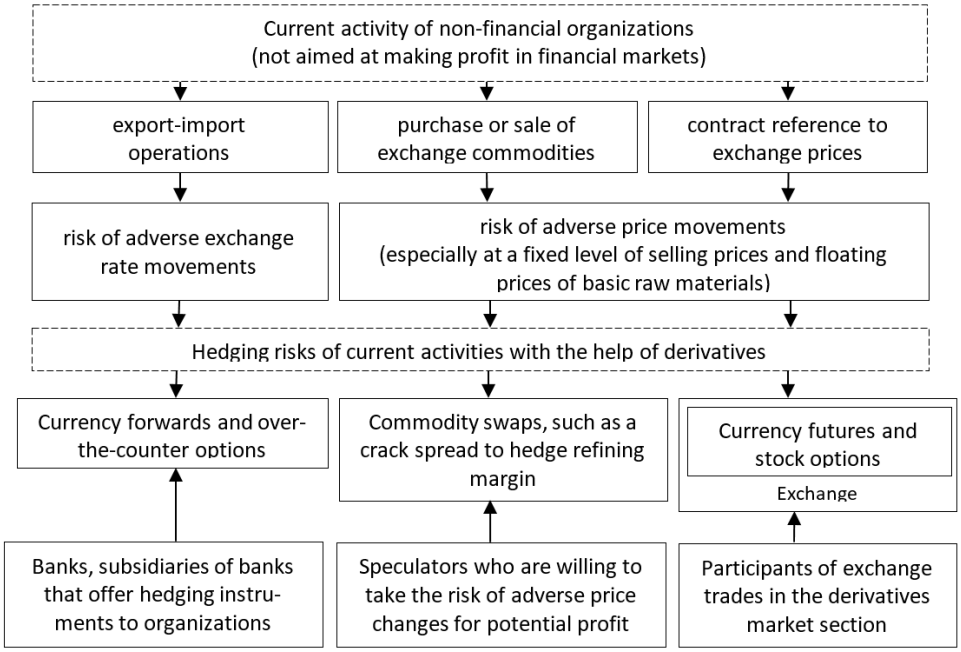

Figure 2. – Model of hedging the most significant risks arising in the current activity of non-financial organizations

Source: own development

Any organization can resort to hedging with derivatives if its cash flows are subject of market risk (risk of changes in exchange rates, commodity exchange prices, interest rates), and there is an objective necessity to reduce this type of risk. But in cases, which are presented in figure 2, it will be one of the most appropriate risk-management techniques.

Despite major financial turmoil, the crisis of 2008-2009 didn't significantly affect the use of derivatives around the world. This is confirmed by a study conducted by Bodnar (2011) [3], where it is noted that out of 624 respondents (risk managers of large financial and non-financial organizations around the world) 27 % indicated that the crisis prompted them to reduce the use of derivatives, 23 %, on the contrary, noted that the crisis forced them to expand the scope of derivatives usage, and the remaining 50 % indicated that the crisis didn't affect their attitude to derivatives.

Currently, among non-financial organizations in Belarus the most popular derivative financial instruments for hedging currency risks are forward contracts for the purchase, sale or conversion of currency. As a rule, the counterparty to such transactions is the servicing bank. Offers of banks on forward transactions for purchase, sale and currency conversion represent the OTC market of derivatives. In addition, banks and financial institutions both

registered in the Republic of Belarus and abroad may offer organizations to purchase derivatives with different conditions and underlying assets. While the volume of OTC transactions with such derivatives is rather difficult to estimate, it can be noted that the usage of OTC derivatives with a variety of underlying assets (not only currency) by non-financial organizations in Belarus hasn't become widespread at the moment.

The nomenclature of the derivatives exchange market is represented by non-deliverable (settlement) futures contracts of OJSC «Belarusian currency and stock exchange» on the US dollar, the Euro, the Russian ruble, Euro/US dollar rate, which are still not in demand among Belarusian organizations. In addition to the derivatives market section of OJSC «Belarusian currency and stock exchange» trading of commodity derivatives with underlying assets is conducted at the OJSC «Belarusian universal commodity exchange». Generally, the derivatives market in the Republic of Belarus can be represented in figure 3.

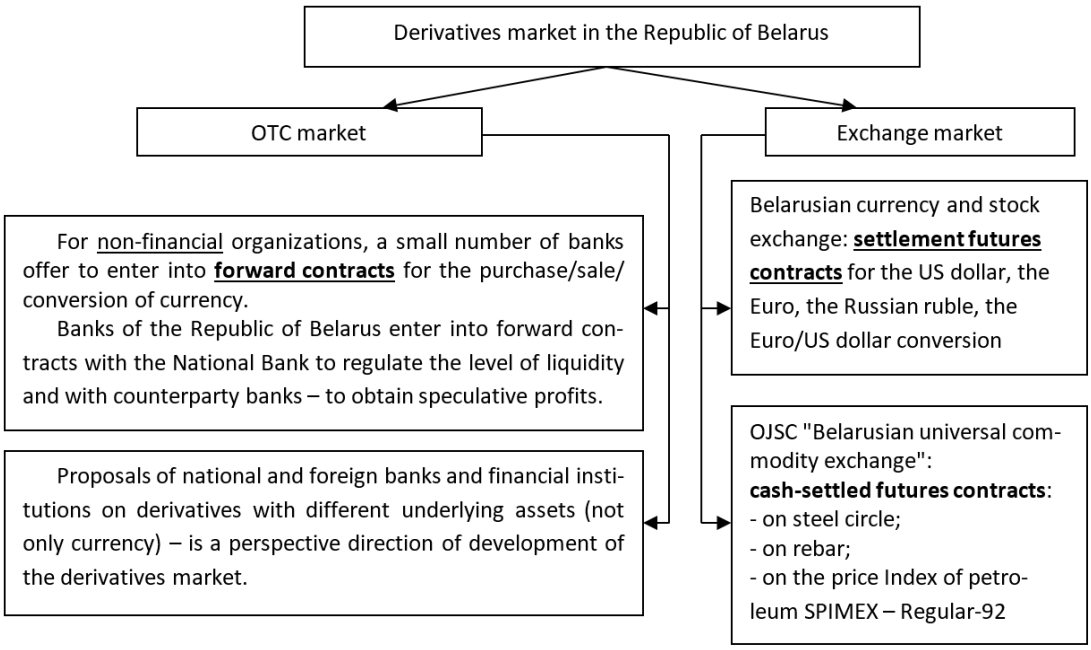

Figure 3. – Derivatives market in the Republic of Belarus

Source: own development based on [4, 5, 6]

As we can see, the derivatives market in the Republic of Belarus can't be considered effectively developed. Its development will be faster, if the companies participate in transactions on futures market by their own, without external orders. Here may be useful the proposed model of hedging the most significant risks arising in the current activity of non-financial organizations, which will help company to plan and direct resources on risk-management actions more effectively.

Conclusion. For better understanding from senior management side the necessity of hedging market risks and its place in the management system, we have considered the organization as an opened system, which is influenced by external factors. The planning function in this system will be implemented better, if the organization will be able to obtain the result that is not exposed to market risk. Therefore, we have developed a Model of hedging the most significant risks arising in the current activity of non-financial organizations. It includes such areas as export-import operations, purchase or sale of exchange goods, contract binding to exchange prices. In these cases, hedging with derivatives will be one of the most appropriate risk-management techniques and will have a positive effect on the work of a non-financial organization.

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Economics

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PRODUCTION WASTE: ESSENCE, CLASSIFICATION, ACCOUNTING

M. BOREYKO, N. BOREYKO
Polotsk State University, Belarus

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

The state policy of the Republic of Belarus in the field of environmental protection 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. The following strategy was developed in the Republic of Belarus: the National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for the period until 2030, which experts called the greening of national production and ensuring environmental safety.

In our study, we have considered the concept of "environmental safety" and analyzed the essence of the definition of "environmental safety". In our opinion, environmental safety is a negative impact on the environment, the state of environmental protection and the totality of ways to ensure national environmental interests.

Since the main link in the definition of "environmental safety" is the environment, waste is the most important source of negative impact.

Different authors give different definitions of the concept of "waste", for this reason we have considered approaches to the essence of the concept in order to give the most accurate and complete definition. In our opinion, waste is a substance or object formed in the process of carrying out economic activity, human activity and not having a specific purpose at the place of its formation or having lost all or part of its consumer properties, as well as substances remaining in the production process products that cannot be subjected to complete disposal.

In order to correctly take into account waste in accounting, initially it is necessary to give a detailed classification of this concept.

The key classifying feature of waste is the "origin of the waste". The Law of the Republic of Belarus "On Waste Management" in Article 15 establishes various classifications of waste. So, according to the types, depending on the origin, the waste is divided into production waste and consumption waste. The Law of the Republic of Belarus "On Waste Management" also establishes the classification of waste by type depending on the state of aggregation into liquid and solid waste.

Waste accounting is a system of continuous documentary reflection of information on quantitative and qualitative indicators of waste, as well as on their treatment.

The following measures are in place to organize waste accounting:

- The publication of orders on the appointment of responsible persons in the field of waste management;
- conducting an inventory of production waste;
- approval of standards for production waste generation;
- development of guidelines for waste management and its approval;
- obtaining permission to store and bury production waste;
- conclusion of contracts with facilities for the disposal, disposal and use of production waste;
- providing an annual report in the form of 1-waste to the Ministry of Natural Resources "Report on the management of production waste";
- maintaining books of waste accounting in the form of AML-9 and books of general accounting of waste in the form AML-10;
- filling in the accompanying passports for the transportation of production waste and their registration journal.

Wastes that are generated in production are divided into returnable and non-returnable.

Waste which cannot be used due to various technical or organizational reasons is considered irrevocable. This is waste that is impossible, impractical or unacceptable to reuse, in other words, not suitable for further use.

Returnable waste is the cost of residues of raw materials, materials and semi-finished products formed in the process of converting the source material (semi-finished product) into finished products if they completely or partially lost the consumer qualities of the source material and are therefore used with increased costs (lowering the output or not at all used for its intended purpose).

To reflect information on returnable waste, account 10 "Materials" is intended. Based on the analysis of the characteristics of the sub-accounts of this account, we can draw the following conclusion:

- returnable wastes used as high-grade raw materials for the production of other products are accounted for in sub-account 10-1 "Raw materials";
- returnable waste that can be used internally as solid fuel is reflected in sub-account 10-3 "Fuel";
- returnable waste intended for sale is accounted for in sub-account 10-6 "Other materials";
- returnable wastes that contain precious metals are reflected in sub-account 10-12 "Scrap and wastes containing precious metals".

Returnable waste is credited to the debit of the corresponding sub-account of account 10 in correspondence with the credit of accounts for the accounting of production costs, namely those accounts in which debit was written off the cost of raw materials and materials during the processing of which these wastes were generated (20 "Main production", 23 "Auxiliary production ", 29" Serving production and economy ").

The cost of returnable waste is deducted from the cost of raw materials and materials included in the cost of production (work, services), they reduce the cost of material resources in the processing of which they were formed.

The written-off materials, the use of which is possible for economic purposes (materials with reduced quality characteristics) or to be delivered in the form of waste (scrap, rags, etc.), are transferred to the organization's warehouse on the basis of an act for the cancellation of materials and (or) an internal invoice moving materials

There is no form for the act of writing off materials established at the legislative level, therefore, the organization must develop it independently.

The form of the act should contain the requirements, such as:

- name of the document, date of its preparation;
- name of the organization, last name and initials of the individual entrepreneur who is a participant in the business transaction;
- the content and basis of the business transaction, its assessment in physical and value indicators or in value indicators;
-posts of persons responsible for the business transaction and (or) the correctness of its design, their names, initials and signatures.

To account for waste organizations keep books accounting AML-9 and AML-10.

Entries in the book POD-10 can be divided into two categories.

1) records of the characteristics of the waste (columns 2-6 of the book POD-10):

- name and code of departure;
- degree of danger or hazard class of departure;
- educational standards;
- names of structural units in which this type of waste was formed;

2) records of waste management (columns 7-18 of the book AML-10): the number of generated, received, used, decontaminated, sent for storage, burial in this organization, transferred to other organizations, stored in places of temporary storage of waste of each type, treatment of which is carried out by the organization.

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DIGITAL MARKETING METHODS

H. ISMAIL, I. ZIANKOVA
Polotsk State University, Belarus

Digital Marketing is the result of a meeting between modern communication technologies and the old principles of marketing that people always apply. It is one of the most important methods of working in the market now, without which no commercial activity can achieve success or continue to progress.

Digital marketing is a link between the service and the product, the company and the targeted customers by defining the target segment, and communicating the true value to them, and then managing the relationship between them within the framework of preserving them for the longest possible period, it falls under digital marketing within the means of marketing and promotion, and includes social networking sites, websites, mobile devices like phones, tablets, and email.

What is the goal of digital marketing?

Like other forms of marketing, the goal of digital marketing is to promote and sell products and services. More specifically, the goal of digital marketing is to connect companies or organizations with their target audience through digital channels.

There are currently 4.4 billion Internet users around the world, and this number is increasing every day. The acquisition of electronic devices also continues to increase, with most adults owning at least a cellular device.

The goal of digital marketing is to use this large number of devices to connect the sectors of users to companies, often through the Internet. Marketers use a variety of methods to target and reach users in order to get their attention and start selling products and services to them.

Companies around the world are increasingly interested in digital marketing and making changes:

- 71% of companies plan to increase their budgets for digital marketing
- An average of 60% of marketers' time is devoted to digital marketing, which increases the demand for digital marketing skills
- Digital content production and management is now the second largest share in digital marketing budgets
- 28 % of marketers cut the budget for traditional marketing to further finance digital marketing
- 73% of marketers who market companies' products to other companies (B2B marketers) use video as a content marketing technology, and 7% of marketers plan to increase their YouTube marketing.

The difference between digital marketing and traditional marketing lies in the capabilities of modern technology. Where digital marketers focus their attention primarily on targeted and measurable activities, they want to target the right audience and measure the results of their efforts. In the past, targeting was by launching a television ad or placing an ad in a magazine, while technology today allows for a more accurate and more measurable approach. For example, marketers can now post a Facebook ad that only targets 20-year-olds and fans of Pizza food, where they can see the number of views, likes, comments, and clicks the ad has received. They can use this data to design ads that perform better.

Method for digital marketing

Only a method or set of methods can be adopted for digital marketing while neglecting other methods that may not really achieve the required returns or are of lesser importance due to limited budget. Choose the appropriate method for digital marketing:

1. Online advertising

It is very similar to traditional advertisements in newspapers and magazines or on road signs in which the advertiser buys advertising space or impressions appearing from another website and the advertised site is usually somewhat related to the product to be marketed, and the purpose of these ads is to attract visitors and convert these visitors to customers as a final result.

- *Views based ad*

If you want to introduce viewers to your brand or product, or what you sell is rarely purchased online, you must choose to watch ads. As many advertising services allow you to display your ads for a specified amount for each number of views and impressions in front of users.

- Click-based ad

If your product can be accessed and purchased online, this method is undoubtedly best for you, as what you pay is earned by active users and almost certain customers as the money is paid for every click that someone makes on your ad, regardless of the number of views that appear.

- *Advertising in the search engine*

In principle, this type of ads does not differ much from other types, except in the place of display. Instead of your ad appearing in an article or blog or elsewhere in a variety of sites, your ad will appear in the search engine when users search for a specific word.

2. Social Media

Marketing through this channel aims to reach the target audience through social networking sites such as Facebook, Twitter, YouTube... Social media marketing depends on building social groups interested in the brand by addressing the target audience by sharing interesting content such as photo information, postings, videos, and e-books.

3. Search Engine Marketing

There are two types of these channels, the free type SEO, which aims to increase the visibility of the site to be marketed on search engine results pages SERPs. This type of marketing depends on understanding the search engine algorithms, producing high-quality content permanently, attracting links from other sites, and adhering to search engine guidelines in this field and many other factors ... Because of the complexities of this type of marketing, most companies resort to employing an expert or hiring specialized companies in this field.

The second type of search engine marketing is the paid type, which is a text ad that appears at the top of the search results page and on the right or left side, and the advertiser usually pays for each click on the ad on the search results page. In other words, the advertiser requests the search engine to show their ad when users search for specific keywords chosen by the advertiser himself.

4. Email Marketing

This marketing channel relies on sending mailing bulletins or advertising content to the e-mail of the target audience. It is morally and professionally preferable when using this type of marketing to obtain prior approval from the recipient of these emails and to provide an easy way to unsubscribe from this service.

5. Public Relation

Usually large and leading companies in a specific field rely on this type of marketing channel and publish press releases on news websites in addition to relying on electronic public relations agencies to publish their news.

6. Analytics

Finally I would like to talk about analysis and tracking tools such as Google Analytics, through which the marketer can determine the fruits of the money spent on the ROI advertising campaign very accurately, unlike traditional marketing, which often depends on comparing the revenues of the business before and after the advertising campaign, which often lacks precision.

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FINANCIAL INSTRUMENTS OF STIMULATING ENVIRONMENTAL PROTECTION

A. MIADZVEDZ, A. MALEI
Polotsk State University, Belarus

In this article ecological problems which are connected with human activity are considered. Different world financial tools are presented. The conclusion about the government approach to this instruments is made.

In the modern world, for the sustainable development of the economy, public policy should pay special attention to environmental policy. The transition to an environmentally oriented development, or "green" economy, is currently one of the most important modern trends in economic development in foreign countries.

According to the basic law of economic theory, human needs are endless in conditions of limited resources, resources are being depleted, which leads to natural crises. The accelerator of the onset of the natural crisis is people. But for the most part it does not affect nature directly, but indirectly, through increasing production, the noosphere, accelerating natural and negative processes. In the production of certain goods, manufacturers never include in the price the real value of the consumed natural resources. In this regard, it is necessary that this control is carried out by the government. Only a balanced combination of state resource-saving policies and effective market tools makes it possible to develop a concept of ecological and economic transition and to model the right direction of sustainable development.

To form an effective system of environmental and economic regulation of the Belarusian economy requires the study, analysis and adaptation of foreign experience in this area. Economic instruments to stimulate environmental protection can conditionally be classified as follows:

- government regulatory instruments (environmental taxes and incentives; pollution charges; fines; accelerated depreciation; subsidies, grants, government programs; soft loans);
- market instruments (trade in licenses, pollution quotas; green bonds; environmental insurance; concessions, the use of public-private partnership mechanisms; environmental funds; environmental associations).

Environmental taxes are one of the most effective measures of state regulation used in almost all countries of the world. The need for their application was first approved in the EU Environmental Action Program in 1973, where the principle "polluter pays" was justified. For example, in the Netherlands, Finland, Italy, and since January 2014 and in Mexico, there is a tax on carbon emissions from burning fossil fuels, in Germany and many other countries there is a tax on landfill [1].

Many developed countries have a differentiated system of environmental taxation. For example, in Norway, the oil tax consists of two parts: the general rate and the additional payment, the amount of which depends on the concentration of sulfur in the oil. In Sweden, there are two types of taxes on oil and oil products, the latter being 1/9 of the amount of the tax on oil, which contributes to the development of refining industries [2].

Fines for environmental pollution are widely used in world practice, especially in cases of significant disturbances in the ecological balance, man-made disasters, such as, for example, the oil spill in the Gulf of Mexico, which occurred in April 2010, when the BP-owned Deepwater Horizon platform sank off the coast US state of Louisiana after a 36-hour fire. BP paid a fine of $ 4.5 billion for environmental damage. 2012, and in total by the end of 2013 spent on compensation caused by a man-made disaster. damage - more than 14 billion dollars [3].

State financing and co-financing of environmental projects in the form of subsidies, grants, implementation of state programs. In Sweden, companies are granted subsidies for the construction of solid waste disposal facilities in the amount of up to 50% of the cost of such facilities. In the United States in July 2014, the Environmental Protection Agency (EPA) provided grants to 21 small businesses in 14 states to develop and commercialize innovative technologies to address environmental concerns [4].

Environmental, or "green", bonds (pollution control revenue bonds) can be issued by states and local governments, corporations, international financial institutions to finance environmental projects. For example, in the United States since the 1980s. corporations issue such bonds to finance the construction of treatment facilities. Since 2008, the World Bank Treasury, together with the Environmental Department, has been issuing green bonds to support World Bank lending to environmental projects to mitigate and adapt to climate change. Over 6 years, green bonds worth over $ 6.4 billion were issued in more than 67 transactions in 17 currencies [5].

Liability insurance for environmental pollution of liability consists in the fact that the insurer assumes the obligation to indemnify the damage caused by the insured to a third party or group of persons. This insurance industry is relatively young it is just over 100 years old. The development of liability insurance goes along with technological progress and is supported by various laws and regulations, as it affects almost all areas of life. This insurance industry is of great importance for both the insured and the injured. If the policyholder has caused damage to someone, then it is paid by the insurance company, not the policyholder. Often, the damage caused can be a significant amount and, in the absence of proper insurance, lead to a deterioration in the financial situation of an individual or legal entity. On the other hand, liability insurance increases the chances of the victim, because if there is insurance with the person who caused the damage, the victim will receive compensation quite quickly from the insurance company [6].

In general, to promote the circular economy, the government can apply measures that motivate companies or consumers to replace dirty, polluting production processes and products with cleaner ones. In general, three types of measure are available to this end: the stick, the carrot and the sermon.

- The stick stands for discouraging polluting activities by internalising the environmental costs. Environmental taxes, levies, emission trading systems, setting and raising standards, as well as rules and prohibitions, are the best-known examples of such measures. Fines can be imposed for violations of rules that have been laid down.

- The carrot tempts producers or consumers to adopt the desired environmentally friendly behaviour. Subsidies, tax exemptions, pricing concessions, guarantees and loan facilities, but also preferential treatment through tenders and facilitating knowledge development and innovation policy are part of the repertoire of measures based on the carrot approach.

- Finally, the sermon responds to standards and values, and is related to the information and communication side of the policy mix. By informing producers and consumers about the consequences of their purchasing and user behaviour, it is possible to prompt them to adopt socially desirable behaviour. This involves concepts such as responsible business conduct and good citizenship.

The effectiveness of each of the above-mentioned measures in stimulating the circular economy depends on the specific circumstances, design and intended goals. This does not alter the fact that putting a price on negative societal effects is generally seen as an essential precondition for correcting market failure and promoting social prosperity.

The development of the circular economy is not only beneficial to the effective protection of the ecology and the sustainable exploitation of the resource but also to the adjustment and upgrade of the industrial framework. The circular economy is characterized by low consumption, low discharge, and high efficiency. Policy financing is an effective booster and important guarantee for promoting the circular economy development and transformation of an economy to development mode.

The establishment of a sound green financing mechanism will be a systemic project that requires the coordination amongst central authorities, local governments, financial institutions, and enterprises. In the process, governments have a key role to play in strengthening domestic policy frameworks, better aligning and reforming policies across the regulatory spectrum to overcome barriers to green investment, and providing an enabling environment that can attract both domestic and international investments.

Three types of policies and mechanisms can be designed: increase returns to the circular economy projects; reduce returns to polluting projects; and increase investor, corporate, and consumer responsiveness to these signals.

International cooperation and knowledge sharing is crucial. International organisations, national banks, institutional investors, and banking associations can enhance cooperation to promote the adoption of high environmental standards by lending institutions around the world and enhance their ability to conduct green investments. National governments should actively nurture intermediaries, including the trading platforms, consulting, assessment, legal, accounting, and other intermediaries' services, to cultivate and improve the cultivation of the right to participate in green finance.

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Economics

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SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT IN THE MODERN ECONOM AS A PART OF THE TRIPLE BOTTOM LINE CONCEPT

R. SARVARI, I. ZENKOVA
Polotsk State University, Belarus

The author considers the Triple bottom line concept as an application for achieving sustainable development goals. The purpose of the concept is to measure the effectiveness of corporations in the process of creating a public product, taking into account 3 factors of sustainable development: people, profit, and planet.

World social and economic changes are taking place depending on the level of the innovation and industrial complex due to the transition to the VI technological way. The digitalization level is becoming an indicator of the country's economic development, as well as a factor in the effectiveness of policies to increasing the adding value for goods, works and services. At the same time, accelerated innovations are changing the way of production and consumption, which has profound consequences for the dynamics of productivity, jobs, trade, and investment. In order to that, international studies pay much attention to the concept of inclusiveness, in particular when developing strategies for social and economic growth at the macro, meso and micro levels. Corporations and simply small companies, while forming nominal indicators in their business plans and business strategies, take into account the three-factor of the business space, the usefulness of the business is calculated at the socio-natural and economic level within the profitability and gross income. Owners and shareholders consider three factors: profit-society-nature (ecology). The concept of 3Ps was coined in 1994 by John Elkington [1] to provide the modern business with a right solution in creating adding value to its products and services without affecting the environment and social component (fig. 1).

Figure 1. – Triple bottom line concept (The concept of 3Ps: people, planet, profit)

Source: [2]

The usefulness of the concept, in our opinion, is in its effective interconnected mechanism, where industrial enterprises, creating products, take care of the natural component and social factors (their employees and the external society). This is a sustainability structure that analyzes the social, environmental, and economic consequences of a company. When achieving the goals of sustainable development, a business is obliged to analyze its contribution from the perspective of influencing the well-being of people and the health of the planet. This is called corporate responsibility, so using this three-factor model we can manage not only added, but also destroyed value. This idea is already taken into account in the Dow Johnson Sustainability Indexes [3], affecting corporate accounting, stakeholder engagement, and business development strategies. Thus, modern companies, applying a three-factor model in the development of their business, strive to be not only the best in the world, but the best for the world.

Table 1. – Components' meaning in the Triple Bottom line concept by John Elkington

Concept's component	Component's principles
People	• the labor involved in a corporation's work, and the wider community where a corporation does business. • how much does a company benefit society – a triple bottom line company pays fair wages and takes steps to ensure humane working conditions at supplier factories. • make an effort to "give back" to the community (3M partners with United Way fund STEM education across the world – to provide a well-educated source of scientists and innovators for generations to come).
Planet	an organization tries to reduce its ecological footprint as much as possible. These efforts can include reducing waste, investing in renewable energy, managing natural resources more efficiently, and improving logistics (Apple has invested heavily in environmental sustainability. Its massive U.S. data centers are LEED certified. In 2016, the company announced that 93 percent of its energy comes from renewables. These actions have nudged other tech giants like Facebook and Google toward using more renewable energy sources to power facilities).
Profit	"profit" isn't diametrically opposed to "people" or "planet" (Swedish furniture giant IKEA reported sales of $37.6 billion in 2016 – the company turned a profit by recycling waste into some of its best-selling products. Before, this waste had cost the company more than $1 million per year).

