THEORY AND PRACTICE OF SOCIAL,

ECONOMIC AND TECHNOLOGICAL CHANGES

monograph

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PREFACE

In the modern conditions of development at the many areas of the world economy, economic activity is undergoing changes. Various innovative technologies, the introduction of new forms of activity are present on the market today, scientific and technological progress as a whole inevitably leads to the emergence of special technologies, in accordance with which new products and services are introduced. As a result, a new market is formed around new products.

The society develops together with the economy, individual and social well-being improves, and consumer demands are modified along with the demand structure. Every business has to constantly change in accordance with the changes occurring in the external environment. The top management of business structures is forced to change their own strategies, systems and management structures, otherwise the efficiency of the organization will be extremely low. The organization that is able to overcome competition, and can also offer the market special management solutions, receives special competitive advantages. In this regard, the topic of managing change is becoming more widespread, becoming more and more relevant. Many books, studies and articles are devoted to this topic. The results of research by scientists from different countries are presented in this monograph.

Change management is one of the most important factors for the successful implementation of the quality system and the development of the economy of a particular country, as well as the world economy as a whole. Therefore, it is extremely important to understand initially what changes can occur in a specific area of activity, and how to manage them. It is the process of change management that allows you to follow the control of the development of society, as well as to carry out a correction of the project for the introduction of a quality management system. Changes in the business economy occur constantly and everywhere. It is from the direction, efficiency and timeliness of changes that the effectiveness and competitiveness of economies and specific spheres of business depends.

According to many experts, the process of managing change is currently one of the most relevant business technologies in the field of management. Many experts emphasize that the process of managing changes is one of the most complex processes, which requires special skill from the leader. This fact becomes especially important in modern business, when significant changes are considered a factor that is important for the organization to adapt to the constantly changing market conditions. In modern conditions, there are special positions in international business that are associated with change management, which confirms the importance of these processes.

Change management is one of the most important elements of modern management theory. In fact, this concept reveals not the leadership directly large-scale organizational changes, but the management of those phenomena that accompany the process of change. It is noteworthy that the basis of the paradigm of

change management is the fact that the process of change occurs not so much in a specific business environment as in society and economy as a whole. Thus, changes must be understood and analyzed by the social community. At the same time, any changes always cause different resistance in society. Thus, change management is the process of moving a sub-entity from the current state to the desired state.

I consider it is right the authors' thoughts that in order to improve or implement in society, business, without the knowledge and experience in managing change, is goal achievement in the blind. If the company has excess resources and has a huge credit of trust from customers this approach is possible. In other cases it is worthwhile to think about the patterns of organizational and individual changes.

The popularity of change management is due to objective reasons. This is an increase of the dynamics in the society, the increasing role of the human factor and the growth of the competition at the conditions of the limited resources.

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PART 1. METHODOLOGICAL BASES OF RESOURCE-FUNCTIONAL PROCESSES FOR PROVIDING TECHNOLOGICAL CHANGES

THE ROLE OF CONTROLLING IN SUSTAINABLE DEVELOPMENT AND COMPETITIVENESS

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As a result of the complex crises (economical, environmental and ecological) it has become an im-portant question which strategy should be follow to develop the economy, to create more jobs. Moreover, it is also relevant to pay attention to innovation and different ideas, which can help im-prove the eco-friendly sectors. The Visegrád Group has realized that "Green economy" could be a developing point. We must change and solve some problems regarding the use of fossil fuel during production as it increases the risk of the security of supply and pushes up prices.

The Group of Twenty believes in the "Green economy" idea is a great example which should be followed. Spain, Austria and Germany is spending 1.7% of their GDP on developing the traffic system with special focus on the railway system. Environmentally friendly companies are gaining a bigger slice of some markets and becoming more "popular". Investing into green energy can be truly quite expensive but mostly pays off in the long run. The "Green economy" for most of the countries will result a renewal in knowledge and innovation.

During the determination of strategies, business organisations applying eco-controlling always takes into account the impact of the competitors' steps related to the protection of the environ-ment. If a future oriented eco-controlling wishes to constitute an integral part of care about the company's future, then it should not focus only on individual actions and intervention points but it must involve also the entire product life cycle into its perspectives. Our study illustrates the green or eco-controlling information aspirations for the strategic management in the preparation of deci-sion-making.

Among the changes of recent decades which affected business life, one of the most significant one is that the role of the natural environment has become more appreciated in business thinking and leadership. This process is closely in line with the general revaluation of the role of natural factors, furthermore, with the

development and spreading of the concept of sustainable development. Sus-tainable development has always meant a competitive advantage for business organisations; still, the first more radical change occurred only from the 1970's. The next turning point was meant by the environmental world conference of the United Nations, held in 1992 in Rio de Janeiro, where a different light was put on these issues. Consequently, sustainability as a principle has put economic development in front of such problems to be solved which should take into account the environ-mental values and their protection. It should be noted that as of that date, the economy must take into account the energies and materials used and it has to manage them so that it can generate prof-it, while simultaneously serving environmental interests, as well.

The increasing need to maintain and improve the quality of the environment encourages but also forces corporations to explore the environmental impact of their activities and to eliminate and pre-vent the polluting impact of their activities so that no similar ones can emerge in the future. The strategic importance of environmental factors and the increasing cost sensitivity in the field of en-vironmental protection makes it inevitable to manage and control the environmental resources in a goal-oriented way. As much as this decision seemed to be well-functioning in the long run, it was just as hard at the level of corporate sphere to find the way in which this sustainability principle can be operated. Everything that involves innovation, means costs, as well; especially in the periods after the crisis and only a few people opted for this innovation. An environmentally conscious cor-porate management means that not only a single functional department or an environmental officer is in charge of environmental protection or the fulfilment of tasks occurring in relation to this issue but all departments and workers of the corporation are permeated by the consideration of environ-mental aspects.

This can only be achieved if the protection of the environment is not isolated from daily decisions but integrated into the responsibility and incentive system of the corporation. This, however, re-quires the implementation of comprehensive organisational changes. In the implementation of this latter task, the establishment of an eco-controlling system can help a lot - it is the instrument of strategically oriented environmental activities and the strategic and operative controlling. On one hand, it fulfils integration functions, i.e. ensures the inclusion of the environmental management function into the planning activities of corporate management. In our studies we would like to in-troduce an example from the business practice and highlight how we can use the theoretic tools in the practice.

The G20 meetings and environmental conferences were supported by many environmental changes (drastic population growth, water shortages, climate change, etc.). It has become a global problem which had to be handled also at corporate level. So far it has been "enough" if the corporation paid compensation for damages caused to the environment. More and more people were looking for an effective solution, until the American corporation 3M presented a new plan the so called 3P pro-gram. 3P (Pollution, Prevention, Pays), i.e. pollution prevention pays off.

This program can be treated as the first milestone in the history of environmental accounting. During this program, sev-eral new actions have been taken which use materials and energy in a more optimal and environ-mentally friendly way, by which significant cost savings could be realized at corporate level. After these, the establishment of environmental accounting, eco-controlling, green accounting, environ-mental controlling and ecological accounting was just the next step.

The basic objective of environmental accounting is to provide the most realistic picture possible on the financial situation of activities related to the protection of the environment and their aspects. Therefore, it has to provide information on the environmental (protection) aspects of the corpora-tion's investment decisions, it must be able to demonstrate their environmental exploration, analy-sis and the definition of environmental (protection)-related items of the revenues originating from them, together with the analysis of financial data related to the performances made for the purpose of (protection of the) environment and their adaptation for a good decision-making. As Figure 1 shows, environmental accounting can be divided into two main levels:

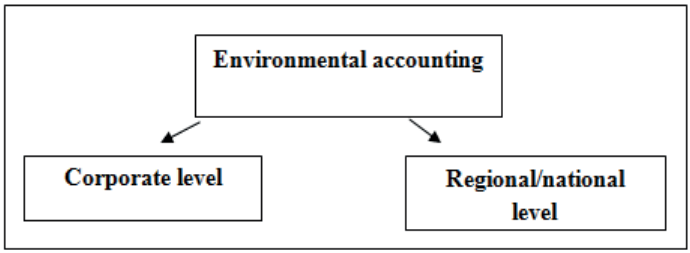

Fig. 1. Levels of environmental accounting. Source: own work

In addition to environmental accounting, it is important to mention also ecological accounting, which presents the corporation's impact on the environment by using physical measurement units. Its significance is manifested in informing the corporation's partners, thus it can provide external information.

By contrast, the already aforementioned environmental accounting focuses on the impacts of the protection of the environment on the financial position of the corporation. Consequently, in corpo-rate practice we distinguish between environmental management accounting and environmental financial accounting. The focus of environmental management accounting is on internal analyses and making the management decisions easier. The environmental financial accounting focuses pri-marily on the communication of environmental obligations to the external stakeholders, and subor-dinate's data collection and analysis to this. The internal ecological accounting focuses on analysis, while external ecological accounting organizes ecological accounting around the preparation of reports prepared from data. In his work titled 'Environmental Financial Accounting',

Schaltegger (1996) focuses primarily on the communication of environmental obligations to the external stake-holders, and subordinate's data collection and analysis to it." (Csutora-Kerekes, 2004).

Eco-accounting (green accounting) can provide information to both internal and external users. Its task is to take into assess the changes occurred in the natural resources as a result of management activities and to explore the environmental costs and their causes. To this end, it produces, collects, processes and analyses data and information related to the environment.

- Its objective: to facilitate the optimization of the decision according to ecological as-pects by allowing the assessment of environmental damages and impacts and the de-termination of social marginal costs and marginal utility of a product.
- Its instrument: the cost-benefit analysis, ecological accounting and preparation of eco-balances, furthermore, determination of recycling impacts from the aspect of cost and revenue.
- Its area of investigation: the connection between the soft and hard elements of the corporate body and the environment.
- Methodology: Analysis of connection points of management areas in this context.

Environmental controlling and its functions. A prerequisite for the success of environmental controlling is to realize integration into the corpo-rate controlling system, furthermore, to take into account also the specificities of the area studied by it when selecting the methods applied. This means that eco-controlling cannot be independent from the corporate controlling system, but it supports the operation of the corporation that is

opti-mal from environmental aspects in a way integrated into the corporate controlling system, similarly to the other special controlling areas (financial controlling, human controlling, etc.). Environmental controlling facilitates the preservation of environmental values, furthermore, the improvement of environmental actions' efficiency and of the investment-profit ratio.

Thereby it contributes to the exploration of environmental reserves and a more efficient manage-ment related to natural resources. Its introduction is recommended primarily for those corporations which can oversee their activities related to the environment and which have already built out an acceptable measurement and registration system in this regard. According to Schaltegger and Sturm, eco-controlling determines those strategic tools which mean a solution to the environmental problems and their systematic treatment - starting from data management through decision support, control and implementation to communication. The conceptual elements of its operation are shown in Figure 2.

Eco-controlling can be divided into 5 major modules:

1. module: Goals and objectives
2. module: Data (base) - management

3. module: Performance evaluation
4. module: Value-based environmental programs
5. module: Communication

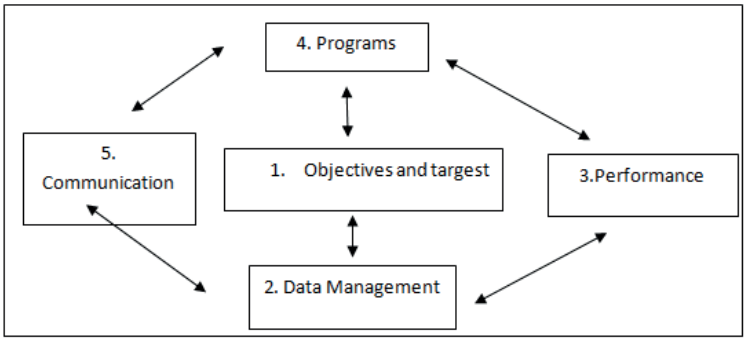

Fig.2. The concept of eco-controlling, Source: own work based on Sturm (1997)

The successful cooperation of these five modules creates the sustainable process that is necessary for an efficient operation of green accounting and eco-controlling and for making the corporation "more green", i.e. that puts the environmentally friendly activities of its operation into the fore. Based on the theories of Schaltegger and Strum, we can examine and measure the extent to which the corporation correctly applies the basic principles set by eco-controlling. The corporation is able to realize sustainable development by maximizing the ratio of the positive margin percentage and PP (Pollution added point) while simultaneously eliminating the ratio of the negative margin per-centage and the PP." The EPM Portfolio is a very good example for us on how to use these busi-ness units successfully. As you can see in Fig. 3, the EPM portfolio determines four categories to determine and rank, whether the eco-controlling used by us is useful or not or whether it is sustain-able in the long run or not. On the figure 3 we present the EPM portfolio.

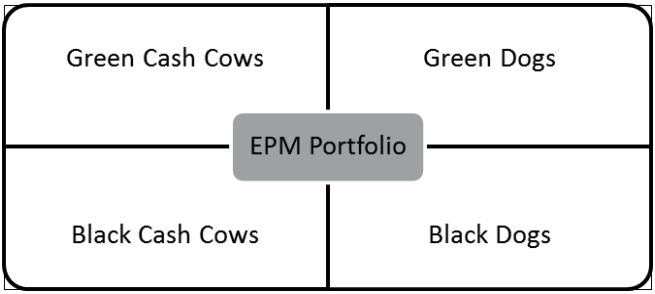

Fig.3. Four basic categories of EPM Portfolio
Source: Own work

Green Cash Cows: When we speak about the Green Cash Cows we must think of those products with a low pollution and high contribution margin. Products that are produced using integrated and 'clean' technologies which result much more ecological solution. Their environmental impact needs to be already optimized at their development stage. In this way, Green Cash Cows' devel-opment means a sustainable growth strategy for a company.

Black Cash Cows: In this case, we must think of that thing which created by the quantitative growth strategy. That means that were characterized by relatively high financial revenue plus a high pollution added with we can't protect our environment.

Green Dogs: Green products are typically products which,, are environmentally friendly, but achieve a relatively low contribution margin. "In this category we often find products that we have been ecologically improved by using end-of-pipe technologies." (Sturm, 1997) Green dogs prod-ucts generally achieve a comparatively lower contribution margin than products that were con-ceived to be more ecological trough using integrated technologies."

Black Dogs: Products that have a high pollution added and a negative contribution margin. Espe-cially these products which are economically uninteresting and generally cause enormous environ-mental damage.

Importance and challenges of environmental controlling. One of the most important tasks of the future will be the provision of that information, which will enable the successful, efficient and goal-oriented application of environmental resources and the development and preservation of environmental values. In order to meet the obligation to provide information, the environmental controller must maintain a constant contact with the persons in charge of the specific business areas. The current accounting systems are not suitable for monitor-ing environmental processes for several reasons; they need improvement. The new methodology is the green accounting, the tools of which are: the cost-benefit analysis, ecological accounting and preparation of eco-balances. One of the most important tasks of environmental controlling is the comparison of data and analysis of differences.

During the determination of differences - in addition to the comparison of plans and facts - tem-poral and/or territorial comparisons will be identifiable, as well. Therefore, it can inform the dan-gerous areas about the formation of environmental damages in time, but the signals depend also on the way the planning system operates or whether it satisfies the environmental information criteria, or not. Planning of the management of environmental resources must be an integral part of corpo-rate planning. Environmental controlling therefore integrates and gets involved into the accumulat-ed corporate planning process, similarly to the corporate plans. Its areas are the following:

• Planning of environmental objectives related to the long-term corporate goals broadly.

• Detailed design of environmental objectives related to medium-term corporate goals.

• Detailed planning of environmental objectives and actions related to the short-term corpo-rate goals.

The planning block must rely on the monitoring and accounting system, in which the system of the metrics and indicators used must be determined.

Measuring competitiveness. According to Horvath (Horváth P.,2009) competitiveness consists the following in terms of con-trolling purposes:

• According to the pragmatic approach to competitiveness, it is the ability of firms' adapta-tion; how they can use technical and organizational solutions which had been successfully adapted elsewhere, best practices spirits (benchmarking). At this point in the region and the country depends on the competitiveness of firms operating in the totality of adaptation ca-pabilities, which is also decisive action to develop the eco-controlling background.

• According to the environment perceptions, competitiveness means that the company is able to optimize the economic environment, that is the economic base of the elements (capital and labour markets, quality of inputs, infrastructure). At this point, the region and the coun-try is competitive, which is providing for the dominant industries operating there, the high-quality economic base of course, considering the environmental standards and the stand-ards to be met even country level.

• According to the capital development concept, competitiveness means that how a company or sector is able to accumulate human and physical capital, develop the technology. A re-gion or country can be competitive when attracting investments for new production sites and service creation activities that are related to large, mainly international companies. Of course, these companies have largely been addressed and incorporated into the environ-protection requirements and expectations.

The competitiveness of Visegrad countries has been affected by many geopolitical and geo-economic factors. In order to examine and find the main differences of the competitiveness, com-panies should be measured according to the following criteria:

• Knowledge transfer: The knowledge applied on time and in the right way plays a key role in corporate competitiveness. Competitive advantage of the company can only be achieved if information and knowledge is sooner acquired, adapted to planning and production.

• Geographical factors, infrastructure: Nowadays the markets have become global, so the dis-tance as a factor in the competitive market conditions, it has transformed their characteris-tics. To the questions of global challenges, new geopolitical and new business strategic re-sponses are required, which are generated by changing the interpretation of space and dis-tance. However, it can be stated that the race has become global about the sustainable com-petitive advantage in the innovation of business organizations and knowledge transfer, where the role of geographical factors significantly changed.

• Adaptation of innovation solutions: The proper use of innovation defines

the company's success. "The innovation in the information society does not characterize a distinct sphere of the world, but also acts as a natural attitude and the result of pressure to adapt." (Borsi 2004) Therefore, it is important that innovation or information as soon as possible serve corporate interests, such as rapid introduction of new technologies, techniques and applying them effectively, resulting a sustainable competitive advantage. Given that «innovation is looked at it is a key source of competitive advantage in modern economies.» (Hallbrook-Wolfie, 2002) The information, which means the basis of knowledge, its acquisition and use in an effective manner determines the development opportunities of regions and their competitiveness as well.

• Project planning: The Visegrad Four (as well as Romania and Bulgaria) in respect of the op-eration of the projects is characterized by the following four components:

- time limit,
- quality (extent),
- the relevance of management information for the project implementation,
- resource constraints (both financial and human factors).

The objectives of the projects, in some respects are the same as corporate goals, ie. long-term survival, and market competitive advantage and maximizing profit position. To all of these, it is essential to have a system-wide and future-oriented management thinking.

• Language skill as a competitive advantage: language skill is vital after the global opening. This criterion can be both a threat and potential, because if the company is not aware of this, it will lose the competitive advantage already gained, or can not keep up with the pace dictated by the market, depending on geographic conditions not able to employ foreign workers.

These factors are proved by the Word Economic Forum study, examining the competitiveness of the Visegrad countries, which shows that in 2004 Hungary led the overall list, and in 2008 the Czech Republic, Slovakia and Poland were ahead of us. The order remained the same in the year of 2013, then in 2015 came forward to third. Hungary must keep in mind in the following years that long-term competitive advantage can be achieved by precise design, innovation, continuous improvement of language skills and knowledge.

Main environmental indicators. Of course, a well-designed eco-controlling system contains environmental indicators for a transpar-ent design and accounting. In particular, the environmental indicators support primarily the assess-ment of the corporation's environment related status. When developing the system of indicators, the environmental loads must be taken into account by type. The values should also be specified which are regarded as available or desirable in case of release. The official regulations, the stand-ards specifying maximum emission, furthermore, the exact knowledge of the corporation's status provide significant help for the development of expectations and threshold values. The environ-mental

indicators, i.e. the planned indicators and the indicators wanted to be achieved can be as follows:

• The emission mass of solid waste or other liquid or gaseous pollutants emerging periodical-ly, per type, expressed in natural measurement units.

• The extent of proceeds from the sale of waste, expressed in monetary value.

• The proportion of waste that can be further used within the total waste, expressed in per-centages.

• The total cost or ratio of waste disposal in relation to other costs.

• The proportion of recyclable products within the production value.

• The proportion of recyclable materials within the emerging waste.

The solution that has become known as the Winter model contains 28 checklists in six main groups, which cover all environmentally related areas of corporate life. The application of the method is particularly useful in the period of preparation for the obtainment of environmental certification, based on the model of which the corporations can develop similar ones on their own, too; thereby helping the decision support related to the environmental tasks of the management. (Winter, 1997)

Successful model application. One of the companies successfully adapting the model is the French Union Invivo, which has sig-nificant domestic subsidiaries and establishments in Hungary (Vitafort.hu,2016). The company's business is divided into four areas:

• Sale of agricultural seeds and complementary products.

• Grain trading and storage.

• Fodder production (production of premix, additives, manufacturing, production of animal health products.

• Providing laboratory services and nutrition and operation of hobby gardening and retail business nationwide through franchised store network called Gamm Vert.

Due to a merger between the animal feed and animal health activities of Union Invivo and Evialis corporations, Invivo NSA (Nutrition et Santé Animale) was established, becoming a dominant player in the market in Western, Eastern and Central Europe, in addition to Central and South America as well as in the Middle East, Asia and Africa (Invivo-group.com, 2016). Every year, more than 25 million tons of finished feed is made using Invivo NSA technology throughout the world. The company's revenue for the 2011-2012 fiscal year: EUR 5.7 billion, which contributes to the fact that the company successfully applies eco-controlling, green accounting. The company aims to develop and disseminate new agricultural solutions that guarantee high quality and takes into account the ecological and natural resources, so that consumers and their health can be advan-tageous.

The company mentioned above is an exemplary success story of the Visegrad countries plus Bul-garia and Romania competitive ambitions. The development of the most measurable competitive-ness of small -medium-sized enterprises (SME) sector actors. A document published in 2013, «2020 Entrepreneurship Action Plan»

to boost employment, and increase the number of SME aimed at highlighting the indispensability of these three pillars (European Commission, 2013):

- Education of entrepreneurship development training
- Creating the right business environment
- Role models and how to address specific groups

The measures mainly focused on improving competitiveness, thanks to which SMEs can take ad-vantage of the opportunities offered by the EU. According to Incze Hungarian SMEs committed themselves to a lesser extent to the international global market, mostly because they perceive it as a threat to the natural process of globalization, multi- and transnational corporation's appearance of the domestic economy.

Conclusions. Eco-controlling can primarily be used where leadership is ready to carry out considerable organiza-tional changes in order to control the relationship with the environment of the company. If partici-pants can expect financial disadvantages it can violate interests eg. ecologically weak or hazardous exploration points. Such disadvantages could be for example the compensation, loss of bonuses, massive costs of environmental remediation. Accordingly, particularly in the initial stages of the implementation period should be careful to identify and repair the deficiencies. It should be point-ed out that eco-controlling is a useful tool, and companies that are committed to promote environ-mental protection worth to apply such a system. Note that conventional accounting systems do not take into account the environmental factors. Methodology is not suitable for assessing the compa-ny's environmental assets, taking into account the interests of present and future related to the en-vironment and to detect the impact of activities on the environment.

In order to develop eco-controlling it is necessary to have further developments of the accounting system, which satisfy the applicability of certain conditions. Traditional accounting approach is primarily based on the neoclassical economic model. This feature treats certain natural resources as «free goods», unlimited and ignores the existence of externalities. The current accounting state-ments therefore can not tell how much a company uses non-renewable natural resources, and how production waste relates to the capacity of environment pollution. The methodology currently used does not take into account the time factor and should only occur for short-term events, and effects. Environment-related recovery, recycling and other costs, however, often years, decades after pro-duction occur, so there is no real method of recording them beside estimation.

Competitiveness has became an element of development of which management should not ignore. We saw that there are companies that focus on green management, but not neglecting corporate interests, production and profits. Of course, first farmers disliked it, because no one wanted to give up the tried and tested machinery, pesticides, feeds, etc. The example of ours was the same, but the company used farmers of eight different regions who had many years of experience and have

combined this experience with a new way of thinking. Due to their success, today 15-20% of French farmers converted to ecological-intensive farming. New attitudes and thinking is need-ed to successfully adapt the green economy, eco-controlling.

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METHODOLOGICAL FOUNDATION OF LEADERSHIP POTENTIAL ASSESSMENT IN THE SYSTEM OF CHANGE MANAGEMENT AT THE ENTERPRISE

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Actualization of leadership as a new management paradigm, the essence of which corresponds to modern realities, is determined by the existing social tendencies, the transformation of values and organizational structures, and the crisis of the dominant administrative model of management.

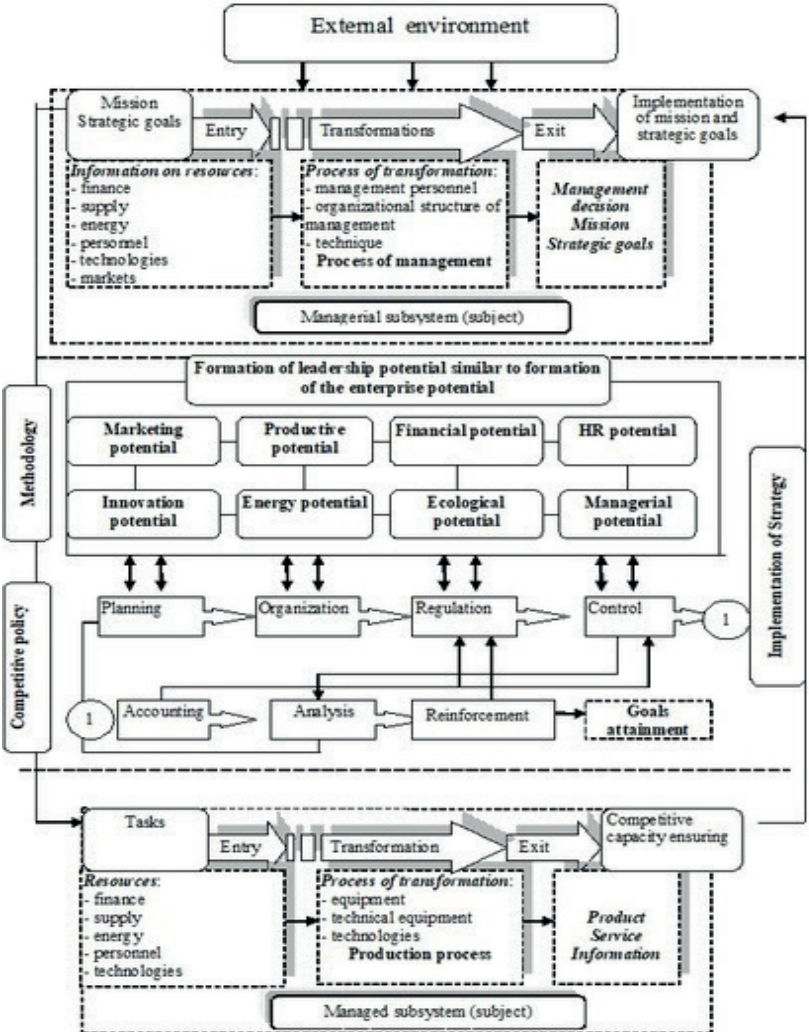
Modern conditions of economic activity of Ukrainian enterprises place new demands on the system of change management in terms of ensuring its efficiency. Nowadays the axiom that the human recourses are the key asset of any enterprise does not need to be proved. The number of studies carried out by the consulting agency "3S" made it possible to state that the well-timed personnel assessment followed by appropriate personnel management will reveal leadership potential of an employee. As a scientific problem, it is worth highlighting the need to understand how exactly leadership potential should be defined and to clarify the methodological approaches to integrating leadership potential assessment into the overall business potential of an enterprise.

The problems of leadership potential development, and leadership traits of a personality to be developed are highlighted in the studies of Ukrainian scholars (M. Gavrilyuk, I. Drigina, O. Yevtychov, N. Zherebova, M. Kirsanov, R. Krichevsky, A. Lutoshkin, N. Marahovsky, B. Parigin, A. Petrovsky, N. Semchenko, L. Umansky, O. Chernyshov) and foreign scientists (E. Bogardus, K. Bird, C. Blanchard, M. Weber, J. Maxwell, R. Stogdill, P. Hers, F. Fiedler).

Exploring leadership potential of managers, the majority of scientists define it as a socio-psychological profile of an individual, which simultaneously reflects both situationally conditioned, and cross-situational ability of the individual to successfully conduct leadership [1-3]. The research on the practice of forming leadership potential in the business structures of Ukraine conducted by the consulting agency «3S» provides an opportunity to clarify the essence of leadership potential. In the theory of leadership, outlined by Professor Antonio Meneghetti [4, p. 32], leadership potential is defined as the range of qualities and traits of a personality that manifest themselves in 3 key elements: the natural properties of leadership; professional competences; results of a certain activity. The definition of leadership potential itself is not an axiom that makes it possible to structure its elements, inasmuch it is important for business to understand not the structure of leadership potential, but its impact on the efficiency and success of the business. In this context, understanding of leadership potential should be based on the understanding that the essential characteristic of the leader is «the ability to lead the

set of needs, capabilities and means to a single function » [4, p. 32]. Awareness of the relationship of leadership potential reflects its relationship with other elements of the enterprise's potential (Figure 1).

Leadership potential is presented in every structural element of the enterprise's potential, because the functional of different potentials are the finance (financial potential), the quality of materials (resource potential), the properties of the organizational structure of management (organizational potential), etc. The subject of the potential function realization is a person who possesses some leadership potential. It is the level of leadership potential of certain professionals or managers that determines the possibility of using other functional capabilities.



Analysis of leadership potential involves a combination of research methods for leadership potential: observation; intuition, feeling; interviews, and testing: («Forma Mentis» test; 6 drawings test), interview. Particular attention should be paid here to leadership potential and to the evaluation of its management capabilities. On the basis of the analysis of qualitative assessment of leadership potential, one can use the economic nature of leadership which results in intellectual, professional and ambitious qualities that in their overall integrity and responsibility contribute to the mobilization of individual and corporate interests to achieve common goals with higher economic performance and lower costs compared to competitors.

Based on the conducted researches, the main objective of the enterprise's leadership potential evaluation is to seek, select, form and secure the competitive leverage that will ensure the use of an efficient change system and the live activity of a business structure. A possibility to apply the methodological findings into consulting practice and management of business structures leads to a need for development the assessment methodology that will meet the following requirements:

1. Minimum amount of incoming data, their availability and ease of their receipt.
2. Possibility to make use of the subjects of industry with different scales of production.
3. Clear structure, accessibility and correctness of the factors of influence on the definition of competitive positions of the enterprise;
4. Determination of competitive directions of the enterprise's activity both in domestic and foreign markets;
5. Comparability of initial parameters in the assessment of potential at micro, meso and macro levels at domestic enterprises with the competitive potential of the foreign ones.
6. Focus on the increase of the level of managerial decisions validity.

Taking into account the above mentioned requirements, the suggested methodology will help solve such problems:

- adjustment of the enterprise's objectives in the process of a strategy development to ensure a high level of its competitive potential;
- implementation of complex risk analysis of the situation;
- the justification of decisions on industrial, organizational and strategic changes in the enterprise;
- diagnostics of the enterprise's product portfolio of the enterprise;
- ensuring the creation of sustainable competitive advantages.

The above-mentioned requirements to the methodology of the enterprise's leadership potential evaluation coupled with the specified tasks resulted in the following logical sequence of evaluation and integration of leadership potential into potential of the enterprise (Figure 2).

Approbation of methodological findings has been carried out by the consulting agency «3S». For the ethical reasons, the results of the study presented in the Table 1 do not include the names of enterprises.

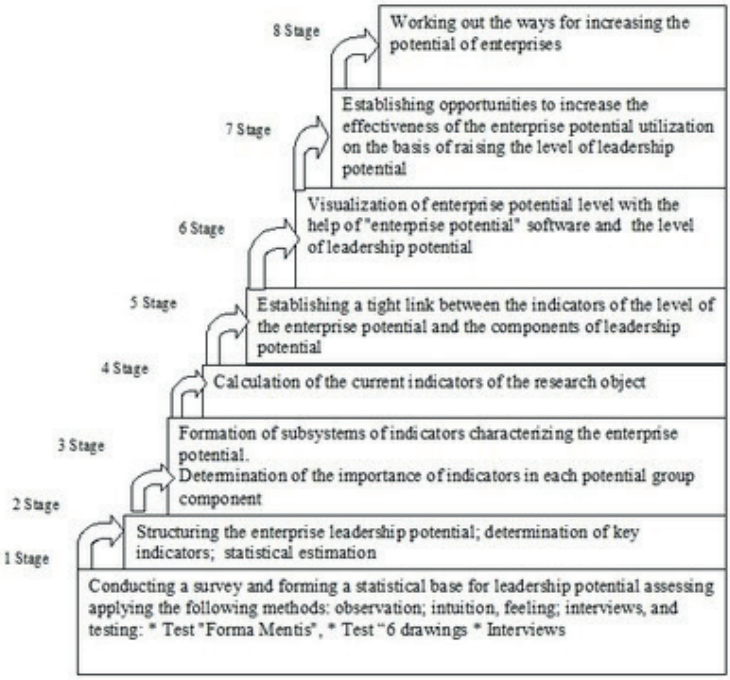


Fig. 2. The block diagram of the methodical approach to assessing the level of leadership potential integration into the enterprise potential system

It is worth noting that the study of the structure of leadership potential and the study of the peculiarities of its formation in the individual made it possible to structure it by the main constituent elements, which then integrate into the overall assessment of the potential. Thus, testing of the management staff and specialists of each enterprise gave us the opportunity to identify the main three blocks of leadership potential:

- psychotype of personality in 16 classic psychotypes;
- value orientations (natural level of leader's potential (NLP), result orientation (R), development and improvement (I), independence (In), initiative (Int), attachment to traditions (T);
- potential of an individual (responsibility (Rp), autonomy (A), will (W), focus on problem solving (PS), ability to cooperate with others (C).

Grouping and statistical processing of the study results gave an opportunity to get generalized values of indicators for enterprises in general (Table 1, 2)

Table 1

Results of the study on the level of leadership potential (LP) of Ukrainian enterprises (E) by structural elements

Enterprise	Staff category	Psycotype	Value orientation						Potentiality					LP
			NLP	R	I	In	Int	T	Rp	A	W	PS	C	
E1	manager	0,6	0,62	0,57	0,63	0,4	0,6	0,8	0,73	0,79	0,65	0,84	0,44	0,65
	employee	0,4	0,38	0,45	0,25	0,45	0,3	0,6	0,34	0,45	0,46	0,4	0,45	0,46
E2	manager	0,45	0,38	0,48	0,29	0,47	0,4	0,6	0,39	0,47	0,49	0,78	0,55	0,50
	employee	0,32	0,28	0,38	0,19	0,43	0,3	0,5	0,26	0,37	0,39	0,58	0,51	0,39
E3	manager	0,33	0,45	0,54	0,63	0,4	0,6	0,7	0,71	0,74	0,63	0,81	0,44	0,62
	manager	0,28	0,32	0,38	0,29	0,37	0,5	0,5	0,29	0,37	0,49	0,68	0,65	0,43
П4	manager	0,73	0,72	0,67	0,63	0,6	0,6	0,7	0,73	0,79	0,65	0,84	0,64	0,70
	employee	0,45	0,42	0,48	0,39	0,47	0,5	0,4	0,59	0,47	069	0,38	0,75	0,51

Table 2

Results of leadership potential and enterprise potential assessment

Enterprise	Staff category	Level of LP per Staff Category	Level of Enterprise potential
E1	manager	0,65	**0,75**
	employee	0,46	
E2	manager	0,50	**0,67**
	employee	0,39	
E3	manager	0,62	**0,56**
	employee	0,43	
E4	manager	0,70	**0,68**
	employee	0,51	

The research of the influence of leadership potential on the overall potential of the enterprise requires some details on the "potential" at large. The method of strategic potential research proposed by I. Ignatieva was chosen as a methodical apparatus [6]. The research of the potential level of the enterprise has been carried out at the following stages:

1) the formation of a balanced system of indicators for determining the level of potential by the selected functional components;

2) calculation of unit indicators of the potential level of the research object;

3) formation of Harrington's equations of functions;

4) calculation of group indicators of the level of potential and integral indicator;

5) correlation analysis of the mutual influence of leadership potential on the potential of the enterprise and determining the level of unused potential of the enterprise.

The calculation of unit indicators of the potential level is carried out according to the calculated formulas within the allocated functional components.

Each of the presented unit indicators has a normative or recommended value, which allows us to highlight indicators that have a significant deviation from the normative value. Group indexes of the components functional potential levels are calculated as geometric average. The calculation of the integral potential indicator is also carried out using the average geometric value.

Conclusions. Our research does not exhaust all aspects of this problem. In the current conditions the following aspects that require additional examination: a thorough study of the methodological foundations of the psychology of the leaders professionalization; modeling and defining the limits of the enterprise potential increase by boosting the level of leadership potential; justification of the forecast model for achieving economic efficiency of the enterprise due to changes in leadership potential.

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THE VALUATION OF FINANCIAL STABILITY ORGANIZATION OF OIL AND GAS COMPLEX

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The valuation of financial stability is estimation of degree of independence from sources for funding. It is necessary to define which absolute indexes reflect an essence of stability of financial performance. The answer should relate to a balance model from which analysis is outcoming.

Long-term liabilities and equity mainly direct to buy-out permanent assets, capital expenses and other fixed assets. To satisfy a condition of solvency, it is necessary that cash and funds in the calculations, as well as financial current assets are covering short-term liabilities.

The valuation of balance correlation should define the type of financial stability current organization:

- the absolute type of financial stability — own current assets cover supplies and expenses;
- the normal type of financial stability — supplies and expenses are covered by sum of own current assets and long-term liabilities;
- the unstable type of financial stability — supplies and expenses are covered by sum of own current assets, long-term liabilities and short-term loans;

- the critical type of financial stability — supplies and expenses are not covered by sources of the formation of the assets, the firm is close to a bankruptcy.

You should follow reference below:

Current assets < (equity × 2 – fixed assets)

This inequity has been kept in analyzing period. The current assets did not exceed right part of inequation, but in the previous year this formula could not be accomplished. Hence the organization was financially dependent on borrowing sources.

Table 1

Correlation of current assets and organization equity of oil and gas complex

Title	Absolute value, thou. rub.		
	Basic year	Prior accounting year	Accounting year
Current assets	12 265 315	18 815 592	14 730 959
Equity*2 - fixed assets	13 346 584	14 036 532	15 018 676

The organization is financially independent. This is the easiest approach, but it is approximate evaluation of financial stability. For more detailed and accurate assessment of financial stability we analyze the security of stocks and expenses by sources of financing, as well as applicable and calculate the indicators of financial stability.

In order to determine the type of financial sustainability of the organization applies a methodology assess the adequacy of sources of financing for the formation of the material working means.

The general indicator of financial independence is a surplus or shortage of sources for formation funds and expenses, which are defined as the difference of the magnitude of the sources of funds and the value of supplies and expenses.

Triple-component indicator of type of financial situation at the beginning of the accounting year was unstable. At the end of the same period the situation has changed: the organization was on the boundary between normal and unstable financial situation. While maintaining this trend, the company can be characterized as unstable, hence the need to develop measures to improve the financial condition of the company.

It is considered that the financially independent organization is one with a specific weight of equity capital in a total amount ranging from 30% to 70%.

The establishment of a critical point at the level of 30% is rather arbitrary and is the result of the following reasoning: if at some point the bank and creditors submit all debts to be recovered, the organization will be able to repay them, having 30% of its assets formed by own sources, even if the remaining part of the property will be for any reason, are illiquid.

Besides absolute indicators financial stability is characterized by comparative figures.

Using the balance data from analyzing company, calculate indexes, which are characterizing the financial stability. Results are in the table 2 below.

The dynamic of financial stability (U5) is the same for Financial independence ratio (U3).

The data of table 2 figure out that all ratios of valuation of financial stability of organization are within normal limits, except the ratio of financial stability, which is a bit lower. Moreover, the stable financial situation has positive influence on the producing plans and supports activities of the necessary resources. For this reason, financial activity as a part of economic activity is directed to ensuring orderly receipt and expenditure of monetary resources, the implementation of the design discipline, the achievement of rational proportions of own and borrowed capital and the most effective use.

Table 2

Indexes of financial stability at the end of period (in unit fraction)

Title of index	Basic year	Prior year	Accounting year	The deviation of prior from the basic year	The deviation of accounting from the prior year	Limit
1. The ratio of capitalization (shoulder of the financial lever (U1)	0,88	1,39	0,95	0,51	-0,44	<1,5
2. The ratio of its own sources of funding (U2)	0,18	0,12	0,22	-0,06	0,10	≥0,5
3. Financial independence ratio (autonomy) (U3)	0,53	0,41	0,51	-0,12	0,10	≥0,4÷0,6
4. Ratio of financing (U4)	1,14	0,72	1,05	-0,42	0,33	≥0,7
5. The ratio of financial stability (U5)	0,54	0,42	0,52	-0,12	0,10	≥0,6

As it is shown at the table 2, unusual changes were not presented in the organization. The ratio of capitalization (U1) has negative trend in the accounting period. This ratio is analyzing in connection with the ratio of its own sources of funding (U2). As it is shown at the table 2, supplies have a source of financing – current capital because the value of the ratio of its own sources of funding (U2) is positive in the period under review. Own current capital must be at least 10% of current assets is the lower allowable limit.

The value of the ratio of financial independence (U3) is in the normal range. In the prior period belonged to shareholders from 4.1% to 5.3% in value of the property, and in the accounting year just from 4.1% to 5.1% in value of the property at the critical boundary of 40%. If at some point creditors submit all debts to be recovered, the organization will be able to repay, having only 4% of its assets formed by own sources, the remaining part of the property may be illiquid.

Table 3

Ratios of financial stability of organization at the end of period (in unit fraction)

Index	Best value	Basic year	Prior Accouning year	Accounting year	Deviation Prior Accouning year from accounting (-, +)	Deviation Accounting from prior (-, +)
Equity ratio (leverage ratio): СК/А	>=0,5	0,5254	0,4150	0,50620	-0,1104	0,0911
Financial stability index: (СК+ДО)/А	>=0,7	0,5382	0,4224	0,5169	-0,1157	0,0944
Financial leverage: ЗК/СК	<=1	0,9030	1,4092	0,4937	0,5062	-0,9154
Current assets to equity ratio (flexibility ratio): (СК-ВА)/СК	0,25-0,5	0,1966	0,2020	0,2804	0,0053	0,0784
Current assets coverage ratio	>0,1	0,18	0,1253	0,2233	-0,0534	0,0979
The share of overdue A/P in liabilities	0	0	0	0	0	0
Total share of R/P в total assets		0,2943	0,3880	0,3899	0,0936	0,0019

Explanation:

СК- own capital *А- assets* *ДО- long-term liabilities*

ЗК- borrowed capital *ВА- fixed assets* *ДЗ- receivable payable*

The equity ratio in the basic period is above normal, respectively, less risk of loss of investment and loans. At the beginning of the previous year there is a negative deviation, which says about high risk of insolvency, for the accounting year the

situation has improved.

At the beginning of the accounting year, the ratio was below normal values, indicating that the increase has risk of failure to return invested funds to the creditors. The low value of the coefficient also reflects the potential of the company a shortage of funds. At the end of the accounting year, the ratio is 0,51, which financing the activities of the enterprise should be not less than 51% from its own sources.

Current assets to equity ratio determines what proportion of own funds is used to finance activities in the short-term, i.e., what part of own capital invested in current assets and which is capitalized. Financial leverage determines how many times the rate of change of profit exceeds the rate of change of sales revenues. If the company is financially stable, this ratio will be less than 1, i.e. own funds exceed borrowed. In this organization financial leverage at the beginning of basic year is 0,9030, and it has increased in comparing to the prior year to 1,4092. It means the organization to have enough borrowed funds, and it significantly exceeds the sum of own funds, thus the organization has too little own funds for paying back for its liabilities in case of emergency, that the one of symptoms of critical situation for this company. But at the end of accounting year financial leverage came back to norm 0,4937.

It is positive that the organization has not any overdue accounts payable.

Evaluating the type of financial stability (tab.4) it can be noted that the type of financial stability - absolute stability: all reserves are covered by its own circulating capital, i.e. the company is not dependent on external creditors.

The efficiency of economic organization's activity and economic feasibility of its functioning are directly connected with its rate of return, which you can judge about the profitability or return on capital, resources, or products of entrepreneurial firm.

The crucial index, which reflects final financial results of firm's activity is a rate of return. It characterizes profit, which gains on 1 rub. supplies, invested in financial operations or in other companies.

Rates of return characterize an efficiency of working firm in total, the yield of various directions of activity, costs recovery etc. It more comprehensive than a profit performs final results of economical process, because of its value shows the correlation of effect with present and used resources. It is used for evaluating the activity of enterprise and as tool in investing policy and pricing. Rates of return is in table 5 below.

Observed rates of returns have trend to decreasing, it means that the efficiency of activity became worse. Partly, it can be explained by state tariff regulation in the organization's sphere. Return on sales has the most failure – (30,82%).

It demonstrates that the demand on products is dropping. Consequently, at the accounting year for 1 rub. of sold products the organization had 4,18 rub. net profit only.

Table 4

The valuation of the type of financial stability at the end of period (thou. rub.)

At the end of period	Supplies	Financial resources	Type of financial stability
Basic period	4 448 855	6 903 141	Absolute stability
Prior period	6 078 189	9 588 421	Absolute stability
Accounting period	4 422 056	7 912 724	Absolute stability

Information table

Type of financial stability	Comparison	Calculation formula according to balance data
Absolute stability	3 < СОС*+КЗС	210<(490+640+650-190+610)
Normal stability	3 = СОС*+КЗС	210=(490+640+650-190+610)
Minimal financial instability	3 = СОС*+КЗС+(КРЗ-ДЗ)	210=СОС*+610+(620-240)
Crisis	3 > СОС*+КЗС 3 > СОС*+КЗС+(КРЗ-ДЗ)	210>СОС*+610 210>СОС*+610+(620-240)

Explanation:

3- inventory and expenses *СОС- own working capital*

КЗС- short-term borrowed capital

Table 5

Rates of return (%).

Index	Calculation	Prior year	Accounting year	Rate of increase, (%)	Conclusion (significant or insignificant deviation)
Gross margin	**Gross profit/ Revenue x 100**	12,17	8,48	(30,31)	significant
Return on Sales	**Profit from sales/ Revenue x 100**	6,04	4,18	(30,82)	significant
Net Margin	**Net profit/ Revenue x 100**	1,80	1,89	5,12	
Return on Main Activity	**Profit from sales / Prime cost of sold goods x 100**	- 6,88	- 4,57	(33,61)	significant
Return on Assets	**Profit before taxation and %/ Assets x 100**	3,26	3,57	9,72	
Return on Fixed Assets	**Profit before taxation and %/ Fixed assets x 100**	32,17	25,19	(21,71)	
Return on Current Assets	**Profit from sales/ Current assets**	9,37	8,26	(11,85)	
Return on Equity	**Net profit/ Equity x 100**	4,49	4,69	4,40	

Return on Investment	**Net gross profit/ Invested capital x 100**	4,41	4,81	9,06	

The efficiency of using assets was increased slightly – from 3,26 to 3,57. However, it is a positive moment. The dynamic of rates of return is presented in a figure 1.

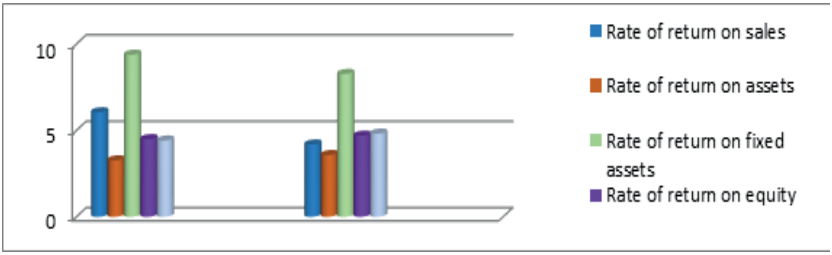

Fig. 1. The dynamic of rates of return for prior and accounting years.

The analysis of equity should allow to provide the complex valuation of activity of organization, including the valuation of strategical financing (through equity multiplier), management efficiency (through turnover), product competitiveness (through margin). The influence of three listed factors on rate of return on equity is analyzed by means of the DuPont System of Analysis, table 6.

Table 6

Results of analysis rates of return on equity by means of the DuPont System of Analysis

Index	At the beginning of accounting year	At the end of accounting year	Weight of factors, (%)	Weight of factors, (%)
The multiplier of equity	1,018	1,021	0,01	7,55
The turnover of assets	2,454	2,429	(0,045)	(22,944)
Net margin, (%)	1,797	1,889	0,228	115,392
The rate of return on equity, (%)	4,488	4,686	0,198	100

Evaluating presented data from the table, we should convince that the increase the rate of return on equity from 4,488% to 4,686% is predetermined by 2 factors – the increase of margin (contribution – increase of rate of return 0,228 percentage points of profitability), and the increase of multiplier of equity (contribution – 0,01), negatively the rate of return on equity was influenced by the turnover of assets only (contribution – 0,045). As a result, we have got this data: the increase of gross efficiency, manifested in the increase of margin from 1,797% to 1,889%, the

increase of investment activity, which leaded to the reduction of turnover of assets from 2,454 to 2,429 and the intensification of financial activity, manifested in the increase of multiplier from 1,018 to 1,021.

The next step is to analyze the five-factor model, which were made through the development the DuPont model and introduction of 2 factors – an index efficiency of other activity and index interest burden. The index efficiency of other activity is determined such as a correlation of net profit to net profit from sales; it allows to evaluate an influence of the result from other operations on total business efficiency. The index interest burden is calculated such as correlation of net profit to net gross margin; it allows to evaluate the efficiency of the borrows.

Analyzing the results of calculations, we can significantly concretize earlier conclusions. Main factors defined the dynamic profitability on equity is reduction of efficiency main activity, expressed through the net rate of return on sales, and through the increase of efficiency of other activity. The interest burden led to the profitability 0,000 points, was repeatedly compensated by the gain of multiplier, which led to an increase of profitability of 7.705 points.

The results of calculations in five-factor model is presented in table 7.

The policy of managing profitability of equity must be built in the direction of increase multiplier by means of activation of financial activity, an asset turnover by means of more efficient using gained fixed assets and strengthening control over the value of current assets.

Calculated indexes of profitability indicate the necessity of revision productive policy housekeeping. In the future, the company needs to increase production capacity by reducing costs and improving quality.

Table 7

The results of analysis in five-factor model of profitability of equity by means of the Dupont System of Analysis

Index	At the beginning of accounting year	At the end of accounting year	Weight of factors, (%)	Weight of factors, (%)
The multiplier of equity	1,018	1,021	0,015	7,705
The turnover of assets	2,45	2,43	(0,046)	(23,486)
Net margin, (%)	3,46	2,77	(1,007)	(509,666)
The rate of return on equity, (%)	0,52	0,8	1,236	625,448
The interest burden	1,00	1,00	0,000	0,000
The rentability of equity	4,49	4,69	0,198	100,000

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ENGAGEMENT IN THE SELECTION AND EVALUATION OF SUPPLIERS

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Recently, customer requirements have been changing, are changing and will change as the industry continues to evolve. The goal is not just only the delivery of the requested and ordered goods in time and providing them with the buyer, but also to fulfill some "small requirements" as well, which are associated with these demands. Today, it is not enough for the customers to be satisfied with the products or services. As the population's consumption habits become increasingly demanding, companies have to provide increasingly high-quality services (EYHOLZER and MUNGER, 2004, LENTNER AND ANDRASSY, 2006.). The concept of supplier management can be defined through the supplier's relationships of a company, the development and management of the supplier base, and ultimately the efficient design of the supplier base (SIBBEL and HARTMANN, 2005).

Even some years ago, the supplier was considered as a potential opponent and were often circumvented during the constant price negotiations, which had negative consequences on the reliability of suppliers and finally resulted in high costs. Nowadays, more and more companies claim that price is only one of the many important criteria. However, it is primarily about the total performance of the suppliers. It is getting more and more important to choose the best and the most reliable supplier, it is as important as building a long-term and business relationship. To do this, the evaluation of suppliers is an essential tool (EYHOLZER, 2003).

The selection of the right suppliers is a strategic matter for the companies. In most cases, it is possible to make the suppliers competing, as usually several companies can produce the required product or service. The fact that every supplier could be replaced can force suppliers to produce a product that fully satisfies the needs of the buyers. From the point of view of the buyers, this competitive situation may also lead to the decrease of the purchase prices. (BEDZSULA et al., 2013). In a selection of the suppliers, the price is not the only decisive factor. It also has a significant importance that in the supplier's products the quality of the delivered product or service is realized, that is why further selection factors must be considered as well, such as for example, the competence of the organization, the development ability, the quality commitment, the quality system and its practical application. Based on their research, FAWCETT and MAGNAN (2002) also argue that besides the price, many other factors, such as the delivery volumes or deadlines should be taken into

consideration, or in the case of existing suppliers, their previous performance could also be decisive (LUSCH and DUNNE, 1990) (LENTNER, Cs. 2015). What is more, we think, on comprehensive way the ability to continuous business operation is also important (LENTNER, 2013). The customer expects the organisation to have its own defined qualitative goals and in order to realize them, a continuous improvement in their system and organisation is required, because without the lack of goals there is no development.

For the domestic companies, obtaining the role of supplier means several advantages: they can acquire customers who are willing to order in large volume, pay correctly, and in some cases also provide technical assistance. However, it is not easy to obtain the supplier role: the quality is not a question of bargain, the customers have extraordinary requirements in the production/delivery schedules, flexibility, and the suppliers have to prove their suitability as well as the high level of their quality management system even before the order is placed. The lasting success cannot be based on the low prices of the suppliers, since the component-level suppliers can be replaced any time. From previous experiences, it can be seen that it is time-consuming to build up a stable supplier relationship: in the case of automotive industry investments, according to industry opinions, at least 1-2 successful years have to pass following the start of the productions, before domestic suppliers can join - today there are only a few domestic companies which can wait such long period - especially if their product range and partnership are not sufficiently diversified. While designing their new production site, several international car manufacturing companies plan to set up their own supplier park, where their partners have a chance to build their own plants, however, this is still not the general practice of most international companies which are looking for suppliers. So, most of the companies looking for potential partners have to rely on their own resources. According to the international and national experiences, the companies which employ at least 50 people, and their revenue reach the annual 500 million forints. have a chance to reach major supplier positions However, in Hungary, in 2008, the last year before the crises, there were only 773, and 607 of them were found to have positive operating result, and 199 of them were exclusively foreign-owned (KOZMA et al., 2001).

It is getting more and more important for companies to find reliable partners for the long-term strategic cooperation. The task of purchasing in this case is, in conjunction with the quality, to select and monitor the performance of their respective suppliers and to continuously monitor and improve their performance. The customer expectations are in the centre of the quality and logistics, as well as the factors determining the competitiveness of products and services, such as price, quantity, delivery accuracy, choice, additional services related to the product, marketing features, customer satisfaction. (GYNGE-KOZMA, 2005)

The improvement, and the enhancement of the quality stand in the centre as main goal, such as cost reduction between the company and its supplier within the

co-operation network. In order to achieve this, the processes between them need to be synchronized and coordinated. Regardless of the industry, the customer is always the most important partner of the company, and it will remain in the future as well. Long-term business success can only be achieved if the customers are satisfied and this is only possible, if concerted efforts are made to build and maintain good customer relationships. Customer Satisfaction and Customer Relationships are increasingly the subject of discussion (VOETH et al., 2005). The process of becoming a supplier lasts from one to one and a half year. In the current automotive industry, this process can be divided into two major lines. One of them is the German and the other one is the English line. In addition to standard ISO / TS 16949: 2009, the VDA volumes provide guidance in Germany, while the English version includes the relevant QS9000 volumes, in addition to ISO/TS 16949: 2009, although the specification itself has been abolished (CSÖKE, 2011). Customers 'requirements are further enhanced by these.

At the beginning of the 90s, Suzuki was looking for suppliers on its own, but today it is changed and the potential suppliers are coming to Suzuki, where the automotive industry reference is an indispensable aspect (MÉSZÁROS, 2009).

The number of suppliers has risen sharply over the past 15 years. While at the end of the 90s Suzuki only had 38 suppliers, this number has reached 73 by 2010. This represented around 20% of the supplier's circle (KEMENCZEI, 2010). It can be seen that the companies seek to establish long-term strategic relationships with their suppliers, so selecting an optimal supplier requires serious responsibility and therefore a serious decision, since even a small mistake can lead the organization to a negative direction. The selection of the right supplier as a process involves qualitative and quantitative questions as well. In today's world, we have several suppliers who produce thousands of products for their customers, but there are also some suppliers who cannot meet the customers' expectations. In the light of these, a buyer can only meet their needs with multiple suppliers.

According to KEREPSZKI (2002), the selection has basically two problems (Figure 1). On the one hand, it is a problem if all the suppliers are able to fulfil the requirements (quality, quantity, delivery, deadline, etc.) of the customer, since in this case the customer has only one task: to make a decision on the best supplier. So, if there is no limitation, there will be many „candidates" from which one has to be selected with which long-term business success can be achieved.

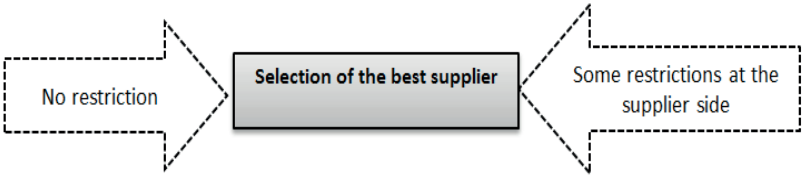

Fig. 1. Selection problems
Source: Research of the author, 2017

On the other hand, it may also cause some problems if there are limitations on the supplier side. In this case, it can happen that not one of the supplier is able to meet the requirements of the client, so the buyer must find and contract with another supplier to cover the needs. Researchers raised the possibility of co-operations to overcome this difficulty, which in their opinion means the possible merger of companies wishing to apply for the supplier status. Nowadays, expectations are harder than before, have become more severe, and in addition to this, the support provided by the multinational corporations has become less extended. Decades ago, it was easier to win a supplier status than it is nowadays. Companies who plan to become supplier companies are now thoroughly evaluated, tested and can only become partners if they can fully meet all the requirements. The level of requirement is characterized by German precision, Japanese quality and Chinese prices, which is difficult to meet, but many small and medium-sized enterprises can only imagine this way in order to survive (KÁLMÁN, 2007). There is a greater chance in the market for companies that have already proven their professional ability.

During the crisis, the number of suppliers changed considerably. Several companies went bankrupt, which resulted in important changes. The automotive factories have now more problems with the suppliers after the selection process. In addition to the previously discussed problems comes the challenge of transport, but they also have a lot of problems in the field of quality. In the background of the quality problems, in most cases there is the not proper understanding and the insufficiently thorough study of the requirements. In terms of requirements, suppliers do not pay attention to the fact that it is not only the technical drawing, which is important as the description of the customer requirements. The suppliers need to pay more attention to the specifications and their changes. Thus, it is well-known that buyers, especially car factories have their own internal regulations (e.x.: Q-Lastenheft), and their modifications are usually not followed by the suppliers, generating several problems this way.

Before presenting the research results, we considered it important to present the reasons and goals of the supplier selection process, thus providing an insight into a complex multi-stage process. However, the question is still who are standing in the background, who are setting up the criteria system, and who decide on the fate of a supplier company. The case study summarizes the result of 212 companies grouped by company size, which means that the research extended to 149 large companies, 42 medium-sized enterprises and 21 small companies. In the study, the names of the positions are presented as given by the respondents in the evaluation.

Large enterprises subsample's results. In the study, 149 large companies participated nationwide. The positions mentioned in the Table 1, are provided by the companies, so on the level of this size of enterprises the positions of material management, purchase manager, strategic purchaser, commodity leader, project manager, SQA can be mentioned, and last but not least the area of supplier development, which plays a role to a smaller or greater extent in the suppliers'

evaluation or selection.

According to the Table 1. the procurement is dealing with the 52,4% of the suppliers, meaning that they take care of the evaluation and the selection of suppliers. In many cases, it is often heard that the purchasing is responsible for the delivered quality, and the suppliers' performance, since they had the power to choose the supplier. Approaching the topic from this point of view, it can be seen that the quality assurance as a partner plays a role in the process. The percentage may be high, and in more than half of the companies it works like that, but this is not the optimal solution (start-up procurement + SQD). Group evaluation and selection takes place for only 18,8 percent of the companies, which means – following the above line of thought – that the strategic purchaser – who "selected" the given supplier – collaborates with the quality assurance manager of the supplier, and is – because if the delivered products - on a day-to-day contact with the supplier

Table 1

Positions important for the selection of suppliers for mid-size companies

Position of the companies	Respondents (N)	Division (%)
Material management	6	4
Procurement, purchasing	78	52,4
Strategic purchasing + SQD	28	18,8
Commodity leader and Supplier Development	1	0,6
Project manager	11	7,4
SQA	15	10,1
Supplier development	10	6,7

Source: Research of the author (2016), N= 149

Let's think about what it means exactly. This can also cause the basis of the suppliers' problems. The purchaser's job is to find the appropriate supplier for the company. What he will consider first is not the product quality but the existence of certificates, price, delivery time, geographic location and that the supplier is able to produce the product(s) requested by the buyer company. Let's suppose that the supplier has met all the criteria and entered the desired supplier base. The phase of initial collaboration begins, the orders come in, the buyer continually orders more and more quantities that the supplier's capacity could no longer accomplish and, due to this, some product quality issues may arise. The quality assurance or the supplier development were not involved in the process of the supplier selection, and therefore they are struggling with the progress of the process instead of the procurement. Altogether 4,7% of the respondents stated that procurement is responsible for the selection of the appropriate supplier, but quality is also involved

in the process.

During the evaluation of the results it was surprising to read that for around 7% of the responding companies, the project manager is responsible for evaluating and selecting suppliers. Until now, there is no exact answer for the 'Why', since we have not encountered such a study in the domestic and in the international literature. Based on the results, we can say that for more than 52 percent of the large companies it is the procurement which deals with the evaluation and selection of suppliers.

The result of the partial sample of mid-size entreprises. Based on the evaluation, we can state that there is not much agreement concerning whose and which department's responsibility it is to select and evaluate the suppliers. Based on the results of the research, we can say that 33,3 percent of the respondents in this entreprise size listed this as the task of the purchase department. Almost similar results were recorded for the group what we call «SQ, QC, Q engineers», since there was no option to select this position in the questionnaire. We did not want to limit the question, so we gave free hand to the respondents, and let them decide the name of the positions. This group was given 28,6 percent from the 42 mid-size companies in the research (see Table 2.). Within this group, 8 companies (19,4 percent) reported that in the case of suppliers/products of critical significance in terms of quality, the QC manager or QC engineer deals with the issue, in the case of other suppliers, it is rather the purchase manager. The almost similar results can be explained by the fact that most probably, the professionalism necessary for fulfilling the task is lacking. We are speaking of mid-size entreprises. During the research, we did not ask specifically about the revenues of the companies, but our presumption is that it is of significant importance.

Table 2

Positions important for the selection of suppliers for mid-size companies

Company position	Respondents (N)	Share in %
Purchasing	14	33,3
SQ, QC manager, QC engineer	12	28,6
Purchase manager + SQE	5	11,9
Technical director	6	14,3
Commercial/Logistics manager	5	11,9

Source: Research of the author (2016), N= 42

Unfortunately only a very low percentage of respondents reported on the involvement of the purchasing manager or SQE (11,9%), although this would be ideal, since the task of the purchasing department would be the selection of the adequate supplier, and the Q department (named with different positions) would be involved in the decision. One of the reasons for this is that for the new suppliers wishing to

be included in the suppliers' base, the audit will most probably not conducted by the purchasing department but rather the quality management. Naturally, during the audit, aspects of quality management, purchasing and logistics must be considered. In the case of some mid-size entreprises (11,9%), it is the task of the commercial/ logistics manager. Last but not least, the role of technical managers should also be mentioned, since a higher percentage (14,3%) was given to this position that the pair of purchase manager/SQE as listet to be the most important. Based on the results we can conclude, that in the case of mid-size entreprises, opinions greatly vary on the position, no outstanding results were recorded for any of them.

Results of the partial sample of small entreprises. The respondents from the small entreprises sector gave a clear answer to the question, since 19 % of them reported that it is the role of the dispatcher to select and evaluate suppliers. Let us not forget that we are dealing with companies of 10-49 persons. In this category we also included the family companies, or the start-up entreprises which grew out literally from a garage, and managed to reach a supplier status with outstanding product quality and logistics. Since we are speaking of small entreprises, the professionalism is not always 100% guaranteed, especially in the case of family entreprises where often adult-age offsprings also contribute with their workforce.

Table 3

Positions important for the selection of suppliers for small entreprises

Company position	Respondents (N)	Share in %
Dispatcher	4	19
CEO	11	52,4
Business development manager	6	28,6

Source: Research of the author (2016), N= 21

As second in importance, the business development manager was mentioned (28,6%), which is easy to understand even by the name of the position. We probably speak here of a position similar to the purchasing manager in larger entreprises. 52,4 percent of the respondents in this sector reported that it is the role of the CEO to fulfill this task. (Table 3.).

The role of purchasing in the selection of the suppliers. The purchasing is a process which extends well beyond the simple buying of products or services. It also includes the planning and strategy of purchasing. The task of purchasing is the selection of the appropriate supplier, the conclusion of the contract, the continuos control and enhancement of the suppliers as well as the coordination with the various other departments of the company. The purchasing contributes to the results of the company through these activities. (MAJOROS, 1999). By purchasing we mean all activities, whose goal is to provide an organization with all the goods it needs to sustain its operations and is unable to produce itself. The task of the purchasing

is also to guarantee the provision of various materials, equipments and services necessary for the operation of the company. An average industrial company spends 55-60 of its revenues on input materials, while in the case of a food processing company, this ratio can reach even the level of 75-80 percent. We can differentiate among the various materials purchase according to their use: production, service purchases or purchases for everyday use.

Among the task of the purchasing department, we can also mention, the enhancement of the performance of the logistical system through the punctual and quick provision, the improvement of the quality, the cost reduction opportunities. It also can have an important role in the innovation, since the appearance of a new material or component can make the products of company more innovative in the market.

The purchasing department can also serve as an important source of information, since it can provide information on new potential suppliers, new technologies and the competition charecterising the suppliers' market. Besides the external information, the purchasing can also shape the image of the company: in the case of liquidity problems and issues with timely payment of suppliers' invoices, the suppliers might be reluctant to enter into contract with the company.

Table 4 shows the importanca of the purchasing in the selection of the suppliers of the company (based on the results of the respondents).

As we could see in the case of the small entreprises, the purchasing has no specific role in the selection. The bigger the company size, the larger the involvement of the purchasing: in the case of mid-size entreprises, the importance of the involvement of the purchasing already reaches almost 33 percent, which means that for 33 percent of the mid-size entreprises, the purchasing department manages the evaluation and the selection of the suppliers. In the case of this company size, only 12 percent reported the involvement of the quality management together with the purchasing. In the case of large entreprises, the value is higher. For more than 52 percent, the role is fulfilled uniquely by the purchasing and for only 18.8 percent together with the quality management.

Table 4

The involvement of the purchasing according to company size

	Small entreprises	Mid-size companies	Large entreprises
Purchasing	0	33,30%	52,40%
Purchasing together with th Quality management	0	11,90%	18,80%

Source: Research of the author (2016), N=212

Conclusions. During the evaluation of the results, it became clear that with the decrease of the company size, we can record a decrease in the number of names of positions, meaning that in the case of large entreprises, 10 different names were

given to the position, in the case of mid-size entreprises, the number dropped to 5 and in the case of small companies and entreprises only 3 names were recorded in the questionnaire.

The goal, however, is the same in each cases: to find the most appropriate supplier. In the process of the selection of the supplier, the purchasing plays an important role. As mentioned above, the bigger the company size, the larger is the involvement of the purchasing department, but experiences also show that – even if it characterizes only a small proportion of the companies - the ideal would for the purchasing department to fulfill this task together with the quality management, avoiding the problems that might arise later.

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MODERN EVOLUTIONARY ENVIRONMENT: ROLE AND PLACE OF THE HUMAN FACTOR

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The beginning of the 21st century is characterized by the fundamental changes in scientific and technological progress, which drastically change the priorities of the development of society in all spheres. The information revolution, which is also called innovative, intellectual, so much changes the economy that significant transformations are felt at all levels. Technological innovations lead to a revolutionary breakthrough in the efficiency and productivity of labor, cause a new development of the society, new requirements for training, to the competence of specialists, fundamentally new social challenges.

The modern world is changing at a very fast pace and above all by its qualitative features. So, the industries that determine the development of the world today, fundamentally different from that which were still in the late XX century. Today,

electronics, programming, computer modeling, neuroinformatics, laser technology, nuclear and other energy, electron-ion-plasma technologies, new materials, nanotechnologies, biotechnology, living systems, modern transport, building technologies, energy, ecology are relevant.

At the present stage of the development of society, the common means of labor (or conditions necessary for the implementation of the labor process) act as civilization networks, that is, as socio-economic infrastructures that provide «connecting» people to certain processes, opportunities, spaces. There are ordinary civilization networks - roads, transport, heating, water supply, sewage, housing, buildings, fiber optic networks, logistics networks, machinery, industry, and so on. Today, civilizational networks – Internet, information and communication technologies, modern education and systems of knowledge transfer, innovative environments, are also defined.

The relationship between productive forces and civilizational networks is expressed by the following formula: to the certain level of complexity, the development of productive forces is provided by ordinary civilizational networks, after which the productive forces characterizing new technologies can develop only on the basis of subtle civilizational networks. There is a limit: thin civilizational networks are not possible at a low level of development of conventional networks.

Means of labor are increasingly moving away from the material objects, through which the processing of objects of labor is carried out. Modern tendencies of development of means of labor are connected with their movement towards internal, individual competences, knowledge, motivations and values. Thus today man has the ability to be the bearer of modern productive forces, which characterizes the impossibility of alienating means of production from their carrier. It is this dependence that is a specific feature of the current level of development of these forces.

The next feature of the current level of development of productive forces is that if land, buildings and equipment, as a means of labor, can exist separately from the worker, then knowledge, competence, experience, communication, skill, motivation, value, as means of labor, without man do not exist.

One can determine that the specificity of modern productive forces includes two elements:

• means of production of new technologies and innovations (knowledge, skills, competences, motivation, values) can not be separated from their carrier;

• modern means of production are created by means of thin civilizational networks (systems of knowledge, competences, values, modern education, innovative environments).

This specificity forms the tendencies in national economic development, namely: subtle civilization networks are the necessary condition for technological modernization of the economy. It defines the requirement that the national innovation system should correspond to modern, subtle civilization networks, promote their

development and contain particular forms of social relations in which it is possible to use the means of production inseparable from a person.

The proof for the principle of the new society is the conference materials Intel Developer Forum (2016), where the heads of two technical giants Director General of General Electric, Jeff Immelt and CEO of Intel Brian Krzanich spoke of their plans to make our cities smarter. Intelligent cities will collect and process more and more data. For this purpose, a growing Internet network of things and mobile devices will be used. Therefore, by 2020, each person will use up to 1.5 gigabytes of data per day. The hospital, equipped with basic smart technologies, will use 3,000 GB per day. A smart plant will consume up to 1 million gigabytes [1].

It is clear that the creation of modern technology reached such a level of complexity virtually in any industry that it is impossible to use the labor of the former quality (as the ability to perform specified operations with a certain intensity).

Creative thinking skills, skills of self-organizing, a wide range of knowledge, motivation to learn and continuously improve, and the ability to find talented solution in a teamwork are required from those working in the field of innovation. These abilities cannot be managed using the instructions and production technologies. Moreover, these abilities become the main means of production in the field of high technology today.

In the annual Global Innovation Index in 2016, Ukraine ranks 56th. In total, 128 countries have entered the rating. For the sixth time in a row, Switzerland became the leader in the rating. It is followed by Sweden, the United Kingdom, the United States and Finland. In the Europe region, Ukraine ranked 34th out of 39, ahead of Macedonia (58), Serbia (65), Belarus (79), Bosnia and Herzegovina (87) and Albania (92) [2].

Unfortunately, there are not enough real steps to develop a national innovation system in Ukraine, but there are some positive components at the same time. Strong indicators of the Global Index innovations for Ukraine is «Training costs» (18th place), «Reaching Higher Education» (10) «The ease of obtaining credit» (18) «The number of patent applications» received by national patent office (19) , «Total Cost of Computer Software» (20). It should be noted that our country ranks first in the world by the «Number of applications for utility model». Ukraine also possesses the fourth place by the indicator of «Employed women with a scientific degree» [3].

Strong indicators are effective stimulating factors and, despite the existing barriers, contribute to the development of an innovative environment.

What is the innovation environment? First, it is a community of persons, who like to implement complex projects, ideas, find original solutions, and work with the same people in creative groups. These people are carriers of another type of thinking, namely entrepreneurial, research, and innovative.

Therefore, according to the CEO of the American company Apple Tim Cook, the company buys startups not for increased profits, but for the search for talented people. And when a company finds prominent intellectual property, it acquires it.

Indeed, , the company acquired 80 startups over the past 28 years and uses their potential to implement new technologies, improve old services, and also attract strong team members into their team.

Secondly, this is the integrated space - territorial, educational, communication, design, ideological, research. In such a space, horizontal bonds prevail, creating an opportunity for high mobility of its participants. High mobility determines both the great mobility for the new ideas and the intensity of information exchange, and is a particularly important condition for creating a supportive atmosphere in entrepreneurship. In addition, the work productivity of community members is tens of times greater than the productivity of a regular hired worker due to this integrated space and lifestyle.

When there is such a space with such a community of people, then various economic agents begin to be attracted to it, the institutes necessary for the effective productive forces implementation and so on begin to appear. However, it should not be in the opposite way. Innovative environment is primary.

Thus, the community of people united by common values and motives of developing a single cultural space, creates an innovative environment, which is a form of social relations corresponding to the modern level of productive forces development (or, in other words, is the national innovation system).

Recent research on the development of the innovation process in individual countries and in the world as a whole suggests that this process is nonlinear, spontaneous, and multifactorial. The main feature is that its implementation requires the involvement of modern scientific achievements and educated workers. This feature is also essential, which determines the main trends in the process of training, advanced training and retraining.

The issue of modern education is complex and multifaceted. Higher education occupies a special place in ensuring the development of post-industrial economics. After all, a person, an employee who must have a certain and rather high level of knowledge, expertise and skills that can only be achieved through an effective educational system, creates any innovation.

New economic conditions require from educational establishments (education) and leading companies (businesses) to find as much as possible the «intersection», to establish effective cooperation, implement joint projects in production training. Higher educational institutions should be guided by the introduction of standards and methodologies for so-called business education, when the main educational load is built on the acquisition of knowledge and skills that can be used to solve specific production (business, technological, etc.) problems.

The modern world is fully automated. Taking into account the time requirements in 2016, the Ministry of Economy of Ukraine increased the public order for programmers and IT specialists. In addition, the number of vacancies for engineering, namely, technical specialties increased [4]. This tendency testifies to the attempts of national classical education to meet the challenges of time.

In a post-industrial economy, a new phenomenon - a powerful system of corporate education - is spreading. As large companies usually act as agents of the global innovation system, they must respond promptly to the challenges of the competitive environment, in particular regarding the training and re-training of employees. After all, the management of such companies cannot wait until «traditional education» understands the challenge and will be rebuilt in accordance with the requirements of time (this may take years, taking into account the time of study at the university). In modern conditions, the leading companies that have become on the way of cost management are forced to take care of the development of corporate systems for production training in response to requests of a specific company or even its divisions.

Undoubtedly, certain companies, especially large and well known, invest resources in the creation of corporate education programs, but it is clear that this is just one of the links in the formation of employees' professional skills, because such programs cannot completely replace the system of fundamental education. On the other hand, the concepts about norms, rules, standards, which are usually established by companies, are formed in the system of professional education. Such an interdependence of business and education in post-industrial economics leads to an understanding of effective vocational education (even when it is outside the corporate sector) as an important element in helping to increase the value of companies.

The modern concept of development distinguishes only those innovations, which are connected to the updating the educational process, with its internal content and functional changes, transformation into something new. Moreover, in cases of development, we are talking about growing, deployed in time and managed qualitative transformations in the content of education and educational activities (values, goals, systems, process, and result). The cumulative nature of development is the accumulation of purposeful changes in numerical and non-numerical values of the relevant features - promotes the introduction of pedagogical innovations and the regular formation of a new organization level in educational process. These processes include quality improvement for the education and communication culture of teachers and students, the development of library and information services for students, the application of new pedagogical principles and high technology training, etc. In the process of introducing innovations, there are the cases of divergence in the educational process, as well as convergence - combining different learning directions into a single process.

Thus, in order to stimulate the creation of an innovative environment, the processes of development and improvement of such components as organizational support, infrastructure support, investment and legal support, technology commercialization, scientific and regulatory support, as well as understanding of the role of the human factor and improving the human resources management system at the macro level are relevant today in Ukraine. At the micro level, staff management must take into

account the requirements of time, and makes to review and completely change that the old paradigms of the relationship between employers, managers of different levels and employees now.

The most important features in the modern process of improving the staff management is the creation of trust at the enterprise, which leads to the expansion of the executors powers of the employee on the spot, the promotion of dissent, decentralization and differentiation, allows to change the forms of control, namely, its narrowing and substitution for information. Joint acceptance of business decisions contributes to a comprehensive vision of problems and to a holistic approach to human potential in conjunction with strategic enterprise settings. The atmosphere of mutual trust creates a corporate culture of innovative type, which is an integral part of the modern process of staff management.

A decisive factor in the socio-economic development of society is also the modern stage of scientific and technological progress, which accelerates not only its movement, but also fundamentally changes the world space, worldview of mankind, traditional productive forces and productive attitudes, deeply influences the human factor, organization of work, etc.

An important component of the contemporary economy is computer and information technology. Efficient use of information makes it possible to maximize the efficiency of production, where the main factors are automation and communication. Today, electronics, programming, computer simulation, neuroinformatics, laser technology, nuclear and power engineering, electron-ion-plasma technologies, new materials, nanotechnologies, biotechnology, living systems, modern transport, building technologies, energy, ecology, etc. are necessary for innovation and investment development [7].

According to the forecast of the World Economic Forum in Davos (2016), the Fourth Industrial Revolution affects the labor market. Therefore, there will be a radical change in professions in the next 5 years, which means that the skills demanded by the market for decades, are morally obsolete. According to estimates, about 35% of modern workforce skills will be changed in 2020. More than 47% of the jobs will be automated. There will be new jobs that do not exist today, but which will be normal within next 5 years [3].