Source: [2]

When creating products or services, human capital should receive not only appropriate material rewards in the form of monthly salaries and motivational parts, such as bonuses, bonuses, but also have the opportunity to grow and develop within the organization. In the IT sector where the author works, several characteristics of a potential candidate when hiring are taken into account:

• experience (level of human professional capital);

• general skills for a particular position;

• results of professional implementation (profit created by an employee in past places, numerical indicators of project implementation and current motivation for changing an employer);

• additional skills that add value to the candidate in the labor market (knowledge of several foreign languages, several higher education diplomas, cross-platform knowledge in a service or product, management skills, training colleagues in a team, as well as the ability to negotiate and work with clients);

• level of emotional intelligence (ability to work in a team, rationally accept criticism, improve skills and develop in the direction of the growth of competencies of the company and managers).

For all of the above components in the current conditions of globalization and informatization of society, company owners and their HR specialists consider candidates from the perspective of a long-term working relationship – how long the candidate is ready to work in the proposed position, what kind of motivation the candidate sees in the future for 5-10 years. All this is important to consider in order to avoid the employee reaching his career plateau, in other words, emotional burnout, in the workplace. Therefore, directors and managers, when creating teams in business, form their own value systems, where the focus is not on making a profit, but on mutual understanding in the team and meeting the needs of employees. In simple words, if an employee is inside the company and he is satisfied with the team, compensation for work, as well as the availability of bonuses for himself and his family, this employee will be able to bring big profits to the company and contribute to its development. The value system of the base company may look like this:

• team building (corporate training, travel or joint trips on vacation);

• creating a clear motivation system for excellent work results (in tangible and intangible terms);

• offering social and medical insurance to the employee and his family;

• organization of work through the optimization of working time – four-day working weeks, six-hour working day, long lunch breaks, flexibility of the working schedule, etc.

The above criteria help to take into account the social factor of business development, and at the same time, we must analyze the participation of production in creating natural influence, especially in the field of processing, that is, how the company assesses its corporate responsibility, and how much it uses "green innovation" in creating production chains.

A recent UN Global Compact [4] study suggests that improving environmental performance throughout the supply chain can enhance processes, reduce costs, increase productivity, and improve societal outcomes. Consequently, green innovation has become essential for business firms. Green innovations refer to a set of active innovations that help firms minimize the negative impact of business activities on the environment and in the process, achieve sustainable objectives. Green innovations refer to managerial innovations, processes, services, and organizational structures that save energy, prevent pollution, enable waste recycling, and facilitate environmental management.

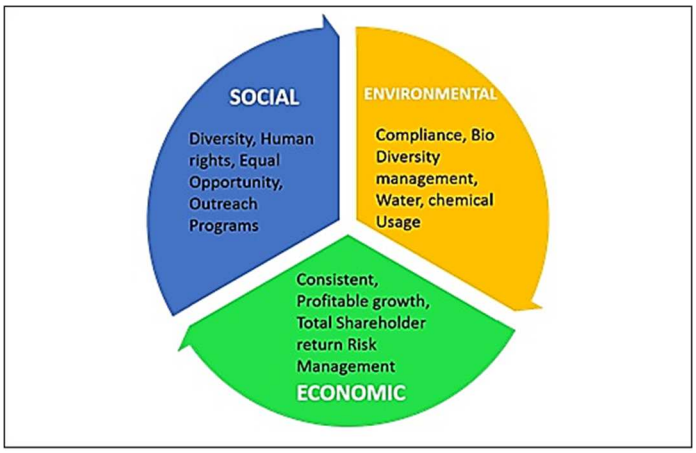

Figure 2. – Components' metrics in the triple bottom line concept

Source: [5]

Regarding the concept, China's experience has its impact on the international evaluation of the 3Ps concept's influence. Rapid economic growth in newly industrialized countries is achieved at a high cost of degradation of both human habitat and the environment. Currently, the expansion of motorization in emerging economies is at a pivotal time because of increased transport volumes. As of 2016, transportation accounted for roughly 29% of the world's energy demand and 65% of the total liquid fuel consumption. Not surprisingly, the transport sector was responsible for 25% of total energy-related CO2 emissions in 2016, around 8 GtCO2, which is 71% more than in 1990 and not comparable to any other energy end-use sector. With 623.3 million metric tons of CO2 emission in 2011, China was the second biggest transport-related CO2 emitter in the world, right behind the US. China's energy use per capita related to transport doubled from 2001 to 2011, while CO2 emissions from transportation increased by 58.4%. Related expansion of transport infrastructure and vehicle stock completes the picture and points out the social considerations related to traffic accidents, health issues, and noise pollution [6]. We can note a significant improvement in the economic situation in the analyzed regions. From 25% to 75% percent of improvements affected the state of socio-economic development, as well as the position of business in cities, which leads to increased investment attractiveness of the territories.

To improve and modernize the model we propose using the time component as well for the qualitative influence of business activity monitoring on all 3 indicators of an inclusive economic strategy. In our opinion, the four-level model of inclusive development like society-profit-nature (ecology) -time allows make long-term planning of business steps, as well as efficiently calculating the margin (adding value) of goods, works, and services of a company or entire corporations. The time component helps to reach sustainability in the long-term perspective of business. Svensson and Wagner [7, 8] present a broad definition of business sustainability. The definition aims to limit the short-sightedness of undertakings by defining the concept. Business sustainability was defined as: "…an organisation's efforts to manage its impact on Earth's life and eco-systems and its whole business network…" According to Padin and Svensson [9], this definition includes reference to the social, environmental and economic elements of business sustainability in both the marketplace and society at large taking into account the time component either. Social sustainability considers community development, public participation, user comfort, health and safety, access to services, equity and diversity. The concept of Triple bottom line offers clear and better developed strategies and action plans for the construction industry and, therefore, can make a significant contribution to a sustainable future. The principles of the study are practical and consistent with the overall sustainability goals in the socio and economic sector.

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Economics

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FORMATION OF INTELLECTUAL CAPITAL OF A PROFESSIONAL SPORTS ORGANIZATION

S. REPKIN,
Belarusian State University of Physical Culture, Belarus
A. MATVIENKA
Polotsk State University, Belarus

The research is devoted to the formation of the intellectual capital of the sports industry of the Republic of Belarus. The role and importance of the intellectual capital in the professional sports industry of the Republic of Belarus was noted. The structure of the intellectual capital of a professional sports organization and its main elements are considered.

In world economic science, intellectual capital has become one of the most valuable resources of post-industrial society, more important than accumulated or natural wealth. Today in many countries of the world, intellectual capital determines the pace of scientific and technological progress and, mainly, of economic development. The prevalence of intellectual capital in the national economy is becoming obvious.

In modern market conditions, intellectual capital plays an increasingly important role for the development of professional sports organizations in the Republic of Belarus, directly affecting its well-being [1, 2].

Considering the structure of intellectual capital of a professional sports organization, we will highlight its main elements (fig.).

Human capital	knowledge, skills, skills of professional athletes and coaches
	practical experience and theoretical knowledge of professional employees
	strategic and tactical potential of agents and managers at all levels
Organizational capital	personnel potential of a professional sports organization
	performance of managers at all levels
	brands and trademarks as results of intellectual activity of a professional sports organization
Consumer capital	interaction with sponsors
	targeted at potential fans
	marketing programs and promotion of a professional sports organization

Figure. – Structure of intellectual capital of a professional sports organization

Source: own development.

The basis of intellectual capital of a professional sports organization is human capital. The concept of human capital as an economic category is considered one of the core concepts in the economy today, which makes it possible to describe and explain many economic processes from the perspective of human actions and interests. The well-being and sustainable development of any professional sports club depends primarily on human capital. Therefore, there is a need for a carefully thought-out and consistent policy to balance investment in human capital and human resource development, both at the level of individual professional teams and at the level of sports associations and federations.

There are three main types of investment in human capital of professional sports clubs, determined by the costs of training, rent and transfer.

A special feature of investment in the human capital of professional sports clubs is related to its inseparability from the identity of the investment (an athlete). Considering this problem in detail allows us to identify two typical cases of such investments. In the first case, professional sports clubs invest in training athletes of their own sports schools who are in demand in the transfer market, as well as in their club. In the second case,

professional sports clubs invest in transferring athletes who are in demand in the transfer market or will be in demand in the future. Pricing policy in such transactions depends on professional athletes' skills, fame, prospects, individual qualities, age and other parameters. In the second case, professional sports clubs make investments in the absence of a significant number of highly qualified athletes in the team. Investments of professional sports clubs in human capital are associated with enormous risks, but it is not possible to refrain from these investments for obvious reasons. The strategic solution to these problems is determined by defining priorities and optimal size of investment in professional athletes and increasing their effectiveness.

If we compare the profitable component of professional sports in the Republic of Belarus with its global analogues, it should be noted that its development in our country will always be an important direction of state policy. But despite this, the economic regulation of professional sports clubs is in its infancy and at the moment has no significant trends in its evolution. This problem is largely due to the lack of private financing in the country.

Training professional athletes is a long-term investment project that requires investment of money and time in order to make a profit in the future. This profit will be expressed more in the cost of the most professional athlete in the transfer market. Every year, professional sports clubs buy and sell athletes to strengthen their team or make a profit.

When investing in human capital, the management group of professional sports clubs, as a rule, has many questions concerning the effectiveness of such investments, namely:

– will these funds pay off;
– when can we expect results;
– what amount of investment will be required;
– possible investment options (rent, transfer, training of own trainees);
– cost-benefit analysis of investment in the development of human capital of professional sports clubs.

Professional sports clubs decide to invest in players (pupils) based on a comparison of benefits and costs. Possible benefits are shown as expected higher profits in the long term, and costs are characterized by the monetary component of the investment spent on training or buying rights to athletes.

The subject of investment in the human capital of professional sports clubs can be the state. At present, its role in this area is very large. Priorities and optimal size of public investment in the human capital of the sports industry are considered in areas where the possibility of attracting private investment is not possible or unreasonable, and in other situations, it is more appropriate to improve market mechanisms, and, in turn, encourage private investment based on tax and credit mechanisms.

The structure of intellectual capital of a professional sports organization also includes organizational capital and consumer capital. Organizational capital is formed by ensuring a high level of professionalism of all the main functionaries to improve the effectiveness of the professional sports organization. In its turn, consumer capital is based on the effectiveness of marketing policy, interaction with fans and investment attractiveness for sponsors.

The sustainable development of a professional sports organization depends primarily on intellectual capital. In this regard, there is a need for a carefully thought-out and consistent policy on balancing investment in intellectual capital and human resource development. In comparison with investments in other types of capital, investments in intellectual capital are mostly profitable for both the individual and the entire society.

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CLASSIFICATION OF INNOVATIONS IN SUPPLY CHAINS

T. PALCHEVSKAYA
Polotsk State University, Belarus

The article studies the main types of classification of supply chains and innovations, identifies the types of innovations that can be applied in supply chains, provides examples of innovations in the supply chains of various organizations and proposes a new criterion for classification of innovations - depending on the place in the supply chain.

Innovative processes have a significant influence on the formation of the supply chain: the greater the number of innovations introduced at the stages of the chain, the faster goods, materials and information pass from the stage of procurement to the stage of implementation, and thus the chain can be considered more perfect.

Supply chains are divided into three types: simple, extended, and maximized supply chains. These supply chains differ in the number of participants. Simple chains consist only of suppliers, producers and consumers of the first level. Extended chains include suppliers and consumers of the second level, and the maximized supply chains include various intermediaries.

To assess the innovation process in the supply chain, it is first necessary to determine and describe the types of innovations that occur in the supply chains as a whole and depending on the type of chain itself.

It should be noted that there is still no single classification scheme for innovations that is universally recognized by all scientists in domestic literature. At the same time, it differs even between such documents as Oslo Manual 2018 and State Innovative Policy and Innovation Activities in the Republic of Belarus Act. However, we can identify the general criteria for their classification common to many authors.

1. Scale of distribution.

The empirical studies divide innovation into two types: innovations at the macro-level and at the micro-level [3].

Innovation at the micro level are applicable to an individual firm, at the macro level – to all the economy sectors, separate regions and states.

We believe that based on this classification, innovations in supply chains cannot be fully attributed to any of these types. Unlike innovations at the micro level, they do not belong to one particular firm, but it also cannot be said that they affect the entire state, the region or the economy sector. The exceptions are maximized supply chains, supply chains of large multinational corporations or enterprises-monopolists in a particular country (for example, innovation in the Belarusian railway will affect the entire industry of railway transportation in the country).

For simple or extended chains consisting of several small organizations, it is advisable to offer a new level of innovation – at the meso-level.

According to another classification, innovations are divided into a transcontinental, transnational, regional, large, medium and small [3].

According to this classification, transcontinental innovations can be implemented in supply chains of large transnational corporations, and organizations supplying their products over long distances (for example, suppliers of exotic fruits).

Transnational innovations are implemented in supply chains that consist of organizations located in different countries.

Regional innovations are used in small supply chains consisting of organizations that are located geographically close to each other (in one country, region and area).

Large, medium and small innovations should not be discussed in the context of supply chains, as they are implemented within the same organization. However, some types of innovations may indirectly affect the operation of the entire chain even when being implemented by only one participant.

3. According to Oslo Manual 2018, innovations are divided into technological (product and process), organizational, marketing and ecological [4].

All types of these innovations are found in supply chains, however, product and process (technological) innovations are more often used only in manufacturing enterprises, and not in the entire chain. However, there are exceptions.

Product innovations indirectly affect the activity of other links of the supply chains. Thus, the change in the physicochemical properties of the products will affect the operation of manufacturing enterprises with suppliers (changing the type or quantity of raw materials purchased, in some cases, replacing a supplier), as well as with the freight forwarding organizations and 3PL providers (because of change of conditions of transportation and storage of products). Overall, this type of innovation cannot be called an innovation applicable to the entire supply chain. However, they can significantly affect the operation of the remaining links after their implementation by manufacturing enterprises.

Process innovations affect the relationship between the participants of supply chains to a lesser extent. Changing the way of production does not affect the other participants of the chain, as the product remains the same as well as the conditions of its transportation and storage. The exception is fundamental change in the mode of production, such as the use of 3D printers to print individual parts. In this case, the type of raw materials change, and as a result, the working conditions with suppliers also change. Process innovations in the supply chain can also include the introduction of blockchain technology to protect information, especially in cases where this technology is implemented for all participants in the chain.

Organizational innovations can affect both the entire supply chain and departments within one organization (for example, changes in the structure of the supply chain, concluding contracts with new suppliers and consumers, using outsourcing).

Marketing innovation affect the supply chain when changes are made in packaging design (transportation and storage conditions may change), as well as changes in pricing strategies (which will affect the work with other participants of the chain), when entering new markets or changing distribution channels (affects wholesale and retail intermediaries, end-users in company trading).

Environmental innovations are often introduced by each member of the chain separately. For example, the installation of filters in the production plant to reduce emissions or the use of electric cars. However, lately a situation arises when a company, dominant in the supply chain, encourages other participants of the supply chain to implement this type of innovation. An example is the Danish company Maersk Line, operating in international ocean transportation. The company has included 1500 of its suppliers in the Responsible procurement program, which encourages organizations to consider environmental, social and ethical factors when making a purchasing decision. In 2012, Maersk has already reached the 2020 target to reduce CO2 emissions by 25% per container compared to 2007 levels [5].

4. According to the enterprises' attitude to innovation development there are [1, 2]:

- innovations developed by the enterprise itself;
- joint innovations – developed in collaboration with other organizations;
- acquired innovations – developed by a third party.

In joint development, two or more organizations work together to create new products, services, improve processes, etc. For example, fertilizer company Yara International has teamed up with Kongsberg to create the ship Yara Birkeland, which will transport fertilizer between three ports in southern Norway. It is believed to be the first autonomous and fully electric cargo vehicle, and is estimated to save up to 40,000 trips by truck per year [6].

Acquired innovations are developed by a third party or another participant of the chain, and then implemented by enterprises of the other participants. An example is an Indian consulting corporation Infosys, which opened a digital innovation center in Germany. The center was created in order to help customers of the corporation in Europe with their digital transformation with cloud services such as the Internet of things (IoT), 5G, artificial intelligence and machine learning. It is expected that the center will become a bridge between the business and leading educational institutions in Germany and will help businesses in the region with the development and implementation of innovations [7].

5. However, the supply chains can also be divided into separate links – suppliers, manufacturers, consumers, trade and logistics intermediaries, etc. And each of these links implements their own innovations. In this regard, we propose the introduction of a new classification of innovation in the supply chain.

Procurement includes innovations at the initial stage of the supply chain, which are implemented by the suppliers of raw materials, as well as innovations that affect the relationship of the producer and the supplier. Manufacturing innovations are introduced in production and manufacturing organizations.

It should be noted that this division of the innovations is relative and may vary depending on which organization is accepted as focal in the supply chain. For the bakery, a procurement innovation is the introduction of a new flour processing technology by the flour mill, and for the flour mill this innovation will be a manufacturing innovation.

Accordingly, consumer innovations are innovations that are introduced at the final stage of the supply chain, i.e. at the stage of selling finished products to consumers, as well as innovations that affect the conditions

of work of industrial enterprises with consumers. An example is the use of Internet sales (e-marketing), as well as the introduction of AI technologies for the analysis and prediction of consumer demand, customer support using online chat bots and the introduction of augmented reality technologies in stores [8].

Wholesale and retail innovations are intermediates between production and consumer innovations, and are associated with the work of wholesale and retail intermediaries, if they are present in the supply chain.

Transport innovations are associated with the work of the organization's transport fleet, or with the work of a third-party carrier.

Warehouse innovations are introduced in the warehouses of the focal company or third-party warehousing service providers.

Depending on the number of participants in the supply chain, there can be other types of innovation. For example, the maximized supply chains include consulting, legal, insurance and other organizations, which implement their own innovations.

Based on the above, we present a generalized classification of innovations in the supply chains in table 1.

Table 1. – Classification of innovations in supply chains

Classification criteria	Types of innovation
Scale of distribution	Micro level, meso level, macro level
	Transcontinental, transnational, regional, large, medium, small
The area of implementation	Technological (product and process), organizational, marketing and environmental
The enterprises' attitude to innovation development	Developed by the enterprise, joint, acquired
The place in the supply chain	Procurement, manufacturing, consumer, wholesale, retail, transport, warehouse and other innovations

Note: own elaboration based on the studied literature

A distinctive feature of this classification is the identification of innovations applicable specifically to supply chains, as well as the proposal of a new classification criterion and new types of innovation depending on their place in the supply chain. This classification in the future will allow us to evaluate the effectiveness of innovations, as well as to determine the direction and select methods for managing the innovation process in the supply chain.

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UDC 331

THE ANALYSIS OF GLOBAL TRENDS ON LABOUR MARKET

A. PANKOVA, E. BOGDANOVA
Polotsk State University, Belarus

The article examines the general trends of automation of professions according to various estimates. Global trends in the structure of employment by profession are also analyzed. The output per employee and the dynamics of this indicator by country for the period from 2011 to 2018 are considered. As a result, the corresponding trends in the labor market for that period were determined.

More than a half of all current jobs are expected to either change significantly or disappear completely. This is partly the result of technological changes in computing, mechanics, and biochemistry, where a much larger range of tasks is at risk of replacing humans with robots compared to previous waves of technological changes. Let's look at the summary results of some studies in the field of replacing people with robots, which are given in the report of the International labor organization in 2017, in table 1.

Table 1. – Estimates of the impact of digital technologies on employment

Organization	Estimate
University of Oxford	47% of workers in the United States are at high risk of replacing jobs with automation.
Pricewaterhouse Coopers	38% of jobs in the US, 30% of jobs in the UK, 21% in Japan, and 35% in Germany are at risk of automation.
International labour organization	ASEAN-5*: 56% of jobs are at risk of automation in the next 20 years.
McKinsey	60% of all professions have at least 30% technically automated operations.
OECD	OECD average**: 9 % of jobs at high risk of automation over the next five years. Low risk of full automation, but a significant share (50-70 %) of automated tasks.
Roland Berger	Western Europe: by 2035, 8.3 million jobs will be lost in industry, but at the same time, 10 million new jobs will be created will be created in the service sector.
World bank	Two-thirds of all jobs in developing countries subject to automation.

* - countries: Indonesia, Malaysia, Philippines, Thailand, Vietnam.
** - OECD-Organization for economic cooperation and development (OECD)

Source: [1]

This report rightly notes that great care should be taken when interpreting these estimates, since many studies consider the likelihood that the work can be automated, rather than the likelihood that it (or the tasks in it) will be automated. Due to the significant financial costs associated with the introduction of advanced technologies, the difference between "may be" and "will be" will be significant, especially in developing countries. In addition, destroying certain tasks within a profession does not necessarily mean that the entire profession will disappear. Employees will be required to adapt to a new work environment where they work together with machines and robots. Thus, some of the current estimates of technological unemployment may be overstated [1].

We analyzed the dynamics of the structure of the distribution of the labor force by profession in some countries (in total of 38 countries from all regions of the world: USA, China, Germany, Argentina, South Africa, Russia, etc.) for the period from 2011 to 2018. In accordance with the methodology of the International labor organization, the following groups of professions have been distinguished:

1) managers; 2) specialists; 3) technical specialists and junior specialists; 4) office employees (clerks); 5) service and sales workers; 6) artisans and related professions; 7) plant and machine operators, assemblers; 8) elementary professions and skilled workers in agriculture, forestry, and fisheries.

Categories 1-3 according to the methodology of the international labor organization belong to professions with a high level of skills, 4-7 – to middle-level professions, elementary – to the minimum level, qualified workers in agriculture, forestry and fisheries – to the average level [3].

Also, we examined the rates of labor productivity for the same countries during the corresponding period. In table 2, we analyze the output per employee, calculated in constant 2011 prices in US dollars for the period from 2011 to 2018.

Table 2. – Output per employee US dollars for the period from 2011 to 2018

Country	2011	2012	2013	2014	2015	2016	2017	2018
Qatar	174190	169057	164912	161633	158960	157675	156433	158013
Saudi Arabia	138657	136474	132619	131617	130505	128546	123786	123506
United States	108667	109142	109753	110642	112080	111941	112677	114990
Belgium	101055	100975	100868	101584	102617	103133	103229	103712
Sweden	89536	88769	88871	90521	93597	95488	96449	98265
Italy	95753	93740	94495	94859	95228	94866	95245	95991
France	90155	90199	90883	92352	93151	93704	94504	95846
Austria	90058	89771	89290	90048	90672	91395	93508	95137
Finland	88281	86736	87027	86803	87329	88820	90277	91937
Australia	82623	85011	86659	88322	88757	89983	90194	91559
Germany	86557	86373	85870	86898	87942	88612	89748	91358
Canada	80520	80976	81874	83735	83893	84553	85696	86437
Spain	80465	81812	82645	82844	83538	83980	84530	85510
United Kingdo	77546	77725	78316	78933	79627	80164	80848	81334
Japan	72143	73422	74234	73962	74642	74617	75235	76419
Turkey	60227	61542	64678	66878	68644	68896	71389	73147
Korea, Republi	63144	63569	64546	65295	66478	67821	69179	70802
Czech Republi	61496	60734	59802	60905	63353	63724	65469	67719
Poland	52806	53560	54314	54891	56280	56894	58502	60538
Latvia	46162	47135	47556	48678	49575	50764	52725	55844
Russian Federa	48744	50108	51324	51726	50663	50669	51813	53012
Chile	45714	47207	48171	48475	48861	49119	49239	50669
Kazakhstan	42053	43528	45604	46918	47095	47347	49019	50619
Argentina	46784	45869	46581	45361	46003	44634	45357	46753
Mexico	39002	39031	38903	39567	39792	40063	40066	40163
Turkmenistan	25727	28013	30343	32874	34381	36037	37755	39540
Egypt	33506	33601	33595	33926	35917	36804	37439	38285
Belarus	33953	34440	34704	35284	33987	33254	34304	35758
Azerbaijan	33733	33785	35099	35120	34905	33202	32779	33307
Brazil	33430	33273	33738	33438	32328	32041	32254	32578
Thailand	22970	24587	25791	26231	27089	28201	29225	30115
China	18347	19732	21209	22719	24267	25878	27645	29499
Venezuela, Bo	39882	41569	41730	39238	36464	32896	29706	27550
Indonesia	19465	20011	20967	21679	22589	23441	23933	24849
Georgia	15216	16123	17035	17486	17845	18675	19736	20733
Ukraine	19047	19262	19094	18816	17001	17631	18294	19095
Tajikistan	8965	9395	9841	10222	10550	10992	11502	11936
Congo, Democ	2036	2154	2262	2390	2472	2453	2457	2467

Source: own development based on data from the ILOSTAT database [2]

Also, to continue the analysis, let's look at the change in the output per employee by country over the analyzed period in table 3.

Table 3. – Dynamics of changes in output per employee in USD for 2011-2018

Country	Absolute change							Total change
	2012 to 2011	2013 to 2012	2014 to 2013	2015 to 2014	2016 to 2015	2017 to 2016	2018 to 2017	
Turkmenistan	2286	2330	2531	1507	1656	1718	1785	**13813**
Turkey	1315	3136	2200	1766	252	2493	1758	**12920**
China	1385	1477	1510	1548	1611	1767	1854	**11152**
Latvia	973	421	1122	897	1189	1961	3119	**9682**
Australia	2388	1648	1663	435	1226	211	1365	**8936**
Sweden	-767	102	1650	3076	1891	961	1816	**8729**
Kazakhstan	1475	2076	1314	177	252	1672	1600	**8566**
Poland	754	754	577	1389	614	1608	2036	**7732**
Korea, Republic of	425	977	749	1183	1343	1358	1623	**7658**
Thailand	1617	1204	440	858	1112	1024	890	**7145**
United States	475	611	889	1438	-139	736	2313	**6323**
Czech Republic	-762	-932	1103	2448	371	1745	2250	**6223**
Canada	456	898	1861	158	660	1143	741	**5917**
France	44	684	1469	799	553	800	1342	**5691**
Georgia	907	912	451	359	830	1061	997	**5517**
Indonesia	546	956	712	910	852	492	916	**5384**
Austria	-287	-481	758	624	723	2113	1629	**5079**
Spain	1347	833	199	694	442	550	980	**5045**
Chile	1493	964	304	386	258	120	1430	**4955**
Germany	-184	-503	1028	1044	670	1136	1610	**4801**
Egypt	95	-6	331	1991	887	635	846	**4779**
Japan	1279	812	-272	680	-25	618	1184	**4276**
Russian Federation	1364	1216	402	-1063	6	1144	1199	**4268**
United Kingdom	179	591	617	694	537	684	486	**3788**
Finland	-1545	291	-224	526	1491	1457	1660	**3656**
Tajikistan	430	446	381	328	442	510	434	**2971**
Belgium	-80	-107	716	1033	516	96	483	**2657**
Belarus	487	264	580	-1297	-733	1050	1454	**1805**
Mexico	29	-128	664	225	271	3	97	**1161**
Congo, Dem.	118	108	128	82	-19	4	10	**431**
Italy	-2013	755	364	369	-362	379	746	**238**
Ukraine	215	-168	-278	-1815	630	663	801	**48**
Argentina	-915	712	-1220	642	-1369	723	1396	**-31**
Azerbaijan	52	1314	21	-215	-1703	-423	528	**-426**
Brazil	-157	465	-300	-1110	-287	213	324	**-852**
Venezuela	1687	161	-2492	-2774	-3568	-3190	-2156	**-12332**
Saudi Arabia	-2183	-3855	-1002	-1112	-1959	-4760	-280	**-15151**
Qatar	-5133	-4145	-3279	-2673	-1285	-1242	1580	**-16177**

Source: own development based on data from the ILOSTAT database [2]

According to the results, the following can be noted:

– if we leave out Qatar and Saudi Arabia, the output per employee in our sample is the highest in the United States, then in the EU countries: Belgium, Sweden, Italy, and France. This indicator can be considered as an indicator of the overall state of the economy and its stability, since, for example, China, which is comparable in total GDP with the United States, is significantly inferior to a number of countries in output per employee. It is obvious that more output per employee is achieved mainly by automating technological processes: whether it is the process of assembling a car, or processing large amounts of information. Because digital technologies allow one person who knows how to handle them to replace several workers who perform routine non-creative tasks;

– based on the analysis of the dynamics of this indicator, it is possible to clearly identify countries that are developing in terms of technology – countries where output per employee has significantly increased over the period 2011-2018. These include Turkmenistan, Turkey, China, Latvia, Australia, and Sweden in our sample;

– the impact of the 2015 crisis can be clearly seen in the CIS, where output per employee in almost all countries decreased or had minimal growth;

– countries with a high share of commodity exports in the output structure - Qatar and Saudi Arabia, despite the largest indicators of total gross output per employee, showed a stable decline in this indicator for the period 2011-2018. The impact of commodity prices (primarily oil) can also be traced to the economies of other countries: Russia, Venezuela, and Kazakhstan.

Conclusion. Based on the conducted analysis we can draw the following conclusions for 2011-2018:

– the category of "elementary occupations and skilled workers of agriculture, forestry and fisheries" in the structure is reduced: to 30 countries – a decline for the rest of the minimum increase to a maximum of 0.8%, and the increase in this area is observed, including in highly developed countries France, Italy, USA;

– the highest growth in the employment structure (in almost all countries) is observed in the category of "professionals" - these are highly qualified workers in a particular area. This indicates a certain trend in employment, which can be formulated as follows: increasingly complex technological processes require the presence of highly qualified specialists in their field in the country;

– for the category of "managers" - as highly qualified managers, there is no clear trend to determine (in 20 countries it increased, for the rest 18 – decreased), but it is worth noting that these changes are less than 1 % in one direction or another;

– the categories of "office workers", "operators", and "artisans" have not pronounced but still general downward trend in the employment structure, while "sales and service workers" often get more space in the overall ratio of employed in the economy. This can also be explained by another general trend, that the market has a maximum focus on the consumer, respectively, requires more "salesmen".

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UDC 338.48

THEORETICAL APPROACHES TO THE DEFINITION AND DEVELOPMENT OF THE "INBOUND TOURISM" CATEGORY IN THE REPUBLIC OF BELARUS

H. MYRAVEVA, R. SARVARI
Polotsk State University, Belarus

In this article, the author considers the category of inbound tourism, its definition, analyzes statistical data, the dynamics of its development, the structure of inbound tourism and the segmentation of demand for a tourism product. The author also analyzed this category at the microeconomic level and offered his recommendations.

In 2018, according to the World Tourism Organization, the number of international tourist arrivals worldwide reached 1.4 billion, two years before it was predicted to do so. That year also marked the seventh year in a row where the growth in tourism exports (+4%) exceeded the growth in merchandise exports (+3%). Given this rapid pace of growth, the prediction that international arrivals will reach 1.8 billion by 2030 may be conservative [1]. As a result, the relevance of the topic of tourism in the global scientific community has increased. In the framework of international tourism, the category of inbound tourism is considered. It plays an important role in the formation of gross domestic product, providing employment, foreign currency inflows, replenishing the budget at various levels, etc. The field of inbound tourism was touched upon in the works of the following Belarusian authors: E. M. Yankevich, V. V. Kvasnikova, V I. Yakovchuk, E. V. Vanyukevich, P. I. Kharut, A. I. Tarasenka, V. O. Senj, E. P. Lisichenka, V. N. Kremnevskaya, V. S. Filipenko, E. B Evseeva, Z. M. Gorbyleva, L. N. Davydenko. Also, this topic was studied by the following Russian and foreign authors: I. S. Kabirov, I. V. Loguntsova, E. V. Pomelova, E. A. Dunaevskaya; L. Dwyer, N. Maoa and others.

Table 1. – Theoretical approaches to the definition of "inbound tourism"

Author	Definition
Article 3 of the Law of the Republic of Belarus "On Tourism"	A tourist journey of foreign citizens and stateless persons, except for permanently residing in the Republic of Belarus, within the territory of the Republic of Belarus.
G. F. Shapoval, PhD in Economics, Associate Professor	Activities for the provision of tourism services in the country
I. S. Kabirov, Russian Federation	A type of economic activity aimed at attracting tourists to a region (country) and serving arriving tourists by providing recreational, educational, cultural, entertainment and other services.
E. V. Pomelova, Russian Federation	a socio-economic system that, in its functioning, satisfies a person's need for knowledge, physical improvement and relaxation through the rational use of tourist resources of the region and has a significant impact on its economic and social development
Larry Dwyer and Peter Forsyth, Australia	A type of tourism, the purpose of which is to generate profitability of the tourism industry through an increase in foreign exchange earnings of the country, in- crease government revenues from taxation, diversify industry structure, and promote regional economic development.
Naixia Mou, Tengfei Yang, China	A good indicator for assessing regional tourism competitiveness as it constitutes a significant part of local economic systems.
World Tourism Organization UNWTO	Inbound tourism includes activities of a visitor who does not reside in the country in question within the country during an inbound tourist trip.

Source: [2], [3], [4], [5], [6], [7], [8]

The lack of clarity of the definition of inbound tourism is primarily due to the different approaches of scientists and practitioners to the realization of its economic content. The research showed that tourism is seen as an intersectoral complex, a social phenomenon, human behavior, rather than economic activity and an independent branch of the economy [9].

In our research, the author considers the class of inbound tourism as a component of the structural unit of the category of international tourism. According to Art. 3 of the Law of the Republic of Belarus "On Tourism", forms of tourism are international and domestic tourism, and international, in turn, includes outbound and inbound tourism. Inbound tourism is a tour of foreign citizens and stateless persons, with the exception of those permanently residing in the Republic of Belarus, within the territory of the Republic of Belarus [2].

In order to formulate an objective understanding of the situation of inbound tourism in the Republic of Belarus, the author turned to statistical data regarding the contribution of this tourism category to the country's economy over the past 8 years. Consider table 2.

Table 2. – Key performance indicators of organizations engaged in tourism activities

Comparison item	2011	2012	2013	2014	2015	2016	2017	2018
The number of tourists and sightseers visiting the Republic of Belarus1), thousand people	116,0	118,7	136,8	137,4	276,3	217,4	282,7	365,5
The number of tourists and excursionists leaving the Republic of Belarus abroad1), thousand people	319,8	492,8	708,4	740,5	738,7	495,7	727,5	850,7
The number of tourists and excursions sent along the tour routes within the territory of the Republic of Belarus, thousand people	76,7	663,5	655,1	703,7	836,8	1 001,8	976,8	1 007,8
The cost of tours paid by tourists and sightseers who visited the Republic of Belarus1), million rubles	14,72	25,61	33,46	38,20	27,52	47,1	54,7	66,3
The cost of tours paid by tourists and excursionists leaving the Republic of Belarus1), million rubles	67,55	182,86	308,69	435,94	4 56,12	389,7	613,3	781,6
The cost of tours paid by tourists and sightseers sent along the tour routes within the territory of the Republic of Belarus, million rubles	3,07	11,31	15,41	20,59	24,63	25,7	25,4	25,0
Proceeds from the provision of tourist services, million rubles	21,81	47,96	73,35	93,54	1 12,6	136,6	165,9	212,9

Source: Compiled by the author based on data [10]

In the table 2, we can see the dynamics of revenue growth from the provision of tourism services since 2011 more than 2 times in 2012, then it increased by 55% in 2013, by 27% in 2014, in the period 2015-2017 it increased 20-21% and 28% in 2018. Thus, the proceeds from the provision of tourism services in 2018 exceeded the figures for 2011 by more than 191 million rubles. However, the number of tourists and excursionists who left the Republic of Belarus in 2018 (850.7 thousand people) exceeds 2.3 times the number who visited the Republic of Belarus. Accordingly, the cost of tours paid by tourists and sightseers who left the Republic of Belarus in 2018 (781.6 million rubles) is 5.8 times higher than the cost of tours paid by tourists and sightseers who visited it (66.3 million rubles.), or sent on tour routes within the country (25.0 million rubles) in 2018. This trend is steadily observed in the period 2011-2018. The author concludes: despite the positive dynamics of growth in revenue from tourism services, the amount of money contributed by tourists and excursionists for the cost of the tour, who left the Republic of Belarus, is higher.

Date	2011	2012	2013	2014	2015	2016	2017	2018
Value	5,6	6,0	4,9	5,2	5,8	6,4	6,2	6,4
Change, %	-8,51%	7,00%	18,04%	5,73%	11,05%	10,40%	-2,76%	3,28%

Source: [11]

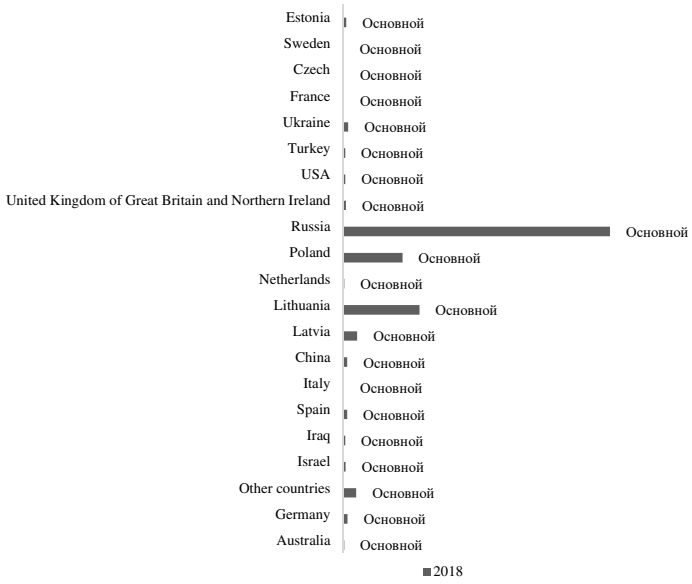
Table 3 shows a positive trend in the growth of the share of tourism sector GDP.

According to the data in Tables 2 and 3 the author came to the conclusion that inbound tourism and tourism, in general, have a positive development dynamics, however, there is a steady tendency for outbound indicators to exceed inbound indicators.

In 2018, the number of tourists and excursionists visiting the Republic of Belarus reached 365 534 people. To analyze the category of "inbound tourism", in our opinion, we should understand not only the dynamics of demand but also its structure, namely, representatives of which countries most often visit the Republic of Belarus. In our opinion, these indicators reflect the demand for the Belarusian tourism product in foreign markets, as well as demonstrate the development prospects in the structure of tourist demand, the numerical indicators of which are presented in figure 1.

Diagram 1

Number of inbound tourists and excursionists by country of permanent residence in 2018



Source: Compiled by the author based on data [10], [14]

According to the data of diagram 1, we can conclude that the tourism product of the Republic of Belarus in the structure of tourist demand is most in demand by countries such as Russia, Poland, Ukraine, Lithuania, and Latvia. The author considers this is due to the cross-border location of the countries, as well as the convenience of the logistics area. In addition, the author decided to analyze the main criteria for the demand for a tourist product. Segmentation of demand for a tourist product is carried out according to three groups of criteria: geographical, social, psychological. Examples of geographical criteria are the country of arrival of the tourist and the geographical purpose of the tourist trip. National criterias include age, sex, tourist profession, a profession of the head of the family and etc. The main psychological criteria are the motive of the trip, psychological portrait of tourist, a form of trip, used vehicles, etc. [12].The author's analyzing of this information showed that the demand for a tourist product is influenced by a whole range of criteria and together they form a holistic picture of the tourism product, according to which the tourist plans his route. It is in favor of the country to provide the most diverse and developed tourism products, because this directly affects the level of inbound tourism. Therefore, the author decided to analyze the category of inbound tourism and its development prospects.

According to the author about the category of "inbound tourism", the components of economic theory should be included in the process of forming this definition, because this type of international tourism belongs to economically emerging spheres. So the author considers the category of inbound tourism at the microeconomic level. The inbound tourism category at the micro-level considers economic behavior at the level of tourism industry enterprises that provide individual tourism products or tourism products or services. The importance of tourism is estimated by the development of the material and technical base of tourism, the volume and structure of services provided, the level of competitiveness and the tourist balance and etc [13].

Based on the analysis of the theoretical and structural aspects of the "inbound tourism" category, we can conclude that the tourism sector is one of the leading in the Republic of Belarus, as it has a significant impact on GDP, service exports and ets. The definition of the category of "inbound tourism", based on the research conducted by the author, is a dynamically developing sector of the economy that provides a wide range of tourism products and services that promote economic growth by creating new jobs, and as a result accelerate the process of urbanization.

Based on numerical data in the field of tourism in the Republic of Belarus, the author also concludes that the tourism product of the Belarusian market, in comparison with indicators on the international tourism market, is in insufficient demand. A striking example is the statistics of the World Tourism Organization for 2018, which provides information about International tourist arrivals (Belarus - 0.3%, USA - 36.9%, Saudi Arabia - 25.3%,) and International tourism receipts (Belarus - 870 million dollars, the United States - 214.468 billion dollars, in Morocco - 7.775 billion dollars) [15]. Summing up, the author decided to consider useful recommendations for the development of inbound tourism:

1.The need to increase the efficiency of the tourism industry and ensure competitiveness in the international tourism market by improving and developing the tourism infrastructure;

2. A modernized model for the development of inbound tourism should be created, which will include methods for regulating each element of inbound tourism;

3. Development and promotion of the Belarusian tourism product, which will increase the inbound tourism rates in the Republic of Belarus;

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Economics

UDC 332.1

BUSINESS SUPPORT CENTER: HAVE A QUESTION

N. DUBKO
Polotsk State University, Belarus

The relevance of small business development is considered, some results of the questionnaire survey of small businesses in the Vitebsk region are presented, the problem of small business is highlighted and an action is proposed to solve it.

One of the main conditions for sustainable growth of the national economy is the development of small and medium-sized businesses, which creates a kind of Foundation for the well-being of the nation. The historical practice of functioning of any society clearly demonstrates that the most effective development of the country's infrastructure, economy and social sphere is carried out through consistent qualitative changes in goods and services created, resources and technologies used for this purpose, on the basis of intellectual management technologies implemented in the public administration system. At the same time, it should be taken into account that the main Creator of innovative ideas, generating solutions to non-standard tasks, and having appropriate value orientations, is an entrepreneur who is interested in successful activities.

Problems of small and medium-sized businesses are widely studied in foreign and domestic scientific economic literature. His views on commercial activity, as well as the very concept of "entrepreneur" was revealed by R. Cantillon, who argued that "entrepreneurship is a matter of foresight and the desire to take risks, which is not necessarily associated with the involvement of labor in a certain production process" [1]. A. Smith in his work noted that the desire of the entrepreneur to achieve their interests, leads to the achievement of economic benefits and benefits for the whole society. At the same time, the main condition for achieving such results is the requirement that all economic entities are guaranteed the basic economic freedoms: freedom of choice of the sphere of activity, freedom of decision-making, freedom of competition and freedom of trade [3, p.51]. The essence of entrepreneurship, its nature and factors that affect its development, is revealed by J.-B. Say, D. Raccardo, W. Petty, A. Turgo, G. von Mangoldt, J. von Thunen [1]. Foreign scientists such as F. Brodel, A. Marshall, and J. J. have made a great contribution to the modern understanding, theory, and practice of entrepreneurship as a special economic and social phenomenon. Robinson, P. Samuelson, J. Hicks, R. Hizrich [2, p. 183]. K. Marx identified the terms "entrepreneur" and "capitalist" [1].

Among domestic scientists, the trends of SME development and its role in the economy were studied by N. G. Agurbash and E. Kalinkina; the specifics of modern international entrepreneurship and industrial cooperation were studied by A. O. Blinov and A. S. Belorusov. Actual problems of development of the national economy of Belarus, processes of internationalization of business are described in the works of Belarusian scientists A.V. Bondar, L. N. Davydenko, A. E. Daineko, A.V. Danilchenko, A. A. Pranevich, V. Rudenkov, G. G. Sanko, G. V. Turban, V. N. Shimov, G. A. Shmarlovskaya, Yu. m.Yasinsky, and others [2, p. 183].

The theoretical foundations of small business and the development of this sector in Belarus are considered in the works of M. I. Balashevich, O. S. Balashkov, T. P. Bykova, I. M. Vashko, S. V. Dadalko, L. N. Nekhorosheva, G. I. Olekhnovich, V. L. Simanovich, A. N. Senko, and others [2, p. 184].

Problems of small business development in the regional aspect were dealt with by M. A. Shekhova [4], A. I. Shamanovich [5], and O. V. Sholokhov, who assessed the impact of small business on the regional economy [6]. In foreign studies, we can highlight the work of a group of scientists in the framework of a Program partially funded by the European Fund for regional development [9]. B. Shoe, Erich Calamari other researchers have investigated the factors affecting small business development in the regions of Europe. S. Bruyat and P.-A. Julien define the main prospects in the development of entrepreneurship [8]. F. Roundly considers the importance of developing entrepreneurship in small towns [9].

A questionnaire survey among representatives of small and medium business in Vitebsk region to study the problems and necessary directions of development of regional entrepreneurship, held in the framework of the international technical assistance project "Development "Kastrychnickaja Economia forum" in April-June 2019 with the participation of the author identified a need to develop measures aimed at support and development of business activity. In particular, more than 60 % of the total number of respondents who answered the question agreed that there is not enough effective work of business support infrastructure entities in the region (figure 1). This is despite the fact that the functions of the business support centers are consulting on organizational and

legal issues; conducting training seminars; developing business plans for development; informing entrepreneurs about real estate objects offered for rent, etc. According to the respondents ' answers, entrepreneurs do not want to contact the business support centers, as they often do not receive sufficient information and support from them. Thus, small business representatives have to find answers to their questions on their own and use paid legal advice.

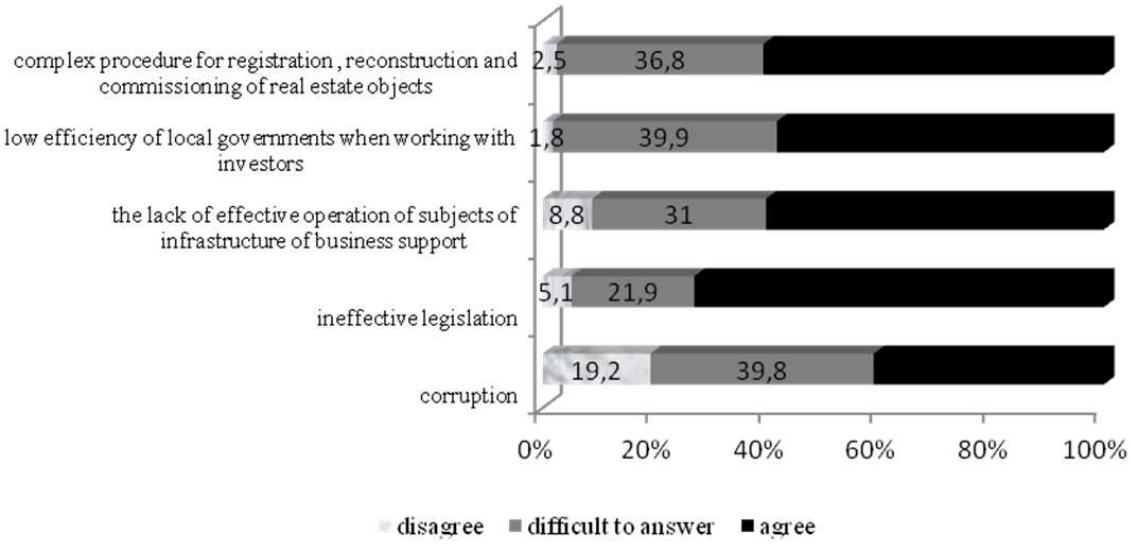

Figure 1-factors that hinder business development in the Vitebsk region , according to respondents, in % of the total number of respondents who answered the question

Source: in-house development based on [10]

Having studied the experience of supporting entrepreneurship in foreign countries, it is advisable to adopt the experience of the UK, where there is a national hotline for supporting small businesses. This is a key element of government support for business. It provides guidance on business improvement for start-UPS and existing businesses. The service provides consulting information, and there is also a callback service that offers more comprehensive support for businesses. Consulting is carried out by a team of experienced business support staff. It offers up to 60 minutes of free telephone support, taking into account the individual needs of entrepreneurs. A similar service also exists in Russia.

Thus, it is possible to create a "hotline" on small business issues of a reference and consulting nature in the Vitebsk region on the basis of business support centers to ensure transparency and openness of activities aimed at supporting small businesses in the region, and providing feedback to small businesses, helping small businesses to overcome administrative barriers. In addition, the "hotline" is a tool for supporting small businesses, aimed at identifying violations of legislation, attempts to hinder the activities of small businesses, and providing real assistance to small businesses.

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IT DEVELOPMENT PROSPECTS IN THE REPUBLIC OF BELARUS WITHIN THE GLOBAL INNOVATION MARKET

S. PAPOVA, R. SARVARY
Polotsk State University, Belarus

In this article, the author makes review for the current situation of IT development in the Republic of Belarus. There are analyzed the Global Innovation Index, organizations and program documents that regulate the activities of the IT sector in the Republic of Belarus,

The history of the information technologies development in the Republic of Belarus goes back decades. Back in Soviet times, a strong school of mathematicians, engineers, and programmers was created in the country. And, of course, these specialists became the driving force behind the most progressive projects and the introduction of innovations in all sectors of the economy. In sovereign Belarus, the IT industry is the most dynamically developing industry, and every year it turns into an increasingly powerful driver of the country's economy, a sphere of strategic importance [1]. As a result, the contribution of the production of goods and services related to ICT to the creation of added value is increasing within the development of information and communication technologies. The share of gross value added of the ICT sector in GDP of the Republic of Belarus increased from 2.8% in 2011 to 5.2% in 2018 [2].

In Belarus, 75 thousand students (24 percent of the total number of university students) study in STEM specialties, including about 70 IT specializations. Graduates of the BSUIR account for 35.4 percent of employees of HTP resident companies [3]. It can be noted that BSU has a concept of the future IT University: the country's leading university is ready to create it on the basis of the faculty of applied mathematics and computer science as an independent legal entity in its structure. Moreover, it is assumed that the founders will be the BSU, the BSUIR and the administration of HTP [4].

The main suppliers of IT specialists in Belarus (according to the HTP, 2017):

- The Belarusian State University of Informatics and Radioelectronics – 37 %,
- The Belarusian State University – 27 %,
- Grodno State University named after Yanka Kupala – 6 %.

Since 2016, in Belarus, on the initiative of HTP resident companies and with the support of the Ministry of Education, a project has been launched to train schoolchildren of grades 2-6 in programming skills in the Scratch environment. In 2018, it was announced the creation of an information technology company in the Armed Forces of Belarus. Its goal is the development of software, special and applied programs in conjunction with units of the Military Academy, other scientific and educational institutions. Among the directions for the development of an IT company are military operations modeling, navigation support, and automated control and radar systems [1].

In 2017, a project was formed - the Science and Technology strategies for 2018-2040. This project formulates key priorities for a given period on scientific and technological development.

The implementation of this Strategy involves three stages:

1. 2018-2020- updating the backlogs of the scientific and technological sphere, taking into account the existing structure, the country's positions in the world system of division and cooperation of labor, goals of socio-economic development;
2. 2021-2030-creation of system conditions for digital intellectual modernization of traditional industries and the choice of growth points for the knowledge-based economy of Belarus;
3. 2031-2040-building competencies in the target segments of the intellectual economy and entering them into leading world positions.
4. By 2040, Belarus should gain a new quality of economic growth and reach a world level of competitiveness based on the processes of intellectualization and digitalization of production, the development of high-tech and knowledgebase services based on the achievements of domestic science.

Strategic guidelines for the scientific and technological development of Belarus at the time from 2018 to 2040:

- Large-scale modernization of the industrial and sectoral structure of the economy based on the implementation of scientific solutions related to higher technological structures in its technological basis;

- Increased participation of Belarus in global innovation processes, taking into account the reduction in the life cycle of generations of equipment and technological structures while ensuring the implementation of the county's priorities and compliance with national security conditions [5].

The National Strategy for Sustainable Development of the Republic of Belarus till 2030 is also currently in force. The strategic goal has two stages of its implementation:

1. The first stage – 2016–2020 The main goals is the transition to a qualitatively balanced economic growth based on its structural and institutional transformation, taking into account the principles of a green economy, the priority development of high-tech industries, which will become the basis for increasing the country's competitiveness and the quality of life.
2. The second stage – 2021–2030 The main goal is to maintain stable development sustainability, based on the growth of spiritual and moral values and the achievement of high quality human development, the accelerated development of high-tech industries and services, the further development of a "green economy" while preserving natural capital [6].

It should be noted that this strategy provides for the country's transition to the 6^{th} technological way. Fundamental research in the field of bio-, nanotechnology, universal communication systems, information security comes to the fore. The basis is technological development [7].

For productive way of economic and social development there are several legal acts that mostly regulate an IT sector in Belarus:

1. Decree №8, On the Development of the Digital Economy. Its goals are not only attracting global IT companies and maintaining a unique business climate for representatives of the field, but also creating a comfortable environment for people's lives in the face of rapid technological growth [1].
2. The SCST is a republican government body that implements the function of state regulation and management in the field of scientific, technical and innovative activity, as well as the protection of intellectual property rights [8].