At the World Economic Forum in Davos in 2016, the main requirements for future professionals were identified that would affect employment, professional skills, and staff recruitment in various sectors and regions [4]. Thus, such a skill as an integrated multi-level solution of problems, which testifies to a wide human outlook, his professional knowledge and atypical thinking, is in the first place. The critical thinking allowing a person to question the existing rules and change the circumstances is the following skill. Creativity in the broadest sense is important, which allows having a nonstandard approach to everything, and, most importantly, to see things that are not yet here. The team approach in the organization of work requires the ability to manage people, because small creative and production teams

will be created for solving operational tasks requiring both communicative and emotional intelligence. The ability to form their own thoughts, make decisions and bear responsibility is necessary. In today's fast-changing world, it is important to switch between different problems instantly, to think of several tasks simultaneously, which is called cognitive flexibility.

According to experts, the stage of technological revolution, information, information technology and the beginning of the information and electronic revolution has begun in the historically specific terms.

This revolution is because the modern industrial technologies are fundamentally changing by computer-information technologies, biotechnology, artificial intelligence, 3D printers, living systems, etc. All these different things are united and there are completely new avant-garde technologies, to which society is not always ready and the attitude is not always adequate. This is a complex, contradictory, not enough today defined way of development for society. We must understand that the process of the human society transition to the new stage of civilization development has begun.

Modern avant-garde technologies are the evidence of fundamental changes in the development of productive forces, because they are based on radically different principles of the functioning the production. These principles, including those related to the fact that new technologies simulate the actions of the human brain in a particular way (computer technology, robotics, neuroinformatics), the actions of nature (biotechnology, living systems), which fundamentally change the understanding of the man's role in modern world.

Avant-garde technologies permit to change the attitude completely towards such indicators as labor productivity, labor-intensive production. As workers are almost insignificant in enterprises with such technologies, productivity is increasing tenfold. Accordingly, the labor intensity of products is decreasing also in dozens of times, but the indicator of the knowledge intensity increases in the products, which requires from the employees not only a certain amount of modern professional knowledge and constant self-improvement, but also professional skill and respectful attitude to modern expensive equipment. In addition, these technologies significantly reduce the duration of the production cycle, because they work in the 24/7 mode with the maximum speed, which helps to reduce the production cost and significantly improve its quality.

Avant-garde technologies based on the processes (biotechnological, electro-ion-plasma and other processes) are now called machineless. Such technologies make it possible to adapt quickly to the requirements of the present. The adaptation of technology to continuous changes is an important characteristic, because it allows quick taking into account the needs of both production and people. Since such reconfiguration is incorporated into the program of modern production, it can be carried out promptly, depending on requirements and, which is very important, almost instantaneously, which gives significant time savings and allows

the company to be in the leaders at all times, releasing small lots of competitive products, constantly being set time requirements and constant consumer changes.

Important characteristics of avant-garde technologies are that they are implemented in resource-saving way (based on the use of synthetic and composite materials); are environmentally friendly (closed production cycles with the recycling of industrial waste, wastewater treatment); are reliably controlled in order to achieve the desired quality of products based on the application of electronic achievements;, require a minimum amount of live labor, if the machines are used, and hence the labor force. The latter is an example of complex automation using robotic complexes, rotor lines, flexible production systems, modern transport, energy, where the employees' functions are only the control over the operation of automatic systems and their adjustment. The main workplace is a controller with programming skills and with a detailed understanding of the complete algorithm for the entire process.

High technology dramatically changes the production process, and most importantly - the place of a person in it, because the principle affects and changes productive attitudes. Certain features characterize these technologies. If they are based on processes, then such technologies are almost machineless. From the standpoint of the latest technology, a real human release from the process of direct production exists and essentially «deserted» technology is formed. An enterprise with such technologies should be considered as a self-organizing system, which quickly responds to external changes, makes the necessary calculations, requests the needed or the system adjusts itself, does not require human labor, retraining of specialists, therefore, the re-adjustment takes place in the shortest terms, which gives a great saving for resources and time. Of course, a person who released from the production process and has only a function of external control makes is the main impetus.

Such new technologies change the worldview, the whole philosophy of interconnections between the components of traditional production. This new paradigm changes the world as a whole, changes the interconnection between the components in the production process: objects of labor, tools of labor, and living labor itself. Conscious or not, a person has a fundamental influence on the very essence of social and productive relations: it takes away such an element as living labor, leading to the disappearance of a large number of traditional professions, the abandonment of professional knowledge, the release of workers, the growth of the labor market, the increase of social instability etc.

Advancing development of the technical and technological components of the modern production, a desire in the shortest terms to produce, with minimal cost, fundamentally new products of the highest quality, and, most importantly, to have time to realize these products while it is competitive, to get super profits, contribute to the formalization of the modern production. Such a production process leads to the alienation of the knowledge and information from their creators and carriers. There

is an outburst of live labor in the manufacturing sector, characterized by the loss of jobs, the loss of professional experience of the specialists, the growth of negativism to modern «humanloss» technologies, the exacerbation of social tension, etc.

The external environment fundamentally changes the technological basis of the production process, affects the internal structures of the social and production system. Roboticisation of production regards the worker as an unpredictable and conflicting element of production that requires wage growth, increased social welfare costs, health insurance, training, retraining, advanced training, etc. Complete formalization of the production process eliminates living labor and requires the complete intellectualization of this process. The main content of labor today is its mental component, which is characterized by such a necessary sign as cognition and based on the corresponding volume of modern professional theoretical and computational knowledge. A modern, creative, young specialist sincerely who sincerely wishes to realize both himself and his knowledge, to get his new professional experience, does not always understand the further influence of modern tendencies on society, on living labor, on the workers, on the labor market, on changes in industrial relations.

The latest concepts of the organization of work are related to the advanced development of technical and technological components based on microprocessors and microcomputer systems, which leads to a real human release from the direct production process.

On such conditions, the main production task of a person or team in the first stage is necessarily a complete representation of the final result, its formalization, the creation of an algorithm to achieve the goal on the basis of a technological cycle or technological chains as a whole. It is clear that a specialist of this level must have professional knowledge of related fields, contemporary thinking, creativity, teamwork, responsibility, creative approach to the task. It is these workers who have a work place and they provide the operation of the supercomplicated technological processes of modern automated production.

The new technological era causes new changes in the development of society, provokes social challenges, destroying labor markets. Technological innovation leads to a revolutionary breakthrough in efficiency and productivity. The Fourth Industrial Revolution plans that cars will communicate with each other without human intervention, and then the main task of those working in the workplace will be to monitor machines and computers.

The modern economy is characterized by uncertainty in the directions of technological development. First, that modern technology is not strictly set; and secondly, there are alternative directions and they are based on new research in the field of fundamental and applied sciences, where it is impossible to determine what will give the future an innovative effect; Thirdly, the development of a particular technological direction and its effectiveness depend on the further funding of research and its widespread implementation.

Consequently, the main components of the concept of modern organization of work can be attributed to the following. In the first place, the worker is a creative person who can combine his personality, professional knowledge, communicative and time requirements. Next is the workplace, which today should combine the formal and informal component of the organization of labor itself, is not determined by the strict attachment to the place, city, region, etc., and emphasis is placed on professionalism and responsibility. An important component is an understanding of the complexity of the task, which is associated with the solution of its various components, belonging to different industries as a whole, that is, for the successful resolution of a case, it is necessary to have an employee with additional powers that allow combining various tasks into one whole with one performer. The employee's interest or motivation is a prerequisite for maximizing the employer's abilities and abilities and encouraging him to continuously study and creativity, that is, the organization of work of the employee includes, including self-planning and self-control, based on the understanding of the content and the ultimate goal of the individual work and the whole task. It is important to organize the collective work of individuals, where functionally level professional-educated people with a sense of responsibility are combined with joint work.

The dominant tendencies of Ukraine's development, carried out against the backdrop of accelerating scientific and technological progress, the development of information and communication technologies, economic globalization, strengthening international competition, determine the special urgency and importance of the formation of innovation-oriented society in the country. The low level of stimulation of innovation activity of business entities at the state level causes a significant lagging behind Ukraine's economy from developed economies, which negatively affected the quality of life, economic stability and security. In recent decades, Ukraine has been unable to make significant steps towards the transition to an innovative model of economic development. The technological level of industrial production is mostly at the third level, while developed countries move to the sixth and seventh regimes. This technological breakthrough requires the most radical action, especially in the context of a significant imbalance in industrial production, the structure of which has surpassed the primary sector and the primary processing industry, rather than high-tech processing and industry.

The world today speaks of the fourth industrial revolution that the fundamental change in the economic system, exacerbates social problems, challenges new challenges, emphasizes the need to create a new world, not an individual, but society as a whole. The process of transition of human society to a new stage of civilization is developing now. This is due to the fact that the current stage of the STC and globalization have become a decisive factor in social and economic progress.

Ukraine solves the question of how to successfully integrate into the world economy. The country has chosen a development path that includes many aspects of interconnected and interdependent development components. There is a strong

need for technological development, mainly for the renewal of the economy, the promotion of sustainable development of society, taking into account the fundamental changes that are taking place in the world. The concept of the National Innovation System (NIS) of Ukraine is the way of implementing a systematic and consistent state policy aimed at enhancing innovation processes, technological development and modernization of the Ukrainian economy [8].

The modern world is characterized by a large number of innovative computer and information technologies. Traditional production factors lose their importance, so human capital is the most important element of social wealth, and the new production resource is knowledge and information. The modern economy is mainly the production and use of information, the main purpose of which is to maximize the efficiency of production, the use of new factors as the main automation and communication. An information revolution, also known as an innovative, intellectual, changing economy, has experienced significant transformations at macro and micro levels.

At the microeconomic level, the fundamental changes that are caused by fundamentally new technologies are limited to an innovative product that provides significant added value to components generated by research and development of past periods. To provide a competitive advantage, we must have access to information that reflects new technological, organizational and cognitive capabilities. New knowledge determines success at any level. At the same time, knowledge quickly becomes obsolete, and the pace increases over time. It requires to be in advanced science, to understand and to feel the main tendencies of further changes. Science, education, culture, economy, and the adequacy of the human factor of time must be under state control and constantly maintained at a high level.

The modern economy is uncertainty in the direction of technological development. First, modern technology is not rigidly predetermined; Secondly, there is a different direction and they are based on new research in the field of fundamental and applied sciences, where it is impossible to determine what future innovations will have; Third, the development of a particular technological direction and its effectiveness depend on further funding for research and its widespread implementation.

An important component is the scale of investment, which determines the future dynamics of the economy and is closely linked to the ability of the financial system to provide risky financing. The national innovation system in Ukraine includes a set of legislative, structural and functional components that determine the legal, economic, organizational and social conditions for the innovation process, but internal circumstances prevent this mechanism from effectively making today. Another technological era is that a new change in the development of society provokes social problems, destroying labor markets. Technological innovation leads to a revolutionary breakthrough in efficiency and productivity. The Fourth Industrial Revolution plans that cars will communicate with each other without human intervention. Then the main task will be monitoring the working machines

and computers.

Creation of modern technologies practically in any field (electronics, programming, computer modeling, neuroinformatics, laser technology, nuclear power engineering, electron-ion-plasma technologies, new materials, nanotechnologies, biotechnology, living systems, modern transport, construction technologies, energy, environment) has reached the level of complexity that the former quality of labor (defined as the ability to perform a certain intensity of operations) is absolutely impossible for this use. From those who work in the field of innovation, you need the ability to think, self-organization skills, a wide range of knowledge, motivation for learning and continuous improvement, the ability to find talented, creative solutions for teamwork. These abilities can not be controlled through instructions, orders, and production technologies. And these skills are the main means of production in modern high technology [9].

As you can see - this is a complex, contradictory, not yet defined way of social development. It must be understood that the process of the transition of human society to a new stage in the development of civilization. The ingredients of the country must meet the modern world requirements. This principle of rapid development affects the labor market and concerns future employment. Employment is flexible and not permanent. The subjects of the labor market can automatically become business partners, and the boundaries between the employee and the employer partner become more conditional.

According to the forecasts of the World Economic Forum in Davos in 2016, the principles of the Fourth Industrial Revolution have a great influence on the labor market. So, within the next 5 years there will be radical professional changes, such new skills require on the market for decades. Experts have already determined that these basic skills will be more demanding by 2020. Among them: solving complex problems, critical thinking, creativity, managerial talent, coordination with others, emotional intelligence, thinking and decision making, focus on service, negotiation skills and cognitive flexibility [4].

By 2020, robotics, autonomous machines, artificial intelligence, new materials, biotechnology, genomics and others will work. This will affect the appearance of new jobs, some will disappear, and others will be updated. It is in the near future that skilled laborers should be able to adapt to changed situations and develop their skills in the conditions of progress. Already in the next 20 years, 47% of jobs will be automated, moving from jobs, millions of employees. This will translate into a structure of employment. The value of skilled labor will increase dramatically. The need for continuing education is leading [5].Державний рівень влади залежить від рівня освіти суспільства. Вона позиціонує освіту як основу нового суспільства, що базується на знаннях та інтелектуальності.

Improvement of the human capital management process should take into account the time requirements associated with the globalization of the economy, especially with the competitiveness of the country, companies, products, labor, with

the innovation process, which is a requirement of time, with the development of civilization, thin networks today are an indispensable component of development, with integration of business, science and education, with new qualitative features of a modern professional. Unfortunately, today in Ukraine there is a lack of investment in human capital, lack of a favorable institutional environment, especially in the field of education and health care, structural imbalances in the labor market, the absence of a correlation between labor quality and income, low demand for highly qualified labor, the absence of a state supporting innovation and research in the country. Positive resolution of these issues is the main reserve for the effectiveness of investment in human potential.

With a fast-changing life, there is a constant urgent acquisition of life skills in the modern world. Therefore, the educational paradigm of a person throughout his life is a necessary and necessary condition of modern life. Such education should provide people with such opportunities. Knowledge serves as the basis for behavior in professional activities as the basis for training, retraining, a constant desire to acquire new skills to respond to appeals to the current time. For the state, society and world society, continuous education is an effective factor that will solve the global challenges of our time by accelerating social and economic progress of the country and taking into account human values. Humanization is a stabilizing base that determines the further development of human capital.

Progress does not wait for anyone. Everyone should take an active part in improving training, education, human skills and helping each other move on to new processes. Innovative age due to the rapid development of knowledge about the world and its practical application in all spheres of life due to the technologies of continuous updating, quantity and quality of life, advantages and complexity of data streams and forms of communication, determines the formation of new human relationships, the formation of an innovative society. In an innovation-oriented society, the available human resources of the country with special abilities for intellectual development will be understood, focusing on investment and innovation activities in the production, creative efforts to implement innovative ideas related to the principles of social responsibility.

The formation of an innovation-oriented society is influenced by factors of scientific, technical, economic, political, institutional, social, cultural and ideological nature. Based on the analysis of scientific sources, factors that ensure the development of innovation-oriented society, it is advisable to classify as follows:

- Nature of influence: external (exogenous); internal (endogenous);
- on functional grounds: legislative; science and technology; economic; information; institutional social; infrastructure; cultural; ecological; organization and management;
- in terms of formalizing the results of influence: formal; informal;
- in terms of economic impact: macroeconomic impact; influence of mezzo; micro effect; Inflow and so on.

External factors that influence the development of innovation-oriented enterprises in the formation of a new economy, we assign the following:

- internationalization and globalization of the world economy;
- degree of integration of the economy into the world economy, participation in international integration associations belonging to the countries of the center or periphery of the world, which are the result of external institutionalization of economic systems in three main forms - national, international and global;
- the level of international competitiveness of the country;
- the country's place in world scientific and technological development;
- Countries that respond to globalization (intensive economic growth based on post-industrial production);
- the degree of political and economic independence;
- type of economic system, its innovative potential.

Thus, external factors contributing to the development of innovative enterprise development reflect the economic side of interaction with the environment, the ability of the system to create the necessary environment in goods and services, which ultimately turns into a global adaptation of the national economic system. Internal factors of innovation-oriented enterprises are scientific, technical, economic, institutional, social and cultural factors that operate at the national level and are regulated by the state.

One of the most important scientific and technological factors of innovation-oriented companies is the development of science and education. This applies not only to applied research and development, but also to a large extent to fundamental research, and especially to those initiated by the state, which affect the competitiveness and productivity of the country. Recently, the conceptual system is a transformation of knowledge, knowledge, which is regarded as basic information, which includes an innovative system that receives from the environment. This knowledge within the system is transformed into new knowledge.

Conclusions. Today, knowledge as a result of the education system is the basis for building an innovative economy. Economic factors and characteristics characterize the efficiency and macroeconomic stability in the country, the functionality of all economic institutions. Most studies in the economically-oriented countries are funded by the private sector. EU statistical reports state that the scientific and technical activities of private companies focus mainly on the creation of end products. The share of private capital - financing R & D in the EU - reaches 55%, and in the US - 67%. Study of the prospects of technological development, carried out in research institutions financed from the state budget. The state's innovation policy is aimed at cooperation between the public sector, an active supplier of scientific and technical innovations and the private sector (including venture capital) as a user in the implementation of an innovative product created in the country.

The peculiarities of the formation of an innovative society in developed countries are accompanied by the emergence of economic and technological

structures, structural elements, which are influenced by the tendencies of the new economy. The strategic direction of the transformation of the national economy is the development of an innovation-oriented society, an increase in the innovative activity of business entities.

The development of innovation-oriented society is a prerequisite for achieving sustainable economic growth and quality of life. The strategic development of an innovative society should include: the development and introduction of new competitive ICTs in all spheres of public life; provision of computer and information literacy; development of national innovation infrastructure; state support of new «electronic» and other sectors.

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THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF SUSTAINABLE DEVELOPMENT OF INDUSTRIAL ENTERPRISES

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In the context of economic transformations under globalization the problem of integrated assessment and ensuring sustainable development of the functioning of industrial enterprises is being actualized. This undeniable fact can be explained by several reasons. First of all, it is not always possible to forecast the provision of sustainable development, since such instability is formed under the influence of many macroeconomic factors that cannot be controlled at different levels of economic activity (enterprises, industries, etc.). Secondly, in conditions of a gradual transition from an outdated business model to the fundamentals of a market economy, there is an urgent need for a scientific justification of the processes of achieving sustainability. Thirdly, the problems of using obsolete equipment and minimizing capacities have become especially widespread recently. As a consequence, the processes of reform and restructuring are extremely slow.

All these factors listed above give rise to the instability of the development of domestic industrial enterprises and, at the same time, increase the scientific interest in this direction. Despite the fact that sustainability is a multi-faceted concept, that can not reflect only one sphere of the enterprise's activity, we have to emphasize that the analysis of sustainable development is carried out mainly in the financial and economic context without taking into account any social and environmental factors.

Various aspects of sustainability mechanisms are considered by many domestic and foreign scientists and researchers, but some important issues of the concept of sustainable development are still little studied or are generally outside the scope of relevant scientific research. So far, there is no single definition of a whole range of scientific concepts, from "sustainability" to "sustainable development", "sustainable functioning", etc. At the same time, the question of the appropriateness of using the term "sustainability" for dynamic economic systems still remains unsolved. In addition, in recent scientific publications there is no analysis of models and conditions that allow predicting the sustainability of an industrial enterprise development.

It is a common knowledge that the category "sustainability" is multidimensional and interdisciplinary one. In mathematics it is used in the context of motion and literally means "the ability of a mechanical system, that is moving under the action of applied forces, not to deviate from the direction of this movement for any random impacts (i.e., light pushing force, weak gusts, etc.)" [1].

In countries with developed economies, the problem of sustainable development is considered in connection with the competitiveness and possible prevention of bankruptcy. The notion of economic sustainability is widely used in specialized literature, which can characterize sustainability at different levels (in particular, at the level of enterprises, industries and territories) simultaneously.

For the first time this term was used to refer to the resource constraint provoked by the global resource crises of 1973 and 1979. The scientific direction of economic science, which operates with this innovative concept in the process of studying the features of the economic aspects of sustainable development, actually does not exist very long, but during its existence it has already formed into an autonomous discipline, called "the economic security of state". Some authors, as D. Kovalev [2], Z. Korobkova [3], T. Sukhorukova [2], A. Sheremet [4], J. Shumpeter [5] and others identify economic sustainability with the current financial state of an enterprise, and within the framework of this state, the fact of loss becomes paramount, and the phenomenon of bankruptcy is treated as one of the institutions designed to ensure the operation of sustainable industrial enterprises.

Most researchers tend to view financial sustainability as an integral attribute of production and economic activities in general and of economic sustainability in particular. Calling it a reflection of the stable prevalence of income over expenditure, financial stability is regarded as a pledge of arbitrary maneuvering by funds of the enterprise, when as a result of their effective use an uninterrupted process of production and its further realization is achieved. It is obvious that over a long period of economic reforms most of Ukrainian industrial enterprises continue their existence, remaining unprofitable.

Today, there are several approaches to assess economic sustainability. The choice of methodology is determined by specific indicators, related to the financial and economic activity of business entities or their production and economic activity, as well as supplier and consumer estimates, production and technological potential indicators, environmental, competitive environment indicators, and those that are concerned with the industrial potential of the enterprise).

In order to preserve the sustainability of the development of any enterprise, it is first and foremost necessary to ensure such a movement of monetary assets that would enable it to settle with creditors, suppliers and the state bodies.

The determining criterion for the sustainable development of industrial enterprises is the location beyond the lower limit, which determines the solvency and liquidity of the enterprise. Otherwise it threatens enterprise with bankruptcy. Therefore, the long-term solvency of the enterprise is both a sign and a basis for the existence of financial sustainability. This indicator provides for the possibility of an industrial enterprise to cover its production needs, and the adjusted balance of cash flows, respectively, is transformed into an indicator of sustainable development. Given this, it can be argued that the uncorrected cash flows of modern business entities, as a rule, become the root cause of economic instability.

A review of the recent scientific literature showed that most studies consider financial sustainability as an integral part of the economic one. At the same time, many technologists place an emphasis on the production and technological aspects of sustainability, while some environmentalists emphasize the sanitary-epidemiological and ecological aspects of sustainability.

At one time, V. Hrosul, and a little bit later her, K. Velikanova and A. Klimov, asserted that it is necessary to evaluate the effectiveness of the functioning of the system taking into account all stages of determining the organizational, technological, technical and other types of efficiency [6]. The basis for this should be the relevant criteria (organizational, technological, production, etc.). At the end of the process of assessing sustainable development, an appropriate analysis is necessarily carried out, which takes into account not only the price of production, but also the price of consumption within a particular economic system. So, for example, if you implement these steps, guided exclusively by the economic criterion, you can choose the system model that will be cheap, but at the same time the least effective and reliable one.

Some scientists give their own definitions of the term "sustainability of development", where they offer rather contradictory approaches: "economic sustainability is related to the ensuring of cost-effective production and commercial activities of the enterprise through optimization of the use of production resources and enterprise management; economic sustainability also means to achieve a more sustainable financial condition through structural improvement of assets, development of enterprise capacities and social development of employees in the conditions of dynamic changes of external environment" [7].

If we consider the concept of sustainability of development in the context of the general theory of systems, it becomes clear that it is closely related to the notion of equilibrium. Biologists, for example, refer to the state of dynamic equilibrium with the help of the term "homeostasis" (proposed by W. Cannon), the essence of which can be synthesized as "a set of rules for the behavior of the organic system to maintain its stability" [8]. Since any person, like any other living being, changes over time and eventually dies, it can be argued that living systems are in a state of imbalance, and dynamic sustainable development. This process is known as "homeo-kinesis". Thus, from the standpoint of this approach, one can explain the fact that each such system has its own state of dynamic equilibrium, which it constantly strives to achieve. The process of inputting energy into the system and further processing information is aimed at achieving a state of significant entropy (transformation). At the same time, these processes can be interpreted as attempts to reach a state of equilibrium by preserving the location within the certain homeo-kinetic plateau (the zone of stability, located between its upper and lower thresholds), which is considered by researchers as the region of instability of the system, in which the organic system tends to self-regulation.

Taking into account the fact that social systems are closer to ecological ones

than any physical or mechanical structures, we consider it necessary to identify those conditions through which equilibrium can be achieved. The location of sustainability boundaries changes as a result of the evolution of the system itself, because its positions and volumes depend on the nature of the impact. It is often impossible to accurately determine the position of these boundaries to make sure that the system is in a zone of sustainable development [9, p. 68].

"Viability" of the system is concerned with its ability to stay within the stability zone for a long period of time. In this regard, it is advisable to distinguish "adaptive systems" that are able to change their behavior in such a way that, regardless of external circumstances, remain in the zone of sustainable development.

Self-regulation is not peculiar for each individual enterprise and the economy as a whole, since they are all artificial systems. However, any social system has the principle of optimal dosage of control actions. This property is considered in the context of the homeo-kinetic plateau as defining, since it is able to keep the system in the zone of sustainable development. At the same time, it should be borne in mind that too little or excessive control can provoke an unstable state of the economic system.

Thus, the sustainability of development should not be viewed categorically as an unequivocal benefit for the system. If it requires effective management to support the targets, then this state can be interpreted as a pre-crisis one. The sustainability of the system requires constancy (that is, unchanged indicators) of the external environment, which is a priori impossible.

The aggravation of competition between industrial and non-industrial business entities on a global scale has led to negative trends in the functioning of domestic enterprises. Sustainable development of the enterprise can be identified with its ability to maintain certain volumes of sales for a long time against the background of various transformations of consumer demand in the production market. Therefore, the development of adequate logistics concepts, methods of strategic analysis and management of sustainability becomes critical in terms of risks and economic uncertainty. The modern enterprise is interested not only in constant support of the basic indicators of sales of products / services for making a profit, but also in activating the processes of market capitalization, which is regarded as a decisive factor in ensuring its competitiveness.

The issue of successfully overcoming the socio-economic crisis in the XX century forced the UN to create a new advisory body – the World Commission on Environment and Development. The leaders of this body in 1992 developed an appropriate program of action, aimed at supporting sustainable development. By the way, the compilers of the Declaration of the UN Conference pointed out the existence of a coherent link between the economic, social and environmental spheres back in 1972. Later, in their studies, this issue was developed by the members of the Club of Rome, who worked on the formulation of the ideas of the transition of civilization to the state of "global dynamic equilibrium" [10].

Today “the supported development” (as a translation from English), is defined as such a state of development, which needs external support for a long period of time. In Ukraine, this concept was called “the sustainable development”. Mass distribution of this term was acquired after the publication in 1987 of the report “Our Common Future” of the World Commission on Environment and Development. The text of this document states the following definition: “sustainable development is a development in which the needs of true development are met, but the ability of future generations to meet their own needs is not compromised” [11]. Therefore, as we see, this approach is based on the need to put the present and future generations on one level.

The essence of sustainable development consists in an attempt for a long time to consistently provide high indicators of the social, economic and environmental status of a certain territory (country or region). Z. Korobkova [3], in particular, notes that such a tactic is a radically new type of social development, in which the achievement of the required level of socio-economic status simultaneously creates reliable and early preconditions for sustainability.

It should be noted that achieving sustainable development at the state level is impossible without achieving sustainability by its regions. In this regard, particular importance acquires the study of the features of regional sustainable development drivers and the search for individual models for the transition to sustainable development. According to the results of the investigation published by I. Hryshova [12], sustainable development of any region is impossible without stable operation of enterprises and institutions. The transition of Ukraine to the basics of sustainable development presupposes not only compliance with the basic principles set in the Declaration and other documents of the UN Conference, but also the development of its own strategy of achieving sustainability by using technological advantages, economic resources, natural wealth (fertile chernozems, favorable climatic conditions, etc.) and human potential. In this context, raising the level and quality of life of the population should be of priority concern. Of course, all these factors will contribute to strengthening the technological potential, preserving production capacities and the progressive development of the economy, which is extremely important for both the present and future generations.

In this regard, the problems of sustainability of development are considered to be integrated, as a multidimensional structure consisting of ecological, social and economic levers. According to their intended purpose, these indicators should be divided into three categories: those related to input impact on sustainable development; those related to the status of the sustainable development; and those, related to the sustainability management. The first category indicates the nature of human activity and the characteristics of those processes that affect sustainability. Conversely, the second group of indicators characterizes the current state of sustainable development. And finally, the third one is identified with the response indicators, which allow for a political choice and respond to changes in the current

state of the economic system development.

Objective assessment of sustainable development is impossible without the use of non-standard approaches, and therefore it cannot be limited to the use of traditional economic indicators. That is why World Bank analysts are actively engaged in the process of development of innovative methodologies in this field. In particular, I. Carton argues that the economic value of the resource consists of several components, which are as follows: 1) the direct consumption value, that is determined by the contribution to the current production of environmental resources; 2) indirect consumer value, which assumes the benefit of supporting current consumption / production process; 3) the alternative cost (potential consumer value), which is usually identified with the premium that the consumer wants to pay for the unused resource. The following concepts are closely related to alternative value: willing to pay (WTP) and willing to accept compensation (WTA) [9].

Techniques based on the use of only quantitative indicators are not able to investigate and objectively assess the mechanism of maintaining constancy, which is determined by management decisions. In parallel with the quantitative, qualitative indicators should be used. This will make it possible to fully comprehend the problem of the economic sustainability of the development of an industrial enterprise. The very study of the features of the functioning of an economic entity makes it possible to achieve the sustainability of the development of the economy as a whole.

Within the framework of the concept of sustainable development, socio-economic, technological and environmental goals can be achieved taking into account the principle of social responsibility. Therefore, the profit from the ultimate management goal is transformed into one of many economic goals and begins to fulfill the function of a means to achieve all other goals. As a criterion for an objective assessment of sustainable development, we propose to follow such indicators as making a profit sufficient for self-financing and achieving sustainable economic growth rates for the main activity of the enterprise. It is not necessary to identify economic growth with the growth of the main indicators of the enterprise activity. This concept is able to consolidate the efforts of the state bodies, to overcome mistrust between representatives of the society and to promote the transformation of society into an integral corporate structure. All this indicates that the state of socio-economic development of Ukraine is now at the stage of formation. The number of effective enterprises (especially industrial ones), on which the interests of all participants in the economic process are harmoniously balanced, remains insufficient. As a result, the targeted support from the state is needed to increase their quantity.

Conclusions. Therefore, in the current conditions of management, it is extremely important to direct the management measures to achieve sustainable economic growth and to apply sound scientific and methodological approaches in the context of improving management effectiveness of the industrial enterprises.

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CONCEPTUAL FOUNDATIONS OF RESOURCE CONSERVATION UNDER MODERN CONDITIONS

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One of the ways to provide the economy with sufficient resources is resource conservation. In developed countries today it is given considerable attention and the latest resource conservation technologies are used not only for the sake of the economic effect, but also for stabilizing the environmental situation in the world. In Ukraine, the State Target Economic Program for Energy Efficiency has been developed and is being implemented, which is an essential aspect of resource conservation [1]. However, the Program is mainly aimed at only preserving fuel and energy resources.

The following Ukrainian and foreign scientists conducted research into the problems of resource conservation: S. Polovnikova, I. Sotnyk, T. Gladyr, O.Gavrysh, O.Kroll, V.Jevons, Yu. Dzyadikevich, M. Bieliaiev, G. Deili, M. Ivanov, N. Verhogliadova, O.Yershova, M. Kundt, R. Balashova, S. Sorrel.

However, despite the large number of scientists' works characterizing the principles, tasks, functions and classification of resource conservation, the definition of this category has not been updated yet, which determines the relevance of the selected research.

Therefore, the main objectives of the article are to synthesize existing approaches and provide an updated definition of this category.

Having explored the current definitions of resource conservation, it is appropriate to conclude that scientists consider this category in two aspects: as efficient use of all types of resources and as saving natural and raw materials resources. Thus, in our opinion, while investigating the economic nature of resource conservation, two approaches should be distinguished: «efficient use of all kinds of resources» (S.Mochernyi, S.Doroguntsov, S.Skokov, etc.) and «saving of material resources» (A.Azriliian, V. Taran, etc.).

So, according to S.Mocherny, resource conservation is «a complex of economic, legal and administrative measures aimed at ensuring the conservation of all types of resources and their efficient use» [2].

S. Doroguntsov, Y. Oliynyk and Yu. Pitiurenko define resource conservation as a progressive direction in using natural resource potential, which provides for the saving of natural resources and the growth of production with the same amount of raw materials, fuel, basic and auxiliary materials [3].

S. Skokov also considers the category of «resource conservation» from the point of view of efficient use of all kinds of resources and provides the following definition: «resource conservation is scientific, industrial, commercial and organizational

activity, aimed at efficient, integrated use and economical consumption of all kinds of resources, proceeding from the existing level of machinery and technology development while reducing the technogenic impact on the environment «[4].

A. Azriliian considers resource conservation in a different way and characterizes it as one of the forms of consumption of production reserves, connected with the maximum economy of material resources in production [5].

V. Taran shares the opinion of A. Azriliian and defines resource conservation as «a systematic process of rationalizing the use of all types of material, raw materials, fuel and energy and other resources in the national economy on the basis of implementation of scientific progress achievements, optimization of economic ties and proportions, strengthening the policy of economy in all sectors and production units «[6].

Other definitions of the category «resource conservation» offered by contemporary scientists are presented in Table 1.

In addition, some scientists single out a separate category of «resource saving», while others believe that resource conservation and resource saving are one and the same thing.

From the point of view of S.Mocherniy, resource saving is a «complex of economic, legal and administrative measures by various economic entities and state, aimed at the comprehensive economy and efficient use of raw materials resources in all spheres of the national economy» [2].

Resource conservation is a complex economic category, which has a large number of classification features. Thus, I. Sotnyk highlights the following types of resource conservation (Table 2) [9, p.37].

S. Mochernyi proposes to consider resource conservation, depending on the resource reproducibility: resource conservation of reproducible resources (labor, information) and non-reproducible ones (minerals) [2].

Resource conservation tasks are as follows:

- qualitative changes in the dynamics of the use of productive resources;
- change in the ratio of the growth rate of the cost of living and substantiated labor;
- achievement of negative incremental resource intensity by a number of resource types;
- growth of resource saving effect due to the application of new technologies;
- transformation of environmental protection costs into an important factor of economic growth;
- active replacement of primary materials and resources by secondary ones, creation of an industry for recycling production and consumption waste [15].

Table 1

Scientific Approaches to Defining the Essence of the «Resource Conservation» Concept

№	Definition	Автор, джерело
1	Resource conservation is a purposeful activity for preservation of the production cost at the expense of economy of material and labor resources by reducing losses and waste, introduction of raw material substitutes, non-waste technologies, improvement of technical parameters of products, refining technologies, etc.	V.Konoplytskyi, A. Filina [7, p. 373]
2	Resource conservation is an economic category that is constantly improving , it represents a process of increasing the efficiency of resource use at the enterprises of all types and forms of ownership	R. Balashova [8]
3	Resource conservation is organizational, economic, technical, scientific, practical, informational activity, methods, processes, a complex of organizational and technical measures that accompany all stages of the life cycle of objects and are aimed at ensuring the minimum consumption of matter and energy at these stages per final product unit, based on the existing level of the development of machinery and technology, with the least impact on man and natural systems	I.Sotnyk [9, p.26]
4	Resource conservation is an activity (organizational, economic, technical, scientific, practical, informational), methods, processes, a set of organizational and technical measures that accompany all stages of the life cycle of objects and are aimed at the rational use and economical consumption of resources.	DSTU 3051-95 [10]
5	Resource conservation is a management method that encompasses a set of technical, economic, organizational measures aimed at the efficient use of the resources and satisfaction of the growing needs for them mainly through saving.	M. Ivanov, [11, p.130]
6	Resource conservation is ... an integrated field of research, consisting of a range of economic, engineering, technical, legal and social disciplines that are constantly expanding with a single target setting.	O.Kroll [12, p. 27]
7	Resource conservation is a method of management, in which the efficient use of all resources of the firm is necessarily accompanied by the introduction of resource-saving technologies and effective decision making by management in relation to them.	O. Yershova [13
8	Resource conservation is a system of measures aimed at the most rational and efficient use of all types of resources, their reduction per unit of useful effect	V. Iphtemichuk [14]

To accomplish the assigned tasks resource conservation should follow the following principles:

- integrity - implementation of resource conservation principles at all links and in all processes of the enterprise;

- system-based approach - introduction of resource conservation taking into account interconnections and interaction between managed and control subsystems;

- sustainability - the resource conservation system should operate on a permanent basis;

- measurement - the efficiency of the system should be determined by a certain set of measurable indicators;

- employee involvement - all staff of the enterprise should be involved in resource conservation management system;

- openness - the system should be guided by the principle «from the inside out», that is, to implement and stimulate resource conservation not only at the enterprise, but also in its immediate external environment;

- dynamism - the ability of the system to adapt and change according to the needs of the enterprise and the environment [16].

The main functions of resource conservation in a market economy are [17]:

- economic forecasting of the quality of the environment, which envisages its assessment under the influence of a specific resource conservation policy;

- development of a strategy of resource conservation activity and detailed programs on environmental protection and efficient use of natural resources in the national economic complex of the country;

- planning resource conservation activities and developing various types of prospective and current plans that involve preparing budgets for resource saving projects, identifying sources of their financing; establishing appropriateness or inappropriateness of environmental quality to the law requirements;

- building the organizational structure of resource conservation management in order to manage the processes of resource conservation development;

- ecological monitoring, which includes environmental monitoring, registration of the availability, quality and consumption of natural and other types of resources by enterprises and organizations;

- control over the implementation of resource conservation processes;

- environmental enlightenment and development of public consciousness, which are necessary for bringing change into the culture of resource consumption.

Resource conservation covers many aspects and consists of different types of activities (Fig. 1).

Thus, having studied present-day definitions and having highlighted the approaches to understanding the category of «resource conservation», we came to the conclusion that the scientists regarding resource conservation as «saving of material resources» actually mean resource conservation. Proponents of the first approach consider resource conservation in a more comprehensive way. Firstly, it is not an economy but a rational and efficient use of resources. Secondly, not only natural and material resources, but also financial, human, informational, intangible and time resources are taken into account.

We believe it is reasonable to consider resource conservation as a set of managerial and production measures aimed at increasing the efficiency and rationality of the enterprise using natural, material, human, informational, intangible and time resources to achieve its goal.

As noted before, within the scope of the enterprise activities one should focus

on the following types of the resources of the enterprise: natural, material, financial, human, informational, intangible, and time ones. [19]. Therefore, let us consider the essence of the conservation of each type of resources.