The institutional structure is formed from the following government bodies and organizations:

- Council for the Development of the Information Society under the President of the Republic of Belarus;
- Operational and analytical center under the President of the Republic of Belarus;
- Ministry of Communications and Informatization of the Republic of Belarus;
- National Academy of Sciences of Belarus;
- State Military Industrial Committee of the Republic of Belarus [9].

ICT accounts for 10.5% of GDP in the services sector and 5.1% of the total GDP of Belarus.

From 2005 to 2016, exports of IT services and products grew 30 times, and the share of IT exports in total exports of goods and services increased from 0.16% to 3.25%. In 2017, the export of OEMs for the first time in its history exceeded $ 1 billion: exports amounted to $ 1.025 billion and grew by 25% (in 2016 - $ 820 million) with the import of services of $ 5 million. The total production volume of the High-Tech Park amounted to more than $ 1.08 billion, an increase of 20% compared to 2016. The main sales of Belarusian IT-companies are in foreign markets. More than 90% of the software produced in the OEM is exported: 49.1% - to European countries, 44% - to the USA and Canada, 4.1% - to Russia and other CIS countries. Six HTP resident companies were included in the list of the best outsourcing service providers (2017 Global Outsourcing 100 ranking): Bell Integrator, Ciklum, EPAM, IBA Group, Intetics and Itransition. 10 companies from the ranking of the largest software companies in the world Software 500 have development offices in Belarus: EPAM (107), Bell Integrator (281), IBA (281), Itransition (368), Coherent Solution (393), SoftClub (409), Artezio (416), Intetics (419), Oxagile (456), IHS (482) [1].

The development of the world economy at the beginning of the XXI century will be determined by the following trends:

1. Strengthening globalization, international integration.
2. Increased competition in world markets and the depth of differentiation of countries in terms of economic development.
3. The growth of global migration processes.
4. The increasing role of human capital.
5. Acceleration of the pace of scientific and technological progress.
6. Depletion of world reserves of natural resources.
7. Strengthening the significance and impact of the environmental component on the dynamics of economic growth.

The expected results of the implementation of the objectives in the context of the three main components of sustainable development should be:

– Increase in life expectancy at birth to 77 years;

– GDP growth in 2016–2030 by 1.5–2.0 times;

– An increase in per capita GDP by 2030 to $ 28–36 thousand at PPPs (versus 17.6 in 2013);

– Increase in research and development costs - up to 2.5 percent of GDP in 2030;

– Growth in the share of environmental protection costs - up to 2-3 percent of GDP in 2030;

– Belarus position in the International rating on environmental performance index - not lower than 25 places [6].

The international index "Global Innovation Index" contains detailed data on innovation activity in 130 countries and territories of the world.

Eighty indicators, which are analyzed, allow you to get a general idea of innovation, including in terms of the political situation, the development of education, infrastructure and business [10].

In table 1 we derived the rating of the country from 2015 to 2019.

Table 1. – Ranking of countries in the Global Innovation Index for the period from 2015 to 2019

Year / Place	2015	2016	2017	2018	2019
1	Switzerland	Switzerland	Switzerland	Switzerland	Switzerland
2	Great Britain	Sweden	Sweden	Netherlands	Sweden
3	Sweden	Great Britain	Netherlands	Sweden	USA
4	Netherlands	USA	USA	Great Britain	Netherlands
5	USA	Finland	Great Britain	Singapore	Great Britain
6	Finland	Singapore	Denmark	USA	Finland
7	Singapore	Ireland	Singapore	Finland	Denmark
8	Ireland	Denmark	Finland	Denmark	Singapore
9	Luxembourg	Netherlands	Germany	Germany	Germany
10	Denmark	Germany	Ireland	Ireland	Israel
53	Belarus				
79		Belarus			
88			Belarus		
86				Belarus	
72					Belarus

Source: Authoring based on data [12].

After analyzing the data in table 1, we came to the conclusion that Switzerland 5 times has taken the first place in the ranking of GII. According the GII 2018, the key factors for Switzerland's innovative and sustainable success are its high-class rules in the field of patents and intellectual property, high-tech production, excellent universities and high investment in research, and development [11]. Taking into account our declining in the Global Innovation Index we should pay much attention to the international way of development in an IT sector and to try using it in Belarusian reality as well if it's possible.

Nevertheless, based on the analysis, we can conclude that currently in Belarus the IT is the most dynamically developing industry, and every year turns into an increasingly powerful engine of the country's economy, a sphere of strategic importance. It should be noted that the state education system, which, introducing new IT specialties in the country's universities, makes a huge contribution to the development of the IT in the Republic of Belarus. The export of IT services and products is developing very rapidly, which leads to an increase in GDP and the strengthening of the country's economy as a whole.

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UDK 658.7

GREEN LOGISTICS IN SUPPLY CHAINS

E. VERETENNIKOVA
Polotsk State University, Belarus

The necessity of considering the impact of the requirements and principles of green logistics in supply chains is considered. A scheme has been developed for the effective functioning of supply chains, taking into account the principles of green logistics.

Introduction. The progressive development of the world economy is inextricably linked with technological progress and the negative impact it has on the environment. Every day more and more irreplaceable resources are used, the results of enterprises affect the environmental situation of entire regions and countries. At the same time, the level of awareness of environmental responsibility of people is growing, which is expressed in the creation and widespread use of technologies aimed at preserving the environment and reducing the negative impact on it. In this regard, the problem of the use of "green" or environmental technologies in supply chain management is being updated. The activities of participants in the supply chain contribute to environmental degradation; therefore, it is important to take into account environmental aspects and factors of negative environmental impact at all stages of supply chain management: from the purchase of raw materials to the sale of finished products.

The main part. The concept of "green" logistics began to take shape in the world since the mid-1980s with the advent of the concept of "social responsibility of business". After the introduction of the European Union Packaging Directive, companies increased the use of reusable containers, waste processing equipment for production and logistics activities, and introduced packaging management systems. The principles of green logistics are also promoted by the European Logistics Association, which annually holds a European rating of logistics projects. In 2012, the Green Freight Europe project was launched, which was initiated by shippers and logistics companies with the aim of developing common approaches to determining factors of harmful emissions, comparing environmental parameters of different transport operators, etc. [1].

Today, the term "green" logistics refers to a combination of innovative approaches and methods, advanced technologies and equipment, using which it is possible to minimize damage to the environment during the movement of material flows. Green logistics is a scientific and practical activity, involving the formation of an effective mechanism for integrating environmental and socio-economic aspects at all stages of planning, design and management of the supply chain of goods in order to minimize environmental and economic damage and increase the consumer value of products through the use of energy and resource saving logistics technology.

The main goal of green logistics is to coordinate supply chain activities in such a way that the needs are met at the lowest environmental costs, taking into account factors such as climate change, air pollution, waste dumping (including packaging waste), soil pollution, noise and vibration (figure 1).

Figure 1. – Environmental Impact of Supply Chain Activities

Source: [2]

As it can be seen from Figure 1, green logistics operates in three main areas: economy, society and the environment. The economic component ensures the achievement of quantitative economic indicators of the functioning of market entities through the optimization of logistics costs. The social component forms the conditions for the safe production, distribution and use of manufactured products. The environmental component contributes to the improvement of the ecological climate and the reduction of the anthropogenic impact of logistics activities in environmental processes.

The objectives of green logistics are:

1) the use in the production of environmentally friendly and safe materials, as well as minimizing the use of non-recyclable raw materials and packaging;

2) the use of natural energy in the production process in order to minimize environmental pollution;

3) the maximum use of production waste as secondary raw materials, return and disposal of waste;

4) the use of new technologies for the use of recycled materials;

5) the providing of environmentally friendly technologies for storage and transportation of products.

The main principles of green logistics include: rationalizing the use of natural resources and enterprise resources; the maximum use of production waste, containers and packaging; reduced consumption of raw materials with a low possibility of processing or safe disposal; the application of modern high technology and recycling technologies; increasing the level of environmental orientation and responsibility of logistics personnel [3].

Environmental supply chain management is a set of actions in the process of creating added value, covering all the links of the supply chain from raw material procurement to final consumption, ensuring the implementation of the 3R principle (Reduce, Reuse, Recycle). The goal of environmental supply chain management can be considered the creation of competitive products based on resource-saving technologies, while minimizing environmental risks and reducing the negative impact of all parts of the supply chain on the environment [4].

There are three interconnected elements that reflect the essence of the functioning of the supply chain. These include the network structure of the supply chain, business processes in the supply chain, and supply chain management components.

The network structure of the supply chain includes three interdependent components:

1. The boundaries and structural dimensions of the network;

2. Participants in the supply chain;

3. Types of relationships between participants in the supply chain.

The main goal of effective construction of the network structure of supply chains is to achieve the focus company, as well as the rest of its participants, maximum productivity, profitability, efficiency, and therefore competitiveness. For this, specific participants in the supply chain and business processes are determined between which relationships are established, the level of interaction between them, their location relative to the focal company, as well as the structural dimensions of the network and its borders [5].

Business processes are activities that provide consumers with a certain value.

There are eight main processes that form the core of the supply chain:

- Customer Relationship Management;
- Service management for consumers;
- Demand management;
- Implementation of orders;
- Production flow management;
- Purchase;
- Development and commercialization of products;
- Return [6].

Management components include managerial variables, through which business processes interact and are managed within all supply chains. These are planning and control methods; the infrastructure of flows and activities related to work; the organizational structure; information flow infrastructure; material flow infrastructure; management methods; the structure of distribution of powers and leadership; the distribution of risks and rewards; culture and relationships [7].

It must be pointed out that with effective supply chain management, sales revenues increase and costs decrease from 15 to 30%. In addition, reserves are reduced, the accuracy of supply planning is increased, reliability and level of service are increased, transaction costs are reduced from 15 to 60%. These results can be achieved through the integration and coordination of business processes to maintain a constant balance between needs and supply along the entire length of the value chain [8].

It is worth noting that if a participant in the supply chain works profitably, this does not mean that he works efficiently. Sources of effective management growth are contained in the assessment of profitability and improving the effectiveness of individual business processes. Profitability evaluation is the degree of use of resources necessary to perform certain tasks. Profitability determines the effectiveness of the logistics system in terms of costs. It can be expressed through the ratio of resources to be consumed in solving this problem, and resources actually consumed. Efficiency is a measure of the completeness and quality of solving a task posed to a logistic system, fulfilling its purpose by the system (providing a consumer with goods of the right quality at the right time, in the right place and at the lowest cost). Efficiency is an indicator (or a system of indicators) that characterizes the level of quality of the functioning of the supply chain at a given level of total logistics costs [9]. Therefore, effective supply chain management should be aimed at achieving two main effects:

- Logistic costs should be minimal;
- After-sales service should satisfy the needs of customers.

Finding the best balance between these two effects allows supply chains to operate profitably, efficiently and effectively.

Thus, based on the foregoing, we have developed a scheme for the effective functioning of supply chains, taking into account the principles of green logistics, which is presented in Figure 2.

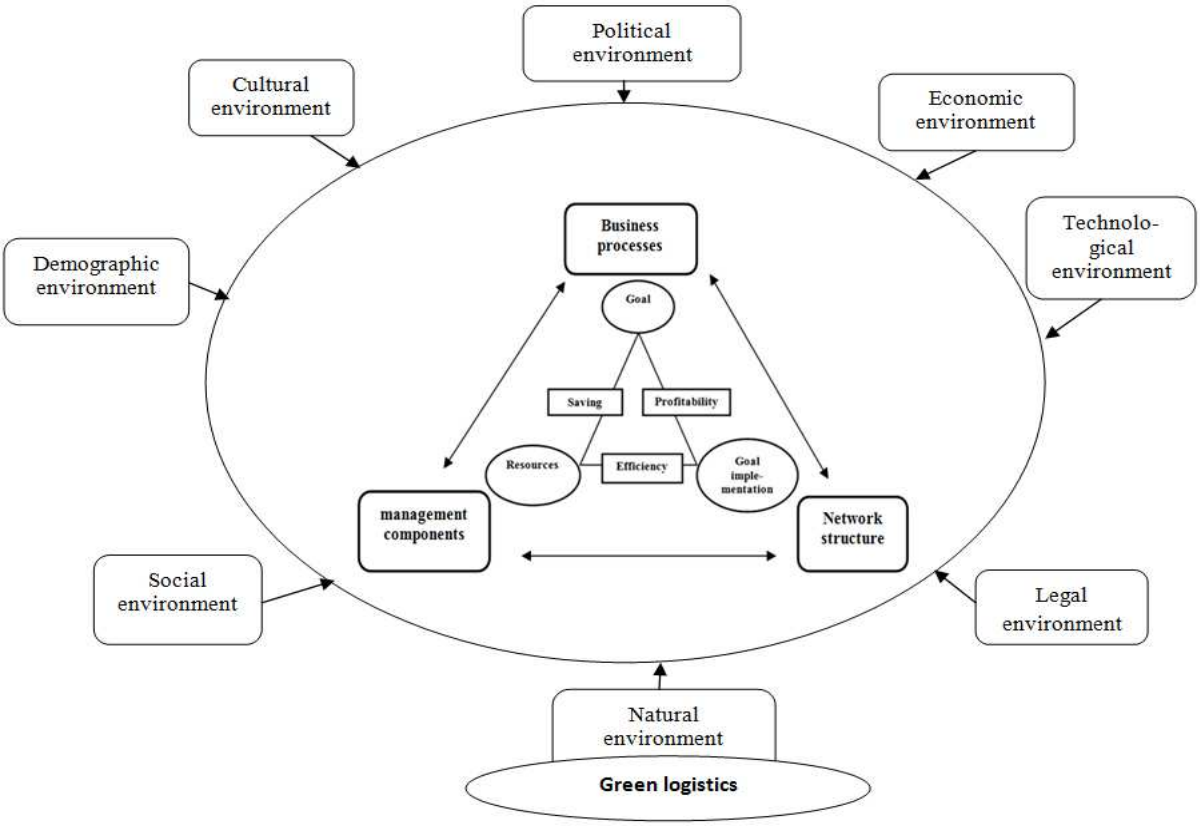

Figure 2. – Supply Chain Performance Based on Green Logistics

Source: own development based on [6.9]

Conclusion. The essence of efficient functioning of the supply chain conveys the interconnection of the main three elements – the structure of the supply chain, business processes occurring in the supply chain, and components of supply chain management. When determining and evaluating the effectiveness of supply chain management, it is necessary to consider such concepts as the efficiency and effectiveness of supply chains, and also take into account the influence of environmental factors on the external environment. An analysis of domestic and foreign literature shows that in the Republic of Belarus, as well as throughout the world, there is a steady tendency to increase interest in the application and development of "green" technologies. This confirms that "green logistics" as a scientific area is relevant in the modern world. It has both an environmental beneficial effect,

and both economic and social. Green logistics helps to identify and minimize the negative impact of logistics activities on the environment and increases the consumer value of products through the use of energy and resource-saving technologies in the implementation of logistics operations. This necessitates a detailed study and further development of the theoretical and practical provisions of supply chain management based on the principles of green logistics.

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THE IMPACT OF INFORMATION TECHNOLOGIES ON SUPPLY CHAIN MANAGEMENT

E. SMOLENSKAYA, J. BANZEKULIVAHO
Polotsk State University, Belarus

The article deals with the logistics processes in supply chain management, information technology in management and prospects for the use of information technology in logistics with particular attention paid to the key factors in information technology that affect the efficiency of the supply chain management, as well as conclusions are made regarding the importance of active use of information technology in logistics.

Keywords: *supply chain management, information technologies, logistics, information trend, supply chain operation, supply chain big data.*

The development of logistics in the world is fast. Every day there appears more industrial and commercial enterprises, having logistics services in their governance structure. The economy is constantly expanding the scope of application of modern logistics systems and technologies. To succeed in the digital economy, organizations have to manage the integration of business, technology, people, and processes not only within the enterprise but also across extended enterprises. Supply chain management system facilitates inter-enterprise cooperation and collaboration with suppliers, customers, and business partners.

Supply chain management is a highly-detailed system used by both small and large organizations to get products to consumers, including obtaining raw materials, manufacturing and delivering the final product to the customer. A well-organized supply chain management system involves optimizing operations functionality to be fast and efficient. Supply chain management in not only a process served to generate a cost reduction in the budget or a mission to create greater operational efficiencies within an organization. While these are a part of the whole ecosystem, modern supply change management encompasses the strategic alignment of end-to-end business processes to realize market and economic value, as well as giving a firm the competitive advantage over their business rivals [1].

Everyone agrees that effective supply chain management can provide a major source of competitive advantage. The goal of a supply chain manager is therefore to link the end customers, the channels of distribution, the production processes and the procurement activity in such a way that customers' service expectations are exceeded and yet at a lower total cost than the competition. One of the enabling factors for the achievement of this goal is the effective use of information technology.

In logistics, as in principle the economy, information technologies are a major source of productivity growth and competitiveness.

There are five major trends in information technologies: the information product interoperability, the ability to interact (the compatibility), the elimination of intermediate links, the globalization and the convergence.

The introduction of modern information technologies allows the user to work in a convenient and accessible information environment, which can eliminate the intermediaries. These factors are very important in the context of scientific and practical development of the transportation logistics segment, as shown in the fig.1.

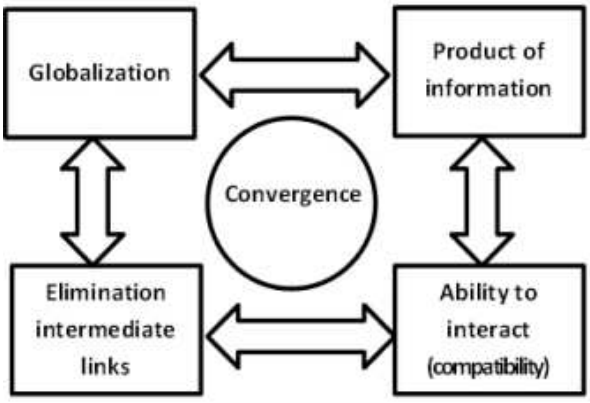

Figure 1. – Structure of the interaction of information trends [2]

Big Data and logistics are made for each other, and today the logistics industry is positioning itself to put this wealth of information to better use. Big data is revolutionizing many fields of business, and logistics analytics is one of them. The complex and dynamic nature of logistics, along with the reliance on many moving parts that can create bottlenecks at any point in the supply chain, make logistics a perfect use case for big data. For example, big data logistics can be used to optimize routing, to streamline factory functions, and to give transparency to the entire supply chain, for the benefit of both logistics and shipping companies alike. Third party logistics companies and shipping companies both agree.

The logistics sector is ideally placed to benefit from the technological and methodological advancements of Big Data. Big Data refers to datasets which size is beyond the ability of typical database software tools to capture, store, manage and analyse. IBM define Big Data as having four key attributes:

- Volume: the scale of data;
- Velocity: analysis of streamed data, that is, the rate at which data arrives at the enterprise and the time that it then takes to process and understand that data;
- Variety: the different forms of data: structured and unstructured;
- Veracity: uncertainty of data, refers to the quality or trustworthiness of the data [3].

How is big data being applied in supply chain operations? Despite the largest growth of data analytics being experienced in downstream customer insights, analytics can have applications across the end-to-end supply chain. Supply chains that are embracing big data capability development, first need to become aware of the benefits that big data solutions can deliver to their operations. Decisions need to be made about the cost effectiveness of prioritizing certain parts of their operations. Holistic big data solutions applied to the whole supply chain can involve high costs, making supply chain decision makers more selective in customizing solutions to specific operations.

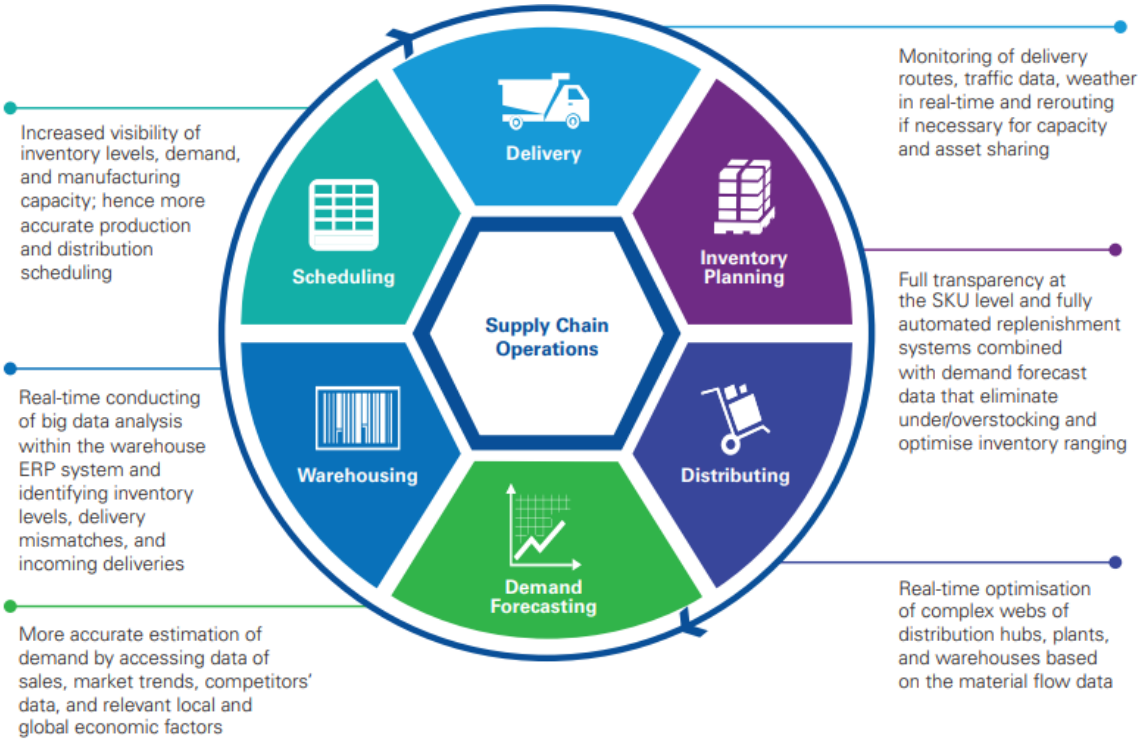

Figure 2. – Applications of big data analytics in supply chain operations [4]

What are the capabilities of future big data practitioners? A survey of more than 3,000 business executives, managers, and analysts in 108 countries across 30 industries conducted by MIT showed that most of the respondents identified three core obstacles for effective application of big data solutions:

1. The lack of understanding of big data to improve business;
2. The lack of management bandwidth to interpret insights from big data;
3. The lack of big data skills in the line of business.

Capability Application	Capability Description
Supply chain statistics	Awareness of methods of statistical estimation and sampling
Supply chain forecasting	Understanding of qualitative and quantitative methods of forecasting
Supply chain optimisation	Capability to adopt analytical and numerical methods of optimisation
Supply chain simulation	Redesigning supply chain processes using simulation models, data visualisation, and data repositories

Figure 3. – Some of the main capabilities needed for supply chain big data analysts [4]

To summarize the above, we understand that logistics is inconceivable without the active use of information technology. It is impossible to imagine the formation and organization of the chain of delivery of goods without intensive rapid exchange of information between participants in the transport process, without the capacity for rapid response to market demand for transport services.

Large enterprises, especially those related to international transportation, among the first to feel the need to introduce information technology in management of production processes. Competition in the market of transport services in connection with the emergence of many small private companies and an active exploration eastward transport by foreigners, coupled with tight fiscal policy and the rising costs of resources supplied to the transport companies need to mobilize internal resources. It became obvious that without the use of information technology and personal computers, efficient operations of transport companies are no longer possible [1].

Information technology in logistics has a few useful functions. Firstly, with their help accelerate the process of receiving orders, delivery of goods. The sooner all this happens the less the duration of the cycle of works from the perspective of the customer, and therefore costs will be. Secondly, information technology productively impacts on planning and evaluating alternatives.

The process of introducing information and computer technology is now required and, moreover, inevitable. This is due to the increasing volume of data to be processed. Conventional, traditional methods are no longer able to extract from this thread with all useful information and use it to manage the enterprise. The determining factor in the administration is the speed of data processing and obtaining the necessary information.

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Economics

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WAYS TO IMPROVE THE EFFICIENCY OF IMPLEMENTING INTERNATIONAL CARGO TRANSPORTATION BY MULTIMODAL TRANSPORT

A. ROZINA, J. BANZEKULIVAHO
Polotsk State University, Belarus

Annotation: The article describes multimodal transportation as a promising direction for increasing the efficiency of transport services, draws attention to their advantages and disadvantages, focuses on the selection criteria for multimodal transportation during cargo transportation, describes in more detail a practical example that reflects the efficiency of using international freight transportation by multimodal transport.

Keywords: *multimodal transportation, cargo, mode of transport, route, permit, expansion of the geography of transportation, minimization of costs, increase in profit.*

Cargo transportation has been, is and always will be an urgent task in the system of managing international supply chains. It requires compliance with the basic principles of logistics, which consist mainly in delivering the right cargo of the right quality in the right quantity to the right place with the lowest logistics costs in a short time with high quality service and continuous information support. To improve the transport process during the transportation of goods, all types of transport are used, the combination of which allows them to be combined with the maximum extraction of their advantages.

By multimodal transport it is understood the transportation of any goods by two or more modes of transport organized by one carrier. In this case, the carrier may use for its purposes other transport organizations (sub-carriers) for certain types of transport. But, regardless of the number of involved modes of transport and sub-carriers, the sole responsibility for the delivery of goods to the customer lies with the carrier, since the entire route of the cargo consists of only one contract between the customer and the carrier. The carrier responsible for the entire transportation is called a multimodal transport operator. When transporting goods by multimodal transport, a single transportation document is drawn up taking into account a single end-to-end tariff rate. In addition, the carrier calculates the cost of transportation, taking into account many factors, such as the type of cargo, time and final destination, season, availability of convenient flights, etc. It should be remembered that an important requirement of the consumer of transport services is the timely and high-quality delivery of goods.

Multimodal transportation has its advantages and disadvantages, which must be taken into account to reduce the cost and speed up the delivery of goods along a given route. When using multimodal transportation, a longer delivery time is observed due to the need for loading and unloading when changing vehicles. Nevertheless, difficulties in using several types of transport at once can be avoided if the carrier has extensive experience in organizing such types of work [1].

The choice of multimodal transportation, as a rule, begins with determining the parameters of the cargo, its volume and type. Then follows the development of an optimal transport route with a favorable tariff for the client. The next step is to prepare the necessary documentation, which will be required at each stage of cargo transportation. Next, an analysis of possible unforeseen situations and ways to resolve them is carried out and the forwarders are trained to accompany the cargo throughout the journey. In order to ensure safety on the way of cargo transportation, it is necessary to carry out work on cargo shipment, selection of necessary fasteners and other means and monitoring of the passage of each stage during cargo transportation [2].

The use of multimodal transportation has its own characteristics and combines the necessary criteria that a carrier can use, for example, accelerating the delivery of perishable goods or reducing storage costs by choosing a long delivery. Thus, the "multimodal transportation" allows you to select the type of transport depending on the characteristics of the cargo. It is also worth paying attention to the fact that the use of multimodal transportation can reduce the malfunction of various types of transport and, thereby, optimize the entire transport system in order to meet the needs of customers, ensure economic growth and sustainable development of the national economy as a whole. Therefore, today, the development of the transport industry is aimed at expanding the use of multimodal transportation.

Thus, multimodal transportation is today a universally recognized means of reducing environmental pollution and reducing congestion in the automobile network. An ideal transport market will use all kinds of means of transport taking into account their specific advantages and, in many cases, come to combined transport, as a possible solution to many transport problems.

Considering the transportation process in more detail, it can be noted that, in principle, not only one type of transport is involved in the transportation of almost every cargo, but, therefore, each transportation will be multimodal, but with different complexity of the combination of modes of transport.

Consider this type of multimodal transport, which is used in inland navigation and shipping - ferry services, which are called "Ro-Ro". "Ro-Ro" is a type of shipping for rolling cargo (cars, tractors, trailers, etc.) that do not require cranes when loading onto a ship. Today, Ro-Ro transportation is one of the most profitable transportation methods [3, p. 35].

It should be noted that this is one of the types of multimodal transportation, since in this case there is a combination of two modes of transport, road and sea. The undoubted advantage of Ro-Ro transportation is that when loading goods, the use of loading and unloading equipment is not required, which reduces the loading / unloading time and, as a result, simplifies and reduces the cost of the cargo transportation process.

When planning and organizing transportation, each carrier is looking for ways to increase the efficiency of their implementation. Today, to increase competitiveness in the transport services market, carriers are looking for new job opportunities, expanding the geography of transportation, and building new routes.

Ro-Ro transportations do not stand aside either; the leading countries in terms of volumes in this type of maritime transport are Estonia, Denmark, Germany and Sweden. They also have extensive experience in transporting Ro-Ro cargo from Finland, Lithuania and Latvia.

Belarusian carriers are also interested in this type of transportation and began to introduce them into their activities. The year 2020 has brought into the work of Belarusian carriers the ambiguity of how to work on already established routes that transit through the territory of Poland if the required number of permits is not available.

However, in order to survive in the market of transport carriers, which is filled with a huge number of cargo transportation companies, everyone is looking for their own ways. One particular example is the development of a new route "Vitebsk (Republic of Belarus) - Tallinn (Estonia) - Helsinki (Finland) - Lviv (Ukraine) - Minsk (Republic of Belarus) - Vitebsk (Republic of Belarus)". This route was developed by a transport company to increase the efficiency of international cargo transportation using multimodal transportation, which allows it to expand the geography of transportation, reduce travel time, minimize costs and, accordingly, increase the company's profit.

The novelty of this route is the development of the very "Ro-Ro" transportation, which allows you to reach new geographical points and open the possibility of cargo transportation between countries such as the Republic of Belarus and Finland. Subsequently, transport companies continue their work without the need for Polish permissions.

It should also be noted that if in other sectors of shipping, the cost of transportation of goods is calculated depending on the number of metric tons, then the cost of "Ro-Ro" transportation is measured in units of "bands in meters", that is, the price of transportation depends on the length of the cargo itself. So, when transporting by ferry, transportation of the cargo itself, a driver's ticket and, if necessary, a cabin and driver's meals are paid [4].

In general, "Ro-Ro" transportation is very simple, convenient, fast and environmentally friendly, as well as advantages such as:

- the minimum number of customs procedures and, accordingly, the minimum time spent on them;
- the ability to deliver cargo to almost anywhere in the world;
- relatively low costs compared to other modes of transportation.

Thus, favorable tariffs, a professional approach at all stages of work, strict control over the condition of goods, optimization of travel time and environmental friendliness of transportation - all this will improve the efficiency of international cargo transportation using multimodal transport, which will consist of a combination of "vehicle + steam" .

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Economics

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MANAGEMENT OF THE ENTERPRISE AND ITS SUPPLY CHAINS BY CONTROLLING

A. DOMKINA, J. BANZEKULIVAHO
Polotsk State University, Belarus

The article assesses the traditional control system under conditions of a slow response to environmental impacts due to strict state regulation, substantiates the need to introduce a controlling system in the activities of business entities to improve the efficiency of managing them and their supply chains in today's conditions of fierce competition and a rapidly changing external environment.

Keywords: *controlling, supply chain management, SCOR-model, key performance indicators, benchmarking, reengineering*

In modern conditions of fierce competition and a rapidly changing external environment, many business entities realize the importance of not only focusing on the internal state of affairs and solving operational problems in the supply chain, but also developing a behavior strategy and an effective mechanism for implementing this strategy. This leads to an increase in the interest of many enterprises and the scientific community in issues of strategic supply chain management, the development of mechanisms for communicating it to all employees, and integration into management decision-making systems at all stages of managing these supply chains.

World experience and scientific and practical research in the field of supply chain management confirm that in order to maintain the established development of business entities, it becomes necessary to apply new management approaches that can ensure their effectiveness in market conditions, one of which is controlling.

With the help of controlling, supply chain business processes are managed, focusing them on achieving not only operational, but also strategic objects. Controlling is a modern technology that allows you to integrate traditional methods of accounting, analysis, planning and control into a single system of obtaining, processing and summarizing information and making system-based sound management decisions on its basis. Today, controlling is one of the essential tools for managing the enterprise and its supply chains. Quotas, standards and norms are based on past experience; control actions are related more to the past than to the future of the enterprise. Thus, the management on the basis of traditional control inhibits the active anticipatory use of future opportunities [1, p.142].

The traditional control system did a good job for enterprises when the change in the external environment was so gradual that it allowed delayed reactions. With the growing dynamism of market relations, it became necessary to base control on future events and actions. In leading (or proactive) control, the emphasis, which was previously fixed on deviations from past standards, shifts to changing the gap between current results and objects that should be achieved by the end of the planning period. In the implementation, the emphasis shifts accordingly from the correction of mistakes made in the past to the measures to achieve future objects.

The basis of production control is proactive control, which allows it to either make adjustments to the actions, or if the evaluation of the results shows that the previously defined objects are unrealistic, change them [2].

Thus, controlling is a guarantee of the implementation of plans and increase the efficiency of enterprise management.

The controlling system includes management accounting, planning, control and analysis, increases the efficiency of enterprise management and ensures coordination of the management system as a whole, reducing the time spent on making management decisions [3, p.241].

The role of controlling in improving the efficiency of enterprise management processes is shown in table 1 [2].

Based on the data of table 1, we can conclude that controlling performs various functions aimed at improving the efficiency of management processes (coordination, analysis, reduction, maintenance), which allows to achieve the desired result.

The use of controlling in the logistics system of the enterprise is a factor in ensuring its successful production and business activities.

In particular, the result of the implementation of controlling the logistics system of the enterprise are:

- the ability to quickly and accurately calculate the price of an accepted order at a contract price, as well as accept an order at a fixed price in case the customer offers a price;
- the creation of formalized information flows (workflow), which allows you to quickly record the current status of the performance of certain indicators;
- the ability to plan current activities and provide its results, build a model of the future state of the enterprise;
- ensuring current control and analysis of the results of the financial and economic activities of the enterprise;
- the ability to determine the real causes of certain phenomena and the formation of management style;
- automation of the functions of accounting, control, analysis and planning of the enterprise.

Table 1. – The role of controlling in improving the efficiency of enterprise management processes

Performance criterion management processes	Role of controlling in improving the efficiency of management processes
Manageability level of processes	• Coordination, analysis and control over the formulation and support of the processes of making and implementing management decisions; • Improving the information integrity of the system, individual subsystems
Focus on the set object	• Strategic coordination of managerial decisions, the activities of units, personnel; • Ensuring the interconnection of external sources of strategic objects and personnel; • Ensuring compliance of operational plans with strategic ones; • Ensuring the information integrity of units
Duration of the cycle and the level of directness of management processes	• Saving time for making management decisions; • Integration of departments
Specific mechanism for implementing the process	• Making adjustments to management processes as a result of monitoring the production system
Effectiveness	• Reducing the risks of making managerial decisions that are inappropriate to the object; • Reducing the time for making managerial decisions at the stages of strategic planning, the risks of adopting unreasonable strategic objects and guidelines

The logistic controlling is aimed at providing managers of various management links with up-to-date information about the state of the enterprise's logistics processes in the macro and micro environment [4, p. 344].

Today, as an international intersectoral standard, in supply chain management, the SCOR model (Supply Chain Operations Reference model) is actively used, which allows us to describe and create the basis for planning, controlling and improving supply chain management, both within the framework of global projects, and for the specific objects of a particular enterprise.

In the context of developing a controlling system, using the SCOR model will help to solve the following problems:

- business modeling, identification of the main categories of processes and the relationships between them;
- definition of a set of KPI (Key Performance Indicators) strategic (and partially tactical) level;
- setting target KPI values of strategic level based on benchmarking;
- analysis of bottlenecks in the supply chain;
- determination of reengineering directions based on the analysis of best practices of processes;
- assessment of the prospects for introducing advanced technologies and concepts (their impact on the performance indicators of supply chain processes).

Indicators for assessing the effectiveness of supply chain management in the SCOR model are conventionally divided into two groups.

The first group consists of performance indicators for supply chains (Performance Attributes). These are grouped metrics used to set the direction of a supply chain management strategy. By themselves, performance indicators cannot be measured, with their help they only set the direction of the strategy.

In the SCOR model, the following 5 aspects of the functioning of supply chains are distinguished:

1) reliability in the supply chain while ensuring the delivery of the right product, at the right time and place, in proper condition and packaging, in the right quantity, with the right documentation, to the right consumer;

2) supply chain response (duration of logistic cycles) - the speed of the goods along the supply chain to the consumer;

3) maneuverability (dynamism) of the supply chain - the rate at which the supply chain reacts to changes in the market situation in order to obtain or maintain competitive advantages;

4) supply chain management costs - the costs associated with supply chain management operations;

5) asset management in the supply chain - the effectiveness of asset management (fixed assets, inventory management, working capital) in ensuring the satisfaction of demand.

Aspects of the functioning of supply chains are also conditionally divided into external (customer-oriented) and internal (business-focused focus business).

The second group consists of metrics. Metrics (a system of measurable indicators) are intended to assess the possibility of achieving strategic objects, indicated in terms of indicators of the functioning of the supply chain. It is an established standard for evaluating an activity or process. SCOR model metrics are used to diagnose supply chain problems.

The SCOR model distinguishes three levels of metrics (groups of indicators). The first level contains indicators that diagnose the general condition of the supply chain. They are known as strategic metrics or groups of key performance indicators (KPI). A comparative analysis of these indicators of the first level helps in setting real objects and objectives for the chosen strategic direction. The second level includes indicators, which in turn are diagnostic for the first level metrics and help to identify the reasons for the deviation of the planned values. The third level contains indicators that respectively serve to diagnose the causes of deviations of the metrics of the second level [5].

Thus, the SCOR-model helps to solve problems that will contribute to the development of controlling in the enterprise. This, in turn, will lead to an improvement in key performance indicators of the enterprise, as well as an increase in the efficiency of its supply chain management.

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UDC 33

CROWD ECONOMY: TRENDS AND PROSPECTS OF DEVELOPMENT IN THE REPUBLIC OF BELARUS

A. OSORGINA, O. FEDANKOV
Polotsk State Economic College, Belarus

The elements of crowd economy are examined, the factors influencing the adoption of decisions when investing are analyzed, legal support crowd-operations in the Republic of Belarus and abroad are studied, conclusions about the possibility of successful development of crowd economy in the Republic of Belarus.

In modern conditions of development of information technologies, it is necessary to monitor economic development trends not only in the Republic of Belarus, but also throughout the world. One of these areas is crowd economy – the economy formed by communities of people who have free cash, but do not always understand the issues of its profitable use.

The main goal of this work is to study the possibility of successful development of the crowd economy in the Republic of Belarus with consideration of its directions and making proposals to the legislation of the Republic of Belarus.

In the framework of the goal it is supposed to solve the following tasks:

-to study the essence of such elements of crowd economy as crowdsourcing, crowdfunding, crowdinvesting, crowdlending;

- toanalyze the factors that influence decision making when investing;

- tostudy the legal support of crowd operations in the Republic of Belarus and abroad;

-to study examples of the application of areas of crowd economy in practice in the Republic of Belarus and abroad;

-todraw a conclusion about the possibility of successful development of the crowd economy in the Republic of Belarus with the introduction of proposals in the legislation of the Republic of Belarus.

As research methods, such methods of economic analysis as the collection, study and synthesis of information were used.

Since this area is quite new and unexplored, the authors used INTERNET resources to study these areas.

Crowd economy includes the following forms of interaction with the society: crowdsourcing, crowdfunding, crowdinvesting, crowdlending.

Crowdsourcing is the way to solve tasks with the help of extraneous people, their knowledge and experience [3]. The technique is implemented on a voluntary basis and in most cases is performed remotely.

The goal of crowdsourcing is to reduce costs by attracting a wide segment of the population (most often, the target audience) to get creative ideas, as well as the opportunity to choose among many variants, increase loyalty, PR.

Crowdsourcing does not pay for user work, or it may be more symbolic. But it is necessary to understand that more amateurs than professionals participate in the system. Free of charge, specialists help more social projectsthat are aimed at solving a social problem.

An example is the Canadian gold mining company GoldcorpInc., which, in identifying promising gold-bearing areas, was not able to independently process exploration data.

To solve this problem, the company turned to users of the global Internet and posted geological exploration data, asking all-comers to tell where there could be significant gold deposits. For the best answer, company management promised a prize of 1 millionCanadian dollars.

Assumptions came from participants from around the world. More than 80% of the deposits indicated by them really possessed substantial reserves of gold.

The competition helped the company save about 3 years of exploration. GoldcorpInc.increased its reserves, increased capitalization by 800 million US dollars, which made it one of the leaders in the industry. This example proves that crowdsourcing has a very high profitability.

This example confirms the ability to determine the most promising areas of doing business, in the Republic of Belarus as well, with minimal costs.

Crowdfunding is the collaboration of people pooling their funds to support the efforts of other people or organizations [3]. Nowadays, such a method of collecting funds has become widespread on the Internet and social networks, as it is a very convenient platform for fundraising, which has a huge audience.

Fundraising can serve a variety of purposes – helping victims of natural disasters, financing start-up companies and small businesses, creating free software, publishing a book, and much more.

Today, in the Republic of Belarus, the most common goal of raising funds through crowdfunding is to support and create social projects of various kinds.

To use this method, first it is necessary to create a presentation of the project in order to interest your future investors. In addition to the presentation, the author of the project also thinks out a system of rewards for a donation. A reward can be either a product for which fundraising is taking place with a substantial discount, or formal gratitude in the form of a postcard.

In 2009, the first crowdfunding platform in the world appeared –Kickstarter. By 2015, the number of projects launched on this site was close to 100,000, and the number of participants who shared their money reached 10 million. There are two crowdfunding platforms in the Republic of Belarus – ulej[hive] (ulej.by) and talaka (talaka.org).

Crowdinvesting is the collective investment of people whose purpose is to obtain a share of the invested company, as well as further profit.

The principle of the method is to raise fundsfrom a large number of people to launch a project. After the project is launched, each of the investors receives anagreed share in this company.

The main role in crowdinvesting is played by specialized Internet platforms, which with the help of social networks, contextual advertising and other marketing mechanisms attract the necessary amount of investors from Internet users for projects selected by the same platform. The operators of these platforms also take on technical support when investing and returning investments, for which they charge commission fees from the project being promoted (either investors or both).

From the legal side, three main players are involved in crowdinvesting relations: a startup (project), an Internet platform operator, and an investor. In addition, the platform operator attracts a financial institution to conduct banking transactions – the accumulation of funds and their investing into the project.

In almost all cases, the structure of financing and, accordingly, the participation of investors in the project includes mechanisms of the so-called mezzanine financing – a hybrid financial instrument, a cross between equity (contribution to the authorized capital) and borrowed capital (loan agreement).

Crowdlending is the financing by private lenders of individuals or legal entities through special online platforms.

Mutual benefit lies in the fact that the lender receives interest, and the borrower – the capital he needs under more favorable conditions than in banks.

Crowdlendingis a promising, but not widespread technology. The epicenter of the popularity of this technology is in the United States and Europe, where it is used by those who plan to start their own business. There are several varieties based on the financial participation of many people.

Lenders, private individuals or their group. They must register on one of the web sites that specialize in crowdlending. The contract (standard, corresponding to the norms of legislation) is concluded with the company-organizer of the site. It also bears responsibility for:

- checking a potential debtor and establishing a "confidence rating" (with the help of banks and credit bureaus);

-approval and disbursement of funds (in automatic or manual mode);

-collection of outstanding loans (resorting to the services of collection agencies).

Crowdlending companies charge for their work – part of the profit.

To consider the mentality of citizens of the Republic of Belarus, a survey was conducted [1]. The survey had questions about knowledge of the concepts of crowd economy, sex and age indicators and questions that made it clear whether people were ready to invest in crowd economy.

The survey involved a total of 100 people of different ages. Among them, there were 46% of women and 54% of men.

The age of the respondents: 16-20 yearsold– 47%; 20-25 yearsold– 17%; 25-35 years old – 12%; up to 16 years old – 10%; 35-45 years old – 10%; 45-60 years old – 4%.

Based on the survey data, we can conclude that the majority of respondents cannot explain the definitions used in crowd economics (crowdsourcing, crowdfunding, crowdinvesting, crowdlending). 67% of respondents did not know what crowdlending is, this is the most "unknown" word.

Based on the foregoing, crowdlending is least developed not only in the Republic of Belarus, where there are no Internet platforms, but also in foreign countries.

Only 74% of those surveyed have free cash. This indicates a low income among citizens. Nevertheless, 37 people are ready to set aside up to 50 Belarusian rubles for investments, and 25 people are ready to set aside 50 to 100 Belarusian rubles.

The most acceptable investment variants were investments in shares and the purchase of a share in the authorized capital of an established business. Following these variantsis a bank deposit, which means that people trust their investments only if they are protected at the legislative level. This is evidenced by the answer to the question about the readiness of investments in the crowd economy. 43% of respondents are willing to invest in the crowd economy only if they are protected at the legislative level.

The respondents considered investment returns and guarantees of their return to be the most important in investing.

It was also proposed to choose one of the proposed investment variants. 47% of the respondents chose investments in the authorized capital of the newly created organization, 39% chose the bank deposit, and 13% chose to lend money to their best friend for starting a business, receiving 30% of the income in half a year.

An interesting fact is that among those who agreed to lend money to their best friend, there are those ones who least of all trust investments and believe that it is necessary to protect them at the legislative level (people over 35 years old). Despite the fact that in the answer option there was a footnote that a friend asks for money without an official document.

From this we can conclude that the older generation is afraid of innovations in investments and does not always rely on legislation, while the younger generation is trying to take all innovations for granted and is ready to take new and risky decisions.

When conducting an analysis of the investment object, the investor always relies on several basic postulates.

The basic principles of making investment decisions include: return on investment; minimization of potential risks; acceptability of timelines for achieving the goal.

The main criteria for the effectiveness of an investment decision lie in the plane of its payback or profitability.

In other words, the actual return on investment should be greater than the costs incurred. The higher the return on investment, the more successful the investment project is and the more effective the decision. It is very important to take inflation expectations into account when forecasting return on investment. Indeed, when the country's economy develops without significant shocks, the inflation rate is quite simple to predict.

An investment decision cannot be made without an in-depth analysis of the potential riskiness of an asset. All other things being equal, the investor will always choose a project with a lower expected level of risk.

In this case, depending on the character of the investor, the following strategies can be chosen:

- minimizing the level of risk at a given level of profit;
- profit maximization at a given level of risk.

For any financial investment, the time factor is also one of the determining factors. It must be understood that each investment goal must be solved for a strictly defined time interval.

Thus, the return on investment is always considered inextricably linked to the time frames defined for the implementation of the investment project.

According to the State Program for Innovative Development of the Republic of Belarus for 2016 – 2020, the development of Internet platforms (crowdfunding) as a tool for interaction between consumers and producers of goods and services, investors and investment seekers is provided for in the framework of digital transformation of the national economy.

In the Russian Federation, the State Duma is currently considering bill No. 419090-7 “On attracting investments using investment platforms” (the original title “On alternative methods of attracting investments (crowdfunding)”).

Under the bill, Russian organizations and individual entrepreneurs will be able to attract investments through special Internet platforms.

There are no special requirements for those who want to become investors.

To date, the most developed laws governing crowd economy exist in the United States.

An example of legislative regulation of crowdfunding is the Law "JOBSACT", signed by Barack Obama 04/05/2012.

The law allows companies to accept investments from ordinary citizens up to $ 1 million with the maximum possible number of up to 2 thousand investors.

A good example is Germany. In August 2015, legislative acts that regulate crowdfunding activities came into force. These acts are aimed at setting the maximum amount of money that can be raised through crowdfunding platforms. Thus, small investors in Germany can invest no more than 1,000 euros in crowdfunding projects.

In my opinion, it is advisable in legislation to formulate and distinguish between the concept of crowdfunding and its separate types –crowdlending, crowdinvesting, directly distinguishing these types from banking.

The author believes that it is necessary to maintain a system for checking the credit history of both the investor and the author of the project. It is proposed to introduce restrictions on crowdfunding operations in the Republic of Belarus regarding the availability of transaction security.

The crowd economy should be developed in Belarus, as well becoming the basis for amendments to the legislation, since it is a factor in stimulating money circulation and the national economy as a whole.

An important factor for the development of the crowd economy is the presence of a large number of innovative projects that their creators are ready to openly advertise and intensively promote to an unlimited number of investors.

In addition, there should be a sufficient number of active and caring Internet users who are potentially capable of investing relatively large sums of money in risky projects.

And when both of these factors are fulfilled, then a suitable legal framework for translating crowdinvesting ideas into reality will certainly be found. To facilitate these tasks, certain legal mechanisms can be borrowed from Germany or other countries.

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WAYS TO ADDRESS THE LACK OF AWARENESS OF THE POPULATION ABOUT THE PROCESSES OF THE CIRCULAR ECONOMY

K. HUSAK, H. YARYHINA
Polotsk State University, Belarus

The deterioration of the environmental situation around the world is no longer news to anyone. In this regard, more and more attention is being paid to ways to minimize the impact of human activities on the environment. Understanding that the planet's resources are limited leads to the search for ways to reduce resource consumption and increase the life of manufactured goods, as well as their possible recycling and reuse. The idea of a linear economy, where there is "production", "use" of the product and the subsequent transition to the category of waste no longer works. One way to solve this problem is to switch from a linear economy model to a green or circular one.

The "green" economy is an economic model aimed at achieving the goals of social and economic development while significantly reducing environmental risks and the rate of environmental degradation[1].

Circular economy (closed-cycle economy) - in a General sense, it is an economy based on the renewal of resources, as well as their recycling and reuse.

The main goal of the circular economy is to stop the increasing consumption of natural resources for the sake of the well-being of future generations.

Renault is one of the examples of circular business strategies in Europe[2]. It is the first automaker wich commits to implementing the circular economy concept by creating a subsidiary companyin 2008, Renault Environment,to control the flow of automotive waste and parts. As a result, vehicles are created 85% recyclable and contain 95% of parts that are removed at the end of their service life. The share of recycled plastics in production is constantly increasing, spare parts of previously sold vehicles with expired service life are being restored and reused, and copper recycling processes have been introduced. (Groupe BMW, 2017). Currently, the company's revenue from the practice of circular economy is 0.5 billion euros per year. Renault is actively exploring the possibility of introducing the European model of material regeneration to other regions of the world, such as India, Brazil, Morocco and China (Hermine, 2018) [2,p. 10].

Another example of the introduction of circular economy techniques, but in the food industry, is the Brussels beer project (Belgium) and the Suffolk brewery(UK), which use supplies of stale and unsold bread to make beer.

The most well-known sites that offer exchange and sharing exist not only in Europe, but also operate and are popular in the CIS countries. Bright examples are: BlaBlaCar-an international online service for finding car companions; Airbnb-a platform for renting and lease private housing.

In 1992, the Rio Declaration on environment and development was accepted, at which the United Nations adopted a programme plan of action for sustainable development in the twenty-first century[1]. This plan was aimed at achieving a high quality environment and a healthy economy for all countries of the world.

Belarus supported this idea and the Concept of the National strategy for Sustainable Development of the Republic of Belarus until 2035 States that [3] the transition to a closed cycle of resource use can bring about 1 trillion annually to the world economy dollars by 2025, create about 100,000 new jobs in the next 5 years, and save about $ 500 million on material resources and prevent the appearance of 100 million tons of waste. The Republic of Belarus should also join the global process of transition to a circular economy in order to reach a sustainable development[3].

One of the ways to increase the rate of "adoption" of green and circular economy models in Belarus is to increase the interest and motivation of producers in using circular processes, as well as to increase the level of awareness of the country's population about the positive effects of green and circular economies.

Unfortunately, in order to make the transition to a green and circular economy, the level of public awareness and the interest of enterprises in introducing circular processes in production must be much higher.

According to a survey conducted in 2017 by "ZyaleniPartal" among more than 1,000 respondents, aged 16 to 64, only 25% are concerned about nature[4]. Only 18% admit that they leave an environmental legacy to the next generation. 10% are ready to review their level of consumption. 13% of respondents buy new equipment when they have an old working one.

On the positive side, it can be noted that 68% give or are willing to give unnecessary things to those in need and 65% sort waste.

In 2019, a similar survey was conducted by "Sputnik"[5].The results showed that only 24% of Belarusians participate in environmental protection, namely sorting garbage or saving water and energy.

16% would like to study environmental monitoring, and 15% of respondents would like to become public environmentalists.

The research figures are almost identical, which is worrying.

Belarusian schools pay little attention to the environment, which is the basis of green and circular economies. You can convey the importance of caring for nature, things that children use every day, saving water and other resources at the school desk in a playful way. For example in Finland, which is one of the first countries to actively implement the circular economy. The Economics of a closed cycle begin to study at the school desk.