Table 2

Classification of the Resource Conservation Types

Classification feature	Resource Conservation Type
Types of resources to be conserved	material conservation water conservation energy conservation labor- conservation fund conservation
Contents of resource conservation processes	efficient use of resource conservation resource saving (direct and indirect, structural)
Possibility of implementation	potential (theoretical, technically feasible and economically expedient) actual
Scale	global national economic regional sectoral local (at an enterprise level)
Stages of the resource life cycle	resource conservation at the stage of extraction of raw materials resource conservation at the stage of processing of raw materials resource conservation at the stage of resource production resource conservation at the stage of resource consumption resource conservation at the stage of resource transportation resource conservation at the stage of resource storage resource conservation at the stage of resource disposal
Stages of the product life cycle	resource conservation at the design stage of the prototype resource conservation at the stage of manufacturing the prototype and its testing resource conservation at the stage of production of the final product resource conservation at the stage of the product consumption (operation) resource conservation at the stage of product disposal
Amount of funding and results	big resource conservation small resource conservation
Direction of consequences	constructive (eco-constructive) destructive (eco-destructive)

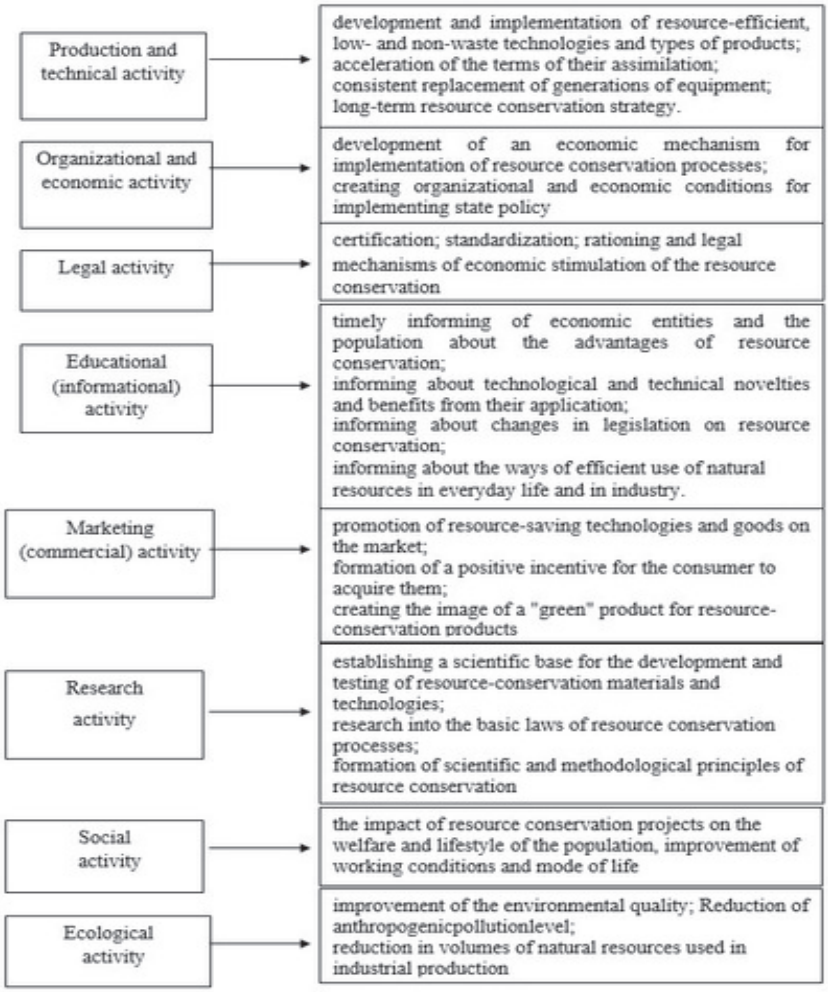

Fig. 1. Components of resource conservation [compiled on the basis of 18]

Conservation of natural resources is activities aimed at the rational conservation of the elements of nature, used by the enterprise in the process of the economic activity as means of production.

Conservation of material resources is managerial, technological, production, and organizational and economic measures aimed at increasing the efficiency of the use of material resources and their rationalization.

Conservation of financial resources is a process of increasing the efficiency of allocation and use of cash or cash equivalents received from the enterprise own or loan sources which are at its disposal.

Conservation of human resources is a comprehensive use of the professional qualities, knowledge, skills and experience of the employees of the enterprise.

Conservation of information resources is a complex of measures aimed at the all-round use of a set of knowledge, ideas, information in any form intended for use in the economic activities of the enterprise.

Conservation of intangible resources is an activity aimed at the development and implementation of effective measures for the use of values that are not material, but necessary to achieve the main purpose of the enterprise activity.

Conservation of time resources is organizational and economic activity to increase the efficiency of using the time fund, which is at the disposal of the enterprise and is used in the process of economic activity.

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INSURANCE OF EXPORT CREDITS AS AN INSTRUMENT FOR MINIMIZING FINANCIAL RISKS

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With the growth of world trade today, exporters are forced to use various methods to increase the competitiveness of their products, including the supply of goods on terms of commercial credit, which is always associated with the risk of non-receipt of payment for the goods delivered. In order to increase reliability in this case, export credits, or insurance receivables, the so-called «insurance delkredere», have become more widely distributed in the world.

We have found that in 2016, biological preparations were exported to Moldova at a rate of $ 66772 USA. In this case, exports in 2016 increased more than three times. However, for SE «Sumy Biological Factory» issues of export of products to other countries of the world become topical. At the same time, as always, there is a resource risk of a lack of payment for the delivered products, especially when it comes to new markets. Analysis of literary sources showed that any enterprise

has information, labor, technical, technological, financial, innovative, intellectual and land resources [1,p.85;2,p.26;3,p.74;4,p.193;5;6,p.781]. Variety of resources determines the features of resource risk management. Fig. 1 depicts the structure of the resource risks of the biosafety enterprises.

Analyzing the information shown in fig. 1.2, we can say that the key resource risks in the enterprise are the following:

1. Labor risks are the risks associated with the sudden emergence of a shortage of labor resources, worsening of the demographic situation in the region, and as a result of technology disturbances due to the use of unskilled specialists [7]. According to research by scholars [8.p.314] regarding the causal relationships between the risks of an organization's activities, namely labor risks or so-called personnel risks, have a significant impact on such types of economic risks as technical, innovation and quality risk. That is, it can be considered in such a way that the initiation of the organization's innovation activity will be determined by the quality of the workforce of this enterprise, the competence of its employees, their knowledge, skills and abilities. Moreover, scientists have proven that it is the personnel risk that directly affects all other priority risk groups of the organization, in particular: market risks, financial risks, risks, business processes, etc.

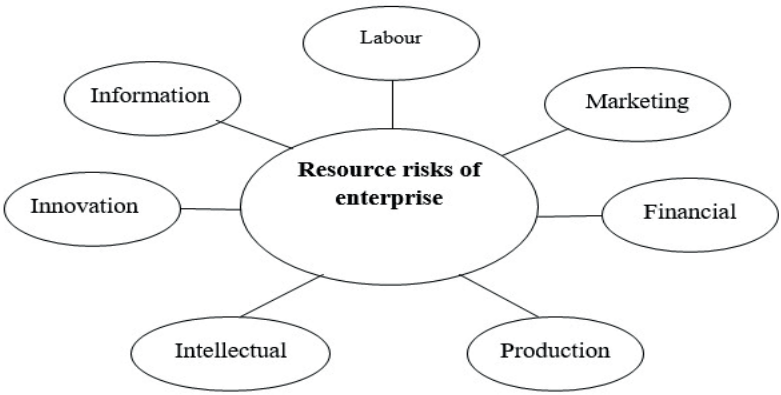

Fig. 1. Structure of resource risks of enterprises of the biosphere industry
Source: Formed by the author according to [8, p.314]

2. The market direction of the functioning of the biosafety enterprises leads to the emergence of marketing risks that are directly related to fluctuations in prices for manufactured products and resources that are necessary for development in the future. The structure of market risks can include logistics risks, that is, the risks of logistics operations. In particular: transportation, warehousing, cargo handling and inventory management, and the risks of logistics management at all levels, including managerial risks that arise when performing logistics functions and operations.In

other words, under the marketing risk refers to the objective-subjective category in the activities of business entities, reflecting the degree of deviation from the goals, the degree of failure, the size of losses under the influence of internal and external factors as a result of marketing activities [9,p.150].

3. When talking about financial risks — these are the risks that arise as a result of an imbalance between the costs and income received by the bio-industry enterprise; lack of sources of funding, payments at the time of their occurrence.

The objective basis of financial risk can be explained by the uncertainty of the external environment, to which the organization must systematically adapt. The same uncertainty is formed under the influence of the unpredictability of the behavior of elements of the environment, the likelihood of which it is very difficult to assess reliably. The subjective basis of financial risk is formed by a person on the basis of existing alternatives to the selection of possible results under the influence of personal criteria and competencies [10, p.13].

4. Production risks — these are risks that arise directly in the production process and are manifested in lack of production, or in the deterioration of quality due to non-compliance with technologies, in the growth of current costs as a result of over-utilization of resources in their natural terms, etc.

It should be noted that the quantitative signs of the concept of «industrial risk» are often characterized by concepts related to the probability of events, the consequences of risks, the degree and level of risk or their combination. The indicated quantitative attributes correlate with certain qualimetric scales and determine the essence of certain concepts and representations [11, p.43].

It is today relevant to construct a concept of production risk, an element of which is an adequate conceptual apparatus, developed on the basis of ontological-conceptual analysis of the system of concepts of risk-oriented approach, which are represented by qualitative and quantitative characteristics. Taking into account such an approach will enable managers of enterprises to respond in a timely manner to changes in the organization's production processes.

5. Information risks are the risks arising from lack of information or unsuccessful use of the information, which leads to fluctuations in obtaining financial results of the activities of the enterprises of the biosafety industry. In today's conditions, taking into account the globalization trends of the information society, the division of information risks into megacity,macro-risk, meso-ris and micro-risk is relevant [8].

6. Management risks are related to the likelihood of loss due to ineffective work of management staff and the ineffective decisions made by them on the resources of the organization.

7. Innovative resource risk should be understood as the risk arising in any type of activity associated with innovation processes, the development and production of new products, goods, services, their commercialization, the implementation of socio-economic and scientific and technical projects.

8. Intellectual risks associated with the ineffective use of intellectual resources and assets, work of management personnel in particular.

The list of resource risks without taking into account the risks of unpredictable competition, which is conditioned by the uncertainty of developing a strategy of behavior of market actors, in particular:

a) the emergence from other sectors of the industry of perspective secondary results in this industry in the development of new products and technologies;

b) organization of new enterprises of similar specialization;

c) export to the local market by foreign exporters;

d) creation of alternative products (commodity analogues) and their main orientation will be to satisfy the needs of customers in the base product.

The main task of risk specialists is to identify areas of high risk; risk assessment; the analysis of the acceptability of this level of risk for an entrepreneur or firm; if necessary — development of measures to prevent or reduce risk; in the event of a risk event, take measures to maximize the possible reimbursement of the damage. It should be emphasized that in the risk management system the most important role belongs to the qualitative analysis of risk.

Therefore, the next stage in managing the resource risks at the investigated SE «Sumy Biological Factory» will be the management of the financial risk of the biofactory. In particular, it will be about export credit insurance as a tool to minimize financial risk.

As the practice of foreign economic activity shows by national entities, in our country there is no single system of financing and export insurance, which is a serious obstacle to the growth of exports and mutual trade, which manifests itself at the highest national level.

Questions of the definition of the nature and analysis of forms of insurance export loans are devoted to the work of domestic and foreign authors [12], but these works do not adequately reveal exactly the modern forms, types of insurance export credits, the principles and features of construction of such an insurance system.

Determination of the economic and legal essence of insurance of export credits. According to the Draft Law of Ukraine «On State Support for Insurance and Export Lending» export credit insurance is a type of civil law relationship for the protection of property interests of the Ukrainian side of an export contract, a loan in the event of an insured event involving risks of commercial or non-commercial character, at the expense of the state budget, insurance payments (insurance premiums, insurance premiums) of Ukrainian suppliers and proceeds from the placement of these funds.

Export credit insurance is a means of implementing the projection policy of each country, because, on the one hand, having insurance coverage, exporters are more strongly in those sectors of the world market that are characterized by increased resource risk. On the other hand, exporters, with the support of insurance companies, have more opportunities to obtain loans.

The analysis of scientific and practical and normative literature allows us to

determine the purpose, object and subject of insurance of export credits. Thus, the purpose of insuring export credits is to create favorable conditions for increasing export opportunities of national economic entities, to protect exporters from the risk of non-payment and financial losses, and to increase the competitiveness of goods on world markets.

The object of insurance is the commercial loans of the exporter-insurer to the importing contractors. Commercial loans in accordance with the terms of the contract are provided in the form of a commodity loan or provision of services in a loan with confirmation of the insurer's accounts prior to receipt (properly drawn invoices issued for payment to a foreign counterparty).

The subject of this type of insurance is directly the export credit insurance operation itself.

Analysis of the activities of leading insurance companies specializing in export credit insurance such as Trade Indemnity Company (UK), Hermes (FRG), SOFACE (France), KUKE (Poland) [13,p.63] allows us to distinguish the main advantages of using this type of insurance for exporters, in particular:

a) the ability to offer competitive terms of payment for buyers;

b) the possibility of obtaining protection from the resource risk of non-payment or financial losses;

c) the possibility of obtaining free access to the market of working capital and its cheapening;

d) the ability to cover losses from exchange rate fluctuations;

e) the possibility of obtaining highly skilled assistance from experts in assessing the reliability of potential partners when entering new markets;

e) the possibility of obtaining information on potential resource risks of non-payment in foreign markets, as well as on import regulations applicable in these markets;

e) the opportunity to constantly monitor the financial status of foreign partners and receive timely information about their financial situation;

e) the ability to export directly to end users, bypassing wholesalers-intermediaries, which increases the profitability of the transaction.

Analysis of the experience of export credit insurance by foreign export agencies allows us to distinguish between modern forms and, depending on the features of these forms, the types of insurance of export credits (Table 1).The first form of insurance export credits is a single insurance. An analysis of the practice of this form of insurance allowed us to distinguish three of its types, namely: the name-individual, subscription-type, and name-continuous.

The subject of insurance of an individual type is a separate insurance transaction with an individual client. This is an exceptional type, because such insurance is very dangerous. The subject-matter of insurance of the subscription type is insurance, which in the defined term covers all operations with clients, recognized by the insurance company as those who constantly use its services. The subject of the

insurance of name-continuous insurance is the operations of constant buyers-borrowers, provided by the insurer-lender for the period of the whole year. And, as the world practice shows, the policyholder is not obliged to inform the insurer of each of his new operations, but can not exceed the total amount of insurance liability agreed with the insurance company.

Table 1

Forms and types of insurance of export credits

Forms of insurance of export credits	Types of insurance of export credits
Single insurance	Namely-individual
	Exactly-subscription
	Exactly-continuous
Group insurance	Globally General
	Globally-Excessive
Mixed insurance	Open
	Closed

Source: constructed by the author according to [12]

The second form of export credit insurance is group insurance. Its characteristic feature is that it provides insurance protection to all the exporters' operations taken as a whole. As the analysis of world experience in the field of export credit insurance, this form of insurance is provided to financially sound firms and provides for the possibility of automatic continuation. In insurance practice, there are two types of group insurance — globally-general and globally-excendent.Global-general type of insurance assumes that the insurer covers all losses of the contract insured without any restrictions, but with strict observance of certain conditions. The globally-advanced type of insurance assumes that the losses incurred must be assumed by the insured, and that insurance is subject to only an expense loss, that is, an amount that exceeds its «normal» value. The value of the excess is established on the basis of calculations based on the results of activities in recent years.

The third form of export credit insurance is mixed insurance, which has the features of individual and group insurance. Analysis of the practice of using this form of insurance allowed us to distinguish between two types of insurance — open and closed.

The open type of insurance assumes that the names of the borrowers are known, and its subject is the insurance of all operations of the client, recognized by the insurance company for the permanent use of its services within a certain period, that is, like the name-subscription. Closed type of insurance assumes that the names of the borrowers are not known, the losses incurred must be assumed by the insured, and insurance is subject only to the excedent of the loss, that is, like the globally-existent type of insurance.

We consider it necessary in the determination of forms and types of export credit insurance to consider the methods of risk sharing between the insurance company and the creditor. The analysis of world experience allows us to assert that only two methods of such a division are used in export credit insurance.

The first method is the division of the entire portfolio into two parts: insured and uninsured. That is, the risk that is in the operations attributed to the non-insured part of the loan portfolio is fully taken by the lender. Such a division of a loan portfolio may be based on various criteria, such as the term of the loan, the type of loan or the amount of the loan. And, according to the results of our analysis, this method of risk sharing can only be applied in the case of a group form of insurance.

The second method — the division is based not on the basis of division of the portfolio into parts, but on the basis of the «division of the risk of loss» of the entire portfolio, that is, involves the direct participation of the insured in the partial coverage of losses. This method is provided by the application of appropriate forms of insurance liability — franchise or «own participation». Using this method of division, the policyholder is obligated with due diligence and caution and at his own expense to begin all appropriate measures to prevent or reduce losses, in particular, to uphold their rights and receive the maximum possible collateral for the loan, as well as to provide the insurer with all information and documents which, in the opinion of the insurer, are necessary to determine the insolvency and estimate the value of the damage.

In practice, the amount of «own participation» reaches approximately 30% of the loan amount, since it should always exceed the amount of expected income of the exporter from the economic transaction. Such an approach is of a preventive nature and deprives the policyholder of the possibility of unjustifiably obtaining income through insurance. Taking into account the different status of policyholders, insurance companies generally use a wide range of «own participation» quotas. The main criterion for providing «own participation» quotas is trust in the importing country. In the international practice of export credit insurance, the rule is that the lower the level of confidence in the importing country is, then is the higher quota of «own participation» of the insured.

The analysis of scientific and practical literature on the study and assessment of the resource risks of counterpart countries shows that these issues are dealt with by various specialized organizations that use a variety of risk assessment methods. One of the most common is the methodology proposed by the International Country Risk Guide — ICRG, which involves the assessment of resource risk in two stages [14,p. 514]. At the first stage, an assessment is carried out on a definite scale of the most common types of risk — political, financial and economic. In the second stage, the «combined political, financial and economic risk indicator» (Composite Political Financial and Economic Risk Reporting — CPFER) is estimated according to the following algorithm:

$$05\ (PR + FR + ER), \qquad (1)$$

where PR — the sum of items for political risk; FR — the sum of items for financial risk; ER — the sum of items for economic risk.

Table 2

The scale of the risk assessment of the importing country using the IRCR method

Political risk		
1	Deviation of economic expectations of this country from real	0-12
2	Lack of realization of economic policy	0-12
3	Political leaders	0-12
4	Opportunity for external conflict	0-10
5	Corruption in government	0-6
6	Participation of the armed forces in the political life of the country	0-6
7	The role of religion in politics	0-6
8	The level of law and order	0-6
9	Nationalist and racist tendencies	0-6
10	Political terrorism	0-6
11	Civil confrontation (war)	0-6
12	Level of activity of political parties	0-6
13	The quality of the bureaucracy	0-6
Maximum value		100
Financial risk		
1	Non-payment of debts or disadvantages for the creditor of the restructuring of the debt	0-10
2	Delay with repayment of trade credits	0-10
3	Breaking down government contracts	0-10
4	Losses due to state regulation of currency rates	0-10
5	Redemption of private investment	0-10
Maximum value		50
Economic risk		
1	Inflation	0-10
2	Debt as compared to all exports	0-10
3	International liquidity	0-5
4	The experience of creditors in debt collection	0-5
5	Current deficit of the state in comparison with export value	0-15
6	Exchange rates	0-5
Maximum value		50

Source: constructed by the author according to [13, p.273]

Each of the identified risks receives an assessment scale for certain, most significant parameters. Thus, the higher the value of the indicator (the amount of points) is, the lower is the risk. The quantitative values of each of the indicators of risk assessment are calculated according to the scale of table 2.

Depending on the total value of the calculated CPFER, this country can be assigned to one of the groups:

- 0,0-49,5 — very high risk;
- 50,0-59,5 — relatively high risk;
- 60,0-79,5 — average risk;
- 70,0-84,0 — low risk;
- 85,0-100,0 — very low risk.

The variety of export lending conditions and the difficulty in identifying and assessing credit risks lead to the impossibility of applying uniform insurance rates, and therefore they can vary significantly in terms of both individual countries and individual insurance institutions, even within a single country.

Based on the analysis of the practice of insurance of export credits by leading foreign agencies, a set of principles can be formulated, the observance of which ensures the effective carrying out of insurance operations by such institutions.

The following should be included among the main ones: 1) close cooperation between the insurance institution and the insured; 2) avoidance of double insurance; 3) the participation of the insured in the resource risk, which consists in determining the quota of his «own participation» in insurance; 4) guaranteeing the final result, that is, the insurance institution guarantees the indemnity in case of impossibility to receive the arrears; 5) the provision and receipt of reliable and timely information on the solvency of insured debtors, on the basis of which the insurance institution may conduct a safe and profitable selection of insured property risks; 6) establishment of the extreme limit of coverage of the resource risk or the amount of insurance liability, that is, the insurance institution itself sets the size of its responsibility for the insurer's loans, based on their own capabilities.

Conclusions. Thus, the application of export credit insurance as a resource management resource at the State Enterprise «Sumy Biological Factory» will help not only the management of personnel, but also the highest level of management of the enterprise both to predict and manage the financial risk at the enterprise in the implementation of manufactured products, or transportation of products.

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APPLICATION OF ECONOMIC SECURITY MANAGEMENT INSTRUMENTS USED IN EU COUNTRIES FOR DOMESTIC FINANCIAL INSTITUTIONS IN STATE FINANCIAL SECURITY SYSTEM OF UKRAINE

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After the main destructive phase of the financial and economic crisis of 2008-2009 in the domestic financial market, its negative tendencies, which are intensifying due to political and economic instability, which were caused by the consequences of political events that originated in 2013-2014, are still noticeable. Reducing the costs of conducting ongoing activities, the need of losses, caused by crisis compensation, rising debt problems, falling demand for financial services – this is just a series of difficulties that financial institutions continue to overcome. Their owners and managers realized the importance of measures aimed at preventing, minimizing and controlling all kinds of threats that could have a negative impact on the financial institutions performance. Therefore, an important scientific problem is the development of the theoretical apparatus of economic security management of certain types of financial institutions in order to form the basis of its provision and of its system supply in the applied plane.

By concentrating the focus of scientific research on issues related to ensuring the economic security of financial institutions, it is worth focusing on the Ukraine's financial security, since the ability to provide it at the state level lies in the field of a strong and stable domestic financial market formation, the structure of which is being built in all developed countries of the world precisely on the existence of various types of financial institutions. Ukraine's financial security is an integral part of its economic security, which means the state of the national economy, which helps to maintain resilience to internal and external threats, to ensure high competitiveness in the global economic environment, and characterizes the ability of the national economy to achieve sustainable and balanced growth [1]. In turn, financial security means the state of the financial system of the country, which creates the necessary financial conditions for its stable socio-economic development, ensures the resilience to financial shocks and imbalances, creates conditions for the preservation of the integrity and unity of the country's financial system [1]. Thus, financial security of the state is a prerequisite for achieving financial and, therefore, economic security of financial institutions that are the part of the financial system of the country, and ensure the circulation of cash flows between its various elements.

In accordance with the Law of Ukraine «On Financial Services and State Regulation of Financial Services Markets», a financial institution is a legal entity that, in accordance with the law, provides one or several financial services as well

as the other services (transactions) related to the provision of financial services in in cases directly determined by law, and entered into the corresponding register in accordance with the procedure established by law. Financial institutions in Ukraine include banks, credit unions, pawnshops, leasing companies, trust companies, insurance companies, pension funds, investment funds and companies and other legal entities whose exclusive activity is the provision of financial services, and in cases expressly provided for by law, – other services (transactions) related to the provision of financial services [2].

Financial institutions are involved in the global redistribution of the world capital; they serve investment processes, promote the preservation and increase of financial resources of individuals and legal entities. Qualitative and effective execution by financial intermediaries of all the above functions is impossible without maintaining their stable financial and economic condition, which actualizes the task of finding optimal approaches to guarantee their economic security and to build an effective system of its provision.

Financial institutions play an important role in the system of financial security of the state. Professional provision of financial services and the sale of financial products allows the accumulation of temporarily free capital of the population and of economic entities and transforming it into investments aimed for realizing the economic interests of the state. The stable functioning of financial institutions increases the level of investment attractiveness of the state in the international arena, and also has a positive effect on the state budget security of the country at the expense of tax deductions. On the other hand, the low level of economic security of financial institutions can threaten them with bankruptcy and liquidation, which will necessitate the payment of compensation to their clients from the state funds and the further deterioration of the country's debt security. Thus, the high level of efficiency of financial institutions economic security management is one of the important factors in the system of providing financial security of the state.

The study of the theoretical foundations of economic security management demonstrates that this process is currently being built into the practice of financial institutions as one of the tasks of their management, and not as a separate type of the management activity. In addition, the object of management is economic security as one of the characteristics of the financial institution functioning, and not as an independent system. This approach does not allow to ensure the effectiveness of the process of economic security management, therefore it is offered to study the principles of the financial institutions economic security system formation as an object of management in the practice of European countries, the traditions of ensuring the activity of financial market participants, which were developed over a long period of time, taking into account the results of scientific trends research and the most effective world practices, periodically falling under the influence of financial crises, which gives them a special application value and topicality in the domestic realities of the of the Ukrainian financial market functioning.

Over the past decade, a large number of scientific works have been devoted to the study of economic security systems. They are based on the awareness of the need to study economic security as a separate direction in the system of economic science, as proved by the well-known Ukrainian scholar Vlasyuk O. S. [3]. The vast majority of modern scientific publications concern the problems of the formation and management of complex economic security systems of the enterprises of various sectors of the national economy. However, an increase of the role of financial institutions in economic processes and numerous manifestations of crisis trends in the domestic financial market has led to an intensification of studies on the basis of the formation of economic security systems and its management in the practice of financial institutions in Ukraine. So, Melnik S.I. considers the basis of the formation of the bank's economic security system and modern approaches to its modeling [4], Prokopenko N. S., Vykluk M.I. specify the components of the security of banking activity [5], Yaremenko S. M. studies the organization of a comprehensive system of economic security of the bank and its management mechanisms [6]. Within the framework of the functioning of the insurance market institutions, the problem of economic security is highlighted in the work of Yavorskaya T.V., which proposes the conceptual provisions for the insurance companies security in Ukraine [7] and Gnilitskaya L.V., which studies the current experience of establishing a system for ensuring economic security in insurance companies in Ukraine [8]. It is worth to mention the scientists who have devoted their research to the issues of ensuring the security of the credit unions, such as Meshko O., Ivanets V. [9]. However, given that in Ukraine, for several years now, professional financial market participants have shown a steady tendency to worsen the performance of their activities, it has to be noted that the domestic scientific paradigm of the economic security management at the micro level requires deepening through the implementation of practical aspects of security management, which have proven its effectiveness in EU countries.

Managers of European financial companies have long ago recognized that the first step towards effective economic security system management in the conditions of economy of domestic financial institutions of their own financial resources should be the explanatory work with the staff of the financial institution on the basis of ensuring its economic security. The intellectual-personnel component as an important functional part of the economic security system in particular, and the organization of the work of the financial institution as a whole, should become the basis for managing the system of economic security. Ideally, the necessary element of the economic security management system is the creation of a specialized department or unit – the Economic Security Service. It should be noted that such departments operate in banks now, but their tasks are mainly reduced to the organization of the bandwidth on the object and, at best, to the checking bank's clients for their financial soundness, and employees – for the tendency to commit fraudulent actions.

European practices in economic security management are built on attracting the

external experts to counteract the threats for business entities, including financial institutions. External specialists can be useful and necessary for managing the financial security system of the financial institution. A large number of functional components of the economic security system, such as intellectual-personnel, financial-investment, technical-technological, informational-analytical, physical and legal security, etc., require of the specialists of the Economic Security Service or of those who are responsible for the operating of this area in the work of the establishment a wide range of specific knowledge, skills and competences. Taking into account that not every financial institution can afford to have even a full-time lawyer or programmer, it becomes clear that if a financial institution has a specialist or several experts in the field of economic security management with higher education in this area, a high-quality and efficient economic security management of a modern financial intermediary will require also the presence of specialists in various fields of economic security. This will result in corresponding additional costs, although the services of such specialists may not be necessary, as it is impossible to predict in what area of activity of a financial institution there will be a threat. An alternative is to engage third-party specialists in solving individual tasks of economic security system management, provided that such a necessity arises, for example, by outsourcing (out staffing). The advantages of such an approach to the management of the economic security system are the impartiality and objectivity of unauthorized persons, the high professionalism of the invited specialists precisely in the sphere which security is violated or may be violated. In addition, the financial institution is exempted from the need to retain additional staff.

Consequently, the involvement of external experts will achieve a high level of objectivity and impartiality in the financial institutions economic security system management.

First of all, it is recommended to expand the scope of the services of specialists of the due diligence (this is a complex concept that combines analytical and control measures aimed at establishing the reliability of the information provided and determining the attractiveness of the planned agreement in order to reduce the risks). It is advisable to emphasize the importance of the legal aspect of the due diligence, which is more well-known in domestic practice as a legal audit. The use of due diligence techniques can prevent a number of threats to the economic security system that are significant for the economic security of financial institutions. In particular, they should be attributed as:

– analysis of the efficiency and purity of the ownership structure, verification of the timing and procedure for paying the authorized capital, checking the timing of events related to the registration of changes to constituent documents, assessing the correctness and timeliness of the registration of branches, representative offices, divisions, legal purity of transactions with shares – can allow to minimize the threat of filing various lawsuits against a financial institution that will inevitably lead to financial costs and the threat of recognition of a financial institution as one, that can

not carry out economic activity;

– analysis of the financial institution management structure, determination of the legitimacy of the establishment and existence of management bodies, assessment of authority and decision-making authorities by the management bodies – can allow to minimize the risk of corporate conflicts and conflicts of interest between owners and management of the institution;

– checking the licenses availability and their validity, establishing the need to extend their term or obtaining new licenses, establishing the level of compliance of the institution with special sectoral requirements of the law – can allow to prevent the emergence of financial costs associated with penalties imposed on the financial institution by state regulatory bodies, and to minimize the threat of termination of a financial institution's activity due to its non-compliance with the requirements of the legislation;

– analysis of agreements on the acquisition of property rights to fixed assets, checking the legitimacy of transactions, reviewing the history of property rights to assets (identifying the threat of possible claims from former owners or third parties) – can allow to avoid raider seizure of a financial institution;

– analysis of the structure of significant receivables, (legal basis for arrears, timing, probability of payment / collection), analysis of the structure of payables (legal basis for arrears, estimation of the probability of prepayment), verification of the legitimacy of transactions – can provide information about possible actions to improve financial position of the institution and to increase the level of efficiency of the economic security system management

– identification and analysis of collateral agreements (mortgage, surety for third parties), verification of the legitimacy of entering into transactions, estimating the probability of foreclosure, fulfillment of obligations of third parties – can reduce the financial risks of institutions providing lending services, in particular banks and professional participants of non-bank credit market;

– assessment of compliance with labor legislation with respect to employees of the financial institution, assessment of the institution's obligations to employees, analysis of court claims of employees / former employees to the institution – can help to maintain a high level of intellectual and personnel security that is a part of the financial security system's of economic security system, minimize the threats of business reputation and reduce the threat of using insider information against financial institution.

So, the legal audit, known in the EU practice as due diligence, is one of the modern tools which use can contribute to stabilizing the state of the economic security system of financial institutions in Ukraine. A set of due diligence methods allows carrying out a comprehensive diagnosis of threats to their normal activities, the timely identification of which should be the basis for developing mechanisms to protect the assets of financial institutions from violating their integrity and total loss, and for the financial institution itself - to guarantee the absence of the probability

of termination of its activities in the long term. In table 1 is systematized the use of due diligence methods in order to stabilize the state of economic security system.

Table 1

Use of the due diligence techniques to stabilize the state of the economic security system of financial institutions in the process of managing it

Due diligence techniques	The result for the state of the economic security system
Assessment of the correction of application of tax legislation	Prevention of penalties for miscalculation and wrong payments of taxes, saving of financial resources due to tax optimization, detection of persons guilty for errors in payment of taxes
Independent diagnostics of the real financial condition of the borrower	Establishing the facts of manipulation with financial reporting, preventing the conclusion of transactions with insolvent clients, saving labor and financial resources by rejecting unprofitable for institutions agreements
Assessment of compliance with labor legislation	Prevention of the threat of filing complaints and claims by employees about non-compliance with their rights, saving financial resources on fines and litigation costs that may be related to it; detection of mistakes in labor contracts and collective agreements
Checking the legitimacy of entering into transactions	Prevention of fraudulent acts with the assets of the institution, protection of its material rights, prevention of loss by the institution because of its business reputation
Checking the correctness of the constituent documents	Prevention of recognition the institution's activities illegal, prevention of legal threats of recognition of transactions concluded on behalf of the institution, invalid
Estimation of the real value of assets	Prevention of obtaining by the institution the property for overestimated value, prevention of excess expenses related to overpayments
Confirmation of the nature of the assets origin	Prevention of acquisition in property or control the assets, received in the proceeds of crime, prevention of involvement institutions in the process of legalization of funds received illegally
Identification of signs of insolvency (bankruptcy)	Timely identification of the bankruptcy of the institution, the search for financial reserves to restore solvency
Advice on countering raider and hostile takeovers	Detection of defects in the system of economic security, the identification of the source of the threat of a raider attack, the development of an effective mechanism for dealing with raiders (white, gray, black)

(Compiled by the author)

In order to minimize the threat of fraud (from the staff of financial institutions to its owners) that was identified as one of the main issues in the analysis of threats to the financial institutions economic security system, in the more developed ecosystems at the microeconomic level states such as UK are actively used the services of forensic consultants.

The term «forensic» (English - forensics) is widely understood as the activity of identifying, analyzing and resolving situations where there is a discrepancy between business partners in solving financial, commercial, legal or other issues that are associated with significant economic risks. Specialists who have practical skills

in conducting forensic identify it with financial investigations and recognize the possibility of obtaining in the course of forensic the information that is deliberately concealed from the concerned person and which therefore has a special value for her.

The directions of using forensic technologies for the purpose of managing the economic security system of the financial institution are systematized in the table 2.

Table 2

Using forensic technologies for the purpose of managing the economic security system of the financial institution

Tricks of forensic	Ability to use in the system of economic security	The state of economic security system
Check of financial and legal discipline of the personnel	Detection of abuse by the staff of the institution	Financial-investment, intellectual and personnel
Assessment of financial reporting and analysis of audit reports	Identification of mistakes, facts of money laundering, violations of tax legislation, ineffective management of accounts receivable and payables	Financial-investment, informational and analytical
Revision	Detection of theft, fraud, various types of economic crimes	Financial-investment, physical
Checking the completeness and reliability of the information	Detection of tampering with information, its theft, damage, modification, unauthorized access to data	Information-analytical, intellectual and personnel
Checking counterparties, partners	Identify the possibility of conflicts of interest, preventing transactions with companies with dubious business reputation	Legal, market (competitive)
Financial investigation	Detecting hidden facts, information about the activities of the institution and the work of its staff	Financial-investment, intellectual and personnel
Participation in court disputes (on the side of the financial institution)	Facilitating the resolution of conflicts in court, seeking evidence in favor of an institution (legal, financial).	Legal (legal)

(Compiled by the author)

Thus, the use of services provided by forensic specialists will improve the state of the intellectual-personnel, financial-investment, physical (power) information-analytical and legal components of the system of economic security of the financial institution.

In the practice of EU countries, the Financial Ombudsman Institute is not a new instrument for resolving financial disputes, and the practice of working with similar institutions in developed countries has been thoroughly investigated by domestic scholars and specialists in the financial sector. However, there was no detailed list of tasks to be decided by the financial ombudsman, deadlines for their implementation, the mechanism for financing its activities in domestic economic realities was not

developed till now.

The ombudsman (from the Swedish - ombudsman, the representative of someone else's interest) is an independent public official who investigates citizens' complaints about government actions and protects the interests of citizens from violations by government agencies [10, c.69]. Accordingly, a financial ombudsman should be understood as an impartial person or an independent institution that treats the appeals of individuals for violations of their rights and interests in the process of obtaining financial services.

The existence of a financial ombudsman will have positive effects for managing the financial institutions economic security system. Thus, an awareness of the existence of an organization that independently, objectively and impartially protects the financial interests of the population, will increase the citizens' propensity to use financial services.

Financial institutions will have the chance, with minimal financial implications, to resolve the conflict with the client, with the assistance of the financial ombudsman, without the expense of financial resources for participation in the trial process, payment of lawyers' fees, etc. The services of a financial ombudsman are traditionally free, which will reduce the cost of financial institutions to resolve litigation. Awareness of the existence of a financial ombudsman institution will prompt financial institutions to adhere to high standards of work, since even a small financial transaction may be the occasion to appeal to the ombudsman and throw a shadow over the business reputation of the institution. The latter of these circumstances will have a positive impact on the level of intellectual and personnel security, as the staff of financial institutions will no longer be able to rely on their absolute impunity. The possibility of attracting the attention of the financial ombudsman will strengthen the discipline in the collectives.

At the moment, the initiators of the implementation of the institution of the financial ombudsman are offered a mechanism for its functioning. The Ukrainian model of financial ombudsman will consist of 32 people, of which 24 will be directly involved in the adoption and analysis of complaints. Before applying to an ombudsman, a citizen will have to apply to a financial institution to which he has a claim. During a certain period of time (which for domestic practice is not yet agreed, but in different countries it ranges from 10 days to 8 weeks), the institution should respond to its request. If the answer is not satisfy the client, then he addresses the financial ombudsman. It is assumed that the maximum limit on the amount of disputes will be about 200 thousand UAH (for comparison, in Europe this threshold is 100 thousand euros, in Russia 300 thousand rubles).

The underdeveloped elements of the mechanism for the institution of the financial ombudsman in Ukraine remain: no specific maximum amount for which a dispute has arisen; no cases are settled when the amount of the dispute is fixed in the currency; the sources of funding for the financial ombudsman institution have not been determined (if to turn to the practice of European countries, the financing

is carried out by the participants of the financial market itself, however, in domestic realities, financial institutions are unlikely to accept positively another institution whose activities need to be financed; in addition, the types of financial institutions whose activities fall within the competence of the financial ombudsman and the amount of funding required are not defined yet); it is not written how the appeal of citizens from the regions will be accepted, etc. There is no clear definition of the legal status of the financial ombudsman, nor the normative and legal basis for the formation of this institution. It is unclear whether a financial ombudsman will provide protection of the rights of the participants to the financial market sector (or all at once). There is no indication of how the staff of the institute, in particular its governing body, will be selected and what requirements its representatives will have to answer. The length of consideration of citizens' appeals is not agreed. Consequently, the problem issues in this process are more than sufficient, so the further prospects for its consideration in the framework of scientific research related to the management of the system of economic security of financial institutions in Ukraine.

Taking into account the results of the study, the following model of the financial ombudsman institution is proposed, taking into account the need to promote the stabilization of the state of the economic security system of financial institutions in Ukraine (Table 4).

The next step after the formation of intellectual and human resources in the process of managing the financial institutions economic security system is the development of documentary supply of the functioning of their economic security system. As the main document containing information about the mission, tasks and functions of managing the financial institution economic security system, we offer to develop and approve an Economic Security Strategy, which should clearly define the purpose of ensuring an adequate level of economic security and management tasks for its system.

As the third step in the financial institutions economic security system management should be current (operational) planning security based on the provisions of strategy and economic security detail. It should specify the mechanisms for achieving targets for institutions in economic security area. It is important at this stage to identify those workers who will be responsible for certain areas of economic security and to examine if the designated persons understand what is expected of them, and find out the degree of their responsibility.

The next step is to assess the level of financial security achieved by the financial institution. The task of developing a list of indicators that will reflect the state of security of the financial institution from external and internal threats and their calculation can be put on persons who will manage the economic security, but it is possible to use existing methods of diagnosing economic security or some of its functional components, proposed by domestic and foreign scholars-theorists and practitioners.