A limited amount of information about the circular economy is freely available to Belarusians. There are no websites with information for ordinary citizens and business leaders. Therefore, it is necessary to create Internet resources with accessible material, create educational lectures about the positive effects of the closed-cycle economy, and promote eco-friendly life and the principles of zero waste.

In recent years, various platforms for sharing have started to appear in Belarus. KaliLaska charity project (14.7 thousand Instagram followers), which accepts clothes, shoes, jewelry, handbags, dishes, books and sends them to orphanages, homes for pensioners, orphans, parents with many children and other people in need. Also, once a month, items that were not given away, participate in the fair, where everyone can buy them for a very democratic price.

Unfortunately, the reception point for items that are no longer needed by the owners and are in acceptable quality is located only in Minsk. Therefore, in our opinion, it is necessary to create similar projects in other cities or increase the number of reception points for existing ones.

Another example is the charity project "DobryRovar". It accepts unwanted or broken bicycles and transfers them to orphanages and refugees. It exists around for 3 years.

An example of a product as a service is Lavazza firma. They provide Lavazza firma coffee machines for free use, you only need to buy capsules for the machine. All concerns about the coffee machine, its breakdowns, and coffee deliveries are assigned to the supplier company.

In conclusion, we can say that the level of public awareness about the processes of the circular economy in our country is low. The beginning of educational activities can be considered existing projects in the country, such as Kali Laska, Lavazza firma and DobryRovar. Therefore, it is necessary to raise the level of public interest in the environmental situation in the Republic of Belarus, find new solutions to stimulate companies in the direction of the circular economy, encourage existing projects and expand their activities within the country.

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ANALYSIS OF THE DEMOGRAPHIC SITUATION OF THE VITEBSK REGION IN THE CONDITIONS OF GLOBALIZATION

M. SAVITSKAYA, K. HALIASHOVA
Polotsk State University, Belarus

Favorable conditions for social development stimulate fertility growth in the country and gradually overcome the negative trends in population decline. However, despite the improvement in the dynamics of these indicators, they still do not fit into the threshold limits of social security, which indicates the continuing relevance of demographic problems in the long term. In addition, there is an increase in the demographic burden, including due to an aging population, it is forecasted that this indicator will change for the worse, from 422 in 2015 to 575 people. older than retirement age per 1000 people. able-bodied citizens in 2030 [1, p. 8]. The object of the study is the Vitebsk region, because, as the researchers in 2017, the "oldest" region is the Vitebsk region with an indicator of 41.5 years "[2], and accordingly the same region can be used to consider the worst state of the birth to death ratio for the Republic of Belarus.

The analysis of the birth rate in the Vitebsk region between 2008-2018 (Fig. 1) showed that its level is relatively stable. Since 2012, a small jump of 0.8 has been observed, in the subsequent period from 2013-2016, relative stability is also observed. However, in 2017, the birth rate declines by 1.5, given that before that the maximum fluctuation between the indicators of 2013-2016. was 0.1, in 2018 this trend continues.

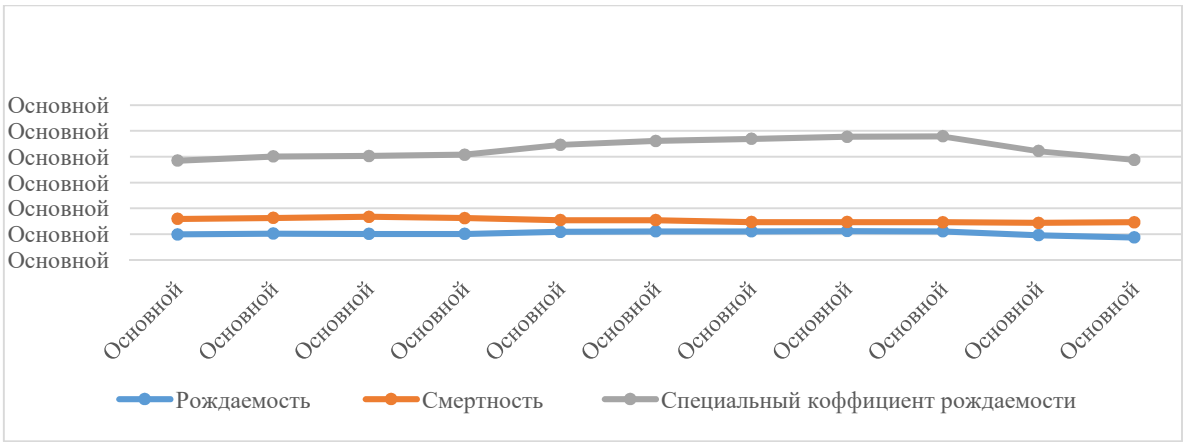

Figure 1. – Fertility, mortality and special fertility rates in the Vitebsk region in the period from 2008-2018.

Source: compiled by the author according to [3, p. 57]; [4, p. 54, 65]

I would like to pay special attention to the average age of the mother at the birth of the first child. This indicator has been rapidly increasing since 2008 and for 2018 amounted to 26.4 years. [4, p. 64]. This is due to the fact that recently higher education has begun to gain great popularity, which takes people from 4-6 years old (depending on the specialty received) [4, p. 92]. As for the special birth rate, it shows us such statistics that starting from 2008 - 2016. This indicator was growing rapidly and changed by 9.4, but by 2017 there was a sharp decline, by 5.7, which continued in 2018, in which the 38.8 indicator almost equaled the 2010 indicator of 38.5.

The general demographic state is affected by such an indicator as mortality. Based on the available data, it can be noted that in the period from 2008-2010. the mortality rate increased, in 2010 there is the so-called "peak" in mortality in the period under consideration - 16.7. By 2014, the mortality rate was gradually decreasing and the difference with 2010 was already 2.

To assess the dynamics of fertility and mortality, growth rates were calculated according to two calculation schemes: basic and chain. The difference between the basic and chain schemes is that the basic indicators characterize the final result of all changes in the levels of the series from the period to which the basic level belongs to the analyzed i-th level, and the chain indicators characterize the intensity of level changes from period to period within the studied time interval [5, p. 250].

If we consider the dynamics of fertility (Fig. 2), then the basic pattern shows a positive trend until 2016, after which a negative trend begins, while the growth rate of the birth rate in 2018 by 2008 is 88%. If we talk about the chain scheme, then there is a relative stability of indicators, but since 2016, negative dynamics have also been observed. All this tells us that the birth rate in the Vitebsk region has recently begun to decline.

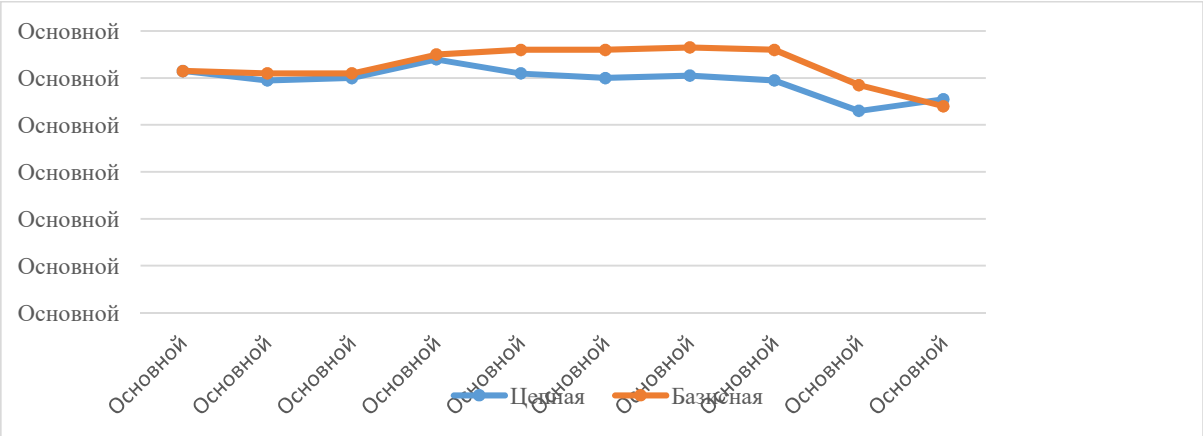

Figure 2. – The dynamics of the birth rate for 2008-2018.

Source: calculated by the author according to [3, p. 57]; [4, p. 54]

Considering the dynamics of mortality (Fig. 3), it can be noted that according to the basic scheme, it has a stable negative dynamics. According to the chain scheme, there are some jumps in indicators that occurred in 2013 and 2015, but in general, negative dynamics are also observed. We can say that in Belarus there is a positive trend in the fight against mortality, as her indicators are rapidly falling.

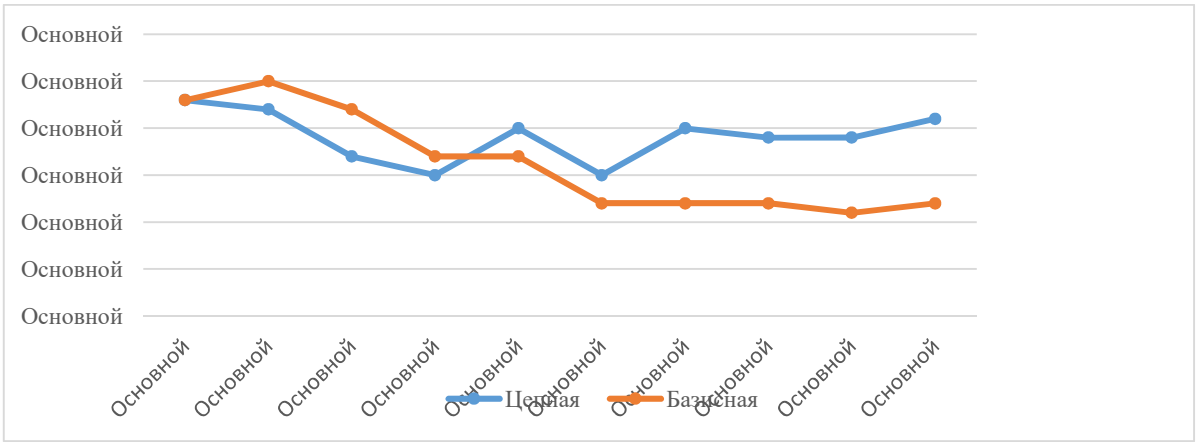

Figure 3. – The dynamics of the mortality rate for 2008-2018.

Source: calculated by the author according to [3, p. 57]; [4, p. 54]

If we talk about a special birth rate (Fig. 4), then its chain and base patterns practically do not differ from the chain and base birth patterns, but nevertheless there is some differentiation.

For a comparative analysis of the demographic status of the Republic of Belarus with other countries, France and Poland were chosen because "France is one of the European leaders in fertility, and in Poland one of the lowest birth rates in Europe" [6]. Both of these countries are part of European Union.

The analysis showed (Fig. 5) that the natural population growth of Poland had a positive value from 2008-2012, then, starting in 2013, the values had mostly negative readings, but they did not go beyond -0.7. In the Republic of Belarus, negative natural growth prevails, although from 2011 the readings began to improve until 2015, in which they reached their maximum mark of -0.1, it is also worth noting that this is the only year in which the Republic of Belarus, according to indications, exceeded Poland, but after 2016, there was a sharp decline,

which lasted until 2018. In France, the birth rate exceeds mortality throughout the entire period under review, however, since 2008 in France there has been a gradual decrease in natural growth rates. Despite the fact that Poland is one of the countries of the European Union with the worst rates of natural population growth, it is still far ahead of the Republic of Belarus in this matter.

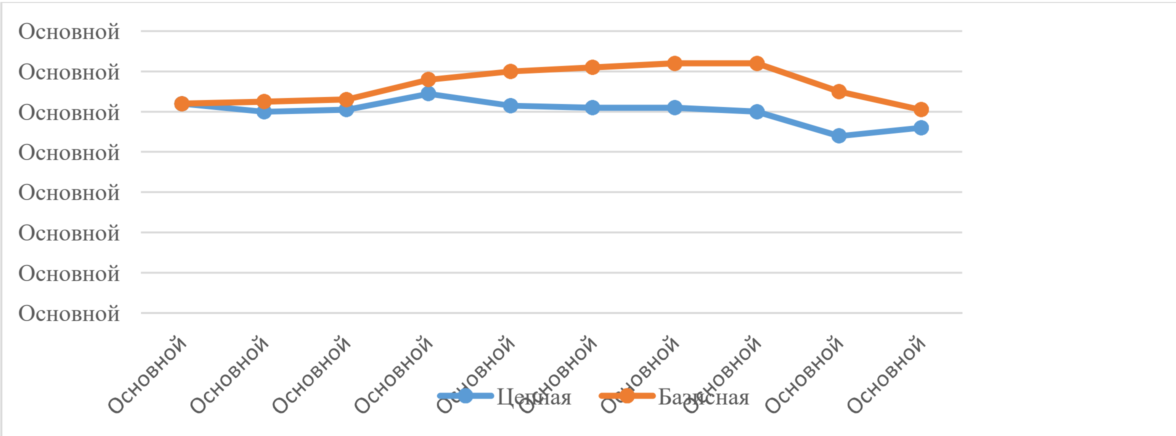

Figure 4. – The dynamics of the special birth rate for 2008-2018.

Source: calculated by the author according to [4, p. 65]

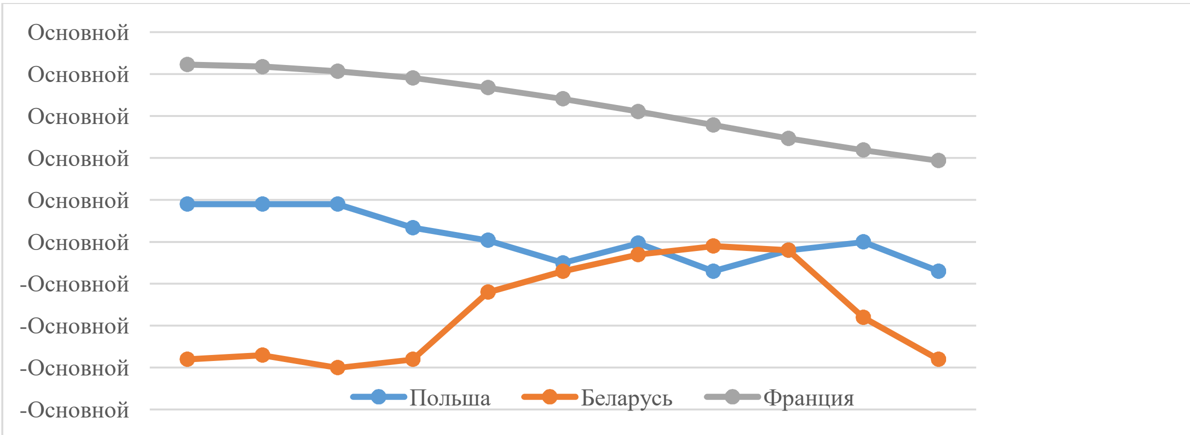

Figure 5. – Dynamics of indicators of natural population growth
in the Republic of Belarus, Poland and France in the period from 2008-2018.

Source: compiled by the author according to [7; 8, p. 131; 9]

Consider the demographic policy of the Republic of Belarus. Today, parental leave in Belarus is one of the longest (3 years) among European countries, which surpasses even the West European leaders France and Germany. The advantage of such a long vacation for our women is that it improves the life and health of the mother and child, creates the conditions for successful breastfeeding, while women are paid benefits for which they can support their child [10]. So this part of the demographic policy of our country can be called successful.

In order to stimulate the birth of 3 or more children, a maternity capital payment program has been developed, the essence of which is that families with 3 or more children are paid 10 thousand US dollars [11]. In our opinion, this program has its drawbacks, since the payment of maternity capital after only 18 years significantly reduces the value of this capital for the family. In addition, payment only at the birth of a third child does not create motivation for families who are considering the birth of a second child. Accordingly, it is worth making such changes as: to pay this capital to families who have 2 or more children, and also to allow its use from any age of the child, and not only when they are 18 years old.

One of the factors of having no more than 1 child in a family is the low level of wages (in July 2018, the average wage in the country amounted to 974 rubles), for comparison, in Poland the average salary in July of that year amounted to 2735 Belarusian rubles, which is almost 3 times more [12]. It is worth noting that the Vitebsk region is on the penultimate place in terms of the salary of the population, in the 1st half of 2019 it amounted to 874.4 rubles [13].

Thus, measures to stimulate the birth rate of the population in the Republic of Belarus may include: modifying the policy of maternity capital, assistance in acquiring own housing, raising the level of wages.

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INNOVATIONS AND INNOVATIVE ENTREPRENEURSHIP IN THE REPUBLIC OF BELARUS

U. VARTSAB, R. SARVARY
Polotsk State University, Belarus

Nowadays the main factor of economic growth in leading states are innovations, the production, and distribution of which is ensured by innovative entrepreneurship with state support. In the article, the author considers the categories of "innovation", "innovative entrepreneurship", analyzes state programs and strategies for the socio-economic development of the Republic of Belarus, taking into account promising goals and objectives at the macro, meso and micro levels.

World experience shows that states that prefer the innovative path of development for national economies develop and effectively apply the state innovation policy, the essence of which is expressed in the "State Program for Innovative Development of the Republic of Belarus" and the "National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for the period until 2030" [1, 2].

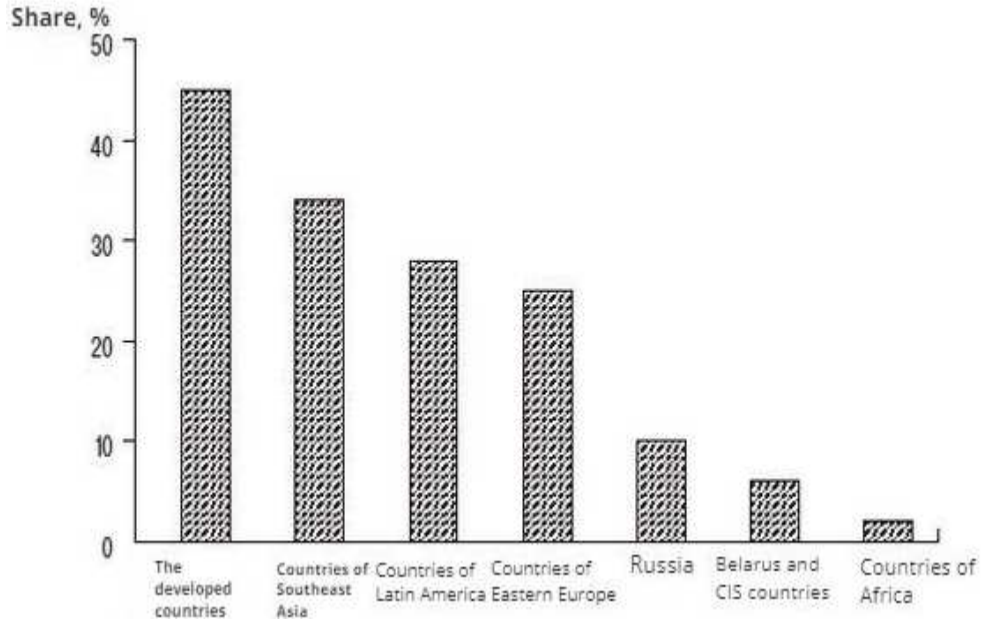

Figure 1. – The share of high-tech (innovative) products in total exports
Source: provided by the author based on data [3]

Today, it can be considered unequivocally proven that innovation plays a huge role in any business, as they may apply to any aspect of the business process (the creation of fundamentally new products or products of improved quality, the introduction of new technological processes, the use of new materials, the expansion of markets and (or) creation of new ones, the introduction of new organizational forms) [1].

The basis for innovative entrepreneurship is scientific and technological developments which are created with the goal of profit (commercialization), in other words, innovation. Based on the above, we can conclude that innovation is at the heart of innovative entrepreneurship.

We think that, basically, innovation consists of two parts: technical and commercial. The technical part is the essence of development, its mechanism of action and the technical (technological) effects when it is introduced into production. Innovation is technological development plus a commercial part (business plan for the sale (implementation)) of technical development on the market [4]. Thus, to understand the essence of the category and its structure, as well as its impact on the economic system, the author analyzed theoretical approaches to determining category "innovation." This analysis is presented in Table 1.

Table 1. – Theoretical Approaches in Determining the Category of "Innovation"

Author	Definition
O.A. Golikova	Innovation is the outcome of innovation, which has been implemented as a new or improved product sold on the market, a new or improved technological process used in practice
U.U. Kovalev	Innovation is an object or process that contributes to the growth of enterprise profits and improves the efficiency of its production.
R.A. Fathudinov	Innovation is the result of introducing innovations with the aim of changing the object of management and obtaining an economic, social, scientific and technical effect.
U.P. Morozov	Innovation is a set of measures aimed at introducing new equipment or technologies. By innovation we mean the profitable use of innovations in the form of new technologies, types of products, organizational, technical and social and economic decisions of production, financial or other inventions, etc. into the economy.
P.F. Drucker	Innovation is a special tool for entrepreneurs, a means by which they use change as a chance to implement a new type of business or service.
B. Twiss	Innovation is a process in which an invention or an idea acquires economic content.
F. Nixon	Innovation is a combination of technical, manufacturing and commercial activities leading to the appearance of new and improved industrial processes and equipment on the market.
B. Santo	Innovation is such a social, technical and economic process that, through the practical use of ideas and inventions, leads to the creation of products and technologies that are best in their properties, and if it focuses on economic benefits and profit, the appearance of innovation on the market can lead to additional income.

Source: provided by the author on the basis of data [5, 6, 7, 8, 9, 10, 11, 12]

When analyzing theoretical approaches to the definition of "innovation", the author revealed the presence of this definition, fixed at the state level in the Republic of Belarus. According to the law "Regulation on the procedure for creating subjects of innovation infrastructure: Decree of the President of the Republic of Belarus, January 3, 2007, №1", innovations are created (mastered) new or improved technologies, types of marketable products or services, as well as organizational – technical, administrative, commercial or other solutions for production, that promote the development of technologies, marketable products and services on the market. Based on the data presented in Table 1, we can conclude that: "Innovation is any novelty on the market with the aim of making a profit." After the disclosure of the term "innovation", we should consider some interpretations of the "innovative entrepreneurship" concept, which is closely related to and based on innovation.

Table 2. – Theoretical Approaches in determining the Category of "Innovative Entrepreneurship"

Author	Definition
1	*2*
V.G. Medynsky, L.G. Sharshukova	Innovative entrepreneurship is a process of updating the sales potential of an enterprise, ensuring the survival of the company, increasing the amount of profit, expanding market share, maintaining its clientele, strengthening its independent position, increasing prestige, creating new jobs, etc.
V.K. Pustovalova	Innovative entrepreneurship is a special type of commercial activity aimed at making profit by creating and actively disseminating innovations in all areas of the economy.
E.G. Pavlova	Innovative entrepreneurship is a special innovative process, leading to the creation of the best goods (products, services) and technologies through practical use of innovations; a constant search for new opportunities, focus on innovation, willingness of the entrepreneur to take all the risks associated with the implementation of a new innovative (venture) project or with the improvement of an existing one, as well as the resulting financial, moral and social responsibility.

The end of table 2

1	*2*
G.V. Kodakoeva	In the broad sense, innovative entrepreneurship is understood as the process of creating and using technical and technological innovations for commercial purposes; for the most part, innovative entrepreneurial activity is based on innovations in the sphere of products, work and services, which allow to form a qualitatively different market, to contribute to the satisfaction of new, even extraordinary, social needs.
V.J. Gorfinkel, M.M. Maksimtsova	Innovative entrepreneurship is a model of entrepreneurial activity related to innovation, where the role of the entrepreneur is reduced to the creation of innovations, i.e. products (goods and services), technologies, methods of organizing production and management, previously unknown, through the use of traditional factors of production (labor, land and capital), their new combination.
L.M. Borisova	Innovative entrepreneurship is a special innovative entrepreneurial process of creating a new business process, the basis of which is a constant search for new opportunities and focus on innovation.
J. Shumpeter	Innovative entrepreneurship is a type of entrepreneurship that uses new technologies to produce new or old goods, thanks to the opening of a new source of raw materials or a new market for finished products - up to the reorganization of the old and the creation of a new industry.
P.F. Drucker	Innovative entrepreneurship is the search for new ways of enterprise development, which allows us to talk about the concept of growth management, or innovation.

Source: provided by the author based on data [13, 14, 15, 16, 17, 18, 19, 20]

When analyzing theoretical approaches to the definition of "innovative entrepreneurship", the author revealed the presence of this definition, fixed at the state level in the Republic of Belarus. According to "Law of the Republic of Belarus on July 10, 2012 No. 425-3", innovative entrepreneurship is the activity of transforming novelty into innovation. Based on the data in Table 2 and theoretical approaches to determining the category of "innovative entrepreneurship", the author came to the conclusion that innovative entrepreneurship in Belarus has a legal and economic basis for development on the basis of the National Strategy for Sustainable Social and Economic Development of the Republic of Belarus for the period until 2030 and the State Innovative Development Program of the Republic of Belarus for 2016 - 2020. In addition, to study and analyze the prospects for development, the author considered the definitions given by foreign authors, and concluded that: "Innovative entrepreneurship is a type of commercial activity that uses innovation to make a profit." Based on the above information, we can conclude that there is no single interpretation of the terms "innovation" and "innovative entrepreneurship". Table 3 shows the factors which influence the development of innovative entrepreneurship.

Table 3. – Factors contributing to the development of innovative entrepreneurship

Group of factors	Factors
Economic, technological	The presence of a reserve of financial, material and technical means, advanced technologies, the necessary economic and scientific-technical infrastructure, state programs for financing innovative activities; material incentive for innovation.
Political, legal	Legislative measures encouraging innovation and state support for innovation.
Organizational and management	The flexibility of organizational structures, a democratic management style, the predominance of horizontal flows of information; self-planning, making adjustments; decentralization, autonomy, the formation of target, problem groups, reengineering.
Socio-psychological and cultural	Moral encouragement, public recognition; providing opportunities for self-realization, the liberation of creative work. Normal psychological climate among employees.

Source: provided by the author based on data [21]

Based on the data in Table 3, we can conclude that the development of innovative entrepreneurship depends on the demand from consumers for innovation, the availability of developed scientific and technical potential of the national economy, the functioning of venture companies and investors who finance innovative risky activities.

In addition, innovative entrepreneurship is at the same time an economic phenomenon and a process. As an economic phenomenon, entrepreneurship acts as a form of production relations regarding the production and sale of specific goods to consumers. As an economic phenomenon, it expresses the entire system of relations arising from an entrepreneur in relations with consumers in the process of selling goods.

The basis of innovative entrepreneurship in the Republic of Belarus, as well as the priority of financing, are small and medium-sized innovative enterprises, which is reflected at the legislative level in the "National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for the Period until 2030", "Decree of the President of the Republic of Belarus No. 244" , "Law of the Republic of Belarus dated May 11, 2016 No. 364-3" This is due to the fact that small and medium-sized enterprises are being rebuilt faster in the course of global economic processes and cardinal economic changes [22].

The subjects of innovation infrastructure in the Republic of Belarus include [23]:

- Technology parks;
- Technology transfer centers;
- Venture capital organizations;
- Other legal entities in cases stipulated by legislative acts.

Examples of innovative infrastructure in the Republic of Belarus include: High-Tech Park (HTP), Chinese-Belarusian Industrial Park "Great Stone", Science and Technology Park BNTU "Polytechnic", Science and Technology Park of the State University named after Y. Kupala, Minsk City Technopark.

Based on the analysis of data on the categories of "innovation" and "innovative entrepreneurship", we conclude that innovative entrepreneurship is a special innovative business process. It is based on a constant search for new opportunities, focus on innovation, ability to extract and use resources from a wide variety of sources to solve constant problems. Innovative entrepreneurship is the main base of all areas of entrepreneurial activity, which explains the stimulation of this area by the state [21].

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Economics

UDC 338.2

WAYS TO IMPROVE INNOVATIVE POLICY IN THE REPUBLIC OF BELARUS

V. SHVAIKO, E. VORONKO
Polotsk State University, Belarus

The issues related to innovation and the implementation of state innovation policy are extremely relevant in the conditions of the modern Republic of Belarus. Innovation plays an extremely important role in ensuring the economic development of the state. Currently, it is an effective innovation policy that determines the level of competitiveness of national goods and the entire economy of the country as a whole in a globalizing world system.

The current stage of development of the theory of innovation involves focusing the attention of researchers on innovation, the innovation process, and innovation policy of the state.

Innovation policy is an integral part of socio-economic policy aimed at developing and stimulating innovation. Innovation policy involves the creation of new or improved products, new or improved technological processes, implemented in the economic turnover using scientific research, development, experimental design work or other scientific and technological achievements [1].

Consider the main factors affecting the development of innovation policy.

1. A clear definition of the needs of innovation and the definition of a strategy for the release of new products.

2. Determining the potential usefulness of discoveries and its implementation.

3. Cooperation and communication as a formal project selection system, allowing to evaluate the proposals put forward from the position of specific financial and organizational goals.

4. Adequate resources and periodic evaluation of innovations to determine when the original organizational objectives will be achieved.

The goal of the state innovation policy in the Republic of Belarus is to create favorable socio-economic, organizational and legal conditions for innovative development and increasing the competitiveness of the national economy [2].

The most important role in stimulating innovation by the state is assigned to:

a) the formation of a favorable innovation climate in the economy and the infrastructure for research and development;

b) the creation of analytical centers for studying foreign experience;

c) preparation of forecasts of scientific and technological development;

d) assessment of the possible negative effects of innovation.

The priority direction of stimulating and supporting innovation is to provide grants to small, medium and large companies on a competitive basis in the priority areas of their innovation.

Table 1 contains some ways to stimulate innovation by the state. [4].

The most widely used on a global scale are economic instruments of direct incentives and instruments of the indirect method of tax incentives (Table 2) [3].

Table 1. – Ways to stimulate innovation

Way	Characteristic
Direct government incentive	Distribution of state resources (orders, grants, loans) between various fields of research and development, depending on the structure of state research priorities, research in state research centers
Indirect government incentives	Developing the achievements of science in the public and private sectors of the economy through tax, depreciation, antitrust, patent, foreign trade policies, and especially by supporting small businesses

Table 2. – Tools for stimulating innovation in foreign countries

Tools for stimulating innovation	Countries
State program of financial support for innovative enterprises performing research and development work on topics of government organizations	Great Britain, China, USA, Japan
Grants, including those which compensate 50% of the costs of creating new products and technologies; subventions	Belgium, France, USA, Germany, Sweden, Austria, Brazil, Canada, Japan
Loans	Belgium, France, USA, Germany, Brazil, Austria, Japan, Sweden
Reduction / delay / exemption from state duties for individual inventors	Austria, USA, Japan, Germany, Netherlands, India
Preferential taxation (exemption from taxation of research and development (R&D) costs, preferential taxation of universities and research institutes, tax deductions for the implementation of R&D expenses)	Netherlands, Germany, Japan, India
Government risk reduction and risk compensation programs	USA, UK, India, China, Japan, Austria, Germany, Norway, Ireland, France, Brazil
State procurements	USA, Japan
Use of "innovative vouchers"	USA
R&D Grants	Netherlands, United Kingdom, Germany, Austria, Cyprus, Denmark, France, Greece, Ireland, Republic of Macedonia, Poland, Portugal, Slovenia, Switzerland, Finland, Ukraine

The state innovation policy of the Republic of Belarus should be aimed at ensuring that the tax system of Belarus is comprehensively focused on stimulating the innovative activity of individuals and legal entities.

Tax incentives for innovation should be a set of individual approaches to organizing the collection of each specific tax in the territory of the Belarusian state stipulated by domestic legislation, a common feature of which is their clear orientation towards all kinds of support and stimulation of any manifestation of innovative activity of individuals and legal entities [5].

We highlight the key areas of intensification of innovative development of the Republic of Belarus:

1. Quantitative and absolute increase in the scientific and technical potential of the country;

2. The current priority areas of scientific and technological activity need to be clarified and ranked according to the degree of strategic importance for further concentration of resources on those for which maximum effects can be achieved.

3. For the growth of knowledge-intensiveness, it is important to increase the research component in the expenditure of innovative funds, to use the mechanisms of public-private partnership in the innovation sphere, including through the creation of mixed innovation-active organizations with the state and business participation;

4. To create and expand channels for promoting scientific and technical products in the manufacturing sector, it is important to intensify the creation of innovative infrastructure entities, with a view to their further integration into the National Science and Technology Park and its branch network;

5. The main vector of activity of industry science organizations should be the solution of problems of subject selection, adaptation and implementation of advanced achievements of fundamental and applied science in production, taking into account the specific conditions and specific features of each enterprise.

The global practice necessary for adaptation in Belarus is the development of a universal basic economic and entrepreneurial education.

This approach assumes the existence of a well-developed system of entrepreneurial education, both as part of the traditional education system, and within the framework of various types of adult education, including traditional formal education, distance education and modern ways of mastering new knowledge, skills and abilities using the possibilities of information and communication technologies.

The combined implementation of measures to develop the legislative framework in the Republic of Belarus, improving tax support for innovation and stimulating innovative activity in the country, further development of the national innovation infrastructure, and the formation of a fully-functioning venture financing mechanism

in the republic is designed to improve the quality and effectiveness of the innovation policy of the Belarusian state. This will contribute to the growth of innovation activity in all spheres and areas of life of the Belarusian society.

Thus, the innovation system of Belarus works in a mode of dynamic improvement. The formation of an effective national innovation system in Belarus is based on established scientific schools and existing world-class backlogs, backed up by the creative adaptation of new development mechanisms that have proved their worth.

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UDK 657.0/.5

ACCOUNTING IN THE MIDDLE AGES

V. YATSENKO, I. MATUSH
Polotsk State University, Belarus

This article discusses the main features of accounting in the Middle Ages. Since ancient times, accounting has been an important part of the accounting and reporting system of various establishments. Availability of features suggests that different periods correspond to different accounting standards.

In modern times, all economy works of the Republic of Belarus are regulated by the Law of the Republic of Belarus "On Accounting and Reporting". This law defines the legal and methodological foundations of accounting and other norms. Accounting has been an important process at all times, since the ancient times up to the present.

Since ancient times, accounting documentation had its own characteristics. The Principality of Polotsk, which was part of the Grand Duchy of Lithuania, had its own system of state records management. The main document was the Statute of the Grand Duchy of 1588, which regulated the entire accounting process and also set its own rules and regulations.

The main place in the process of regulation of affairs in the Grand Duchy of Lithuania was occupied by the norms of property and liability law. The objects of property law were towns with dependent people, various lands, forests, lakes, rivers and other. On the territory of the Principality of Polotsk there existed the following laws: property, pledge and "servitude".

All economy operations in the Grand Duchy of Lithuania were noticed in special books. Information was noticed into books without any grouping according to certain signs. Documents on the territory of the Principality of Polotsk were called **"sheets"**. Each "sheet", as well as other extracts, were noticed into the act books.

Independently of the subject for which the document was compiled, the sheets were divided into informative and complaints. Informative documents were created to transfer information about salary to local authorities. And complaints transferred information about different things which were communicated to the Grand Duke.

During the time of the Grand Duchy of Lithuania, the central government widely used mortgage as a type of crediting. Credit was issued on pledge. It was possible to pledge everything – castles, towns, dwellings, villages, some places and many other things.

Mortgage was issued by a ***"loan sheet"***, which was entered in the act books. This sheet approved all duties of the pledge: the terms of the pledge and other norms of this process. The main borrower in the Grand Duchy of Lithuania was the state itself.

Revision is the process of revising. In our time, revision has some tasks:

1. checking the conditions of the property;
2. verification of organizational structure, methods and procedures;
3. identification of non-compliance with various norms and rules;
4. checking staff.

The Principality of Polotsk was the main object in the revision activities of the Grand Duchy of Lithuania. The first revision on the territory of the Grand Duchy of Lithuania was carried out in 1545, during which the castles of Ukrainian lands were checked.

Revisions were carried out in accordance with a specific plan and a certain sequence. All revisions were carried out according to a common plan. The revision plan included:

1. checking the status of a castle;
2. description of buildings: towers, a bridges and other buildings;
3. enumeration of noble and church places.

Auditors had to take into account the fixed interests of the state. On the territory of the Grand Duchy of Lithuania several revisions were conducted that showed the need for this property review process.

If we talk about accounting in other countries, we can say about accounting in ancient Italy, because it was a country where new accounting rules were created. Ancient Italy possessed its own accounting system. In the XV century, the Italian mathematician Luca Pacioli published the first printed work on accounting – "Treatise on the Accounts and Record". The Italian accounting system was based on accounting rules.

Accounting system was based on double-entry bookkeeping. Double entry is an accounting term stating that every financial transaction has equal and opposite effects in at least two different accounts. This approach has the following objectives:

control over the correctness of recording the facts of economic activities;
determination of the amount of capital without the owner's inventory;
the financial result.

Operations were recorded in accounting registers. At the beginning of the registration, the nature of the operation was mentioned. And the record was formed in the form of a paragraph.

For the ease and convenience of accounting, three books were created: *the Memorial*, *the Journal*, *the General Ledger*, and also *the Secret Book*.

In the beginning, an inventory is created, which is a description of things. Then a Memorial is created. A memorial is a book in which a merchant writes some cases in the order they arose: day after day, hour after hour. After four to five days, the entry from the Memorial is transferred to the Journal, where the information seems in more detail. The Journal is a secret book that must be kept in a box or in a bag.

In the Journal, all articles were compiled in a double entry format in which the debtor was designated by the word "on" and the creditor by the word "from". The names of all debtors were entered into the book registers in the alphabetical order.

At the end of the registration process, the information is entered in the General Ledger.

Italian accountants came to a system of analytical and then synthetic accounts for accounting information. Synthetic accounts reflect the total monetary size of the availability of the asset or the source of their formation. And analytic accounts include those that open to the development of synthetic accounts and the accumulation of certain data.

Since ancient times, accounting had its own characteristics. Both, the Principality of Polotsk, and ancient Italy had their own systems of accounting. Accounting and reporting have become an important part of society. Regulatory documentation existed in each period, which corresponded to the requirements that were necessary at that time. The documentation was kept according to the norms and rules of regulatory documents. In contrast to the accounting system and reporting of the Grand Duchy of Lithuania, the Italian system was more developed. Perhaps, it depended on the location of the country and the level of education, because knowledge was the basis for creating new norms and rules of accounting.

Thus, this article reflects the features of accounting models. We can say that the accounting system of Italy is the closest to the modern accounting system. On the territory of the Grand Duchy of Lithuania and Italy, as well as on the territory of Belarus, the entire process of accounting and reporting was regulated by normative documents. All processes had to go through registration. A feature of accounting in ancient Italy, in contrast to the Grand Duchy of Lithuania, is that there was a double entry accounting system, as well as presence of formed accounts.

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ORGANIZATION OF ENTREPRENEURIAL ACTIVITIES ON THE INTERNET

Y. LEVCHENKO, H. LAURYNENKA
Polotsk State University, Belarus

The article focuses on the disclosure of the concept of "Internet economy", its difference from electronic business. The author determined the structure of the Internet economy, as well as the types of Internet commerce. The article will cite the top 5 largest Internet companies as one of the components of the Internet economy.

Introduction. The relevance of the study is based on the growing role of the Internet in the business process, which has a significant impact on the development of the modern economy. Currently, there is a rapid increase in investment in existing and new Internet projects. The positive dynamics of the Internet penetration leads to increasing its role in modern business. Market development leads to the emergence of new Internet companies whose owners are faced with a lack of knowledge and tools in this field of activity. In this situation, the issue of the effective organization of entrepreneurial activities on the Internet and the accurate assessment of its results is becoming particularly urgent. In the article, we set the goal to explore the types of entrepreneurial activities on the Internet and systematize existing concepts that characterize the features of carrying out entrepreneurial activities on the Internet and e-business in general.

Main part. Electronic economy is the use of information and computer technologies to ensure the growth of a social product and increase productivity in all sectors of the economy. Along with the advent of the Internet, an Internet economy is emerging, which is a systemically organized, multi-level structure built on the basis of the relationship between economic agents via the Internet. It is characterized by an increasing role of the Internet in society, an increase in the share of Internet products and services, the creation of a global Internet space that ensures effective interaction between people, access to global Internet resources and satisfaction of social and personal needs for Internet products and Internet services.

The beginning of the Internet economy can be considered 1983, when the process of integration of individual local networks and the establishment of a single integrated data network "Internet" was completed. The Internet allows you to conduct interactive marketing, carry out direct online sales, quickly collect data about consumers, habits and preferences of an ever-growing group of people who spend most of their time online. A new interactive channel for the interaction of companies with business partners and customers was formed, which led to the formation of a new direction in modern business - electronic business.

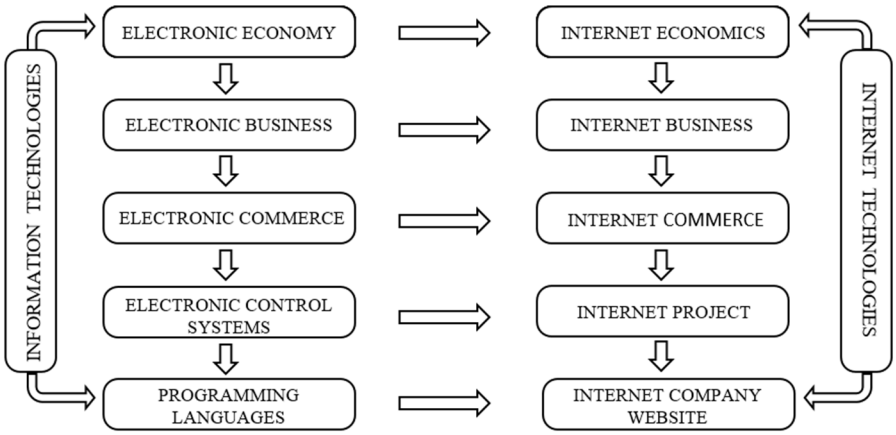

Figure 1. – Processes in the Information Economy

Thus, the Internet economy is a consequence of the electronic economy development, and the elements of the Internet economy continue and complement the development of the entire electronic economy system, forming a single whole.

This scheme reflects the interconnectedness of the processes taking place in the information economy. Internet technologies, as a consequence of the development of information technologies, cover all elements of the Internet economy system. The structure of the Internet economy consists of four elements, such as the state economy, the economy of households and the population, Internet commerce and the economy of business structures.

As for the state, its role in the field of information and computer technologies and the electronic economy remains secondary, regulatory. The state provides solutions to taxation issues, protection of intellectual property, consumer rights, compliance with domestic and international competition in the electronic market, creation and maintenance of the necessary infrastructure, etc. A more active role of the state in the use of information and computer technologies opens up new areas of the electronic economy, such as electronic government, healthcare, education, energy, housing and communal services, electronic registration of citizens, etc.

Households and the population are mainly consumers of electronic services of business structures and the state, and also often serve as indicators of the capacity of the electronic market and the development of its infrastructure. In addition, the population is increasingly using information and computer technologies and the Internet to form social and economic groups, networks. Social networks in the economic sense are becoming collective entities with common interests, which business and government are guided by when developing electronic products.

The Internet as a business environment is attractive because it does not only differs by a low entry threshold for new players compared to offline, but it also offers a very wide range of areas of work, and in most cases does not require a specific location. You can conduct your business not only from any city, but even from another country. Currently, the Internet economy is undergoing a phase of active structuring and already includes a large number of types of entrepreneurial activities.

Internet commerce is a separate area of electronic commerce, which stood out from it as an independent element in the early 1990s of the 20th century. E-commerce is built on electronic information management systems, an element of which is an Internet project, which is one of the links in the Internet economy. E-commerce traditionally includes:

- electronic exchange of information (Electronics Data Interchange, EDI);
- electronic capital flow (Electronic Funds Transfer, EFT);
- electronic commerce (English e-trade);
- electronic money (e-cash);
- electronic marketing (e-marketing);
- electronic banking (e-banking);
- electronic insurance services (e-insurance).

The main subject of the Internet economy is business (large, medium, small enterprises, financial organizations). In this regard, electronic commerce has traditionally moved in two directions:

1. From business to business (B2B - Business to Business). The company is trading with another company. Internet platforms provide an opportunity to significantly simplify operations at all stages, to make trade more efficient and transparent.

2. From business to consumer (B2C - Business to Consumer). In this case, the company is already trading directly with the client. This method of performing a commercial transaction gives the customers the opportunity to simplify and speed up the purchase process. They do not have to go to the store to select the right product: just look at the specifications on the supplier's website, select the desired configuration and order the product with delivery. The Internet's capabilities allow a businessman to quickly track demand.

The use of information and computer technology by the business is not limited to these areas. In general, information and computer technologies for modern business are the foundation of competitiveness, and not just access to electronic commerce or a fashionable (sometimes expensive) trend. In this sense, the electronic economy of business structures is different from and wider than e-commerce.

Internet companies are an important component of Internet business. Consumer technology companies such as Google, Apple, Facebook, Amazon, and Microsoft have gone far beyond their original product lines and switched to all kinds of hardware and software and services that overlap and compete with each other. But their income and profits are still heavily dependent on external technologies that are beyond their control (Fig. 2).

Due to the intensive growth in demand, there is an active growth in supply, so new companies appear daily. However, between the well-known Internet companies, there is great competition for leadership in the Top of the largest and most expensive Internet companies in the world.

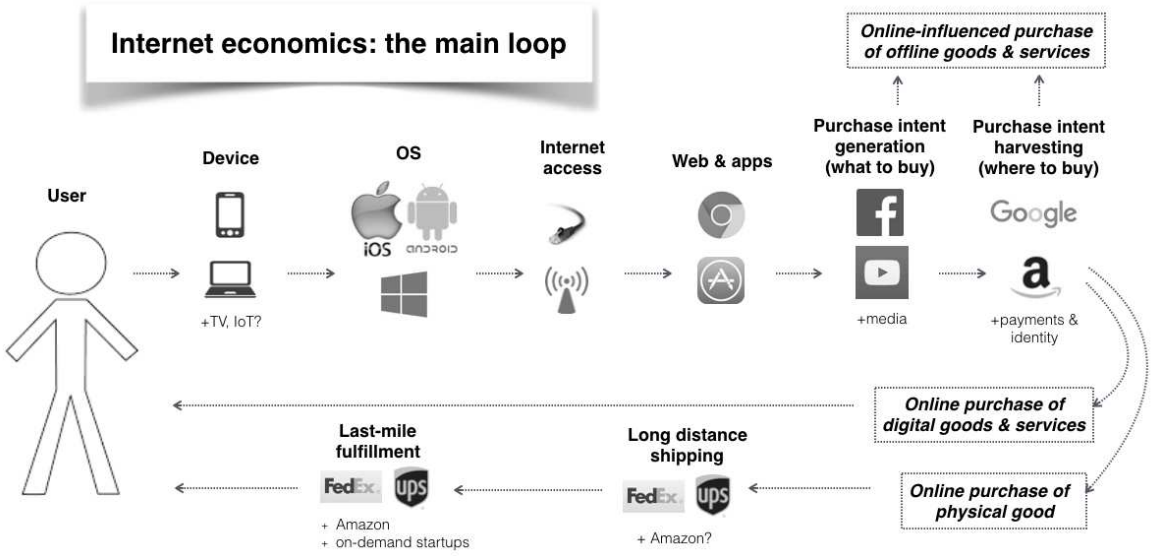

Figure 2. – The main cycle of the Internet economy

Explore the Top 5 largest Internet companies.

5th place — Facebook. Facebook was developed by Mark Zuckerberg in February 2004. Today, Facebook is visited by over 2 billion people daily. For one Internet project, with a market value of $ 633 billion, it is simply an indicator of great popularity and relevance. Today, Facebook brings in more than $ 22 billion in net profit per year through advertising. In addition, Facebook is the leader among this list by profitability, since only in the last year the company increased its net profit by 54%. Facebook provides a platform for the development of many social games, communication, feedback, review and other applications related to online activities. This platform has created many businesses and added thousands of jobs to the global economy. Zynga Inc. (leader in social games) is an example of such a business. An econometric analysis showed that, thanks to the Facebook platform, more than 182,000 jobs were added to the US economy in 2011. The total economic value of added employment was about $ 12 billion.

4th place — Alibaba Group Holding Limited. Alibaba is one of the largest virtual trading platforms in China, attracting buyers with affordable prices and a wide range of products. Founded on April 4, 1999, the company provides consumer, business, consumer and business services through web portals, as well as electronic payment services, a customer search system and cloud computing. In January 2018, Alibaba became the second Asian company to surpass the $ 500 billion valuation after its rival Tencent. Its online sales and profits have surpassed all U.S. retailers (including Walmart, Amazon, and eBay) combined since 2015. It is expanding into the media industry, revenue is growing by three percentage points every year.

3rd place — JD.com, Inc., also known as Jingdong. Jingdong is a Chinese e-commerce company. It is one of the two largest online B2C retailers (business consumer services) in China in terms of transaction volume and revenue, a member of Fortune Global 500 and a major competitor to Tmall, managed by Alibaba. The Internet company JD.com began as an online magneto-optics store, but soon became diversified, selling electronics, mobile phones, computers, and similar products. JD.com has invested in delivering high technology and artificial intelligence through drones, autonomous technologies and robots and has the world's largest UAV delivery system, infrastructure and capabilities. It recently began testing robot delivery services and building drone delivery airports, as well as delivering without a driver, presenting its first autonomous truck.

2nd place — Google or Alphabet Inc. The world-famous Internet company Google has recently changed its official name to Alphabet, as the company has long gone beyond the framework of one search engine Google, and also owns many other companies. The holding includes more than three dozen popular services and subsidiaries, for example, such as AdWords, Android, YouTube and others. According to its 2017 annual report, 86% of Alphabet's revenues came from Performance and brand ads. In 2017, total revenue was $ 110,855 million, and net income was $ 12,662 million. As for 2019, Alphabet is ranked 15th in the Fortune 500 ranking of the largest US corporations in total revenue. On January 16, 2020, Alphabet became the fourth US company to achieve a market value of $ 1 trillion.

1st place — Amazon.com, Inc. Amazon is an American retail company selling and delivering various products over the Internet. Using Amazon, Internet users, suppliers and manufacturers can sell any goods themselves, using the company's website as an online platform. The main direction of the company is the independent sale of various goods. The popularity of the service has increased due to the high quality of goods, low prices, prompt delivery and a wide range of various products. Currently, the company employs about 647.5 thousand employees. The assets of the corporation are more than $ 162 billion, and the annual turnover is about $ 232 billion.

Thus, the distinctive features of Internet companies are the special form of the goods (services) sold, the innovative nature of the processes, the special structure of costs and assets of the company, and the special stages of organizing commercial activities. A specific feature of Internet companies is the cost structure, in which the leading place is occupied by R&D costs, due to the constant development of the information technology market. Important elements of an Internet company compared to traditional companies are registration of domain names, receiving money through electronic payment systems, as well as ensuring a sufficient level of information security of the sales transactions.

Conclusion. The Internet economy is a dynamically developing sphere of economic activities. The capabilities of modern technologies in the information field accelerate all economic interactions and change ideas about the methods and ways of doing business. When conducting entrepreneurial activities in the Internet economy, the number of intermediaries decreases and their role in the chain from the producer of goods and services to their consumer changes. Entrepreneurial structures in the Internet economy operate in conditions that allow them to quickly receive information about the behavior of competitors and consumers. The considered features of the Internet companies functioning are determined by the innovative nature of such a sphere of entrepreneurial activities as Internet commerce, which is becoming increasingly popular every year. In connection with these circumstances, the issues of organizing entrepreneurial activities on the Internet are becoming one of the main areas of scientific research at the present stage of the economy development in the Republic of Belarus.

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UDC 657.01

COST ACCOUNTING AND COST CALCULATION AT A COMPANY THAT PROVIDES HOUSING AND COMMUNAL SERVICES

O. LADIS, I. SAPEGO
Polotsk State University, Belarus

Cost accounting is systematized and calculation of the cost of water supply and sanitation services for organizations that provide housing and communal services is analyzed.

In modern conditions, cost accounting is the most important tool for enterprise management. The need to manage production costs increases as the business environment becomes more complex and the requirements for profitability increase. Businesses that enjoy economic independence should have a clear understanding of the payback of various types of finished products, the effectiveness of each decision and their impact on financial results, as well as on the amount of costs.

Accounting and calculating the cost of services is the most important factor in the development of economically justified tariffs, determining profits and calculating taxes, as well as evaluating the effectiveness of technological, organizational and economic measures to develop and improve the production and economic activities of the branch. Also, accounting of housing and utilities enterprises contributes to the management of the economic side of the production process, provides the necessary information about the course of production and sale of services, its cost, the level of production costs in the places where they occur, and other data.