Table 4

Model of the Financial Ombudsman Institute, taking into account the need to facilitate the stabilization of the state of the economic security system of financial institutions in Ukraine

Model parameter	Characteristic	Influence on the state of the economic security system of the financial institution
1	2	3
The financial market sector	Banking sector, financial services markets, stock market	Allow all types of financial institutions to save financial resources to prevent participation in litigation
The source of financing activities	50% - financing from the state budget, 50% - contributions of professional participants in the financial market	Partial funding from the state budget will reduce financial pressures on financial institutions
Number of people involved	60 people - 30 people in the financial services markets, 20 people - in the banking sector, 10 people - in the stock market	Will allow solving disputed questions about the activities of various types of financial institutions by specialists in the field of their operation, taking into account their specifics.
The mechanism of work with citizens	Possible forms of appeal - personal appeal, remote appeal - through the online service of reception of citizens' appeals. In both cases, the citizen receives a certificate (in paper or electronic form about receipt of the application with the fixed date of such appeal and the final date for reviewing the application and the coordinates of the person to whom the person can apply for information about the progress of the case)	Allows to save the time and labor resources of financial institutions to hold talks with individuals whose claims and complaints about the work of a financial institution will ultimately prove to be unlawful or unjustified.
Mechanism of work with financial institutions	The financial institution is notified of receipt of a complaint from a citizen no later than three days after being taken into account at the office of the ombudsman. The message may be paper or electronic, and must necessarily require proof of receipt and contacts of the person with whom the ombudsman will co-operate.	Allow to receive information about the occurrence of claims about the work of a financial institution promptly and to react quickly without the assumption of the possibility of loss by the institution its business reputation
Duration of the case	Up to 21 days	Sufficient time for the institution's specialists to thoroughly examine the substance of the claims and react appropriately to them, without excessive loss of resources and information leakage

Continuation of Table 4

1	2	3
Minimum and maximum amount of dispute	The minimum amount is 1000 UAH, the maximum amount is 200000 UAH (selected in accordance with the amount returned by the Deposit Guarantee Fund)	A low minimum amount guarantees the protection of the interests of all categories of customers, which in the future will increase the number of financial services users
Interaction with regulators of the financial market	Providing information to regulators on the number of hits and the results of work with appeals. Notification of the institution with a large number of complaints of the citizens about its work	Allows to obtain information and advice from market regulators, which will enable to detect defects in the work of the institution in a timely manner
The cost of services	The service is free of charge	Does not create additional costs for financial institutions and their clients
Accountability	Independent government agency	Minimizes the possibility of a conflict of interest, the development of corruption schemes
Obligatory of the decisions	The decisions of the Ombudsman are binding upon the parties of the dispute, if they agree with such a decision. Otherwise, the party who is not satisfied with the decision has the right to appeal to the court.	It allows solving disputes with clients without wide publicity, at the same time, leaving the possibility to protect their own interests on a legal basis

(Compiled by the author)

This will save time, since the development of own methodology can take a lot of time and eventually prove to be ineffective, but the negative side borrowing proven methodological approaches to assessing the level of economic security may be the fact of their creation for the needs of a specific type of financial institutions and impossibility for use for the rest types of financial intermediaries.

Lets consider the features of the management of the economic security system of various types of financial institutions, which should be taken into account when laying the conceptual foundations for the formation and functioning of their economic security systems, as well as for the management of such systems.

Banks. When managing the banks economic security system, the bulk of resources should be directed at maintaining an adequate level of financial and investment security. The second most significant factor is the functional component of intellectual and personnel security, as the staff of banks can abuse the office and commit fraudulent actions both with the funds of clients, and with the financial resources of the bank itself, which undermines its reputation, competitiveness and financial stability. Not the least role in the banks economic security system should be devoted to information and analytical security. Loss of information about customer accounts, accepted and expected management decisions, personal data of a top management of a bank can cost a lot for the institution very, again, both in the future, loss of reputation and clients and financial resources due to probable

litigation and the need to compensate the incurred losses or lost profits.

Insurance companies. When securing the economic security of insurance companies it is important to organize an adequate level of information security, in particular, client bases that can be stolen by competitors; information about the insured property, which may be useful to the criminals-theft. On the other hand, for the normal activities of insurance companies, it is necessary that the information received by them from insurers is true and reliable, so their economic security system should provide tools for assessing the quality of data coming to institutions and ensure a high professional level of analytical procedures carried out on it. Therefore, the main component of the economic security system of insurance companies is its informational and analytical component.

Credit unions. The main threat to the credit unions economic security system is the non-repayment of loans granted to customers and public policy, which complicates their normal work (for example, decisions can be made on the loss of unions of the special tax regime that they enjoyed through the status of non-profit organizations). It is worth noting that tax security is an important element in ensuring economic security for all types of financial institutions. For credit unions, as a type of financial institution, it is possible to offer to spend more resources to secure financial and investment security, and to scrutinize credit histories and other information about its participants wishing to take loans, as well as to strengthen the monitoring of the state of external security, at least through activation of participation in self-regulatory organizations in order to protect their rights.

Pawnshops. When managing the pawnshops economic security system, the physical security of the institution must be a priority. Pawns do not carry out active financial activities, do not carry out complex technical and technological operations, do not have a large staff and significant amounts of information resources that need to be protected from abduction or damage. Therefore, their main task in order to continue profitable activities should be to ensure the preservation, that is, physical protection, of tangible assets of both - their own and their clients. This task can be performed within the framework of properly organized property, power (physical) security.

Leasing companies. When managing the leasing companies economic security system, special attention should be paid for establishing long-term partnerships with suppliers of leased assets in order to avoid violation of contract terms and loss of clients. In this regard, legal security is an important element of their security system.

Investment institutions. When providing protection of resources of accumulative retirement provision institutions, of corporate investment funds and of AMC, the main component of security is intellectual and personnel security. It depends on investment managers how investors' assets will be used and how they use them and manage them profitable and not lose them due to excessive self-confidence and ambition or risk aversion.

Conclusions. Consequently, in accordance with the practice of EU countries, it is proposed in domestic systems of economic security system management of economic entities, in particular financial institutions, to expand the scope of involvement of external actors in such areas as due diligence (legal audit), forensic. In order to increase the level of public confidence in financial institutions, the initiative of the government to establish a financial ombudsman institution has been supported. In the author's model of the Institute of Financial Ombudsman, 11 parameters were proposed: the financial market sector, which covers the institution, the source of financing activities, the number of involved people, the mechanism of work with citizens, the mechanism of work with financial institutions, the length of consideration of the case, the minimum and maximum amounts of the dispute, interaction with regulators of financial market, cost of services, accountability, binding decisions - and their optimal characteristics are given.

The experience of European countries practice can have a positive impact on the organization and effectiveness of the financial institutions economic security system management in Ukraine. Its practical nature and the possibility of rapid implementation in domestic management mechanisms allow to assert the need to borrow European traditions of safe-oriented financial intermediary management as a model officially recommended at the state level in Ukraine. This will allow in the long term to stabilize the financial security of Ukraine and to increase its level, first of all, by improving the indicators of banking system security and the security of the non-banking financial sector.

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PART 2. TRANSFORMATION OF EDUCATIONAL AND CULTURAL PROCESSES

INTELLECTUAL RESOURCE AS A FACTOR OF ECONOMIC DEVELOPMENT IN THE GLOBALIZED WORLD

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The interest of the world scientific community in the problem of intellectual resources is connected with the transition of the world most developed countries to a postindustrial economy (knowledge economy or abundance economy), which has the following features:

- **first,** a significant part of value added in such an economy is formed by knowledge determining the growth of the science intensity in products and services. Even the production of many consumer products becomes science-intensive.

- For example, design and other intellectual components form up to 70% of the cost of cars. According to the figurative expression of one of the American experts, «the car today is not wheels with chips, but a chip with wheels.» Each day, the science-intensive production grows in such industries as mining, oil production, machine tool and instrumentation, even grain (75%), etc. According to the famous American scientist and economist P. Druker, the current agriculture is simply «stuffed» with biotechnology, genetics, and computer technology in the highly developed countries of the world. Today it is one of the most knowledge-intensive branches of the economy[3].

- **secondly,** the process of development and use of knowledge began to play the most serious role. A real «education industry» emerged. It plays a key role in the economy along with defense, public health, and social protection of the population. It is believed that a person must improve his/her qualification at least 5-8 times for the entire period of professional activity. The US National Science Foundation recommends that specialists allocate at least 10 hours a week to study special literature and 40-80 hours a year to participate in any form of continuing education. [9].

- **thirdly,** there is a rapid process of turning intellectual workers into the dominant group of employees. In industrialized countries, this group is up to one-third of its size. In the United States, this category of employees (more than 30%) was called the «creative class». In Japan, 94% of industrial workers have a bachelor's degree, etc [9].

What is the reason for such serious changes? Some scientists believe that the

whole thing is the depletion of natural and work force resources; others - because of NTP development; the third - in the changes introduced by information technology, etc. There is some truth in each of these opinions. However, in our opinion, changes in the nature and scope of competition are a common basis. They are caused by the globalization of the world economy, the growing number of TNCs, their economic expansion, the information and technological revolution of our day.

In these conditions, the most important condition for the sale of goods was their competitive ability. If earlier one of the main conditions for success was considered competent planning, (long- and medium-term), now it is only the speed of the reaction of production to changes in the market situation. Changes today are so fleeting that forecasting becomes almost impossible. One of the heads of the European branch of Nokia said recently in an interview, «Everything goes to the fact that we will be introducing a new product in the morning, and it will have to be removed from production in the evening.» Such is the knowledge economy (the abundance economy) and the laws inherent in it [1].

The main competition tools were: a) orientation on the consumer's personality, the most complete account of his/her preferences; b) constant monitoring of the competitors' actions; c) continuous updating of its assortment in order to maintain market positions in the rapidly changing market conjuncture.

This allows us to determine one of the qualitative differences between the post-industrial economy (the knowledge economy), namely, the economic role of transaction costs. This new economic category, put into scientific circulation by the Nobel Prize winner R. Coase, is not connected with the traditional costs of production (expenses for raw materials, materials, labor, etc.), but with the costs of information search, marketing research, concluding contracts, protection of intellectual property rights, etc. / Today, transaction costs account for up to 50% of the total costs of production and sale of goods in the US. There was a situation in which goods are easier and cheaper to produce than sell! And of course, the requirements for the collection and processing of information, the study of demand, conducting market research, advertising, public relations, etc. increased by times. In other words, it increased in such types of intellectual activity, where knowledge is the main resource. Today, transactional services form a special sector of the economy in the industrially developed countries of the world, which importance is continuously growing - for example, it occupies more than 50% in the USA [8].

In the conditions of tougher competition and rapid development of scientific and technical progress, people faced the need to acquire new knowledge throughout their working life. In fact, more than 30% of the employed in the developed countries of the world are forced to acquire a new profession or higher qualification each year, to undergo retraining, and to constantly study. More and more, such forms of employment as self-employment, part-time employment, virtual forms of labor organization, etc., are growing.

At the same time, new forms of organizing economic activity arise, generated

as a whole by information and communication technologies (electronic commerce, electronic money, etc.). This significantly changes economic practices and puts the problem of the intellectual resources growth to the forefront. According to P. Drucker there will be no undeveloped countries in the future, there will be countries that are ignorant, and these concepts themselves will apparently turn into synonyms[3].

Historically, the development process of the postindustrial economy has already gone through three stages:

1. Stage of powerful intellectual potential accumulation
2. Stage of high intensive intellectual activity
3. Stage of active commercialization for its results.

Of these stages, the third, the stage of commercialization, is decisive. World practice uses many indicators to assess the effectiveness of commercialization. 4 most significant can be selected:

- proportion of people with higher education; share of public and private costs on R & D; share of high-tech industries in R & D expenditures; share of high-tech industries in expenditures on intellectual and communication technologies (hereinafter everywhere else - ICT); number of patents and trademarks per 1 million population.

The totality of these indicators determines the success of the commercialization for the intellectual activity results (hereinafter IAR) by estimating their market value and the possibility of export, with all the importance of such stages as the stage of accounting for IARs (introduction to the balance of the organization), the stage of their financing (expenditures for innovation activity) and the development stage (absolute and relative indicators for the number of patents).

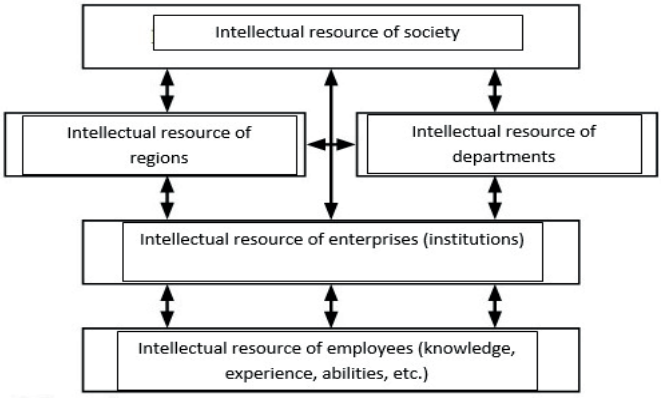

Fig. 1 Classification of the intellectual resource by its bearers (subjects)

In addition, it is just necessary to take into account cultural and moral values, national mentality, social stability, etc. These are intangible concepts. They do

not give the economic result directly. However, they play a colossal role in the development of intelligence, formation of intellectual resources and intellectual potential of the country.

While the intellectual resource is considered limitedly, mainly as a set of «scientific ideas and developments» embodied in products and technologies (V.P. Goreglyad, T.Ya. Khabrieva); or as «the result of integration of business cooperation with scientific institutions in the interests of increasing the science intensity for production and increasing competitiveness» (Y.F. Shamray), etc. Such an interpretation of the intellectual resource, in our opinion, is rather narrow, which distorts its essence, limits its potentialities in social development [4,5,6].

Deeper interpretation is found in A.N. Tatarkina, who supposes that an intellectual resource is a system of relationships for the production of new or enriched knowledge and intellectual abilities of individuals, collectives and society as a whole, through which the expanded reproduction of national wealth takes place on an intensive basis [4]

The above classification of an intellectual resource by its bearers makes it possible to draw two conclusions of a fundamental nature. On the one hand, the existing division of competencies between actors in the formation of knowledge and the skills among workers using them allows us to assert that the foundation of the national innovation system in Russia and Belarus was created. The task is only to fill its individual forms and institutions with innovative content and connect the market institutions of innovation system development, focusing them on the result (social, commercial).

Conclusions. The latter circumstance is important, the problem of accounting the result of innovation system functioning and the use of an intellectual resource is discussed and evaluated only at the level of comparative results up to the present time (the share of innovation-active enterprises, the share of innovative products in production volumes, exports, etc.).

The actual results of the subjects of the innovation process in the form of the employee's income with an intellectual resource, the commercial income of a team actively using the intellectual resource and the possibilities of own production, are either not accounted by state structures or accounted only at the level of statistical comparisons and without incorporating them into the innovation system.

On the other hand, an intellectual resource is a special resource formed and most effectively used only in case if there is a result of the efforts of the state and its bodies to create conditions for the implementation of innovation projects in practice through the process of their commercialization.

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INVESTING IN THE FUTURE

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We attempt to provide an overview on the questions raised by the current trends and changes in research and development, innovation and the approaches towards them. In Europe and in Hungary, the debate around research and development (R&D) mainly caused by the re-proposed targets of EU's Lisbon-Strategy, which puts the education, the research and the innovation – as the "triangle of knowledge" to the focus as the vault of European competitiveness. The rhetoric of the "European dream" built around society is overshadowed by statistical data showing that position of the continent is deteriorating in the global competitiveness.

The permanent restructuring and shifting preferences of the R&D sector cannot be always explained by the traditional concepts of social sciences. Although the trend setting school of economics is still the neoclassic, the economics based innovation management started to focus on economic-evolution theory. The latter seems to be more applicable to the „new economy" deeply founded in society, as it has non-linear dynamics.

We would like to put your attention to those changes of R&D, which requires establishing new indicators. As the unintended alteration of paradigm resulted

changes and the new types of technology-application based society innovation provided aesthetic developments and new cultural contents require new types of valuation methods.

Today's change diagnosing studies are not based on technology sectors, but rather on geo-political environment. We could clearly see the globalisation of R&D and the winners of its globalisation are China and India. Europe is loosing out contrary to the developing economies of Asia. The innovation output of the „old continent" is getting compared to the USA, which contrast out the lag of performance and demolish the myth of the „European Paradox".

The essence of European Paradox is that number of scientific publications of Europe in par with the USA, what indicates that Europe has the upper hand and if it can exploit this, than Europe can overcome its disadvantage in competitiveness. However, we have to emphasise the misleading nature of such a conclusion. When we analyse the usage of these publications, we have to conclude that the USA has the real advantage.

When we narrow down the number of countries and create the „Visegrad Paradox", we see that Central and East Europe has an even worse application level of its scientific capacity and performance compare to the EU-15. The 4 Visegrad-countries have only one way to step forward by creating a European Research Area (ERA) by reconciling their innovation processes and systems.

Brussel tries to push these 4 countries to increase the efficiencies of their innovation systems. The Lisbon Strategy is targeting the R&D spending level at 2.5% of GDP at state level and the double of this at the private sector.

The question remains: what model Hungary should use to be able to have knowledge based economy. For example, the „Finnish miracle" is not only a set of target oriented rules and legislations, but it required an appropriate social-cultural environment too. On the other hand, Singapore or the Silicon Valley are using completely different models for their flourishing innovation spray.

R&D and innovation are elements of the economic development, which requires target oriented, long term planning without the possibility of instantaneous measurement most of its impact. The centre of innovation is the mind and thinking, but the successful innovation is also creating applications and products, which are practical, they are able to be used in real life. The costs of R&D become an investment only if the result will be used and than its application will become an achievement. To measure the successfulness of R&D and innovation we need to assess the inputs and outputs to see the appropriateness of money spent and quality of expedient. The expenditures of R&D and innovation could be measured by various ratios to provide information to fine-tune the eco-political targets with expectations.

The European Union, to measure the effectiveness of R&D and innovation, created a complex indicator system comprising 8 dimensions, within that 25 ratios and the summarized value of all provides an index number, which evaluates the results of R&D and innovation. To be consistent and comparable, it uses a unified,

statistic based set of data specific to R&D and innovation activities. The content of each ratio (indicators) is clearly defined. The reliability is ensured by the use of data solely provided by the statistical offices of the member states of the Union.

Our analysis for 2015 details out the major numbers of performance of R&D and innovation by the EU-indicator system and also provides a comparison of these figures for the period between 2008 and 2015. For specifically Hungary, we provide an overview of legal framework, organisation of support and the major targets, strategy and performance indicators from 2010 onward.

The most commonly used international ratio to express the costs spent on R&D and innovation is to state the total expenses as „%" of the GDP. From 2000 to 2015 the GDP based spending in the EU and in Hungary has increased, but fall a bit short of the original target number. Both the Lisbon Strategy and the later approved Europe 2020 Strategy have the explicit target number for R&D and innovation spending level at 3% of the GDP for the EU member states. In 2010, Hungary had a target figure of 1.8% for 2020 and achieved the level of 1.38% in 2015.

The European Innovation Scoreboard (EIS) shows the relevant data for the given year per country by the combined innovation index and puts the member states into four different performance category:

• Leading innovator – states significantly succeeding the EU average innovation performance

• Strong innovator – those countries which have at or above innovation performance compare to the EU average

• Moderate innovator – the performance is slightly below the EU average innovation performance

• Lagging innovator – the ones with considerably lower performance compared to the EU average

In 2008 Hungary had lower performance than the EU average in innovation, but remained as a moderate innovator and continued as moderate innovator for the period 2008-2015. Hungary, on the basis of 2015 data, achieved 68% of the EU average innovation performance with a slightly decreasing tendency. Reviewing the details of Hungarian data for 2015, we could see the country has underperformed in all dimensions of the EU average. 20 out of the 25 ratios did not reach the EU average and in case of 5 ratios it exceeded it. In case of 11 ratios the performance of the country has improved in 2015 compare to previous years. Compare to EU countries, the Hungarian SMS-sector's innovation performance is very weak. Within the Hungarian SMS-sector, the companies carrying out innovation activities represents only 10.6% of the sector total, which is about the third of the EU average (28.7%) and only 12.8% of them introduced new products or innovative process into their activities. The R&D and innovation activities are concentrated at the large enterprises in Hungary.

The GDP based R&D and innovation expenditures were under or about at 1% in Hungary for the past 2 decades. Such stagnation did not motivated research and

development at all. Since 2008 we could see a change of course by an above 1% level of spending in the sector.

The analysis of the EU indicator system shows that those countries at the top of the innovation performance are delivering average exceeding results at almost all dimensions. This fact is also supporting that the innovation as such is a very complex phenomenon and its success requires appropriate contribution form a number of factors parallel. That is why there was no fast pace or significant change in the hierarchy of positions amongst the countries between 2008 and 2015. However, some of the countries managed to improve their performance year by year, hence achieved a considerable result over the period.

We have reviewed the 8 dimensions used for comparison to identify those with the strongest link to innovation performance. On the basis of 2015 data, the strongest correlation is between the overall index and „enterprises and relations". There is also a very strong correlation between overall index and „research systems". The enterprises and relations dimension measures the innovation at small and medium sized (SMS) enterprises and the innovative-cooperation amongst them. These are the ratios where Hungary lags behind within the EU. These are also show that the very modest level of R&D and innovation at the SMS sector drags back the overall performance of Hungary. Also, there is a very limited number of small enterprises founded for innovation and related activities.

The Lisbon Strategy and the Europe 2020 Strategy and furthermore the Horizont 2020 program are dedicated to set goals and objectives supporting the economic growth, job-creation, R&D and innovation to enhance the competitiveness of the European Union. These targets have to be applied at the member states' budgets, eco-policies and strategies to support a sustainable and inclusive expansion priority.

In Hungary, these strategies were the basis of support to R&D and innovation both domestic and international point of view. During the period 2007-2013 the „New Hungary Development Plan" the „Science, Technology and Innovation Policy", the „National Action Program" and the „New Széchenyi Plan" were those strategic initiatives. For the period 2014-2020 these initiatives are the „Investment in Future – National Research, Development and Innovation Strategy", the „White Books of sector based Research, Development and Innovation", the „National Intelligence Specialisation Strategy" and the „Széchenyi 2020" are the approved operative programs of the Hungarian government on the fields of R&D and innovation.

The framework of the Hungarian R&D and innovation activities are set on the basis of the EU's budget cycles, relevant policies, performance formatives and strategy framework.

For the period 2007-2013, the strategy of the Science-, Technology- and Innovation-policy set the goals of the expansion of research and development activities at enterprise level, creation of research universities, establishment of internationally recognised R&D and innovation centres, strengthening of knowledge based social competitiveness, and capacity expansion of regional R&D

and innovation. The „Investment in the Future" as the National R&D and Innovation Strategy now includes the Science-, Technology- and Innovation-policy Strategy. All of these strategies put emphasis on improvement of R&D and innovation at enterprise level to increase the competitiveness of the knowledge based society, the creation of knowledge base, encouraging cooperation between enterprises and research institutions and regional development incorporated in the complex national R&D strategy.

The Hungarian strategies and programs for R&D and innovation comprise performance indicators (with set numbers and ratios). The achievement of those targets however, cannot be measured by publicly available data.

After 2010 in Hungary the required changes of legislation, supporting organisations and systems are initiated and at some areas are even completed to backing R&D and innovation. The National Research, Development and Innovation Office (NRDI Office) have been established at 1 January 2015. This Office replaced all other R&D oriented sub-organisations and stipulates both horizontal and vertical cooperation and coordination amongst the participants. Such reorganisation of the supporting environment caused some delays in the realisation of R&D strategies.

With the creation of NRDI Office the Hungarian Government intended to set a framework to a more effective coordination of public financing. The increase in available funds require a more advanced level of coordination not only at a national level, but at the level of the Union, which, amongst others, includes supporting programs, standardised patent and copyright protection, involvement of venture capital, joint programs of different organisations and different countries in accordance with the best practices of EU member states.

There are two main questions to be answered with regards to the evaluation and assessment of R&D and Innovation performance of activities:

1. The evaluation of performance of the EU member states indicates that the leading and strong innovators are having a balanced and generally high performance in all dimensions. This means that those countries are able to deliver strong performance where all the parameters and conditions of successful innovation are present. What could be the conclusion to those who prepare and execute the Hungarian innovation strategy?

2. The analysis of correlation between the dimensions and the aggregated innovation index show that the most comprehensive relation is between the innovation index and the „enterprises and relations" dimension (0.923). This dimension measures the innovation level of small and medium sized (SMS) businesses and the cooperation/interactions amongst them. The same time, these are the ratios where Hungary lags behind within the EU. How and with what could we increase the innovation performance of small and medium sized businesses?

How could we get to the conclusion even before we have the analysis done?

It is really simple! We have already indicated that how many national and EU organisation; office and institutions are busy with the management of R&D and

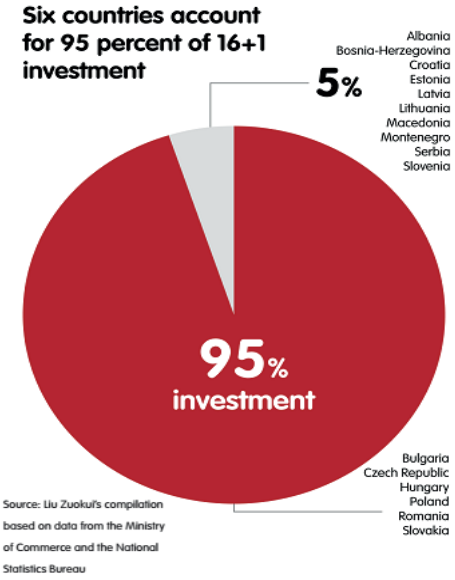
Innovation. Some estimates – these are really just estimates – the number of entities involved in R&D within the European Union is about 100, and the member states have couple of thousands of additional organisations. One could conclude – in reflection to these numbers – the less would be more!

Now, if 16 other countries hold the mirror to the current structure, than we could say „it is even worse" because in those countries where (compared to GDP or innovation level) the R&D and innovation level is more successful, the number of supervisory or managing entity is inversely proportional. More developed and more successful R&D in a country means fewer supporting and/or supervising entity. This is not due to centralisation, but the recognition of that R&D and innovation could not be effective with too many layers of autocracy.

In certain developed countries the decentralized, over simplified control and management structure could also lead to troubles, like in Germany, where the large car manufacturers under the cover of R&D instead of real innovation just falsified the emission data for their diesel engines.

Naturally, attempts to cheat the system is always be there, but it does not invalidate the original conclusion, namely, the level of economic development is reversely proportional to the size of autocracy, the water-head of public services.

Back to the mirror-example, now 16+1 country holds the mirror – because of China. As you could see China made 95 % of its investments in 6 countries with developed economy. The table shows the relevant numbers and ratios of these investments.



As mathematician and researcher of physics and quantum computing – someone really effected by R&D and innovation – I was puzzled and disturbed. What has happened here? Hungary received 36.79% of the total Chinese investment in the region and what has happened with it? Where is it? In which sectors? And this sum is about the total of investment made in Poland and Czech Republic.

It is not my task to identify responsibility, but I could see that something does not happened the way how it should have been. I am sure it is partly due to the overwhelming number of supervisory and management organisations with highly unproductive processes. The invested amount of USD millions should have had direct, measurable effect on the increase of GDP.

I could simply state that, on the basis of my experience and gathered data, but also by a rough estimation that Hungary – including the other 2 developed countries from the 16 – did not utilize the economic growth potential provided by the Chinese investments.

But if the +1 country really want to make all its efforts to properly invest the millions and billions of investments outlined in the 16+1 model, the One Belt One Road theory, the expectations of the New Silk Road project, than these resources should be the financial basis of a new dawn of development and not rolling dollars program. I know the 16+1, the OBOR is at an early stage of development, but this is the time, together with our Chinese scientist-colleagues to create a „professors' committee" (which has to be acknowledged by the 16+1) and this committee would have the responsibility to prepare and oversee the most effective program of research, development and innovation to be able to use the financial resources invested in future scientific work in that most efficient way. Naturally the results and achievements would be shared amongst the 16+1 countries.

Similarly, as described above as „professors' committee" for R&D and innovation, we have to set up some other, equally important committee, like for traffic and transportation, energy-policy, etc. Obviously, these committees are forced to cooperate, as there is no clear cut amongst the fields/areas, like the self-driving cars or smart cities programs. Evidently, as I think about it, the 16+1 countries, or China itself should set up a sort of „Office of Planning" where these committees could work, cooperate and coordinate their work, this could be the „China – CEEC Planning Board".

In such a case it would not happen a case like the Belgrád – Budapest railway line with spending hundreds of USD millions and at the end to discover that the project could not get the necessary authority approval from the EU. Please review the possibility of such option; otherwise the 16+1 or OBOR could end up like the hundred-legs EU - with many legs and he goes slow.

Introduction the system of measuring indicators of effectiveness and accomplishments of the European Union.

Chinese investment in 16 CEE countries in 2009 and 2014 (stock/USD m)								
	2009	2010	2011	2012	2013	2014	2009-2014 growth	Share of total Chinese investment in CEE (2014)
Hungary	97.41	465.70	475.35	507.41	532.35	556.35	471.14%	32.79%
Poland	120.30	140.31	201.26	208.11	257.04	329.35	173.77%	19.41%
Czech Republic	49.34	52.33	66.83	202.45	204.68	242.69	391.87%	14.31%
Romania	93.34	124.95	125.83	161.09	145.13	191.37	105.02%	11.28%
Bulgaria	2.31	18.60	72.56	126.74	149.85	170.27	7271.00%	10.04%
Slovakia	9.36	9.82	25.78	86.01	82.77	127.79	1265.28%	7.53%
Serbia	2.68	4.84	5.05	6.57	18.54	29.71	1008.58%	1.75%
Lithuania	3.93	3.93	3.93	6.97	12.48	12.48	217.56%	0.74%
Croatia	8.10	8.13	8.18	8.63	8.31	11.87	46.54%	0.70%
Albania	4.35	4.43	4.43	4.43	7.03	7.03	61.61%	0.41%
Bosnia-Herzegovina	5.92	5.98	6.01	6.07	6.13	6.13	3.55%	0.36%
Slovenia	5.00	5.00	5.00	5.00	5.00	5.00	0.00%	0.29%
Estonia	7.50	7.50	7.50	3.50	3.50	3.50	-53.33%	0.21%
Macedonia	0.20	0.20	0.20	0.26	2.09	2.11	955.00%	0.12%
Latvia	0.54	0.54	0.54	0.54	0.54	0.54	0.00%	0.03%
Montenegro	0.32	0.32	0.32	0.32	0.32	0.32	0.00%	0.02%
Total	410.60	852.58	1008.77	1334.00	1435.76	1696.51	3.13	100%

Source: Liu Zuokui's compilation based on data from the Ministry of Commerce and the National Statistics Bureau

Measuring the results of R&D activities. The R&D and Innovation are result oriented improvements of economie – requiring long term planning and determination – but some or most of the elements of success are not measurable immediately. There are certain factors playing role on the return or recovery of expenses born by R&D. Innovation and R&D activities are overlappning and strongly related to each-other. Their relation is based on the innovation chain (basic research, applied research, pivotal development, technological application, mass production, consumption). When the areas of inter-relations are successful, the

elements create the innovation chain and due to the complexity of the flows and reactions, the elements are not separable. Please note that not all initiatives reach the level to become an innovation chain to be a product or a sale-ready service.

The center of Innovation is the thinking, however, the successful innovation also needs demand from the user, beneficial side. The expenses occurred could become investment only when the result becomes product or service sold, thus make the innovation quantifiable. The success of research, development and innovation are gauged differently. In research, the level of success is measured by the scientific level – recognized contribution to science – of the research. Development is assessed by the application of technology or process to achieve the relevant goal of economy or society. In case of Innovation, the gauge is the result achived by the application of the outcome of research and/or development.

The R&D+I activities are getting more and more determining factor of economic progress, hence there is relevant legislation in place to ensure the proper use of resources for such activities in Hungary. The law on scientific research, developement and innovation is the 2014 LXXXVI Law, which provides the framework of all and any activity enhancing the competitiveness and income generating capabilities of the society to conclude a sustainable economic growth and job creation.

To be able to gauge the performance of R&D+I activities, we need to evaluate the effectiveness of money spent by reviewing the expenses paid. In practice it means the introduction of a permanent monitoring system of spending, including the constantly updated calculation of various ratios to ensure that we get an early warning in case of significant deviation from the original target, hence providing the possibility of adjustment. Such a permanent analysis of research results deliver substatial information to judge whether there is a need of fine-tuning of current activities to be able to meet prior targets set by eco-political derictives.

The European Union has created a complex indication system using a calculated sum of individual ratios and dimensions generating one index-value which assess the successfulness and effects of R&D+I activities. To be able to use such calculation method, it is important to have unified statistical data structure providing the relevant and comparable values for assessment. Comparability is achieved by the pre-defined calculation method of the required ratios (indicators) and the reliability and availability ensured by the Statistical Bureau/Offices of the members states (EUROSTAT is one of the Central Directorate of the EU created to provide central statistical figures to the institutions of the EU and to harmonize the applied statistical methodologies by the member states, the EFTA countries and EU-member-applicants.

The European innovation performance result summary table – which earlier called “Innovative Union result summary table” – is a structured set of data about the innovation performance of EU member states comparing it to non-EU member states and to regional neighbours’ performances.

The current layout of the table is made since 2010 (prior to 2010 it was a different

table with similar data content, e.g. in 2009, it was called European Innovation Progress Report), therefore it allows the comparison of years and provides the possibility to draw up tendencies. Furthermore, it enables us to set up grading of the countries and to analyse the performance changes of the countries. It also provides the relevant breakdown of indicators of the R&D+I by country and per sectors with identical data content. The ratios are calculated regardless to specific circumstances of various countries, but fulfilling the indicator function via data-reduction to minimize the need of special, area or circumstance related information. The indicators are able to exhibite the current status, but cannot display the reasons, which requires further analysis and collection of additional information.

The performance result summary table of the Union indicates the relative strenghts and weaknesses of the national innovation structures and helps to determine the areas requiring improvements per country. In recent years, there were slight modifications to the sources of information and the definitions of methodologies to the indicators. Any content type change to the ratios are listed next to the result summary table and to enable the comparability of country-performances it also includes the innovation values calculated in line with the previous definitions (e.g.: the data relating to scientific cooperations is derived from the Centre for Science and Technology Studies (CWTS) web Science3, but the figures for 2015 has been calculated on the basis of Scopus4 data. The differences are in e.g. the definition of capital investment – currently we use industry-sector statistics instead of Industrial statistic figures – the latter providing the figure for total capital investment from a country, but the previous one providing the figure of capital investment in the country – the two do not necesserely overlap.

The ranking list of innovation performance of the countries is calculated in a very complex manner called the Summary Innovation Index, which accumulates the R&D+I performances measured by 25 different ratios. The values in the ranking list represent the average value of those ratios, however, if you take the ratios individually, there might be sometimes significant deviation in ranking of a given country per different ratios.

These 25 ratios which examining the varous factors and effects of innovative activities could be categorized into 3 main groups:

• Elements necessary to innovation activities, such as human resources, research system, financing and financial support;

• Indexes measuring the innovation activity level of enterprises in the EU, such as ratios on assets, intelectual properties, inter-company transactions and trading activities;

• Indicators of factors influencing the economy as whole, like economic environment, etc.

To have a more detailed groupping of the 25 ratios of the indicator system, they are splitted into 8 dimensional main-category. Within the dimensions the ratios dedicated to certain areas, such as 5 ratio for measuring the economic enviroment,

4 ratio assessing the intellectual properties and products, furthermore 2-3 ratio to evaluate the performance of other areas.

Every ratio is a proportional value, which relates an R&D+I activity to an other value, e.g.: GDP, size of population, etc. to partially filter out the deviative effect of absolute-values. The assessment of innovation activities made by both of the complex indicator system as an overall evaluation and by the dimensional ratios, as individual parameters. We have summariesed the dimensions, types and categories of the ratios in table 1, the definition of indicator types provided in the glossary.

Evaluation of the indicators only possible via comparison, as in most of the cases there are no generally accepted value levels. The direction and level of connection amongst the ratios could be examined by correlation coefficients. The correlation is measurable to prove or disprove the paralel movement of certain ratios. In case of analysis, we could disregard the top and lowest values (top and lower decile). The statistically significant changes could be determined, also the tendencies, the averages are measurable, the deviations from the averages are quantifiable. However, the indexes do not filter out the effect of lower innovation level of countries recently joined the EU, therefore these figures are distorting the overall and average values.

Table 1

Dimensions of the EU Innovation Scoreboard

	Name of dimensuion	Indicator type	Number of indicator
1	Human resources	Positional/ impact	3
2	Research Systems	Positional/ impact	3
3	Finance and subsidies	Positional/ impact	2
4	R & D & I activities	Result	2
	company, investments		
5	Connections and businesses	Result	3
6	Intellectual property, instrumen	Result	4
7	innovators	Output/output	3

Source: Edited by the Hungarian State Audit Office

The actuality of figures for 2015 – published in 2016 – is improved compare to previous years. To push the publishing date somewhat later allowed to have the most recent figures included in the report. The sources of information have also changed, like the copyright and patent data has been provided by EUIPO (European Union Intellectual Property Office), venture capital investments' data are from Invest Europe (Eurostat has only indirect sources about it).

EU coutry ranking 2015. In 2016, the European Innovation Performance summary has been published on the basis of 2015 results and evaluated the

innovation accomplishments by the combined innovation index – as in previous years – and listed 4 performance group of the member states.

• Danmark, Finnland, Germany, The Netherlands and Sweden are the leading innovators with their innovation index substantially exceeding the EU average (innovation leaders).

• Belgium, France, Ireland, Luxemburg, Slovenia and the UK are strong performers, having innovation index values around the average value (strong innovators).

• Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Litvania, Malta, Poland, Portugal, Slovakia and Spain are having index values somewhat below the EU average and considered as moderate performers (moderate innovtors).

• Bulgary and Romania have innovation index values significantly under the EU average, hence are seen as lagging behind performers (modest innovators).

The summary table show the ranking in accordance with an average innovation performance, but the detailed calculation show a far more fragmented picture with significant deviaitons in varous ratios. The summary table provides a fair ranking, however, it could be used only partially to evaluate effeciency. To spend a higher % of GDP on R&D, or having an elevated ratio of people with higher education of the population, or the increase of the number of small and medium sized business in the economy do not – alone – mean the increase of innovation performance, but there are other factors to be taken into consideration (e.g.: number of researchers, renumeration and other incentives, etc.).

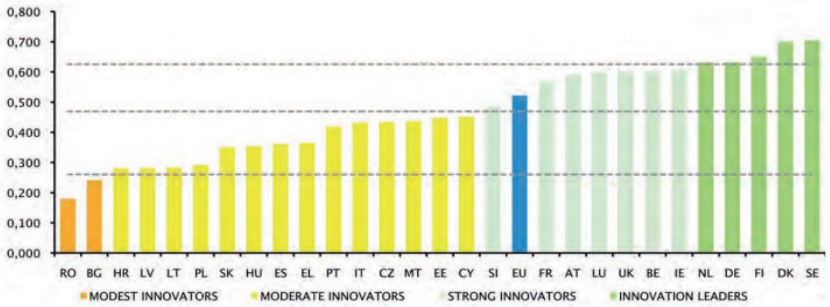
The general innovation performance and the country ranking based on the overall innovation indexes are similar to previous years, there are no significant deviation between the years. The good performers had good performance in every year. Measurable deviations had happened, but they are not tendentious.