At Vodokanal, accounting for production costs and calculated actual cost of products (works, services) is carried out by branches in accordance with industry guidelines on planning, accounting and calculating the cost of products (works, services) (resolution of the Ministry of housing and communal services of the Republic of Belarus dated 15.04.2016 No. 13 "on approval of Instructions on the procedure for planning and calculating costs for the provision of individual housing and communal services"). [1]

The cost of water supply services consists of the costs associated with the maintenance of fixed assets, management of technological processes for lifting water, cleaning it and transporting it to the consumer, and water disposal – pumping waste liquid, cleaning it, transporting and recycling, as well as using material, fuel and energy, labor and other types of resources. The cost of reproduction of fixed assets is included in the cost of depreciation as a percentage of the book value of fixed assets, depending on their service life.

The object of calculation is water, the calculation unit of water supply is one cubic meter of water.

According to the accounting policy, the division of direct and indirect current production costs is adopted in accounting. Production costs are written off in the period in which they occurred. Direct production costs include:

- direct material expenses, including raw materials, materials, fuel, electricity, work and services from outside, depreciation of fixed assets and production inventory;
- direct labor expenses with accompanying deductions to extra-budgetary funds, other taxes and fees on labor.

The organization of accounting for direct costs at the water utility is carried out separately for each service in accordance with the technological cycles.

The technological process at the enterprise can be divided into main stages:

- Water intake from surface water bodies;
- Water treatment (softening and disinfection of water);
- Water supply to the consumer;
- Discharge of water after use into sewers and its subsequent supply for cleaning;
- Wastewater treatment and discharge to a water body.

Account 20 "Main production" is intended for summarizing information about the costs of main production. [2]

The following subaccounts are opened to this account at the enterprise, which, in turn, are opened to subaccounts of the second order (Fig. 1).

These accounts are debited to reflect direct costs (electricity, material costs, depreciation) related to the provision of water supply and sanitation services. Electricity used directly in the production process is purchased from related organizations by entering into a contract for energy supply. It is aimed at lifting water and providing

the necessary pressure in the network, as well as paying for the connected power of electrical equipment (electric motors, transformers, pumps, etc.). The cost of purchased electricity consists of expenses for payment of invoices issued by suppliers at contractual prices, based on the volume of production of the material carrier and the tariff for 1 Sq.h. This type of service is issued by the appropriate act of acceptance and transfer of the goods to the contract. [3]

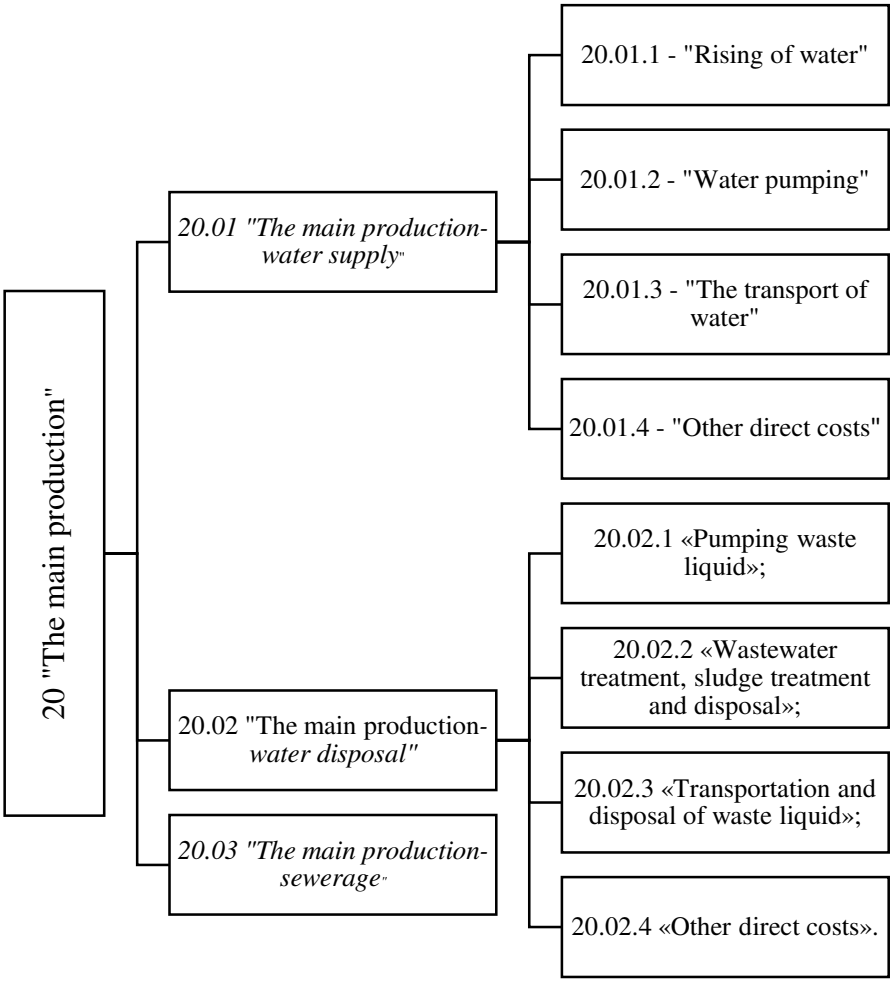

Figure 1. – Scheme of sub-accounts of account 20 «Main production»

The credit of account 20 reflects the amount of the actual cost of services rendered.

Indirect costs added to direct costs in each of the redevelopments can belong to one of two types:

• General production;

* General economic.

General production expenses are collected at the level of a division that either corresponds to a single division or includes several divisions. In the first case, these costs are fully included in the cost of a prefabricated post-processing, and the second will be distributed between the products created in each of the stages in proportion to the selected company database.

This base can be the salary of the main production staff, direct material costs for the products of conversion, or the total amount of direct costs.

General business expenses are not included in the cost price, but are charged directly to the debit of the 90/5 account, where they can be distributed, for example, in proportion to the total cost of sales of each type of product.

One of the problems in the practice and methodology of accounting is the optimization of current production and circulation costs, the calculation of the cost of services and cost accounting, the order of financial results of the organization of housing and communal services.

Cost management of services in an enterprise is the process of generating costs for the production of services, checking for the implementation of the program to reduce the cost of production, and detecting reserves for reducing it. The most important elements of the cost management system are cost rationing, forecasting and planning, calculation and accounting, cost control and analysis. All of them are interconnected with each other. Due to the fact that the actual cost of housing and communal services is the basis for calculating tariffs for these services, the need for prompt and accurate calculation of costs increases. [4]

Calculating the cost of a service unit is necessary for justifying the level of tariffs, determining profits and calculating taxes, as well as evaluating the effectiveness of technological, organizational and economic measures for the development and improvement of production and economic activities of housing and communal services organizations.

Accounting for cost calculation provides reliable information about costs at the enterprise, which allows for more effective pricing, evaluating the profitability of certain types of products, and identifying hidden reserves. Sources of information for an accountant are all accounting documents, starting from primary and ending with strict accounting registers, analyzing which they must draw certain conclusions.

The calculation of the cost of services is usually understood as the calculation or calculation of costs per unit of services for expenditure items, as well as the organization of accounting for production costs takes into account the requirements for calculating the cost of services. [5]

The calculation of the cost of water supply and sanitation services is as follows (table 1):

Table 1. – Costing of services

<table>
<tr><td>Calculating the cost of water supply services:</td><td>Calculation of the cost of services in water disposal:</td></tr>
<tr><td>- raised water;</td><td rowspan="4">- missed wastewater – total, including:
– from the population;
- received from other communications;</td></tr>
<tr><td>- expenditure on own needs;</td></tr>
<tr><td>– received water from the side;</td></tr>
<tr><td>– water supplied to the network</td></tr>
<tr><td rowspan="2">- implemented water-total,
including:
population;
released water to other water pipes</td><td>– passed through treatment facilities-total, including:
for biological treatment;</td></tr>
<tr><td>- transferred waste water for treatment to other sewers</td></tr>
</table>

Note: our own development based on the studied literature [5].

Features of accounting and calculating the cost of services are related to the fact that the cost calculation is carried out by conversion.

Thus, the cost calculation for water supply services separately reflects the cost of raising water, cleaning water, and transporting water to consumers. The calculation of the cost of water disposal services reflects the costs of pumping wastewater, cleaning, and transporting wastewater.

This calculation allows you to monitor the cost of water supply and sanitation services, and also helps in making management decisions. The above table allows you to analyze the impact of a certain type of expense on the cost price.

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Economics

UDC 334.7

POTENTIAL OF SMALL BUSINESSES IN UZBEKISTAN FACTOR ANALYSIS OF GROWTH

M. XOLIKULOVA, G. NORQUVVATOVA, N. MURODOVA
Navoiy State Pedagogical Institute, Uzbekistan

The article describes the implementation of deep structural changes in the economy, reliable protection of the interests of small businesses and private entrepreneurship, the program of ensuring the legal and practical role of private property, as well as the development of small business

The main goal of the economic policy carried out in Uzbekistan is to ensure a decent standard of living and quality of life for people, an indicator of a worthy place among the developed democratic countries. For this purpose, a well-thought-out program in the economy of the country and its implementation is one of the important issues.

The essence of this program, adopted in Uzbekistan, is to carry out profound structural changes in the economy, to ensure reliable protection of the interests of small businesses and private entrepreneurship (SCO), to ensure the legal and practical priority role of private property, and to gradually reduce state participation in the economy of Uzbekistan.

In Uzbekistan, all organizational and legal measures on access to the top 50 countries in the rating of the World Bank "Doing Business" were adopted, and the goal was aimed at further improving the business environment. "For the first time, entrepreneurs are introduced to a procedure for the return of part of the value added tax on the product they sell on the domestic market. Until now, this procedure was used only when the product was exported. On account of this, at the disposal of entrepreneurs 3.4 trillion soums or 2.5 times more than last year ".

World experience shows that in crisis, the organization of an effective system of implementation of programs adopted by the state in a number of countries for the development of ICT plays an important role. As a result, in the economy of many countries, small business employs 50-70 percent of the labour-intensive population, the share of this sector in gross domestic product (GDP) is increasing to 33-65 percent (Table 1)

Graph. – The role of small business in the economy of developed countries [6]

Indicator	USA	Canada	Japan	Germany	France	Italy	England
Share in the country's GDP,%	52	43	51.6	57	49,8	55	52
Population employment share, %	50,1	47	69,5	69,3	56,6	71	55,5
Share in the number of enterprises,%	97,6	99,8	99,2	99,3	97,6	99,2	99,1

It is worth noting that the share of revenues from entrepreneurial activity increased from 47,1 percent in 2010 to 52 percent in 2019, which is higher than the indicators in the countries of the Commonwealth of independent states. As a result of the increase in population incomes, domestic consumption is growing. The retail sales turnover grew by more than 15 percent a year, while the volume of paid services by 10.3 percent. In Uzbekistan, banking, insurance, leasing, consulting and other types of services are developing at a steady pace and they serve the development of the private sector and small businesses.80 thousand 400 small business entities operate in the service sector, which accounts for more than 80 percent of the total number of enterprises in the service sector.

The current result of the state support of NGOs in the country can also be based on the data of the rating of international economic organizations. In particular, in 2017, according to the rating of the World Bank, "Doing Business" Uzbekistan only increased by 16 points a year and took the 87th place, the 32nd place in terms of ensuring the execution of contracts concluded, the 75th place in terms of efficiency of the banking system used in relation to economically disadvantaged enterprises. According to the indicator known as" lending to small businesses", Uzbekistan has increased from the 154th place to the 42nd position in the last three years and will

improve its rating to the 63rd position last year. Recognition of the fact that Uzbekistan is ranked among the top ten countries in the world that have achieved the best results in the field of improving the business environment for entrepreneurial activity in the following years is an important basis for assessing the results of its activities [2].

The participation of all elements of the national economy in ensuring sustainable development and supporting the activities of enterprises in market conditions plays an important role. The effective use of the economic dimension of support for SMEs affects entrepreneurial activity as an internal driving force and becomes part of it. Economic mechanism is a holistic system consisting of such supports as tax, Public Procurement, license, subsidy, credit, price control, investment and export. At the same time, " we are seriously changing the procedures for licensing and issuance of permits-an area that many entrepreneurs are suffering from. It must be said openly, among the existing 280 licenses and permits, there are also those that have been introduced to maintain, fund or simply control the account of types of activities. And this is the reason for the rightful dignity of entrepreneurs. For this reason, the Ministry of Justice, trade and industry chamber, business Ombudsman until March 1, 2020, after a radical revision of the basics of issuing licenses and permits, should submit a clear proposal to reduce their number to at least 2 times"[1].

The effective implementation of this system is due to the multifaceted processes of economic development, manifested in the growth of the share of the CPSU in the GDP, in the participation in structural changes in the economy, in the improvement of the standard of living and quality of the employed population.

It is known that the economic development of society is a very multifaceted process, which includes economic growth, structural changes in the economy, improvement in the quality and conditions of life of the population. It never happens on a straight, upward line. Economic development involves periods of upheaval and crisis, quantity and quality changes in the economy, leading to the pros and cons goes uneven.

Today, the sharp decline in demand in world markets, along with the increasing competition, the decline in production rates is also causing significant problems in the field of ICT (Figure 1).

World experience shows that the introduction of many innovations into the activities of small businesses in developed countries, technical and technological re-equipment of production processes are considered as an important factor in increasing the competitiveness of the economy.

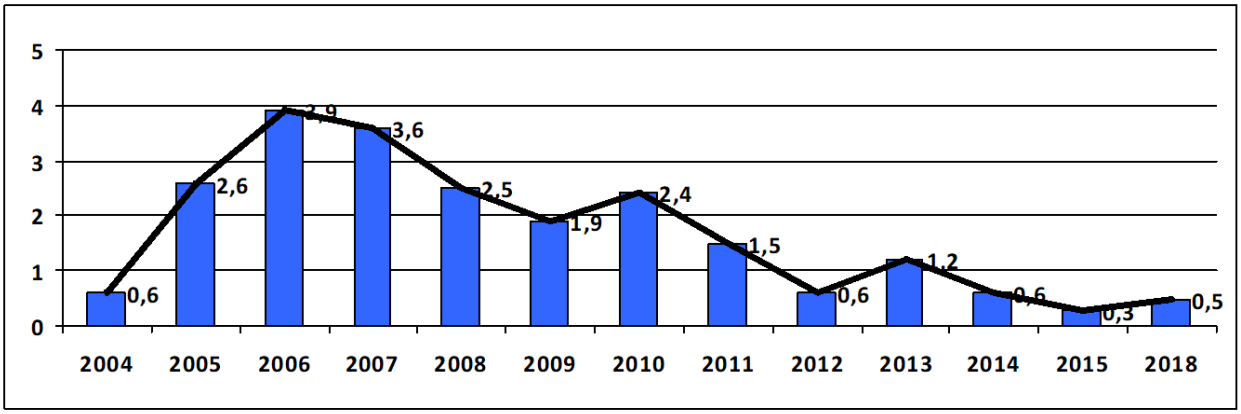

Figure 1. – The dynamics of annual changes
in the share of small business in the economy of Uzbekistan, %.

The modernization and innovative development of small business activity is one of the important tasks of today at a time when the economy of Uzbekistan is growing steadily and the macroeconomic balance is maintained. The total cost of modernization of production, technical and technological re-equipment in the country for 2017-2018 amounted to 42.5 billion. The development of a program for the implementation of more than 327 projects in excess of the US dollar, the implementation of which today in itself, demonstrates that this process is increasingly deepening, and requires an improvement in the methods of assessing and measuring the innovation potential of small businesses.

Based on the results of our scientific research, we can say that the level of knowledge of employees working at the enterprise, the financial and economic supply of the enterprise, the composition of production and the level of use of scientific and technical resources determine the innovative potential of small enterprises.

The researchers recommend the following method, which is effectively used in assessing the innovation potential of small scale businesses in a particular area under study [4].

$$Z = \sum_{i=1}^{M} Z_i, \quad (1)$$

here Z-the result is always a coefficient between 0 and 1, characterizing the innovative potential of the enterprise;

Zi – the potential of the i-group of innovative potential;

M-number of potential structural groups of Small Enterprise Innovation;

Zi - is determined as follows:

$$Z_i = \sum_{j=1}^{m} s_j \cdot n_{ij}, \quad \sum_{j=1}^{m} s_j = 1, \quad (2)$$

here nij - J-index of the i-group, which represents the innovative potential; sj - J-coefficient of significance of the indicator; m-the number of indicators of the i-group of the innovative potential.

This methodology provides an opportunity to compare the innovative potential of several small enterprises in a given region. Therefore, they call this method of calculation in a static way.

Innovation capacity can also be determined in a dynamic way. We can calculate the coefficient n by comparing the resultant state of the indicators of only one enterprise with the previous one, that is

$$n = 2^{-\frac{k_{t-1}}{k_t}}, \quad (3)$$

here the value of the kt – k indicator for the current year;

the value of the CT-1 – k indicator in the previous year.

If the indicator k is an indicator expressed in money, then we will make the correction as follows on the calculation of the inflation rate:

$$n = 2^{-\frac{k_{t-1}}{k_t}\cdot(1+\partial_t)}. \quad (4)$$

Dt is the official rate of inflation.

According to this method, it will be possible to calculate the innovative potential of some small scale enterprises operating in various sectors of the economy.

It should be noted that according to the so-called" new business support " criterion, Uzbekistan at the same time occupies the 42nd place in the world. The most important aspects of the support of the sector are investment, tax, credit and exports in the economy, which is inextricably linked with the state policy that is being consistently implemented in our country.

In our opinion, the result of the analysed cases means that there is a need to improve the economic rationale of state support on the basis of mastering the skills of studying entrepreneurship in the external market order, the implementation of fiscal and monetary policy that regulates the internal environment of the enterprise, the creation of self-regulation of the existing state

Significant measures are being taken to further improve the business environment in the new period of Uzbekistan's development, including:

- In 2020, tax types were reduced from 13 to 9 units. The period of payment of taxes has been reduced to allow for the issuance or payment of held-to-be;

- if the excess tax paid by entrepreneurs is not returned in its term, interest is paid to it from the budget at the basic rate of the central bank;

- In 2020, a new system will be introduced to provide entrepreneurs in each region with open and truthful information on land plots, which will provide an opportunity to obtain a complete map of the vacant land areas, buildings and structures necessary for the functioning of the Entrepreneur, their values and Conditions online at any time and in the territory.

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TRANSFORMATION OF UNIVERSITY PUBLISHING ACTIVITY BASED ON BUSINESS PROCESSES REENGINEERING

A. SHLYK, M. SLONIMSKA
Polotsk State University, Belarus

The paper reveals the role of business processes reengineering (BPR) in key organization business processes transformation. Some methods for evaluating business processes effectiveness and BRP tools are reviewed. The main directions of the transformation of business processes in the publishing activities of Polotsk State University are proposed.

In the context of radical changes in the economy, new tools and methods are urgently needed that can help companies to become more efficient. BPR aims to achieve a radical improvement in the company. It is one of these types of tools. The foundations of this theory were laid in the United States between 1984 and 1990, and since then major companies, world market leaders, have used redesign techniques in their work, significantly improving their performance.

BPR became popular from the 1990s and remains one of the top five leadership aspects for IT leaders. M. Hammer introduced the concept of redesign as a radical redesign of business processes to achieve dramatic improvements in critical performance measurement [1]. T. H. Davenport and J.E. Short defined BPR to analyze and design workflows and processes within and across organizations [2]. T. H. Davenport transformed the BPR definition into a procedure that interferes with organizational boundaries [3]. R. Talwar defined BPR as a procedure for creating and delivering organizational value by focusing on re-evaluating and centralizing business structures, processes, working methods, management systems and external relations [4]. BPR incorporates business process-based thinking and innovation, fundamental reassessment, radical planning, dramatic improvements and enabling technology, largely accepted by the private sector, and remains valid. Various techniques and tools have been utilized to speed up and improve the process. Business process redesign and redesign are usually dramatic and lasting improvements.

The widespread development of the theory and practice of BPR is related to the fact that the predominance of the functional approach to management that offers the effect of division of labor poses many problems. First of all, vertical organizational structures lead to a division of the process between different departments. This leads to failures due to inadequate coordination of work and conflicting objectives of different departments in the same process and to the division of responsibilities between the different departments in the process. Secondly, the functional units are not directly interested in the overall results of their operations, since the evaluation of their work is of little relevance to the overall performance of the company. Third, in vertical structures geared to functional division of labor, horizontal exchange of information is too complex due to bureaucratic procedures and rigid hierarchical management. This type of leadership often results in the loss of actual and potential customers.

BPR involves comprehensive and systematic modeling, as well as a profound reorganization of material, financial and information flows, resulting in simplification of the organizational structure, redistribution and minimization of the use of various resources, reduced customer satisfaction and quality of service. When implementing RBP projects, a large number of decisions need to be made to dramatically increase the competitiveness of the organization's results.

In order to determine the feasibility of changing a particular business process in the publishing activity and to choose one of these possible options for change, an approach is needed that allows a quantitative assessment of its effectiveness. A summary of the experience gained from designing and applying approaches to quantifying the effectiveness of business processes shows that there is no common methodology at present because not only the list of performance, but also the methods of their quantitative measurement indicators vary.

There are a number of methods for evaluating business processes effectiveness. V. Bazyliuk highlights the following such methods: EVA (Economic value added); methods of cost analysis of business processes ABC (Activity-based costing); Tableau of bord methodology and the balanced system of indicators BSC (Balanced Scorecard) [5].

EVA methodology focuses on the fact that all business processes can be divided into two components: the first one adds the value for the product cost, and the second one does not increase its use value. It is adding value by the business process that is generally used as the main incentive for its implementation. In correspondence

with the presented approach, there is an assessment of the business process that adds value by means of a specific indicator, defined by the ratio of market value and incurred costs of producing goods. However, under such circumstances, the proposed method is effective for the assessment of key business processes and development processes only, and applying this approach for the evaluation of providing business processes in PPA in the region that do not relate to the processes which add value directly is impractical.

The EVA methodology focuses on dividing all business processes into two sections: the first one adds value to the product cost and the second one does not increase its value in use. It adds value to the business process, which is usually used as the main incentive to implement it. According to the approach presented, a business process that adds value through a specific indicator, which is defined as the ratio of the market value to the cost of goods production, is assessed. Under these circumstances, however, the proposed method is only effective for assessing key business processes and development processes, and applying this approach to the evaluation of publishing activity's internal business processes that are not directly related to value-added processes is impractical.

Another widespread method for evaluating business processes effectiveness is the ABC method, which includes business process cost planning and calculation based on the definition and preparation of operational processes that ensure this process. The ABC method is an effective way of evaluating the use of resources and processes and can be used separately from a comprehensive evaluation of qualitative and quantitative indicators. However, the major disadvantage of this approach is that the process is usually implemented in a number of different units, so obtaining information for each revenue and resource is a complex task.

The next method for evaluating business processes effectiveness is 'tableau de bord'. In French, "tableau de bord" is the name of the dashboard, and the manager is thus metaphorically compared to a pilot. According to this tradition, the tableau de bord is "a tool for the top management of the firm, allowing it a global and quick view of its operations and of the state of its environment" [6, p. 113]. It is one of the oldest integrated methods for managing the efficiency of complex socio-economic systems, based on the approach of constructing a hierarchical tree of indices through their decomposition. The main advantage of this method is the ability to create a tree of target and functional indices. Thus, target indices are used primarily at the upper levels of the tree, and functional indices are used at the lower and middle levels. Despite the advantages of evaluating business processes in a complex socio-economic system at all levels, as well as the formation of diverse groups and flexible performance, this technique has some disadvantages, namely, difficulties in ensuring a certain balance in system parameters. This problem could be partially solved by BSC, another known and more commonly used technique formulated by D. Norton and R. Kaplan. The main feature of BSC compared to other approaches was the division of community activities into four areas: financing; customers; internal processes and personnel.

By using BPR-based tools, professionals should be able to improve productivity, finish projects faster, deliver better quality results, eliminate destructive cleaning efforts, and focus on value-added. According to the work, to get these benefits, BPR tools should be useful for managers and specialists, which are responsible for analyzing business needs and designing a new process to meet those needs. These tools should improve the clarity of the BPR team's vision and also ensure consistency in analysis and design. In addition, they should allow iterative, top-down refinement from BPR project objectives to solution. BPR tools should produce an acceptable return on investment. Much of BPR's work involves analyzing data from existing processes and then comparing it with proposed substitution processes. Project management (PM) tools can be used to analyze business processes. Specialized BPR analysis tools and PM tools deal with the same problems in designing optimal processes. Typically, the BPR analysis report consists of: 1) data collection about the existing processes; 2) splitting an existing process into operations; 3) capture of information on costs, personnel and materials for cost activities; 4) capturing the order and timing of multiple operations; 5) capturing data streams and material streams through the process. PM tools are not suitable for displaying data and material streams through the processes. However, if PM tools are used in combination with spreadsheets, they can be very effective in comparing the productivity and cost of alternative process design. In addition, PM tools have the advantage that they are easier to use and cheaper than specialized BPR tools. Because long-term learning requires specialized tools, the PM tools approach often provides the best solution for BPR analysis and modeling. Such systems as SAP / R3 and Business Studio combine the capabilities of both BPR and PM tools.

Business Process Reengineering project in Publishing department of Polotsk State University was completed by the authors using Business Studio software system tools. The main tasks of the department are the following:

- organization and implementation of editorial and publishing and printing processes with the aim of publishing educational, teaching and methodological literature that meets the requirements of the state educational

standard, as well as the issuance of scientific, reference, and other types of literature, advertising, letterhead and other products in the interest of providing educational and educational processes research work;

- ensuring high consumer quality of products and receiving a profit from publishing and printing activities;
- organization of operational work on the production of printing products for structural units of the university, employees and students, legal entities and individuals.

The publication of educational literature on paper and electronic media in Polotsk State University is based on long-term and annual plans for the publication of educational literature. The long-term plan of the university for a period of three years is considered by the scientific and methodological council of the university and approved by the Rector. The annual publication plan is compiled by the head of the university's teaching and methodological department on the basis of the department's summary applications for inclusion in the plan, taking into account the long-term plan of the university's publication. The plan is approved by the Vice-rector for Academic Affairs and it is the basis for the organization of publishing at the university during the calendar year.

As a result of a survey of employees of the Publishing department of the Polotsk State University and study of documentation, business processes were developed that described the department's work "as it is". Analysis of the business processes has shown that there is a large variation in the duration of the processes for preparing the mock-up of teaching handbooks, which is primarily due to the mismatch of the material provided by individual authors with the technical requirements and low willingness some of the authors to cooperate.

Typical tools and techniques associated with business process improvement methodology include Six Sigma, Lean and TQM methodologies [7, p. 10]. Choosing or developing a combined approach may be a possible way for transformation of the university publishing activity. Six Sigma provides a structured, knowledge-based and statistical approach, Lean provides a value and waste philosophy and TQM ensures that authors' issues are taken into account.

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