In 2015, there were two significant change within the performance groups, Latvia became moderate performer (prevously it was lagging behind performer) and the Netherlands stepped up to leading innvoator from strong performer.

Hungary has been a moderate performer in 2015, leaving most of its Central European neighbours behind, such as Slovakia, Poland, Latvia, Litvania, Croatia and also the lagging behind performer Bulgaria and Romania. The Czech Republic and Estonia had better performance, while Slovenia is amongst the strong performers due to its balanced and over the EU average results. In the EU-28 ranking, Hungary has the 20th place based on its overall innovation index, which was 0.355 – the EU average is 0.521 – in 2015. The ranking is shown in table 1 – giving different colors to the different performance groups and to the EU average.

1. ábra

Az uniós tagállamok innovációs teljesítménye a 2015. évi adatok összevont indexe alapján



Forrás: Európai Innovációs Eredménytábla, 2016

Source: European Innovation Scoreboard 2016, edited by the Hungarian State Audit Office

Figure 1. Innovation performance of EU Member States based on the aggregate index for 2015

Innovation performance per dimension in the EU in 2015. Table 2 details the overall and the dimensional average index values for the EU countries and Turkey, the values of the top deciles are red and lower deciles are green (the description/ specification of the dimensions contained in table 1).

Table 2 shows that the leading innovators (countries in row 1 to 5) are in the top deciles in most of the dimensions, in other words, they show an evenly high performance. The colors used in the table makes it easy to identify the performance levels – like in case of Sweden and Denmark, they delivered top results in all dimension, but other countries have different color-mix on the basis of their marks.

Similarly, the countries at the end of the list have results at the lower deciles and some countries have higher performances in certain dimensions, like Litvania, compare to its category. Even in case of leading innovators, in some dimension, there could be areas where they have a lower value level, like Finnland, Germany or Ireland and even some countries have performance level at the lower deciles – in case of the Netherlands and the UK.

From an overall point of view, the highly balanced level of performance in all eight dimensions supports the interpretation of that innovation is a very complex phenomenon influenced by the joint effects of many parameters together. Some of the countries have outstanding results in some of the dimensions, however, they cannot be leading innovators, because the under-performance of the other dimensions weight out the lead.

Table 2

The combined innovation index of EU countries and Turkey and the average index of dimensions in 2015

Placement 2015	Country	Average Index Dimensions								
		SII	1	2	3	4	5	6	7	8
1.	Sweden	0,704	0,831	0,814	0,710	0,619	0,689	0,728	0,640	0,622
2.	Denmark	0,700	0,703	0,765	0,654	0,495	0,767	0,789	0,624	0,709
3.	Finland	0,649	0,783	0,625	0,765	0,500	0,676	0,716	0,595	0,561
4.	Germany	0,632	0,573	0,443	0,563	0,753	0,624	0,701	0,761	0,63
5.	Netherlands	0,631	0,653	0,774	0,663	0,237	0,727	0,624	0,542	0,681
6.	Ireland	0,609	0,816	0,582	0,363	0,300	0,593	0,426	0,773	0,777
7.	Belgium	0,602	0,622	0,768	0,502	0,492	0,814	0,487	0,565	0,561
8.	UK	0,602	0,786	0,795	0,506	0,270	0,591	0,502	0,519	0,681
9.	Luxembourg	0,589	0,431	0,771	0,372	0,136	0,544	0,720	0,704	0,742
10.	Austria	0,591	0,650	0,561	0,538	0,517	0,629	0,707	0,647	0,475
11.	France	0,568	0,657	0,678	0,566	0,363	0,505	0,488	0,663	0,578
12.	Slovenia	0,485	0,829	0,386	0,241	0,472	0,576	0,484	0,420	0,424
13.	Cyprus	0,451	0,662	0,392	0,278	0,153	0,454	0,403	0,621	0,425
14.	Estonia	0,448	0,554	0,340	0,727	0,555	0,456	0,426	0,422	0,323
15.	Malta	0,437	0,274	0,258	0,100	0,423	0,276	0,645	0,624	0,602
16.	Czech Republic	0,434	0,561	0,300	0,446	0,404	0,422	0,336	0,473	0,505
17.	Italy	0,432	0,407	0,398	0,279	0277	0,418	0,505	0,577	0,456
18.	Portugal	0,419	0,591	0,453	0,471	0,260	0,378	0,385	0,513	0,332
19.	Greece	0,364	0,562	0,408	0,224	0,281	0,412	0,243	0,471	0,322
20.	Spain	0,361	0448	0,413	0,357	0,185	0,236	0,437	0,250	0,432
21.	Hungary	0,355	0,462	0,218	0,272	0,367	0,206	0,281	0,319	0,570
22.	Slovakia	0,350	0,642	0,166	0,255	0,267	0,209	0,239	0,415	0,490
23.	Poland	0,292	0,556	0,125	0,274	0,361	0,094	0,391	0,210	0,301
24.	Lithuania	0,282	0,726	0,134	0,538	0,352	0,167	0,256	0,109	0,168
25.	Latvia	0,281	0,534	0,168	0,424	0,426	0,105	0,326	0,113	0,255
26.	Croatia	0,280	0,606	0,160	0,287	0,324	0,271	0,218	0,190	0,247
27.	Turkey	0,267	0,093	0,124	0,374	0,590	0,194	0,169	0,375	0,389
28.	Bulgaria	0,242	0,498	0,087	0,104	0,212	0,071	0,500	0,186	0,176
29.	Romania	0,180	0,392	0,111	0,070	0,084	0,045	0,149	0,193	0,273

Source: European Innovation Scoreboard 2016, edited by the Hungarian State Audit Office

Out of the 8 dimensions, Hungary is amongst the lower 10 countires in 6 dimensions, 1 dimension's performance is in the middle and an other one in the top 10 countries category.

In 2015, the joint index of enterprises operating in R&D+I activities in Hungary reached the 86.1% of the EU level, however, it is still a significant improvement compare to 2014 (almost 16% increase year on year). Regardless to the improvement, this value puts Hungary to the lower deciles, but you will also find strong performers in the category, like the Netherlands, the UK and Luxemburg.

With favourable resource index, we find – amongst the top 10 countries – Litvania (0.726), Slovenia (0.829) and the Czech Republic (0.561) from the Central European Region (see table 2).

The financial and supporting indicators worsened in Hungary in 2015. They have fallen to 55.58% of the EU average and also considerably declined – about 4.4% weakening – compare to 2014. Interestingly, Ireland, Belgium and Luxemburg – who are amongst the strong performers – have lower than EU-average indicator value.

In 2015, in the research systems evaluating dimension Hungary has the lowest value (0.218). It is 0.248 lower than the EU-average and has about 6% decline compare to the previous year. Generally this index has very high value at innovation leader countries, the only exeption is Germany (0.443) who is below the EU-average in this category.

The Hungarian performance is the worst in small and medium sized businesses category, the index is continously and considerably under the EU-average, which significantly influences the overall innovation performance of the country.

Change of innovation performance from 2008 to 2015. The second graphe shows the 2015 ranking of the 28 EU countries on the basis of their overall index values and also provides the index values of previous years (from 2008). This shows the tendencies of the past 8 years in accordance with the innovation performance indexes per country. The values of the indexes are presented in appendix 1, the graphe 2 shows the indication of tendencies only.

Having look at graph 2, it is clearly identifiable the advantage of Luxemburg in 2008 has been diminished, however, they are still in the group of top performers. On the other hand, the relative poor performance of the UK in 2008 improved so much it got close to the top performes in 2015. Within the moderate performers group, Malta had a declining trend until 2011, but they have managed to turn it around and got up to the average of the group by 2015. Croatia have done the contrary, it had a mixed, but continous decline from 2008 to 2015. Meanwhile Hungary has a somewhat stagnating performance over this period.

Qualification 2015.	Country	Summary Innovation Index (SII)							
		2015	2014	2013	2012	2011	2010	2009	2008
Leading	Sweden	0,831	0,814		0,61	0,689	0,728		0,62
Leading	Denmark	0,703	0,765	0,654	0,4	0,767	0,789	0,624	0,709
Leading	Finland	0,783	0,62	0,765		0,676	0,716	0,59	0,56
Leading	Germany	0,57	0,4	0,56	0,753	0,62	0,701	0,761	
Leading	Netherlands	0,65	0,774	0,66		0,727	0,624	0,54	0,68
Strong	Ireland	0,816	0,58	0		0,59	0,4	0,773	0,777
Strong	Belgium	0,62	0,768	0,5	0,4	0,814	0,4	0,56	0,56
Strong	UK	0,786	0,795	0,57		0,59	0,5	0,51	0,68
Strong	Luxembourg	0,4	0,771	0		0,54	0,72	0,704	0,742
Strong	Austria		0,56	0,53	0,51	0,629	0,707	0,647	0,4
Strong	France	0,657	0,678	0,56	0	0,5	0,4	0,663	0,57
Strong	Slovenia	0,829	0	0	0,47	0,57	0,4	0	0,4
Moderate	Cyprus	0,662	0	0		0,4	0,4	0,62	0,4
Moderate	Estonia	0,554	0,340	0,727	0,555	0,456	0,426	0,422	0,323
Moderate	Malta	0,274	0,258	0,100	0,423	0,276	0,645	0,624	0,602
Moderate	Czech Republic	0,561	0,300	0,446	0,404	0,422	0,336	0,473	0,505
Moderate	Italy	0,407	0,398	0,279	0277	0,418	0,505	0,577	0,456
Moderate	Portugal	0,591	0,453	0,471	0,260	0,378	0,385	0,513	0,332
Moderate	Greece	0,562	0,408	0,224	0,281	0,412	0,243	0,471	0,322
Moderate	Spain	0448	0,413	0,357	0,185	0,236	0,437	0,250	0,432
Moderate	**Hungary**	**0,462**	**0,218**	**0,272**	**0,367**	**0,206**	**0,281**	**0,319**	**0,570**
Moderate	Slovakia	0,642	0,166	0,255	0,267	0,209	0,239	0,415	0,490
Moderate	Poland	0,556	0,125	0,274	0,361	0,094	0,391	0,210	0,301
Moderate	Lithuania	0,726	0,134	0,538	0,352	0,167	0,256	0,109	0,168
Moderate	Latvia	0,534	0,168	0,424	0,426	0,105	0,326	0,113	0,255
Moderate	Croatia	0,606	0,160	0,287	0,324	0,271	0,218	0,190	0,247
Moderate	Turkey	0,093	0,124	0,374	0,590	0,194	0,169	0,375	0,389
Straggler	Bulgaria	0,498	0,087	0,104	0,212	0,071	0,500	0,186	0,176
Straggler	Romania	0,392	0,111	0,070	0,084	0,045	0,149	0,193	0,273

Source: European Innovation Scoreboard 2016, edited by the Hungarian State Audit Office

Figure 2. Summary Innovation Index (SII) time series

Few tendencies. Table 3 shows a summary of the changes in the overall indexes of the EU member states and level of change between 2008 and 2015. The top deciles is highlighted by red color and the lower deciles is green. The table renders proper observation of changes over the 8 year period. There are 2 countries to be mentioned, the UK was able to manage to rise from the middle to the top deciles and Malat from the lower deciles to the midfield. On the other hand, taking a look of the dynamics of improvement, we find strong and leading performers (Denmark, the Netherlands, UK, Belgium and Slovenia) and moderate performer (Malta, Italy,

Latvia, Litvania and Turkey) amongst them. Even the among the top performers you find countries with minimal improvement (Sweden, Germany) or decline (Finnland). Dispite these movements, the performance differences amongst the EU-member countries did not change significantly. Exceptionally large progress is highlighted by yellow color and significant regressions with dark green. From 2012 onward the number of countries with worsening overall index values has increased.

Table 3

The aggregate index of innovations per country between 2008-2015 years

Placement	Country	SII értéke		SII CHANGE OF VALUE							
2015.		2015	2008	2008-2015	2015-2014	2014-2013	2013-2012	2012-2011	2011-2010	2010-2009	2009-2008
1.	Sweden	0,704	0,697	0,007	-0,015	-0,002	0,005	0,002	-0,004	0,010	0,012
2.	Denmark	0,700	0,624	0,077	0,025	-0,017	-0,001	0,016	0,039	0,010	0,007
3.	Finland	0,649	0,663	-0,013	-0,008	0,016	-0,009	0,000	-0,020	0,009	0,005
4.	Germany	0,632	0,624	0,008	-0,023	-0,006	-0,006	0,012	0,002	0,003	0,012
5.	Netherlands	0,631	0,549	0,083	-0,008	0,009	0,045	0,006	0,007	0,017	0,014
6.	Ireland	0,609	0,584	0,024	0,002	0,006	-0,026	0,008	0,003	0,010	0,012
7.	Belgium	0,602	0,564	0,038	-0,005	0,011	0,004	0,004	0,010	0,021	0,012
8.	UK	0,602	0,525	0,077	0,021	0,011	0,003	0,006	0,018	0,002	0,005
9.	Luxembourg	0,589	0,632	-0,034	-0,028	-0,020	0,023	0,005	-0,013	0,013	0,014
10.	Austria	0,591	0,583	0,009	-0,008	-0,005	0,023	0,004	-0,031	-0,014	0,016
11.	France	0,568	0,539	0,029	0,013	-0,004	-0,006	0,005	0,002	0,010	0,011
12.	Slovenia	0,485	0,446	0,038	-0,013	0,022	-0,015	0,012	0,015	0,009	0,007
13.	Cyprus	0,451	0,470	-0,018	-0,036	0,007	-0,011	0,002	0,012	0,011	0,004
14.	Estonia	0,448	0,416	0,032	-0,031	-0,011	-0,015	0,037	-0,001	0,002	0,025
15.	Malta	0,437	0,342	0,095	0,066	-0,008	0,045	0,008	-0,025	0,028	0,012
16.	Czech Rep.	0,434	0,413	0,021	0,000	0,012	-0,021	0,003	0,018	-0,004	0,000
17.	Italy	0,432	0,389	0,044	-0,001	0,008	0,009	-0,002	0,011	0,009	0,011
18.	Portugal	0,419	0,393	0,026	0,000	0,017	-0,004	0,001	0,003	0,007	0,010
19.	Greece	0,364	0,370	-0,005	-0,035	0,013	0,010	0,004	0,003	-0,002	-0,006
20.	Spain	0,361	0,381	-0,020	-0,025	-0,008	0,007	0,002	-0,003	0,004	0,005
21.	Hungary	0,355	0,345	0,009	-0,009	0,009	-0,008	0,005	0,004	0,003	-0,002
22.	Slovakia	0,350	0,318	0,032	-0,004	0,008	0,032	-0,012	-0,013	0,011	0,011
23.	Poland	0,292	0,290	0,002	0,000	0,005	-0,011	0,006	-0,008	0,010	0,008
24.	Lithuania	0,282	0,239	0,043	-0,006	0,013	0,008	0,012	0,004	0,001	-0,001
25.	Latvia	0,281	0,214	0,067	0,048	0,018	-0,032	0,013	0,010	0,014	0,003
26.	Croatia	0,280	0,299	-0,019	-0,012	-0,006	-0,006	0,002	0,011	0,007	-0,006
27.	Turkey	0,267	0,188	0,079	0,062	0,005	-0,003	0,003	0,007	-0,003	0,001
28.	Bulgaria	0,242	0,219	0,022	0,003	0,028	-0,029	0,001	0,009	0,002	-0,010
29.	Romania	0,180	0,246	-0,066	-0,044	-0,004	-0,033	-0,003	-0,001	0,020	0,009

Source: European Innovation Scoreboard 2016,
edited by the Hungarian State Audit Office

Hungary have been a very moderate innovator throughout the period between 2008 and 2015 (the performance increased only by 0.009).

Over the 8 year period, 21 of the EU member states could improve its innovation index, however, Hungary has one of the smallest level of growth. The highest rise is made by Malta (0.095) and the Netherlands (0.083). Significant imrovements were made by some of the strong innovators, such as Denmark (0.077), UK (0.077), Belgium (0.038) and by the moderate ones, such as Slovenia (0.038) and Italy (0.044). It is very remarkable that 2 countries from the moderate innovators were able to jump to the top 10 performers, they are Litvania (0.043) and Latvia (0.067). In case of 7 countries there were long term deterioration of performance, among those Romania had the biggest drop (-0.066) and it was a significant decline in case of Luxemburg (-0.034) who otherwise is considered a strong innovator. From the top countries, the leading Sweden had a minimal progress (0.007), while Finnland had decline (-0.0013).

In the last period of 2014-2015 there were 18 member states with negative combined innovation index copare to the previous period, which indicates the exhaustion of reserves for the permanent growth. The negative change also reached the strong and top performers (Sweden, Finnland, Germany, the Netherlands, Belgium, Luxemburg, Austria, Slovenia) and obviously the midfield players (Cyprus, Estonia, Italy, Greece, Spain, Hungary, Slovakia, Litvania, Croatia).

Performance of Hungary compare to the EU-average within the dimensions for the period between 2008 and 2015

The joint index is a calculated average of the separate indexes of the dimensions. Table 4 presents the ration (in %) of the joint and the 8 dimensional indexes of Hungary compare to the EU-averrage. In 2015, on the basis of that year's data (EU average index value considered as 100%) Hungary has delivered 68% of the EU overall average. Hunary's performance had its highest level – 72% of the EU overall average – in 2008. It is thanked to the fact one of the dimension had an average exceeding level of performance and an other one delivered at about the average (human resources dimension 101.9%, R&D+I enterprices and investments dimension 100%). Throughout the period, these dimensions had mixed performance, while the rest of the dimensions had very little change.

In table 4, the red color indicates the areas where the Hungarian results are under 50% of the EU average over the 8 year period.

The red color cells of the table in most part of the 8 year period clearly show that the performance of Hungary in R&D+I activities are under the EU average in the following categories:

- Research systems
- Finance and support
- Relations and enterprices

Table 4

Changes in Hungary's innovation performance by dimension between 2008 and 2015 as % of EU average values

Dimension / Year	2015	2014	2013	2012	2011	2010	2009	2008
Concentrated index	67,99	69,51	68,12	68,35	69,56	69,18	68,23	71,62
Human resources	80,30	80,36	80,72	88,58	79,33	81,74	74,63	101,91
Research systems	46,81	52,75	49,59	51,02	51,84	46,98	49,24	53,76
Finance and subsidies	55,58	61,00	58,16	55,75	42,34	45,41	49,18	51,94
R & D & I company, investment	86,10	70,21	63,47	58,52	78,61	81,30	75,74	99,97
Connections and businesses	43,48	45,82	44,89	42,14	50,32	50,69	50,11	44,28
Knowledge value, instrument	50,63	51,78	52,74	52,96	51,95	54,30	49,63	50,84
Innovators	60,66	56,22	52,97	54,34	52,46	56,28	56,28	55,11
Economic environment	99,43	107,62	108,10	108,58	115,66	109,06	111,38	106,39

Innovation performance of Hungary per dimensions in % of the EU average in the period of 2008 to 2015.

The Relations and enterprises dimension measures the innovation at small and medium sized enterprices and the cooperation of such enterprises, where Hungary has a significant deficiency within the EU. In all the years the index was at or below the 50% of the EU average value.

Finance and support dimension show the GDP rated level of expenditures on research and development in the public sector, where Hungary has about 50% of the EU average value.

In Research systems Hungary has an unfavourable tendency as the number of non-EU MA-s compare to total MA-s has a low ratio.

Hungary has its best performing dimension the Economic environment, where the figures are close or around the EU average. This dimension measures the employment rate in the knowledge-intensive areas, the export of high-tech products, level of export in knowledge intensive services, sales of new innovation, licences and intellectual properties.

Human resources dimension was the area where Hungary could constantly deliver an EU average adjacent performance. It was the highest in 2008 (101.91% of the EU average), but it slowly started to decline since 2012. Despite the favorable figures, Hungary is amongst the lower 10 countries in the ranks. The decline has clear correlation to the reducing number of students in the higher education, number of degrees and MA-s from the universities and even falling numbers of pupils graduating from secondary schools.

The index of enterprises with R&D+I activities and investments was 86.1% of the EU average level in Hungary for 2015. After the drop in 2012, the index slowly, but constantly risen. In 2014 it had a substantial gain (almost 16%), however, the 2008 level remained the highest. Hungary is in the lower deciles with these values.

The index represents those expenses paid by the business sector for R&D and the ratio of non-R&D innovation expenses compare to turnover generated. It clearly shows that this index could be improved only via change of ratios in financing.

From an overall point of view, the parameters measuring the innovators had a 60.66% level for Hungary compare to the EU average. This index had its highest level in 2013, in spite of this, Hungary was still in the group of the lowest 10 performers.

The Finance and supporting dimension's indicators declined in 2015, thery were at 55.58% of the EU average (it is a 4.4% decrease compare to the previous period). The index had a mixed performance throughout the period, after the lowest point in 2011, it had rose for 2 years, than droped again (to 0.272).

The intellectual properties and non-tangible assets index had maintained its about the EU average level (50.63%) during the entire period.

The research systems index had larger scale of movements amongst the years. In 2015 had its most unfavorable level in Hungary, it was 0.248 below the EU average and it was about 6% decline compare to the previous year (currently at 0.218).

This index has high value in case of typically leader and strong innovators, except Germany (0.443), they were the only one from the top countries with such a low figure.

The Hungarian performance in Relations and enterprises category shows the worst result. Since 2012, this index is continously and significantly underperforms, hence infulencing Hungary's overall perfomance negatively.

Innovation performance of Hungary on the basis of individual indexes in 2015. In 2015, Hungary had underperformance in all dimensions and indexes relative to the EU averege, however, almost at half of the incexes the values were improving compare to prior years (see table 5). From the 25 indexes, in case of 20 it did not reach the EU average level, the other 5 were around or above the average values.

Table 5 indicates clearly that in 2015, Hungary had only one index where it outperformed the EU average (the Licence and Patent rights income from outside of Hungary in the % of the GDP). Compare to 2014, there was a minimal increase, therefore it was not a one-time result.

Furthermore, there are 4 indexes with close EU average values:

• Middle and high-tech products export participation from the total export,

• The ratio of completed/graduated from secondary school compare to the total population in the age group of 20-24 years old,

• Non-R&D innovation expenses (% of the GDP),

• Employment rate in the fast-growing and innovative sectors compare to the total number of employed.

In case of the other 20 index, Hungary is under the statistical EU average.

By assessing the indicators of Hungary, the best performance was made by the Economic environment index, which had an outstanding level at 277. On the other

hand, the largest level of drop is in the case of patent registration (7.2%), followed by the sales of new innovation on the market (4.1%) and the small and medium sized businesses innovation process implementation (3.8%).

Table 5

Hungary's R & D performance by 8 dimensions and 25 indicators as a percentage of the EU average in 2015 and the rate of change between 2014and 2015 percentage point

		EU 28 = 100 %	Change % 2015-2014
	COMPREHENSIVE innovation index	**68**	**-1,5**
	Human Resources Dimension	**80**	3,3
1.	Number of doctoral degrees per thousand inhabitants a within the age of 25-34	49	3,6
2.	Higher education studies are 30 - 34 years old age population	91	6,3
3.	Performs at least high school studies % of population between 20 and 24 years of age	102	0,1
	Research Systems Dimension	**47**	**2,6**
4.	International scientific joint publications per million people	90	5,6
5.	The world's top citations are top 10 % of the number of scientific publications in % for all the scientific publications in the country.	62	-2,2
6.	Doctoral students from outside of the EU are all doctoral degree	22	4,6
	Finance and Aid Dimension	**56**	**1,2**
7.	R & D expenditure in the public sector (% of GDP)	53	-2,7
8.	Venture Capital Fund (% of GDP)	87	5,3
	R & D & I company, investment dimension	**86**	**5**
9.	R & D expenditures in the business sector (% of GDP)	75	10
10.	Non-R & D innovation expenditure (% of GDP)	102	-0,5
	Growth and business dimension	**43**	**1,3**
11.	Innovation of Small and Medium Enterprises	37	-1,4
12.	Innovative small and medium sized businesses cooperate with others	54	-1,5
13.	Private and public sector publications per million inhabitants	68	1,3
	Knowledge value, instrument	**51**	**-1,4**
14.	PCT patent applications to GDP	34	-1,5
15.	PCT patent applications in the societal challenges as measured by GDP	28	-7,2
16.	Number of Community trademarks in relation to GDP	48	8,1
17.	Number of community designs measured for GDP	20	-4,3
	Innovators dimension	**61**	**-1,2**
18.	Introduction of product and process innovations for small and medium-sized enterprises	42	-3,8
19.	Introduction of businesses marketing or organizational innovations for small and medium-sized enterprises	70	-0,6
20.	Employment for fast-growing businesses is innovative	102	0,8
	Economic environment dimensio	**99**	**-0,8**
21.	Employment in knowledge-intensive activities	88	-0,6
22.	The contribution of exports of medium and high-tech products to the foreign trade balance	124	-0,1
23.	% of the value of exports of knowledge-intensive services compared to the export of all services	61	0
24.	The new for the market and the company is selling new innovations revenue in %	79	-4,1
25.	License and patent revenues from abroad as % of GDP	277	0,7

Source: European Innovation Scoreboard 2016, e dited by the Hungarian State Audit Office

The Research systems indexes typical value is very low compare to the EU average, especially in case of non-EU MA graduates level compare to the total number of MA graduates, its value is 22%. Infavorable shortage is also present in case of Relations and enterprises dimension due to the innovation level of small and medium sized enterprises, which is very low (only at 37%) compare to EU average. The index barely exceeded the half of the EU average in 2015.

R&D+I expenditures compare to the GDP. The most common measure of R&D+I expenditures and R&D activities is to express its % level compare to the GDP. In 2015 the EU countries in total spent about EUR 300 billion on R&D+I. It intensity (its % of the GDP) has been 2.03% for 2015 – it was 1.74% in 2005

The Lisbon Agreement and later the Europa 2020 Strategy incorporates the R&D as primary target and the expenses spent on it should reach 3% of the GDP by 2020. In Europe, the R&D spending lack behind compare to its global competitors, the USA (2.73%), Japan (3.59%), and significantly short relative to South Korea (4.29%). At the same time, Europe has a level similar to China (2.05%) and much higher than Russia (1.13%). In nominal value only the USA spend higher amount on R&d, than Europe. In Hungary, the level of increase compare to GDP is significant, about 80% expansion over the 10 year period between 2005 and 2015 (the EU had 47.8% increas on average for the same period – see table 6).

The GDP proportional research and development expenses in Hungary (see graph 3) were at or below 1% until 2008. In 2008, there was a slight improvement and since than it is above 1%. In spite of this, the years of stagnation has its effect on long term improvement, as R&D needs relatively long term to bring its benefits. In 2015, Hungary spend about HUF 468 billion on R&D, which is a 6.2% increase from the previous year. The deviation from the EU average have not changed during the whole period. Regardless to the increase in monetary terms, the R&D spending was 0.6% less than the EU average for 2015.

Table 6

R & D expenditure as a percentage of GDP in 2005 and 2015

Country	R + D expenditure as % of GDP		R + D expenditure (million EUR)		Change %
	2005	2015	2005	2015	
EU	1,7	2,03	202 129	298 811	147,8
Hungary	0,9	1,38	838	1 511	180,3
China	1,3	2,05	24 030	159 004	661,7
Russia	1	1,13	60 559	13 437	204,9
Japan	3,3	3,59	121 831	124 531	102,2
South Korea (2014 year)	2,6	4,29	18 966	45 585	240,4
USA (2013 year)	2,5	2,73	263 747	344 083	130,5

3. ábra

Kutatási, fejlesztési kiadások a GDP %-ában a 2000-2015. évek között

Forrás: KSH, ÁSZ szerkesztés

---------- EU-28 ---------- Hungary

Source: Hungarian Statistical Office, edited by the Hungarian State Audit Office

Figure 3. Research and development expenditure as a% of GDP (2000-2015)

The „Innovative Union" is integral part of the „Europe 2020 Strategy" with the target of 3% (of the GDP) spending on R&D activities and related investments by the public and the business sectors. In this respect, the target for Hungary is 1.8%. The total such spending at the EU level was about 2.03% in 2015, Hungary had 1.38% respectively.

In accordance with a linear projection, there is a need of very serious efforts to achieve the original R&D+I targets for both Hungary and the EU. In Hungary, the increase is thanked to the dynamic expansion of the business sector. The higher education had/has very limited resources (represents only 0.2%) which is the 25th place in the ranking of EU countries. The research activity is considerably influenced by the lack of research institutions and researchers, which show a strongly declining tendency – there were 1,400 places in 2015, which is 300 less than in previous years.

Conclusions. In 2015, from the total spending on research and development, more than half of it was spent on experimental reaserch, about 26.4% was spent on applied research and about 18.7% has been spent on base research. The business sector primarly paid those researches, which has direct effect on business activites, hence able to generate income within short notice, therefore the applied and base reaserch had to be paid by the state (public spending).

From the 2015 R&D spending 39.4% has been paid on industrial and technological research, 20.4% on healthcare, 13.6% on traffic, telecommunication and other infrastructure and the remaining about 25% on all other (about 10) research areas.

The number of MA graduated is also a very low figure in Hungary (the persons potentially doing R&D+I activities). The Hungarian figure is 0.9% (over 1,000 person), the Czech has 1.7%, Slovakia has 2.4%, Poland has 0.6% and the EU average is 1.8%. As a positive tendency Hungary had a growth for the age group of 30-34, where the number of graduates is 31.9%, which is getting closer to the EU average of 36.9%.

In 2015, 98% of the researchers were graduate, 43% of them are at research institutions, 41% of them are at research places in the higher education, the remaing part is at business related research places and other governmental organizations. The Hungarian Academy of Science (MTA) tries to create the next generation of researchers by various programs for post doctorals and young researchers to create employment possibilities. The number of members of the MTA and researchers with scientific titles has increased by 2.5% in 2015 (in total 16,203 people).

The number of published scientific articles has increased only in the electronic media in 2015. In other medias (like printed journals, etc.) there is a constant decline. Hungary traditionally is active in scientific publishing, however, the past years show a stagnating tendency. In the Nature Index database display the split of publications where the author (at least one of the authors) is working at the institution where it is published (called „Article Count"), which for Hungary is about one third (34%) of the publications are in geography, earth and environmental subjects and about the half of them (47%) on physics – generally 56% of the publications born by academic-research institutions. The publication activity and the number of articles uploaded into international databases (like Web of Science, Scopus) and to the Hungarian Scientific Publications database show mix tendency, where there was a rise in 2011 and 2014 and a slight set back in 2015 (see table 7).

Table 7

Data of research and development in Hungary at 2015

Description	Public sector	Higher Education sector	Entrepreneurship sector	Total
Payments, million HUF	62 241	56 742	343 984	462 967
Actual number of researchers, chief	6 290	15 643	16 485	38 418
Per hundred researchers scientific paper, in Hungarian language; piece	61	139	3	203
Per hundred researchers scientific paper, in foreign language; piece	95	175	3	273

Source: Hungarian Statistical Office, Statistical Mirror, Research and Development 2015

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IMPLEMENTING GLOBAL IDEAS IN TRANSITIONAL ECONOMY: METHODOLOGICAL TOOLS FOR STUDYING HIGHER EDUCATION REFORMS

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Research on higher education reforms tend to depict changes in universities as a gradual transition from loosely-coupled decentralized authorities towards more market-oriented top-down organization (Bleiklie and Kogan 2007; Bleiklie et al., 2013; Bleiklie et al., 2015) [2][3][4]. In institutional research terms, the movement can be conceptualized as a transition from educational logic towards customer-oriented market logic (Thornton et al., 2012) [5]. Usually these reforms are manifested under the banner of New Public Management – the concept that has diffused widely since its rise in 1980's (Hood, 1995; Lapsley, 2008; Hyndman and Lapsley, 2016) [6][7][8]. The central idea of NPM is to bring management models, practices and ideas from private to public sector in order to implement market-based and customer-oriented service in non-for-profit organizations. With the greater demands for globalization and internationalization, universities experience increasing pressures to adopt widely accepted and recognized policies and practices that will enhance efficiency and effectiveness (Ferlie et al., 2008; Maassen and Stensaker, 2011) [9][10].

This research proposal continues and develops theoretical and empirical ideas put forward in higher education reforms literature, however shifting an emphasis on changes in higher education institutions, specifically, institutional explanations of a voluntary adoption of private sector management models in public institutions. This kind of theoretical perspective aims at exploring motives, understandings and interpretations of western management practices, structures and innovations by local higher education institutions and distinguishes between adopters' adherence to management concepts' collectively constructed meanings and actual technical features. This line of reasoning suggests that adopters implement rational myths, replacing technical foundations of the concept by socially constructed understandings of efficiency and appropriateness, derived from local legitimacy criteria and institutional definitions of success. The difference between technical core of the practice and its interpretation by local organizations is usually so dramatic that it makes sense to talk about almost two different practices labeled under the same title.

The present study focuses on implementation of new education policies in

Ukrainian universities. In Saarinen and Välimaa's (2012) terms, this study falls under the category of policy implementation studies with a specific aim to uncover what happens during and after implementation process (2012:42; Wihlborg and Teelken, 2014; Broucker and De Wit, 2016) [11][12][13]. Research setting choice is made mainly due to authors' relative proximity to all key reform patterns and participants who can provide reach data on the process and contextual factors of reform implementation. But research context is also important and interesting for, at least, several other reasons. First is that Ukrainian issues in higher education reforms received rather scarce reflection in academic literature and thus can shed a light on various novel insights and findings that can contribute to the literature on higher education reforms. The second reason relates to the transitory nature of Ukrainian context which is characterized by its movement away from the Soviet-style higher education system towards modern models based on liberalization and marketization (e.g. Timoshenko, 2008; 2011; Monobayeva and Howard, 2015; Hladchenko, 2016) [14][15][16][17]. As is it noticed by many researchers, reforms and transformations undertaken by universities across post-socialist world reflect associated countries' transition from central planning to a free market economy. While western countries followed a gradual process of transformation and globalization, Ukrainian universities like other counterparts across the post-Soviet area experience the need for fast transition and try to meet new global standards and expectations that require turbulent and radical changes (Aydarova, 2015) [18]. This implies that reforms in Ukraine require much more radical change and universities have to "initiate divergent changes, that is, changes that break with the institutionalized template for organizing within a given institutional context" (Battilana et al., 2009:68; Greenwood and Hinings, 1996; Kwiek, 2001; 2012) [19][20][21][22]. Additionally, an institution distance between most successful areas of implementation and local Ukrainian context provide an excellent opportunity for examining the travel of global idea and its adaptation to a new setting (Czarniawska and Sevon, 2005; Sahlin-Andersson, 1996; Pinheiro and Stensaker, 2014) [23][24][25].

Therefore, the purpose of our discussion is threefold: to provide an understanding of higher education reforms processes as an institutional change (Greenwood and Hinings, 1996) in developing country in modern global age (Kwiek, 2001); to study and theorize the associations between key actors' attitudes, perceptions and interpretations of ongoing reforms and the design and implementation of new structures, practices and steering patterns; and to outline the differences and similarities between local variant and global standards as either outcomes of rational considerations and interests or local institutional features. One of the key themes in this study is state-university relationships and an interplay and trade-offs between national policies on the one hand and institutionalized patterns and habits in governance and knowledge production.

Theoretical framework. New institutional theory which originates from higher

education empirical settings (Meyer, 1977; 2009; Meyer and Rowan, 1977; Boli et al., 1985) [26][27][28] explains global trends towards homogeneity as a consequence of institutional pressures that stem from coercive, normative and mimetic influences (Kraatz and Zajac, 1996) [29]. Scholars adopting institutional framework in their studies of higher education reforms address organization-environment relations and explain both change and similarity in decision making (Stensaker, 2004; Frølich et al., 2013; Nyhagen, 2015) [30][31][32].

As Suddaby (2014) reviews, the foundational argument of institutional theory is "that organizations exist in social contexts in which the rules of appropriate behavior are defined, not by economic rationality, but rather by prevailing myths of appropriate conduct that become so cognitively embedded that they influence managerial assumptions of efficiency and rationality" (Suddaby, 2014:1) [33]. Institutionalists turn attention away from internal organizational interests and pragmatic economic motivation towards organizational environments, viewing organizations not as technical but social systems depending not so much on market forces but on institutional environments (Scott, 1987; Jepperson, 2002) [34][35]. The rapid expansion of higher education and universities as cultural models resulted in a taken-for-granted meaning of these categories while the essence of most reforms have been considered by many scholars as an attempt to of legitimacy obtaining, constructing organizations from the building blocks available in a wider environment. This assumption draws on foundational statements of institutional theory, that reality is socially constructed; actors, their actions, behavior and beliefs are institutionally defined and the only choice actors really make is which institutionally accepted template will be adopted in order to "complete" an organization" (Brunsson and Sahlin-Andersson, 2000) [36]. Further developments in institutional theory, inspired by micro theories like phenomenology and ethnomethodology allows looking "beyond market forces and the regulated industry but focuses instead on cultural factors, actions by states or professions, and how institutions shape markets or politics" (Schneiberg and Bartley, 2001:103; Meyer and Jepperson, 2000) [37][38]. The core idea behind the theories of institutional change, creation, modification and deinstitutionalization of institutions, therefore, remains that the very notions of interest, rationality and strategic behavior are socially constructed definitions elaborated through meaningful interaction (Scott, 1987; Friedland and Alford, 1991). Emerging as a chain of subjective judgments and opinions, over time certain elements and structures gain a taken-for-granted image, establishing itself as an objective reality, obtaining a rule-like status. Apart from sanctions or pragmatic interests in symbolic conformity, rationalized structures mean that actors believe in its objectivity because others do the same (Jepperson, 2002).

As such, these "shared understandings result in certain organizations having to perform certain activities regardless of their rationale because of the taken-for-granted nature of those understandings" (Phillips and Malhotra, 2008:707) [39]. Meyer and Rowan (1977) described how organizations in highly institutionalized

environments tend to dramatically reflect taken-for-granted elements in their formal structures in order to depict themselves as legitimate members of their social and cultural order. This phenomenon was used to be explained by the acceptance of dominating scripts and logics as the only obvious and natural way to conduct an activity or by actors conformity to what is perceived in a given context as rational and appropriate. The latest statement appears to be interpreted differently in institutional literature. While more phenomenological argument states it that actors do believe in dominant institutional order and perceive it as the most appropriate and efficient means to desired ends, other scholars undertake strategic perspective on agency vs. structure debate, leaving the space for conscious, pragmatic and purposive action. Adopting legitimate elements from environments doesn't mean pragmatism and strategic management of legitimacy but the minimal cognitive efforts in response to provided institutional templates. In contrast according to strategic view, actors can manipulate their environments, pretending to conform, while decoupling symbolically adopted elements from their technical day-to-day activities. In other cases, actors not only become aware of institutional constraints but actively engage in its change and deinstitutionalization in favor of more attractive alternatives. Such a strategic view on agency and interest in institutional theory distorts its core assumptions, in particular the social constructed nature of institutional effects.

For a single organization institutionalization occurs when its core functions, purposes and structures become infused with value beyond initial technical foundations. Such organizations adapt to what they believe society expects from them, partially or fully replace their technical ends within institutional meanings. Phenomenological versions of institutional theory claim that there are no coercive pressures and penalties and in case of deviation we are talking about a transmission of truly institutionalized ideas and practices (Meyer, 2008; 2010). Institutional isomorphism occurs naturally, as field members perceive institutionalized scripts as taken-for-granted social facts, part of objective reality. Hence, they adopt these rational myths because others do, which, in turn, means for them that these practices for all purposes must be rational, optimal and appropriate way of doing things. Institutional logics perspective conceptualizes such shared beliefs and understandings as resulting from broader cultural norms and values embedded in a specific historical context.

Nevertheless, there are plenty of documentations of heterogeneous responses to institutional pressures that used to be explained as acts of institutional entrepreneurship and interest-driven strategic dealing with isomorphic trends. Scandinavian institutional school, however, has developed more nuanced and elegant framework for explaining how heterogeneity occurs and injects a certain amount of agency into institutional analysis. The main focus of this research program is on ideas' variation and reconfiguration as they diffuse widely and lend in local contexts. For them, neo-institutional scholars used to overemphasize the role of conformity, stability and standardization while issues of change, deviation and agency remain

underdeveloped. Scandinavian institutionalists argue that rarely ideas get adopted in a way desired by implementators. Rather it is a rule-like that heterogeneity occurs in response to the same idea. Local adopters may adapt and transform (whether intentionally or not) to the degree that an implemented outcomes may no more be recognized under the same label (Erlingsdottir and Lindberg 2005) [40]. Unlike in neo-institutional arguments, translation theory views decoupling between adoption and utilization (in strongest versions of institutional formulations – an inconsistence between talk and action) not so much as a symbolic pragmatic demonstration of conformity in order to buffer formal structures from questioning and inspection but rather as creative, often unconscious and unintentional interpretation of too abstract and ambiguous idea. What remains unclear in translation perspective is whether unique local versions are products of editing rules generated by local institutional order or actors pragmatically and strategically adapt and transform global standards to fit their own interests. Hence, translation framework has already enjoyed application in higher education research, in particular, in a series of studies conducted by R.Pinheiro (Pinheiro, 2012; Pinheiro et al., 2012; Pinheiro, 2013; Pinheiro and Stensaker, 2014) [25].

For institutional analysis is it essential to attend a structure-agency debate and examine a degree of agentic efforts and degree of embeddedness. The study addresses the question that inevitably arises when applying institutional theories, that is, whether field members can act more-less independently from their institutional environment or the norms and criteria of efficiency, appropriateness and economic rationality are institutionally defined across the field (Friedland and Alford, 1991). The matter of distinction between "institutions as social fact and institutions as visible limitations on action" (Boxenbaum and Jonsson, 2008:84) [41] poses another question of whether reforms implemented are result of individual independent choice or it is a derivative and reflection of dominant institutional logic? Consequently, if any reinterpretations, modifications and radical adaptation of global standard takes place, is it because of internal critical analysis based on hard facts or because the very understandings of best practice and best modification are themselves institutionally constructed and defined? (Scott, 1987; Dobbin, 1994). After all, the need for deinstitutionalization of old forms and policies and initiating and implementing new vision is vital for successful transformation. Therefore, we need to understand who initiate changes, how key decision makers interpret and perceive new policy and how these processes affect universities.

Despite many new significant developments in institutional theory, its application in higher education research remains limited, being framed by, mainly, only former concepts such as isomorphism and legitimacy-seeking behavior. Two above mentioned theoretical and analytical frameworks allows unpacking reforms' antecedents, process and outcomes from the perspective of both policymakers and observers as well as to detect the impact of wider isomorphic forces that pushes organizations towards homogenization (Meyer and Rowan, 1977). Both translation

perspective and institutional logics framework has been already successfully utilized in higher education reforms research and reviewers argue for its usefulness in future research (Lepori, 2016) [42]. Applying translation model helps researchers to understand how the meaning of idea gets changed and adapted to local context. At the same time, the notion of institutional logic takes into consideration and conceptualizes two essential patterns of any change and interests. First, there are different meaning systems and worldviews embedded in logics that actors must interpret, make sense with and chose from (Friedland and Alford, 1991). Second, any understandings, norms and criteria of rationality, appropriateness, efficiency and economic interest are socially constructed by the given institutional order and usually vary across the fields. The full potency of both research streams are rarely used not only in higher education research but in institutional studies in general. Often, researchers use both concepts either to benchmark institutional factors against economic ones or to depict the process of rational choice among different alternatives and creative ways to strategically respond and manipulate institutional processes. Another popular research strategy implies the notion of rational considerations among early adopters and legitimacy concerns and conformity for later adopters which is known as two-stage diffusion model. But another major shift that is still untaken by both institutionalists and scholars of higher education reforms is a departure for original institutional formulations focused on isomorphism and conformity toward heterogeneity of responses and interpretations. As Lepori states, "most uses of the "logics" term in higher education have been largely metaphorical and have not fully mobilized the analytical potential of the approach and the methods developed by mainstream logics studies" [42, pp.254-247]. In this research we argue for mobilization and combination opportunities of both theoretical frameworks described above to perform a nuanced and comprehensive analysis of reforms process.

Potential areas of institutional research on higher education reforms. The main aim of this research is to discuss the possibility of studying the antecedents, mechanisms, process and outcomes of new policy implementation by the biggest Ukrainian university from the institutional perspective. Institutional theory is chosen here as the most suitable analytical framework for examining structural transformation at the micro-level under conditions of uncertainty and conflicting institutional logics (Stensker, 2004; Lepori, 2016), therefore, research questions account for all central issues in studies of the interplay between higher education institution and its wider environments (Frølich et al., 2013). These issues include:

- Social construction of organizations and embeddedness of interests vs. active agency and deviance from established isomorphic pressures;
- Responses to institutional complexity and selection among different institutional logics;
- Interpretation of new dominant logic (active and creative process of interest-driven adaptation and modification or unconscious interpretation according to

institutional templates);

- A blind compliance with institutional norms and beliefs or pragmatic adherence in order to achieve legitimacy;

- Decoupling policy and practice as a consequence of pragmatic separation between talk and action or an inability to achieve desired outcomes (due to a lack of skills, knowledge, power or resources);

- Symbolic and material aspects of policies, institutional distortion of technical reality as a result of value infusion.

With the help of institutional theory theoretical and methodological apparatus, the above presented theoretical framework aims answering the following research questions regarding higher education reform in Ukrainian university:

1. What are the rationales for adopting new education policy in the university, who has designed and approved it for an introduction and who are the key decision makers at different stages of implementation?

2. How do decision makers and other organization members interpret and respond to new tasks of transformation and how institutional processes affect attitudes, judgments, understandings and decisions? How more macro institutional logics translated and edited in local context?

3. What are the outcomes of new policy introduction for examined higher education institution and for academic practice and whether the implications are in line with what they promised?

Therefore, the potential of this framework is to find out what constitutes higher education reform at all levels of its implementation and whether and how this process is shaped by the state, market competition, culture and institutional effects (normative and mimetic).

Research setting, methods and data collection. The framework discussed in this paper is best suited for qualitative research, namely for a single country study, approaching "a meaningful interpretation of single cases" [43, pp.383]. As a purpose of this study is to offer a toolset for an in-depth investigation of the on-going process and peculiarities of new policy implementation in the university, we chose to propose qualitative interpretative methodology in order to "focus attention on how and why things emerge, develop, grow, or terminate over time" [44, p.1]. Although it is not a common research strategy in institutional studies, which use to focus on quantitative methods of treating institutional effects as a matter of volume, instead of measuring meaning systems, yet it addresses many aspects that typical quantitative institutional analysis doesn't attend and fail to examine. If one aims to capture the whole process of change, starting from policy formulation and design and finishing with a discussion of reform's outcomes and finding out "how the different conditions generated by national specificities and organizational peculiarities affect the extent and form in which the changes have taken place" [43, p.390] in a single country, it is necessary to adopt qualitative research strategy. For strengthening ontological institutional analysis of organizational-environmental

relationships, qualitative interpretative case study can help the subjective experiences of organizational reality. Suddaby (2010) in his accounting on research methods in institutional studies points out the following major gap in quantitative methodology and functionalist epistemology:

"…we, unfortunately, tend to rely on proxies that are quite distant from the meaning systems that we really want to understand. Take mimetic adoption for example. The adoption of a new practice or organizational form (i.e., a structural measure) is often taken as a proxy for a change in institutional logics (i.e., a change in meaning systems). But simply counting the outcome of an institutional process (adoption) fails to account for all that is important in the central questions of institutional theory. Was the new practice adopted for reasons of mimesis or did it actually improve performance? More importantly what was the motivation for adoption? Without asking the participants, we will likely never know the answer to that question." [45, p.16].

A longitudinal study allows tracing the process of change in real time which is crucial for capturing institutional effects and decision making process and, at the same time, rare in organizational studies in general and in institutional analysis in particular. Usually when analyzing a historical period, over time many changes can be perceived as isomorphic. At the same time, individuals tend to rationalize their actions when asked for comments post-factum.

Conclusions. The purpose of this paper was to provide an understanding of higher education transformation in the university in transitional economic and cultural contexts mobilizing theoretical, analytical and methodological capacities of new institutionalism, combining, in particular, institutional logics perspective, phenomenological version of institutional theory and Scandinavian institutionalism. Within proposed framework authors hope to offer interesting and promising avenues for both theoretical and practical implications. Fundamental transformations undertaken by the biggest Ukrainian university can contribute significantly to our understandings of higher education reforms in transitional economics, antecedents, context, mechanisms and outcomes of such a change, shedding a light on how ideas introduced and interpreted at the University level and how the relationship between state and the university transforms.

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PROBLEM FIELD OF MODERN HIGHER EDUCATION

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Education was and will be a significant factor in the civilization development of humankind. That is why the educational systems of developed countries are an act to follow. Therefore, the problems of modern education in general and high school in particular, is extremely relevant. Many developing countries are currently concerned about the inconsistency of national education systems with the latest socio-cultural processes. Ukraine is not an exception, thus this study aims to outline the main problem areas arising before a modern high school and to predict the current trends for modern high schools.

Many domestic and foreign researchers are trying to analyze and explain the necessary solutions, measures, technologies that will facilitate transformation, modernization of the education institute. The theme of modern educational tendencies is disclosed by such researchers as A. Eehelbaum, A.M. Atayan, V.P. Andrushchenko, V.S. Bakirov, N.G. Bagdasaryan, G.E. Zborovskyy, E.A. Knyazev, etc. The issues of educational innovations were studied by K. Angelovska, L. Vashchenko, A. Kozlov, N. Artykuts, M. Potashnyk, V. Zhuravlev, N. Yusufbekova, G. Gerasimova, L. Ilyukhina, I. Bekh, L. Danilenko, I. Dychkivska, M. Clarina, O. Pekhota, O. Popova, L. Podymova, A. Prygozhyna, V. Slastionina, A. Khutorskyy, etc. However, most of these studies focus on the formation of a new educational paradigm, or on the ways of bringing the national educational system to the particular reference standard. However, we are trying to analyze the global challenges causing the restructuring in the entire higher school.

Thus, we outline three main problem areas requiring a rethinking of the foundations for the existing higher education:

1. High School Mission
2. Principles of the functioning for the Education Institute
3. The final result (product) of the modern University

The first problematic issue is the mission of the High School. Mission is a role that an organization gives yourself in a society or an individual personality sets. The mission is a high purpose, responsible role [5].

Even with a superficial retrospective analysis, it can be understood that each historical epoch gave its explanation for the mission of universities and their role in the structure of society.

Education is treated as the virtue of a man as an essential part of his outlook, as a potential providing great opportunities for the harmonious development of personality. In our opinion, this position of the Ancient Greeks is the closest to the understanding of the modern mission of education, where the higher educational

institution should become a «field of opportunity» for those who are tangent to it, to give them a reliable resource for further growth.

In the Middle Ages, the mission of the University was to preserve and reproduce existing knowledge. The University acted as the legitimate center of theological thought, the thinking elite and received a monopoly on the spread of knowledge in society.

Enlightenment is the most daring challenge of man. Here the technocratic worldview and faith in the superficiality of man attract a person. During this period, the idea of merging studies and science within the University becomes widespread. The University should not to be only and not just an educational institution, but also the center of science and research (Humboldt, Newman, Jaspers). «... the University should become a platform for public demonstration of the mind, an equal partner of the state in determining the ways to achieve the public good», wrote E. Kant [3; 161]. A civilizational discourse began here - educational institutions had to reproduce the knowledge or they have to generate it? A series of «University Concepts» (Humboldt, Newman, Ortega y Gasset, Jaspers, Hutchins, Hessen, Kerr) appeared in response to this issue. In these models, the feasibility of obtaining and reproducing knowledge through the addition of scientific activity was substantiated. That is, university professors should not only pass on an array of knowledge to the students and experience accumulated over the centuries, but also engage them in joint scientific research and in the generation of their own ideas. Therefore, the mission of education, in this context, is the generation and reproduction of ideas and knowledge through the organization of scientific activity at a higher educational institution.

In the post-modern era, the rapid development of mass production, the priority of all industries, the role of education acquires a new meaning - the mission of higher education institutions is now to serve for the society, to recreate a whole stratum of highly skilled people who are in need for a national economy. Hence, the university was considered as a link of higher education, which gives a full range of knowledge, and skills to the person - competencies sufficient to perform certain narrow professional activities throughout their lives. During this period, most of the universities of the world branch out into many faculties, specialties, introducing rather narrow specializations. Educational institutions are trying to make it through the rapid development of technical, humanitarian and creative spheres of public life, guessing which professions will be relevant in the near future in order to prepare qualified specialists for a complex social organism. University education becomes massive, therefore accessible, but does not lose some elitism. As Higher Education also plays the role of «social lift» in the era of mass production - a guaranteed opportunity for an individual to improve his professional and social status.

The closest to us is the Information Age. The issue of the Higher Education Mission is again raised before all educational systems. Socio-historical conditions are changing so radically and rapidly that the civilizational discourse over the role

and possibilities of modern higher schools has again flared up. The humanity is increasingly asked the question, «Is the modern university capable of giving the knowledge and competencies that will help to harmonize one's own worldview, to realize all the ambitious aspirations of a man, to open up wide opportunities for comprehensive development and intellectual growth?»

In our opinion, the mission of higher education should be defined as a resource today. Education is, first, the resource for the person, its personal capital, which, when properly used, gives great prospects. And the higher education institution is treated as a space filled with meanings and opportunities for the implementation of intellectual and creative aspirations of those who are studying and working there.

The second issue is connected with the basic principles of functioning for modern higher education. Principles of organization for educational and scientific processes must be rethought and transformed. This is the undeniable fact that the University loses the monopoly of knowledge today. For centuries, higher education institutions were the only, officially recognized, educational and scientific attractions. Maintaining the status quo is much more complicated now, as alternative forms of knowledge are rapidly developing, private research centers, laboratories based on large corporations operate successfully. The well-known Silicon Valley is an example of such a scientific attraction, where well-known business structures have created a research space focusesed on the best resources, advanced technologies and brilliant intellect of scientists from around the world. Similar scientific communities are becoming popular, and have already successfully operated in Japan, India, Hong Kong, Russia, etc. Not all universities can afford to have similar research centers, finance large-scale research, and scientific experiments. Therefore, it is impossible to state unequivocally that the higher educational institution is the only legitimate flagship in the field of science, culture, innovation.

Next, we consider it expedient to disclose new principles of the functioning for the higher education institution.

1. Corporativity. Corporativity for an educational institution involves the ability to integrate with other organizations and structures to maximize the effect. It is the ability for partnership cooperation with research centers, business structures, state organizations and cultural centers on mutually beneficial terms.

2. Personalization of the educational process. The main mission of the university teacher is not just the relay of universal knowledge and experience, but also the definition of the priority directions for each individual student, taking into account his/her interests, preferences and abilities. Possibility for students to choose the trajectory of their educational process independently, to choose mentors, training courses and place of study. The mobility of both students and teachers who are not attached to one job, one university, and realize their own teaching potential at will is at the forefront.

3. Coevolution. Educational institutions should become the first embodiment of co-evolutionary worldview. Educational systems should be organized today in such

a way as to answer the question, «How to live in this world in harmony with it (with nature, with society, with artificial intelligence)?» Approaches to understanding the essence and role of education at the present stage are contained in co-evolution (N. Moiseyev), noospherogeny (V. Vernadsky), sustainable development (Roman club), civil society (T. Hobbes, J. Locke) concepts [1, 4]. Thus, modern education should complement the person's worldview with co-evolutionary principles and values emphasizing the potential of human capabilities in harmony with the nature and society to increase the supply of life sustainability in the universe without violating its laws.

And the third problem is the issue of the final product (result) for educational activity. Here, cultural and historical conditions also dictate their requirements. In the Middle Ages, the product of education was an adherent of theological texts. That is, a man who knew all the canonical texts and could interpret the Word of God. The product of the University in the era of the Enlightenment was a thinking person capable of reflection and his/her own scientific thought. The postmodern education product was an intellectual, a highly skilled worker. The product of the modern educational system, in our opinion, is a free, thinking, responsible personality, endowed with universal knowledge with a clear understanding of the purpose and possibilities of using own resources.

In order to get closer to the result, the principles of the educational process organization should be reviewed at the University itself. First, it should be pointed out that knowledge as such is not the goal of education today; knowledge acts as an instrument for a more global purpose now. Therefore, in our opinion, the following components of the educational process should be added and strengthened:

- analytical. The huge stream of information that pours on each person every day must be analyzed, structured, sorted out to become a knowledge. Analytics (from the Greek ἀναλυτικά) is the basis for the intellectual, logical and thought-provoking activity aimed at solving practical problems. It is based not just on the principle of establishing the facts, but on the principle of «advancing events», which allows the organization or individual to predict the future state for the object of analysis [6].

Analytics should become the primary, basic skill of a modern educated person.

- scientific. Students must master the technology of scientific research, be able to use a scientific approach in the first place, because it guarantees the truth of knowledge more than all the rest.

- designing. Projects Method is an educational technology, aimed at gaining students' knowledge in close connection with real life practices, the formation of specific skills and knowledge in them through the systematic organization of problem-oriented learning search [7].

The project component involves gaining knowledge not as a final goal, but as an intermediate link. That is, knowledge is used as a tool to achieve the project goal.

Analyzing certain issues of higher education, we concluded that education today

is a space filled with meanings and possibilities, which result of the operation is free, independent, responsible person with the knowledge and competence as a basic resource for further intellectual growth and creative development.

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INVESTMENTS AND FUNDS UNDER CRISIS

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The economic world crisis naturally influenced the investment field also, however, has not stricken it such an extent as the households (Lentner, 2015, Lentner & Nagy 2016/a, 2016/b). As after-effect a real regulatory price flow started particularly on the level of the European Union, the signs of which arose first in the year of 2010. Despite the fact that the investment sector was not responsible for the outburst of the crisis, the most important changes figured in this field. We still cannot know what consequences will arise due to these modifications at a long term will they help the development of the investment market or not. The role of the regulation authorities will grow and these regulations will be realized more and more on the level of the European Union.

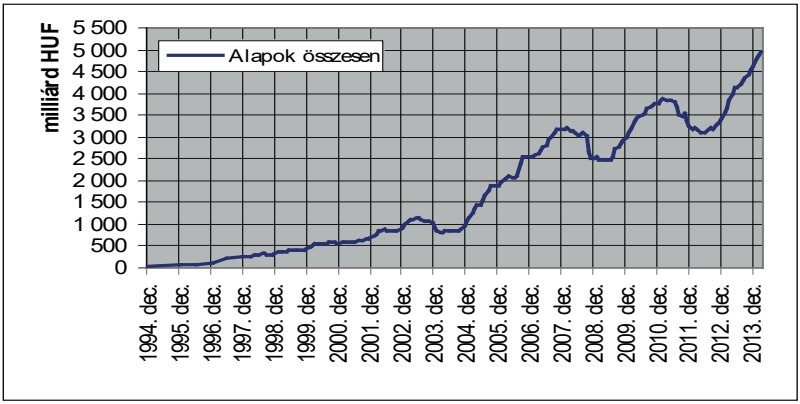

Fig. 1. Conformation of the capital treated in investment funds between 1994 and 2013 (milliárd HUF = billion HUF; Alapok összesen = Founds total)

Source: official homepage of BAMOSZ (Association of Hungarian Investment Fund and Asset Management Companies)

Conformation of the capital. The graph above shows well the conformation of the field in the past 20 years. Observably the capital decreased at the end of the year of 2007 and this progress did not even stop quite until the middle of 2009. After the nadir, the market boomed again and after another setback between 2010 and 2012 the development started even more considerably. Fig. 2. below includes

the best produces of 2013 in case of specific investment funds. The Hungarian investors lodged the most money in two funds: in bond and absolute produce funds. It is evident that we can find such a fund where the same or worse produce could be reached only by undertaking much higher risk, compared to other low risk investments. (Sóvágó et.al. 2014)

Investement founds. The data available in 2014 hold up hopes for further development worldwide, although Hungary seceding from the trend shows decrease. The capital-flow is not unitary either. In case of bond, absolute produce, joint and estate funds considerable capital inflow can be observed while in case of share and limited funds out-flow can be noticed.

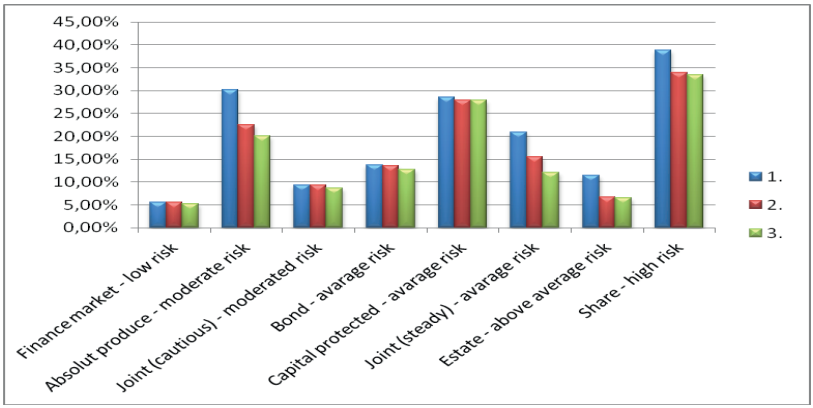

Fig. 2. Best produces at specific investment funds in 2013
Source: Bankmonitor.hu

Life insurance. As a consequence of the appearance of investment unit linked life insurances changes arose in the field of the insurance market, also, it was connected with the investment field even closer, it actually became an organic part of it. Examining the development processions on the insurance market in the passed years, two strong trends relating to each other can be observed. The first one is the dynamic increase of the selling of the unit linked life insurances, the result of which is the increasing effacement of 'traditional' life insurances as well as the increase of the risk of the investments behind the unit linked life insurances. The graph below shows well that the unit linked life insurances are more and more popular in the life insurance field.

This phenomena is probably explained by the tendency of the ever increasing self-care of private persons and the growth of the savings. In the passed years, the more and more risky material funds offered for the unit linked life insurances became ever popular which hoping of high produce grain a greater ground on the investment market.

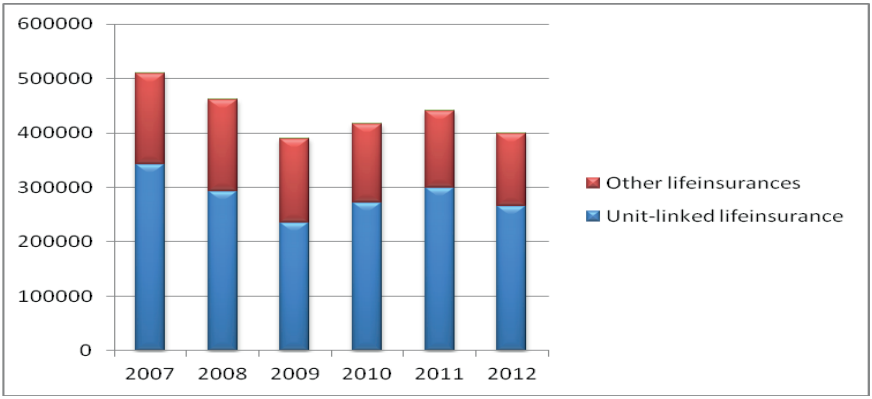

Fig. 3. The proportion of the unit linked insurances on the whole life insurance market in point of insurance premium receipts

Source: Official homepage of MABISZ (Association of Hungarian insurance companies)

What counts as risky and what does not? Generally we consider as risky investments those the value of which can change suddenly and considerably. The smaller is the risk of the product, the lower produce can be expected, however, with the greater risk, the extent of the produce which can be realized grows, too. Naturally, the margin of each person differs above which one considers the investment product as risky. There are persons who bear badly the risk thus rather give up higher produce, but there are ones also who put every effort in reaching the possible highest profit.

Solution of the problem of world crisis. Likewise as several other territories of the world, Europe has to face also the most severe financial crisis since the economic world crisis of 1929.

The outbursting recession considerably afflicted every national economy, the bank sphere, the private households, moreover it queried the 'raison d'etre' of economic companies. However, as we say „Every cloud has a silver lining", this fall brought positive things, too. Namely, 20 leading economies of the world engaged themselves to find a solution mutually, in co-operation with each other, so such a similar situation would not happen in the future.

The European Committee submitted a proposal to the European Parliament and the Board of Ministers to prevent the recurrence of the crisis occurred in 2008. The vital problem rooted on the fact that the financial institutions did not focus on the promoting of the operation of national economy but highlighted on the short-term profiteering. Moreover, the irresponsible risk-taking were decompensate straight-out. In order to get around such moral problems a plan was made to elaborate an all-around unified regulating reform coming into effect at the level of the European Union in the contrary to the earlier national regulations and covering the total scope of economic and financial actions. (Andrássy - Lentner 2006)

The 4 basic pillars of the new regulation are as follows

- Transparency
- Responsibility
- Control
- Prevention and handling of crisis

In the following I would like to say a few words about the above.

For a long time the lack of transparency was explained by the complicacy, the diversity and the combination of the financial activities. The crisis, however, flashed that all financial persons should fall under proper regulation and supervision. The altering or affirming of the earlier regulations is necessary. For the sake of this, several aims were set.

According to the proposal relating to the alternative investment-fund managers, the committee would like to assure that on basis of the unified regulations, one can follow up the possible risks which menace the financial stability. The investment-fund managers can only enter the European Union market when meeting the all round case maps.

Relating to the derivate and short transactions, the European Committee suggests standardized derivate agreements which account through central contracting parties decreasing possible risks arising from bankruptcy. Beside this, the information relating to the European transactions should be reported to the commercial data base assuring thus the access to the data.

According to the Directive on Markets in Financial Instruments, the Committee suggests even more transparent trading in the field of Financial Instruments. This facilitating the trading of different instruments within Europe.

In favour of the trust into financial system of the consumers and investors, it is necessary to aggravate the responsibility of those providing financial services. On one side, in order to outpace the market abuse and on the other side, at corporate governance level, in order to improve the culture of risk-taking of the financial institutions. It is important that the legal gaps cease and that the applied directives would be extended also to the instruments derivated outside the stock market and used in the multilateral trading.

At the level of the corporate governance, the long term financial interest of the venture should be highlighted. This ensures greater power and independence to the risk management. The prioritization of the role undertaking of stock holders, auditors and financial controllers is also an important ladder for the new responsible operation.

The occurred worldwide crisis flashed that there are defects in the field of co-ordination between national supervisions. In order to eliminate this, a proposal came into existence in order to elaborate a supervising system at Union level.

The European Supervising Frame as effect from the beginning of 2011 embraces the European System risk Body which assures that the macro economy risks are recognized and handled in time. The EBA (European Banking Authority), the

EIOPA (European Insurance and Occupational Pensions Authority) and the ESMA (European Securities and Markets Authority) together with the European Branch Authority started the elaboration of a unified „regulation book".

The Committee intends to rise of the operation of credit qualifiers to Union level also, stipulating that those should be registered within the frame of ESMA. The Authority will have exclusive supervision scope over the qualifiers and will have to provide access to information for the issuers of structural financial instruments for all interested credit qualifiers.

Conclusions. However the most important thing is that the economic collapse of 2008 would not occur again. For this it is necessary to elaborate an appropriate prognosis method into the financial system. For this the most important steps are the elaboration of a more efficient liquidation system on basis of the Capital Requirements Directives (CRD). The aim of public accountancy standards is to lend assistance to users' decision, to reflect better the set values. The setting up of liquidation founds lends assistance so that the costs arising from the liquidating should not be borne by the tax payers. These funds have enough capital to render cover in case of a bankruptcy of an overage size bank. By this evading that the bankruptcy would not influence the stability of the financial system.

As a consequence of the crisis MiFID II was accepted on May 15th 2014 which is a directive about the market of the financial instruments (2014/65/EU). The union law properly regulates the commercial activities on the financial markets and according to the above mentioned suggestives, providing a new legal form to it and emphasizing more the protection of investors.

The more important aim of the directive is to ensure the regulated commerce of the financial instruments on the international level. For instance the strengthening and expansion of transparency which is relates first of all to the price of the financial instrument, the regulation, restriction of speculation possibilities of goods' market, and the reaction in time to the challenges due to new technologies and the protection of investors.

The governments should harmonize on national levels the Union laws and directives of 2014 the legal rules about the market of financial instrument, the market issues and the investor-protection should have been be put into the national rule of law latest by July 3rd 2016 and should have been come into force as from January 3rd 2017.

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ETHNIC DIMENSION IN CULTURAL ACTIVITIES OF UKRAINE'S DIPLOMATIC REPRESENTATIONS ABROAD

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Creation of a nation's favourable profile among the international community is one of the main tasks of any nation's diplomacy, if that nation wishes to be an active and influential member of the global community of nations. To cause foreign nations to favourably view and accept Ukraine at the international scene, the international community must be better informed about all positive processes in Ukraine, about Ukrainian nation's achievements, attractiveness, about Ukraine's rich cultural, ethnic, spiritual heritage, and so on.

The activities of Ukraine's diplomatic representations abroad are aimed at protection of national interests of the state and at the same time at optimizing the image of Ukraine at the international scene. Here the role of cultural diplomacy should be stressed. Cultural diplomacy appears a strong instrument of Ukrainian 'soft power' where ethnic factors are of a paramount importance. Culture is what will allow to present Ukraine in a positive way.

In this connection it is worth to remind words of Jean Monnet, one of the "founding fathers" of United Europe about a hypothetic possibility to review the whole European integration process. As Monnet mentioned, if such a variant had been possible then the process should have been started with culture, not the iron and steel.

The integration of the once antagonistic peoples in the Union, where they coexist peacefully, has been made possible not only thanks to the common economic goals, but also the social and cultural closeness of the European peoples and their common historical destiny. History of Europe is not devastative wars only, it is first of all centuries-old economic and cultural cooperation, intercommunication, mutual influence and understanding. European culture is both synthesis and originality of unique national ethnic cultures.

It is worth while mentioning the "soft power" strategies which became especially popular among political scholars when the contemporary world is facing new threats and challenges for global peace and stability. According to Joseph Nye's (2004, p. 19) concept, "soft power" is the ability to shape the preferences of others through appeal and attraction. A defining feature of soft power is that it is noncoercive; the currency of soft power is culture, political values, and foreign policies.

A country's soft power, according to Nye (2011, p. 84), rests on three resources: «its culture (in places where it is attractive to others), its political values (when it lives up to them at home and abroad), and its foreign policies (when others see them

as legitimate and having moral authority).»

Minister of Foreign Affairs of Ukraine Pavlo Klimkin stressed that Ukraine's cultural diplomacy is a mighty «soft power», which, however, requires systemic support. "In 2014-2015, we have supported Ukrainian cultural projects abroad, because this is our effective soft power. Now this support is to be turned into a system", P. Klimkin (2016) mentioned.

The positive image of the state in the eyes of its citizens is able to consolidate a state-making nation to oppose any external influence, to unite them to secure constant purposeful social development in unity, and to improve self-identification of the population as a single nation, a community, despite their ethnic origin and property status of its subjects.

Ukraine is a country with multi-ethnic population composed of about 130 ethnic groups (ethnic communities): the most numerous are Ukrainians and Russians. The ethnic fundamentals of Ukraine are reflected in the 1996 Constitution and several pieces of legislation. The 'Ukrainian nation' is pointed out as the basis of the state. With gaining independence in 1991 the process of ethnic revival was initiated where the typical features were inter-ethnic tolerance and flexible language policy. Ethnodiplomacy is a proper term to describe the process. The present-day policy of Ukraine is aimed to popularize the cultural heritage and language diversity of national and ethnic minorities, residing in Ukraine.

The State Ethnic-National Policy of Ukraine is based on the following principles (Concept of State Ethnic-National Policy of Ukraine, 2010):

• Recognition of polyethnic Ukrainian society as a value that requires protection and preservation.

• Promotion of ethnic and cultural rights of Ukrainian nation, national minorities and ethnic groups by creating legal norms and conditions.

• Priority of territorial integrity and state sovereignty of Ukraine regarding territorial self-determination of people belonging to national minorities and ethnic groups.

• Protection of rights and interests of Ukrainian nation, national minorities and ethnic groups through ensuring individual rights of persons belonging to these communities.

• Ensuring rights of persons belonging to Ukrainian nation, national minorities and ethnic groups as an integral part of universally recognized human rights and fundamental freedoms.

• Securing rights of a citizen to freely choose and restore belonging to Ukrainian nation, a national minority or an ethnic group, express his/her national and/or ethnic self-identification.

• Equality of rights and freedoms of a human being regardless of race,skin colour, political, religious or other beliefs, sex, ethnic and social origin, property status, place of residence, linguistic or other features.

• Free enjoyment by citizens of their ethnic and cultural rights and interests for

conservation and development of national, ethnic, cultural, linguistic and religious identity.

• Prohibition of forced assimilation of representatives of Ukrainian nation, national minorities and ethnic groups.

• Prevention of interethnic, ethnic-political conflicts and confrontations.

• Establishment of interethnic harmony in the society, opposition to any expressions of racial, national, ethnic, religious hatred.

• Satisfaction of ethnic and cultural needs of Ukrainians residing outside Ukraine.

Ukrainian culture refers to the culture associated with the country of Ukraine and sometimes with ethnic Ukrainians across the globe. It contains elements of other Eastern European cultures as well as some Western European influences. Within Ukraine, there are a number of other ethnic groups with sizable populations, most notably Russians. Ukrainian customs are heavily influenced by the Eastern Orthodox Church and Pre-Christian Alpine traditions still present in Slavic mythology. Ukraine has a shared culture with neighboring nations, dating back to the 9th century and the Land of Rus. Mutual influence is particularly apparent among the cultures of Russia, Ukraine, Poland and Belarus.

Ukraine's representations abroad are to provide true positive information about the events in Ukraine, vividly demonstrate revival of cultural traditions of Ukraine, its cultural diversity, promotion of cultural and public diplomacy between ethnic groups and national minorities who consider Ukraine their homeland, as well as representatives of the people living on its territory.

In this respect the initiatives of a number of Ukraine's Embassies abroad present a vivid example (e.g. Embassies of Ukraine in Poland, France, UK, USA, Canada, Lithuania, Bulgaria, China, the Czech Republic, Slovakia, Belorussia etc.) showing and promoting the unique image of ethnic Ukraine. In general, 84 Embassies, 30 Consulates-General and 6 Consulates of Ukraine are functioning abroad at the moment.

Development and support of national and ethnic culture beyond the borders of Ukraine is one of the priorities of both domestic and foreign policy. Ukrainians living abroad are an active subject of integration of Ukrainian culture into global cultural space.

Millions of people of Ukrainian origin are permanently living in different countries of Europe, Asia, America. About 12-20 mln Ukrainians live outside Ukraine. Researchers of the ethnic identity formally divide people of Ukrainian descent into three groups: the first and the largest one is composed by those whose ancestors left their homeland three, four, five generations ago. These people do not speak Ukrainian language, have little contact with Ukrainian organizations and, as a rule, have rather poor idea of their national origins. The second group consists of those who lost their connection with the motherland one or two generations ago, are familiar with Ukrainian culture and respect it, but few care about its preservation. The third, a small, but active group, covers Ukrainians who emigrated after the

Second World War, their children, members of other waves of immigration, and is at the heart of Ukrainian communities in the West (Кудряченко, 1994).

Ukrainian community in some countries is quite significant: more than 3500000. In Russia, it is about 1 million in the US and Canada, 0.9 million. In Kazakhstan - 0500000. In Moldova, it is more than 300 thousand. In Brazil, Argentina and Belarus – up to 100 thousand. In Poland and Romania as well as in Germany, France, Great Britain and Slovakia – 30-40 thousand. Noticeable Ukrainian community is in Georgia, Australia, Czech Republic, Hungary, Serbia and other countries. Usually, to simplify a picture of the Ukrainian diaspora it is divided into Eastern (those who live in the former Soviet republics) and Western (Europe and America).

Among Ukrainian diplomats abroad there are some who invested much in deep professional studying and research of Ukraine's history, its folk and ethnic traditions, essential research of Ukrainian past using their close connections with Ukrainian diaspora in different countries. For example, Prof. Maryna Hrymych, a prominent Ukrainian scholar of history and ethnology, wife of Ukraine's Ambassador Extraordinary and Plenipotentiary in Canada (now in Lebanon) Igor Ostash, is Editor in Chief of "Duliby" Pnblishing House. M. Hrymych is specializing in modern Ukrainian literature and scientific works of ethnological character. In 2004 and 2005 "Duliby" was awarded with a number of prizes of the Lviv Publishers Forum. Maryna Hrymych is a well-known Ukrainian novelist and academician, has Ph.D. in Philology and History (Candidate of Philology, Doctor of History), Member of the Writers' Union of Ukraine, member of the Canadian Union of Ethnology. Among M. Hrymych's achievements and books are Traditional Worldview and Ethno-Psychological Constants of the Ukrainians (Cognitive Anthropology(2000); Property Institution in the Customary Law Culture of the Ukrainians in the 19th – beginning of the 20th centuries; Taras Shevchenko Award (2005); 5th place in the category 'Foretime' of the All-Ukrainian Ranking Book of the Year (2004); Customary Law of the Ukrainians in the 19th – beginning of the 20th centuries (2006) etc. (Maryna Hrymych, 2016).

There are a lot of projects on communication and activities of all people of Ukrainian origin and Ukraine's diplomatic representations. For example "Global Ukraine" project popularizing Ukraine's image and ethnic traditions and symbols.

One of the well-known ethnic symbols of Ukraine is "vyshyvanka", contemporary colloquial name of Ruthenian (Ukrainian and Belarusian) traditional embroidered shirt. Many variations of embroidery design were created in the XIX century. Usually "vyshyvankas" were made of home-made cloth that is woven on the loom. In the ornament of the shirt displaying local features can be found. Thus "vyshyvanka"not only speaks of its Ukrainian origin but also of the particular region in which it was made. The knowing eye could detect where a person hailed from by the clothes. Embroidery is thus an important craft within Ukraine and different techniques exist to suit local styles with their own particular patterns and colours. Traditionally, the thread was coloured according to local formulas using bark, leaves, flowers, berries

and so on. In this way, the local environment is literally reflected in the colour of the embroidery.

Vyshyvanka was used as a talisman to protect the person wearing it and to tell a story. Embroidery was used in vulnerable places on the garment where evil spirits could potentially enter the body: along the neckline, cuffs, shoulders, back and hem.

Since 2006 Vyshyvanka Day is celebrated on the third Thursday of May and is intended to unite all Ukrainians over the world, regardless of religion, language they speak or their place of residence, to preserve ancestral traditions of creating and wearing embroidered ethnic clothing. It is a flash mob holiday, which is not attached to any public holiday or feast day. On this day many Ukrainians wear vyshyvankas to demonstrate adherence to the idea of national ethnic identity and unity and to show their patriotism.

Ukraine's representations abroad do their best to popularize this Ukrainian ethnic symbol all over the world and hold celebrations of Vyshyvanka Day in the states they are working. Thus, on 19 May 2016, Riga hosted the Vyshyvanka Day. The event gathered about 200 people (Latvians, Lithuanians and Polish also joined the campaign and wore national costumes of their countries).

Accompanying the Ambassador of Ukraine in Latvia they put flowers to the Monument of Liberty. Later on people sang Ukrainian songs and walked Riga's streets through the Kronvalda park to the Shevchenko Monument. At the monument a Ukrainian rushnyk, another important element of Ukrainian ethnicity, was presented and the fashion show of ancient Ukrainian costume took place.

The rushnyk of Ukrainians in Latvia had been jointly made for four years. The initiative launched by Ukrainians was supported by 14 Ukrainian communities in Latvia. In total 200 people contributed into creating this rushnyk, children, pupils of Ukrainian school in Riga included (Day of Embroidered Shirt in Riga / Vyshyvanka Day, 2016).

Day of Ukrainian Vyshyvanka was also celebrated in Sofia, in May 2016, with participation of Ukrainian Ambassador in Bulgaria Mykola Baltazhy. On the occasion of the Day of Ukrainian embroidery in Sofia flowers were laid at the monument to Taras Shevchenko. The event was held on the initiative of the Embassy and the Union of Ukrainian organizations in Bulgaria «Mother Ukraine». Representatives of Ukrainian and Bulgarian communities and Embassy, dressed in Ukrainian embroidery, recited the works of T. Shevchenko, sang Ukrainian folk songs.

According to Extraordinary and Plenipotentiary Ambassador of Ukraine in Istanbul Vasily Bodnar, the Day of Vyshyvanka is a day that unites all Ukrainians speaking different languages and living in different parts of the world. Although not public or religious, this holiday, in any case, is a day of national unity. That is why Istanbul also celebrated this Ukrainian holiday.

"The aim of celebrations is to make children, youth and adults familiar with our national culture, customs and national attire inherited from the ancestors. It is a

reminder of our heritage. This day, Ukrainians will go to work, school or celebrations wearing clothes, blouses or vyshyvankas with the national folk patterns. Wherever you are, whatever work you do, wear vyshyvanka and join us", said Vasily Bodnar (Istanbul to celebrate Vyshyvanka Day, 2016).

Celebrations connected with Vyshyvanka day are traditionally established in a number of overseas Ukraine's embassies. Traditionally the «Ukrainian Embassy's Open House» (the beginning of May) generates great interest among the American public (Cultural and humanitarian cooperation between Ukraine and the USA, 2016). During these annual events visitors to the Embassy have a chance to mingle and communicate with Embassy's staff and find out more about Ukraine, recent developments there as well as Ukraine's traditions and, culture, teach how to paint Ukrainian Pysanka (Easter eggs), and have a taste of the national Ukrainian cuisine.

There is also great interest by U.S. audiences in traditional cultural and art evenings held at the Embassy of Ukraine. The most popular among these are concerts of classical and folk music, co-sponsored by the Washington Group Cultural Fund, «International Club of DC», «Things to do in DC» and the «Embassy Series».

Some cultural events are organized by the Embassy of Ukraine in close cooperation with the U.S. Congress Ukrainian Caucus and think tanks in Washington, D.C.: Kennan Institute / Wilson Center, Carnegie Endowment for International Peace and National Democratic Institute.

In Wroclaw, the European capital of Culture 2016, Lviv month was lasting in April 2016. Official opening of the spring Lviv month was attended by Ukraine's Ambassador Andriy Deshchitsya. There were over 1000 guests from Ukraine, Poland, other EU states. It was for the first time in history when in the "European Capital of Culture" the participant was a city from beyond the EU.

Despite the fact that primary attention was concentrated on Ukraine's modern art and literature, film production, ethnic elements of Ukrainian art were also widely presented in Wroclaw. For instance, master-classes on creating Easter 'pysankas' and "motanka-dolls" were held.

"Motanka-Dolls" are Ukrainian folk dolls, a symbol of feminine wisdom. Traditionally every "motanka" had a desire to perform. In the old days they were made by our ancestors as amulets, and this custom was preserved in the traditions of Ukraine and Belarus (Лялька-мотанка – берегиня роду, 2016). Master-class on making "motankas" was also held in Spain (Barcelona) by Kseniya Tym and she even published her book on making Ukrainian "motankas" in Spanish (Народна дипломатія в Іспанії, 2016).

Pysanka is often taken to mean any type of decorated egg, but it specifically refers to an egg created by the written-wax batik method and utilizing traditional folk motifs and designs. Several other types of decorated eggs are seen in Ukrainian tradition, and these vary throughout the regions of Ukraine (Pysanka, 2016).

• Krashanky –from krasyty, «to decorate» – are boiled eggs dyed a single color (with vegetable dyes), and are blessed and eaten at Easter.

• Pysanky –from pysaty, «to write» – are raw eggs created with the wax-resist method (batik). The designs are «written» in hot wax with a pinhead or a special stylus called a pysachok or a kistka which has a small funnel attached to hold a small amount of liquid wax. The word that is used to describe the egg actually comes from the Ukrainian verb pysaty, which means «to write». Wooden eggs and beaded eggs are often referred to as «pysanky» because they mimic the decorative style of pysanky in a different medium.

• Krapanky –from krapka, «a dot» – are raw eggs decorated using the wax-resist method, but with only dots as ornamentation (no symbols or other drawings). They are traditionally created by dripping molten wax from a beeswax candle onto an egg. They can be considered the simplest version of a pysanka, or a «proto-pysanka.»

• Dryapanky –from dryapaty, «to scratch» – are created by scratching the surface of a dyed egg to reveal the white shell below.

• Malyovanky –from malyuvaty, «to paint» – are created by painting a design with a brush using oil or water color paints. It is sometimes used to refer to coloring (e.g. with a marker) on an egg.

• Nakleyanky –from kleyaty, «to glue on» – are created by glueing objects to the surface of an egg.

• Travlenky –from travlenya, "etching" – are created by waxing eggs and then etching away the unwaxed areas. This is not a traditional Ukraine practice, but has become popularized recently.

• Biserky –from biser, «beads»– are created by coating an egg with beeswax, and then embedding beads into the wax to create geometric designs.

• Lystovky –from lystya, «leaves»– are created by dyeing an egg to which small leaves have been attached.

All but the krashanky and lystovky are usually meant to be decorative (as opposed to edible), and the egg yolk and white are either allowed to dry up over time, or (in modern times) removed by blowing them out through a small hole in the egg (Pysanka, 2016).

According to many scholars, the art of wax-resist (batik) egg decoration in Slavic cultures, and particularly in Ukraine, probably dates back to the pre-Christian era. They base this on the widespread nature of the practice, and pre-Christian nature of the symbols utilized. No ancient examples of intact pysanky exist, as the eggshells of domesticated fowl are fragile, but fragments of colored shells with wax-resist decoration on them were unearthed during the archaeological excavations in Ostrówek, Poland, (near the city of Opole), where remnants of a Slavic settlement from the early Piast Era were found.

As in many ancient cultures, Ukrainians worshipped a sun god, Dazhboh. The sun was important – it warmed the earth and thus was a source of all life. Eggs decorated with nature symbols became an integral part of spring rituals, serving as benevolent talismans.

In modern times, the art of the pysanka was carried abroad by Ukrainian

emigrants to North and South America, where the custom took hold, and concurrently banished in Ukraine by the Soviet regime (as a religious practice), where it was nearly forgotten. Museum collections were destroyed both by war and by Soviet cadres. Since Ukrainian Independence in 1991, there has been a rebirth of this folk art in its homeland, and a renewal of interest in the preservation of traditional designs and research into its symbolism and history (Pysanka, 2016).

Embassy of Ukraine in Canada holds yearly master-class on creating Easter 'pysankas'. March 23, 2016 Anna Gomonay, wife of the Ambassador of Ukraine to Canada and Irina Likarenko, wife, military attaché of the Embassy warmly welcomed the guests of the evening. The event was attended by wives of ambassadors and military attaches accredited in Canada, the female members of the Diplomatic Club of Ottawa. As it has been mentioned, Master-classes on making pysankas were also held in Wroclaw during Lviv month in April 2016.

Ukraine's representations abroad widely celebrate Day of Ukraine's Independence (August 24), the main state holiday in modern Ukraine, and Taras Shevchenko's Days (March). Holding diplomatic receptions with serving Ukrainian national food is a usual practice on these days. Besides, concerts and festivals of Ukrainian folk music and dancing are held.

Traditional dances of Ukraine are: Kozak, Kozachok, Hopak, Hrechanyky, Tropak, Kolomyjka and Hutsulka, Shumka, Arkan, Metelytsia, Kateryna (Kadryl) and Chabarashka. In this respect a remarkable event took place in Poland in 2015 when Ukrainian Hopak was danced in Krasiczin in September 2015. Over 250 people were dancing and is may be registered as a world record (U polschi vstanovyly svitovy record, 2015).

Many of its ethnic groups living within Ukraine have their own unique musical traditions. The most striking general characteristic of authentic ethnic Ukrainian folk music is the wide use of minor modes (Ukrainian folk music, 2016). Traditional Ukrainian musical instruments are: kobza (lute), bandura, violin, basolya (3-string cello), lira (hurdy-gurdy), tsymbaly, sopilka (duct flute), trembita (alpenhorn), fife, volynka (bagpipes), buben (frame drum), tulumbas (kettledrum), resheto (tambourine) and drymba / varhan (Jaw harp).

In this field, the initiative of Ukraine's Embassy in Bulgaria received high appreciation of Bulgarian community. It concerned recital of the famous Ukrainian poet, singer, laureate of Taras Shevchenko Vasyl Nechepa. Representatives of the Bulgarian cultural circles, Ukrainian diaspora and embassy staff had the opportunity to listen to a concert of People's Artist of Ukraine on traditional Ukrainian musical instrument – Kobza (Культурно-гуманітарне співробітництво між Україною та Болгарією, 2016).

Such examples are many. One thing is certain: in this difficult time for the country Ukrainian diplomatic missions do the work, the value of which cannot be overestimated. Creative approach to work, the search for new information and communication strategies and methods for their implementation by Ukrainian

diplomats contribute to enhanced intercultural dialogue and the creation of worthy image of Ukraine in the world community. Ukrainian policy of cultural-ethnic diplomacy is becoming one of the tools not only of the progressive development of a stable and democratic society preserving its ethnic traditions, but also a creative resource of national security of the Ukrainian state.

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THE ROLE OF FIGURATIVE SOURCES IN ETHNOGRAPHIC SCIENCE AS A SEPARATE COMPONENT OF HISTORICAL SOURCES

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Comprehensive study and further research in general trends of science and culture development have a special sense for the modern postnonclassical phase of science development. It is known that postnonclassical researches are logical consequence of socio-cultural environment changes, the type of scientific rationality and the new demands of production and society in general which are interdependent. Beside this, postnonclassical phase of science development considers the interrelation between not only methods, but values structures and social, spiritual aspects.

One of the main features of the postnonclassical science is the existence of "nature complexes" among the modern science objects, in which human is an integrant component, also the existence of communicative interdisciplinary paradigmational settings exchange. You will agree that at the current development phase it is impossible to determine knowledge in the precise frames of so-called classical disciplines - mathematics, physics, biology, history and other. New knowledge becomes more complex, problem-oriented, interdisciplinary, and problems, which should be explored and solved by this knowledge, become more difficult, interconnected, non-standard. Therefore, further effective development of scientific cognition is possible only as a deepening of synthesis and integration of various sciences and some scientific fields, their sources, conceptual and categorical apparatus, theoretical and methodological aspects of development, methods of cognitive activity, scientific principles that will certainly give rise to «a generalized universal» scientific apparatus and lead to the formation of common approaches in the studies of various problems and phenomena of the nature.

Ethnography is different from other social sciences because of its sources. This is the only one from humanities, which bases its research on materials obtained by personal observations of the real being of ethnic communities (field research, field observation). A wide range of issues that directly concerns the main object of ethnography analysis – nation, requires full involvement of the toolkit of related and interdisciplinary sciences. The studying of all the spheres of life requires the usage of all the sources which can help to study and research ethnic, social, cultural, economic, political and other characteristics of ethnic groups. This caused an integrated approach to ethnography research sources, so the approach to the problem of ethnic groups is much wider than, for instance, in history.

This research describes the special role of the figurative sources as an independent component in ethnographic science, cin particular, importance of using the paintings

of artist-realist Ilya Yuhimovich Repin as materials for studying ethnographic reality on the Ukrainian lands territory in the second half of the nineteenth century.

Situation that had place because of the influence of numerous imperial transformations on the territory of Ukrainian lands in the second half of the nineteenth century contributed to the trend of artists' interest in everyday life, history and culture of the commons. This process became a part of social, cultural and political movement on Ukrainian lands, which was named Ukrainian national revival. The above-mentioned circumstances, in their turn, caused the appearance of the new, specific exactly for that time, movement in the art – realism, which main feature was authenticity in reproducing reality. The level of realness of painting depended on the level of penetration into life, reflection of important its sides and characters in typical circumstances in the veracity of details and in an art form . By meeting the national culture and reproducing it in the paintings realism artists were involved into some kinds of ethnographic work, because they tried to capture the smallest details of Ukrainian ethnos reality on canvas or paper.

On the 9th of November in 1863 fourteen most talented graduated students of the St. Petersburg Imperial Academy of Arts refused to get their diplomas in protest against the dominance of academicism. After they created "St. Petersburg artists' cooperative", which was transformed into the "Fellowship of traveling arts exhibitions" or "Peredvizhniki" in 1870. Through the efforts of members of the Fellowship annual "traveling" exhibitions of art were organized in different cities, including Kiyv, Kharkiv, Katerynoslav, Odessa etc. Among the founders and active participants of those exhibitions were I. Kramskoy, I. Repin, M. Yaroshenko, M. Ge, M. Bondarevskiy, A. Kuindzhi, M. Kuznetsov. The members of the fellowship intended to create the art in particular social direction with the social trends identified. The main theme for the artists was the theme of national (mostly peasant) life which was shown in the diversity of its social, historical and ethical aspects.

A great representative of the fellowship and a supporter of realistic painting was Ilya Repin, who was a native from Slobozhanshchina. He confessed the idea of social direction in artistic works, by his artistic ways to show everyday life and portrait art he glorified greatness, wisdom and beauty of Ukrainian nation. His artistic heritage, which theme is Ukrainian history and Ukrainian national culture in the second half of the nineteenth century, is an invaluable figurative ethnographic source.

Ilya Yuhimovych Repin was born in Chuguev which is in Kharkiv province, on 24th of July in 1844 in the family of a military settler. In Chuguev he received his first education, including art – he worked at the local icon-painting workshop. But the desire to study further led 20-year-old guy in the St. Petersburg Academy of Arts, from which he graduated with honors and joined the above-mentioned Fellowship.

Art historians distinguish two periods in the life of Ilya Repin, which he dedicated to Ukrainian theme only. Summer holidays in 1876 and the beginning of 1877 Repin spent at home in Chuguev. He was impressed by the beauty of Ukrainian

nature and also interested in everyday life of the peasants. There he made a couple of sketches, where he represented landscape views of surroundings, streets and noted his impressions in the album. This period included artist`s works "Landscape under Chuguev", "River bank", which reflected colorful and unique landscapes of Sloboshanshchina. It should be noted that because of the absence of other visual sources that could give a real picture of the local flavor, his landscapes sketches are an important source for the studying ethnographic peculiarities of the region.

Graphic work «Church and Bell Tower in Chuguev» give an idea of church architecture. Secular architectural forms represented by a number of paintings, including «Ukrainian house», «Village Mokhnach near Chuguev» and the graphic pianting «Village Mokhnach.»

The artist represents widely scenes of everyday life of the ordinary people and depicts critically shortcomings of social reality. For example the painting called "In the township government» gives us the image of different segments of Ukrainian populace, categories of people, differences in their appearance and behavior.

The realities of the times found reflection in the work «The Return of the War» («Returned»), which realistically and vividly depicts the internal state and the appearance of a common soldier, who was lucky to return alive after the Russo-Turkish war. The moment hero communicates with his fellow villagers after returning from the front was captured emotionally on the canvas. Each figure on the painting is as part of ethnographic research.

In the year 1877 the work on the canvas "Exam in the village school" was started. Amazing, how realistic artist depicts ordinary household, scenes from the villagers' life, which are close to everybody.

Special attention should be given to artist's portrait gallery. Among the paintings there are "Little man of timid" and "A Peasant with an Evil Eye". While being in the homeland, Repin communicates a lot with ordinary people, tries to find new forms and themes for his creation. Villagers represent a bright character types in his paintings. Obviously, artist paid attention on their inquisitive looks of smart and wise eyes. We see living people with difficult characters and psychology, which is hard to determine. There are too alive and too complex for word definitions. Through the eyes of these people we see the life, extraordinary in its complexity. The artist himself feels the villager - simple, but extremely racy man - not with his mind but with his talent and intuition.

One of his illustrative paintings of Chuguev period is "Antideacon" ("Protydyyakon") – the portrait of local archdeacon Ivan Ulanov, who was a drunkard and a glutton. In this painting Repin brought his understanding of some priests, whose spiritual things are gone. That might be a reason why the image of archdeacon is so convincing. His swallow face, his imperious heavy look of the small eyes, steep bend of the eyebrows, big nose, fat body and a huge belly with a short-fingered heavy arm on it uncover the rough, primitive but powerful and indomitable person, who is far from Christian ideals and humility, who is full of

sinful thoughts and earth passions.

Among the paintings completely different type of people was found – "Ukrainian woman near the fence". Young woman, who represents the typical Ukrainian, calmly stands next to the fence with her arms on her chest. The painting presents brightly a set of women folk costume: embroidered shirt, belt, plakhta (a special covering for the skirt), skirt, jewelry and headpiece. Her head covered with a colorful bright ribbon, her neck and chest are decorated with the beads. A bright red belt descends at the dark-red plakhta. Considering specific features, which are characteristic for traditional Ukrainian clothes, we can conclude that girl's costume details are typical for Poltava. Because there's a headdress composed of bright headbands decorated with a variety of wild flowers and silk colored ribbons that laid at the back side of the wreath.

Thoughts about what he have seen in the homeland - social inequality that prevails in society, predatory attitude to ordinary people, the nature of his homeland - emotionally reflected in a sincere and strong painting «Religious Procession in Kursk Province». The painting represents the procession of the believers with the miraculous icon, heading to the place of the miraculous appearance. Populous procession moves solemnly and sedately behind the icon under the burning sun on the wide dusty road. They pass the grove, which was cut down mercilessly, with some stumps left instead. While drawing the crowd, Repin creates a whole gallery of vivid exemplars of different social classes in reformed Russia. From the one side there are arrogant, conceited and cynical «owners of life», which are skillfully contrasted to the image of disadvantaged, sick people. The last ones were shown with great warmth and affection - true, honest, pure souls with bright thoughts. They expect the icon to heal their illnesses, to save from the hopeless material poverty, to make their hopes and aspirations true.

Quiet different plot can be seen on the canvas called "Vechornytsi". Vechornitsi is the traditional autumn gathering of youth, which we can see at the painting. The first thing that attracts attention is the atmosphere. Easy communication, funny jokes, dancing couple, a group of musicians – young people are having fun. The couple who dance Ukrainian folk dance called hopak is in the centre of attention. Nearby are the musicians who play the instruments, traditional for folk festivals - violin, fife (sopilka) and tambourine. The artist transferred the great diversity of traditional women (skirts, shirts, kersetky, belts, hats, jewelry) and men (wide trousers, ordinary trousers, shirts, yupky, scrolls) clothing. A woman who dances hopak dressed in typical for Slobozhanshchina national dress - the skirt (dark brown with colorful pattern made from factory fabric) and red ribbon on her head (one of the girls' holiday headgear). Also shoes should be mentioned - women's and men's boots and summer outdoor shoes. One of the musicians, for instance, sits barefoot, which is a measure of his financial status.

The representation of the room interior, where the vechornitsi had place, is important for the material culture research: whitewashed walls sometimes painted

with reddish small crosses; small windows; embroidered towels on the walls, flowers, pictures (though it is difficult to determine what exactly on them), special shelf for the icons - «bozhnychok», which is typical for the inhabitants of Left-Bank Ukraine. The way of lightning of the room also attracts the attention. This is two interconnected ropes, which are attached to the ceiling. Actually, ceiling itself is an example of the element of Ukrainian folk architecture. It is a flat floor, which is supported by longitudinal or transverse beam.

The whole painting is permeated with a great sympathy for the characters and a sense of joy and optimism. The artist admires his characters, and it is impossible not to believe, that they will have a lot of bright and happy moments in their further lives. The plot of the painting certainly resonates with the previous one, but this is what life in Ukrainian village about. We can just wonder how Ilya Repin could represent everyday life of ordinary people so realistic.

The next step of collecting materials for Repin's paintings which was connected directly with Ukraine, was the artist's trip to the famous places in Zaporizhya in aim to write his world famous work "The Cossacks Writing Letter to Turkish Sultan" (1880-1891).

Winter 1880 Repin repeatedly have come to St. Petersburg, where he met with the famous historian N. Kostomarov, a connoisseur of Ukrainian history, whose help he asked for. Repin was interested in Kostomarov's advices about the detailed route of the future Repin's travel, because the artist wanted to witness the local scenery, racy character types of descendants of the famous Cossacks, examples of local traditional material and spiritual culture. Kostomarov was enthusiastic about Repin's idea, so he brought the books, documents, told a lot about the Cossacks, gave to Repin his own collection of the Ukrainian antiquities.

The artist understood that for the implementation of the conception of the painting he needed to visit Ukrainian territories where Cossacks lived, to visit monuments and memorable places associated with the history of Cossacks. The famous anthropologist, folklorist, historian and researcher of the history of the Ukrainian Cossacks D.Yavornytsky also helped him: he consulted him about the Cossacks period, and even offered to the artist his own stories about the history of Ukraine. Historian D.Bagliy, researcher of the Slobozhandhchina history, also offered the same. Repin`s own words show us, how seriously he was about collecting materials, studying Ukrainian culture and everyday life: "I had our two great beloved books of Antonovich and Dragomanov – "History of the Cossacks in the southern Russian songs and epics" with me. We engrossed in reading the Ukrainian epic…" .

As a result of the great work master presented his well known paintings "The Cossacks Writing Letter to Turkish Sultan". This is the legendary episode from Cossacks' life – the moment they write the letter of response to the Turkish Sultan Mehmed IV. Various appearance, age, body types of the Cossacks on the canvas are connected with the spirit of collectivism and brotherhood, and with the desire to make the response to Sultan's ultimatum as waspish as it possible. They simply

laugh at the arrogance of Turkish ruler.

As a ethnographic source the painting is a kind of encyclopedia of the Cossacks' clothes and implements, because the artist showed the great diversity of clothing, weapons and military equipment. Various Cossacks' shirts, zhupans, suites, kobeniaks, kyreyas are depicted in details. Among the crowd one Cossack stands out – in a red zhupan with a belt embroidered with expensive gold strands – the evidence of Cossack's property wealth. Traditional half-length clothing on the painting is wide trousers tucked into boots. The racy figure of Cossack dressed in red with a gold embroidered vest and a hat of the same color (obviously trophies from eastern campaign) also attracts the attention. Similar clothes we can see on the Cossack dressed in short white vest with blue-colored embroidery, which pattern resembles oriental motifs. Also several versions of Cossacks' headwear were presented – mostly hats of different shapes and colors.

Talking about the weapon, on this canvas typical for the Cossacks firearms were represented - long guns, «samopaly» (pistols), and also edged weapons - bladed (sword, dagger), spear and mace, and other items of military equipment. Shotgun of the eastern type, decorated with carvings and precious materials demonstrated the wealth of Cossack. Along with the weapons there is traditional musical instrument of Cossacks from Zaporizhye called bandura.

The artist shows the Cossacks at the time of the highest manifestation of their vitality and collectivism, therefore he reveals the elements of national character, the spirit of chivalry and companionship, which is inherent for the Cossacks. Thanks to successful compositional and coloristic tools, Ilya Repin enables both researchers and ordinary viewers to plunge into distinct culture of Ukrainian Cossacks.

In general, a lot of sketches and drawings in 1880 were made independently of Repin's general conception of a picture and they are a reflection of great artist's interest in Ukrainian people. As a result of the trip a big number of works, which have independent artistic, and, importantly, historical and ethnographic value, appeared. For example, the Repin's painting of that time called "Ukrainian house". On this painting we can see white village house, covered with a straw. A small yard is separated from neighboring with low fence. Next to the house – shed, in the yard a diverse rural implements are located – cart, mow of the hay, slide of the woods, home ware. We can conclude that represented type of the residential complex is typical for Slobozhanshchina. This is confirmed by features such as wide passes relatively roofs walls and peculiar form of the window frames with the carved completion.

Portrait genre is represented with Repin's painting called "Two Ukrainian peasants". On the canvas, like in the book of ethnography, various types of Ukrainian peasants were depicted. Ilya Repin surprises with his ability to see the manifestation of essential aspects of persons' nature in his or her random state, ability to notice the specific of the pose, gestures, facial expression and the skills of transferring the living flesh of the human face and figure on the canvas.

Continuing the theme of portrait appears the painting called “Two Ukrainian girls and young peasant who sits and plays the fife”. The painting depicts the complex of female folk costume, typical for Slobozhansky region - embroidered shirt, skirt, kersetka, scarf. The kersetkas, which belong to Slobozhansky region and which were represented on the painting, have odontoid decor or structural fastener.

As a conclusion, it is important to say that not all paintings can be the objective ethnographic source, even though it is a painting of realist-artists. The objectivity of presenting the information through an artwork depends not only on a high level of professional and artistic skills of the artist. It can be achieved only by thorough preliminary preparation and responsible attitude to the subject of studying. Talking about the artworks of Ilya Repin we should admit absolute professionalism of the artist in this sense: involvement of the historic and folk documents and materials, travel around the territories, which were going to be represented in the future works, expert advices, personal participating in archaeological expeditions and deep penetration into the subject of research. These actions coupled with the artist’s daily hard work led to the nascence of the complex visual ethnographic sources.

Conclusions. In general, establishment of realism in the fine arts with criteria such as artistic accuracy, truthfulness and historicity of representing of the characteristic types in typical circumstances had a great importance for the development of Ukrainian theme, fixation and representation of national life, Ukrainian history and culture. The painting of the realist-artist, which was made in accordance with above-mentioned characteristics, has a big scientific potential for the ethnography, contains important material of Ukrainian national culture and can be considered as a separated figurative type element of the ethnographic science sources.

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ETHNOGRAPHY OF THE UKRAINIAN DIASPORA COURSE: METHODICAL APPROACH

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Migration processes and movement of labor are the characteristic features of the modern world. Ukraine as part of the international community is integrated into the contemporary global migration, as evidenced by the fact that at the beginning of the XXI century Ukrainians joined a number of nations such as famous Jews, Armenians, Greeks, Italians diasporas. The study of the history of the formation of Ukrainian Diaspora and its ethnographic features is of particular relevance. Students of historical faculty of Kyiv National Taras Shevchenko University specialized in «ethnology» were proposed to study the elective discipline «Ethnography of the Ukrainian Diaspora».

Discipline is built taking into consideration the peculiarities of modern domestic and foreign developments in the context of Ethnology summarizing the state of the Ukrainian Diaspora in the world. The course is aimed at students to achieve their own understanding of the formation and the current state of Ukrainian Diaspora. During the lectures, in an independent and individual work the main stages of the Ukrainian Diaspora are examined, waves of Ukrainian emigration are analyzed, geographical spread of the Ukrainians in the world is tracked, socio-economic and cultural life of the Ukrainian Diaspora are described, customs and traditions of the Ukrainian Diaspora are highlighted, Diaspora ties with Ukraine are detected etc. The greatest attention is devoted to the study of the Ukrainian Diaspora in the US, Canada, Russia, Western Europe and Latin America.

The purpose of discipline is to familiarize students with periods of formation of the Ukrainian Diaspora and the main problems of Ukrainian emigration in the world to analyze the role and importance of personalities, cultural, educational, social organizations of the Ukrainian Diaspora in different parts of the world in preservation of ethnic characteristics of Ukrainians abroad.

As a result of studying the discipline the student should know: methodological approaches to the analysis of complex historical issues, content and components of the Ukrainian Diaspora history, key definitions and categories, stages of development and issues concerning the Ukrainian Diaspora in the world. The student should be able to analyze legislation and regulations of migration processes, to evaluate the potential risks that can be realized when entering another country as Ukrainian citizen to provide their own assessment of the problems of modern Ukrainian Diaspora.

According to the plan of training and thematic content modules in the first «Concept of the Ukrainian Diaspora» 3 topics are considered. In the topic 1

«Historiography of Ukrainian Diaspora» it is noted that the first attempt to study Ukrainian Diaspora as ethno-social groups started in late XIX - early XX century. The reasons for Western immigration, ethno-social adaptation to alien ethnic environment are highlighted. Students must understand that the basic source for studying Ukrainian emigration, is continuous processing of historical archives, statistical information, field materials, research articles. Specifically, students are encouraged to read the materials about the history of Ukrainian immigration, places of settlement, cultural, church life, education, science, art, presented in the book-guide «Foreign Ukrainians» (Lazebnyk, 1991).

A special place is occupied by the study of Ukrainian emigration in the period between the two world wars. In particular, there is a new concept of «political emigration» (V.Piskun); military and political emigration (I.Sribnyak). After Ukraine became independent historical studies of Ukrainian Diaspora has spread among local scientists. Noteworthy are papers by F.Zastavnyi, V.Troschynskyi, A. Shevchenko, V.Yevtuh, Y.Rymarenko, M.Vivcharyk, B.Lanovyk. For self familiarizing students with historiography in teaching methods of course «»Ethnography of the Ukrainian Diaspora» recommended literature is listed (Kuzina, 2012).

Since the process of diaspora research is constantly updated with new developments, one of the forms of keeping students updated are presentations of works concerning emigration by authors themselves. For example, students met with great interest from the author of «Ukrainian folk culture in the Canadian prairies,» Dr. of Folklore Studies R.-B. Klymasz well-known in Canada is a pioneer and patriarch of the Ukrainian-Canadian folklore.

In studying the second topic «Place and role of the Ukrainian Diaspora in the world,» it is important to focus student`s attention on the definition of the term «Ukrainian Diaspora» because until now there are many concepts to determine the problem. Analysis of the current scientific literature on diaspora demonstrates the lack of a clear definition that reflects the essence of this phenomenon, and clarity in the application of the term «diaspora,» which quite arbitrarily used to describe various processes and phenomena of understanding its content in the context that a particular researcher considers necessary to give it. It is typical for a primary stage of development of any branch of knowledge. However, the increased attention of researchers, due to urgency of the problem, awareness about imperfections of concept through which it is described, promotes more active scientific search for updated content. It is therefore important to focus student`s attention on the fact that the term «diaspora» is in the process of development. The Greek word diaspora originally formed from the verb diasperein «dissipate, scatter, distribute,» was first applied to the Jewish nation. Further, in the historical development of mankind, has become an expansive interpretation. It was used to explain, describe ethnic groups who for whatever reasons have been cut off from the people of their nation, but continued to live as a distinct ethnic community in another environment. (Yevtuh, 2003) Thus, diaspora can be understood of the ethnic group, which was due to

various circumstances outside their ethnic core in different ethnic environment, but retained their ethnic identity, developed a specific «diaspora» identity, has created an organizational structure, all of which enables it to contain ethnic group transformation and assimilation, and to ensure the development and functioning of the community, ethnocultural continuity of generations. As ethnic group diaspora`s basic properties inherent ethnicity. Ethnic territory does not act as its material basis of life, and more related to the image of the motherland, spiritual connectedness which is one of the key components of its identity. Ways of formation of diaspora enable us to distinct between two types of diaspora: migrant and autochthonous minorities. They differ in specific ethnic self-awareness and self-expression. Recognizing the legitimacy of the use of the term «diaspora» to both types of minorities it should be noted that more appropriate to adress it to the migrant diaspora communities of origin (Yevtuh, 2003).

In Ukraine, the term «Ukrainian Diaspora» referring to all people of Ukrainian origin outside Ukraine became widespread only after declaration of independence of the Ukrainian state. Although, in 1920 -1930's this term was used by a prominent Ukrainian political scientist, ethnologist and sociologist V.Starosolskyy. Finally this term was established in the early 1980's when in the ninth volume of the Encyclopedia of Ukraine an article entitled «The Ukrainian Diaspora» had been included. At the heart of this concept is the recognition of contemporary Ukraine as a historical and political reality and presence of Ukrainian living in many other countries in several continents (Troschynskyy & Shevchenko, 1999).

Attention of students should be drawn to the following characteristic features of the concept of «Ukrainian Diaspora»:

- A core aspect of the concept of «Ukrainian Diaspora» is fixing the facts of the Ukrainian people stay outside the territory of its state- Ukraine;
- The term «diaspora» highlights the fact that dispersion of people of Ukrainian origin was mostly involuntary;
- with few exceptions, all the Ukrainian Diaspora, suffers constant influence of other ethnicities, refers to marginal stratum of Ukrainian ethnicity;
- Ukrainian Diaspora is resettled partly compactly and partly dispersed, its origins are autochthonous on the one hand and immigrant on the other;
- Diaspora is already an integral part of the country of settlement, so that its members do not intend to return to their historic homeland, trying to unite to help in the preservation of their ethnic and cultural identity;
- Ukrainian Diaspora can be seen as a form of society; Despite the differences in traditions and culture among the various regional branches of diaspora and value orientations of its representatives, it retained certain common interests and aspirations (Troschynskyy & Shevchenko, 1999).

In studying the history of the Ukrainian Diaspora (Topic 3) lecturer describes the complexity and contradictions of the formation of the territory of modern Ukraine. The attention of students should be at scientific discussions about the ethnic

borders of Ukraine. Students are offered to choose topic from reference topic list for modular individual assignments. (Kuzina, 2012). The first module is completed with excursion to the Museum of Ukrainian Diaspora (Kiev)

Ukrainian Diaspora is divided into western and eastern (a term first used at the 1st Congress of Ukrainians in 1992), although this division is objectionable to some researchers. Students need to know that for the western Ukrainian Diaspora is generally accepted concept of «waves» of mass emigration of the Ukrainians, that comprise a total of four. The first - from the late 19th century n to the First World War, when the relocation took place mainly on the territory of Transcarpathia, Bukovina, Galicia to Canada, USA, Argentina. The second «wave» of mass emigration began after the First World War. Most of the immigrants, which are dominated by members of Liberation Struggle 1917-21 years, traveled to Europe - in Czechoslovakia, France, Germany. The third «wave» of mass emigration to the West during and after World War II was caused mainly by political reasons. The fourth «wave» of emigration to the West, which began in the mid-1980s and continues to this day is caused by to difficult and deteriorating socio-economic situation in Ukraine. (Encyclopedia of Contemporary Ukraine, pp.662-663)

Formation of Eastern diaspora, which also took place over a long period due to the voluntary and involuntary resettlement, as well as Ukrainians living in their ethnic lands. Migration of Ukraine in the Russian Empire and later the Soviet Union divided into several stages: from th first the seventeenth century. to he first half of the nineteenth century; second - from the end of nineteenth century to the early twentieth century .; third - from the middle of the twentieth century; fourth - the post-war period of the twentieth century.

In the first phase considerable movement of people from Ukraine was connected with the struggle between the Rech Pospolita and Moskovia about Ukrainian land, which led to the emergence of a significant number of Ukrainians from Chernihiv on Kursk region. In the late eighteenth century. notable pockets of immigrants from Ukraine there are in Central agricultural areas, the Lower Volga, North Caucasus, where the Ukrainian peasantry implemented farming, distributed Ukrainian lifestyle, food, clothing, ethno-cultural rituals. The second phase is characterized by the development of areas of Siberia, the Far East, Kazakhstan and Central Asia. The third is characterized by forced displacement of the Ukrainians dispossessed, persecuted in 1920 - 1930`s and deportation of participants of the struggle against the «Soviets» in Western Ukraine in 1940-1950's. Eventually deported moved to different parts of the former Soviet Union. The fourth phase is characterized by labor migration, including the development of Siberia and the Far East (Gerasimchuk, 2011).

It is important for students to know that Ukrainian cultural heritage located abroad, is carefully preserved by the Ukrainian Diaspora on all continents. The attention of students may be drawn on the role of the church as a unifying force Ukrainian Diaspora. The relationship between education, culture and science of

Ukraine were established by the church using traditional methods:

- Organization of communities at churches with wide cultural programs, choral singing, celebration, playing the folk musical instruments and art crafts, staging performances on moral and religious themes;

- Organization of Sunday schools, where fundamentals of faith (catechism, Psalms) were studied as well as Ukrainian language, literature, history;

- Collection of folk art and professional artifacts, originals and rarities of national life, artistically perfect cultural objects and the establishment of the basis of artistic and ethnographic collections and museums in churches;

- The influence of the church on consumer culture of settlers, maintaining morality and ethics in the borders of Evangelical requirements, reservation of perception of customs and rituals that contradict the norms of cohabitation and national mentality. (Zaharchuk-Chugai, 2012).

In the end of module 2 students are expected to carry out a survey based on a questionnaire developed by the author for the curriculum course «Ethnography of Ukrainian Diaspora» to study the lifestyle of the Ukrainian Diaspora. (Kuzina, 2012).

Subject: Ukrainian Diaspora Lifestyle Study

QUESTIONNAIRE

General information:

1. How many years are you in emigration ? _____
2. Which state did you move? _____
3. What is your status in your state , which you moved?

A) legal

B) illegal

B) in the process of obtaining a legal status

4. What motivate, you were guided by at a choice state for emigration (mark from 1 to 5, 5 - «very important factor», 1 - «factor was not considered»)

Factor / Evaluation of the importance					
The ease of execution of documents and departure					
The low outlay of departure					
Loyal attitude of government to migrants					
The ability to get high incomes					
Other _____					

5. The reasons of your migration. (mark from 1 to 5, 5 - «very important factor of», 1 - «factor was not considered»)

Factor / Evaluation of the importance					
The difficulties for finding work in the homeland					
The low wages, non-payment of wages					
Debts					
The need to pay for children's education					
The need to improve living situation					
The need for money to start a business in Ukraine					
Get marry					
Other _____					

6. Do you have a permanent place of residence outside of Ukraine?

A) No, I do not have

B) I rent an apartment

B) I'm owner of an apartment / house,

D) I live in a dormitory

7. How many points could you assess the quality of your life in the host country (from 1 to 5, 1- is very bad, 5 - on a par with nationals of the host country)

A) 1

B) 2

B) 3

D) 4

D) 5

8. What is your average monthly salary?

A) to EUR 600

B) 600-800 EUR

B) 800 - 1000 EUR

I) More than 1000 EUR

8. What is the structure of your expenses : 1 - «spending the lowest share of the salary», 10 - «spending the largest share of the salary»

Objectives / Assessment of the part budget that is spent on this purpose										0
Expense for food										
Expenditure on habitation										
Treatment of expenses										
Expenses for help to relatives in Ukraine										
Savings										
Education										
Rest and intellectual development										

Transport										
Clothes & Footwear										
Other_____										

10) How old are you? _____

11) What education did you get?

A) Average

B) secondary vocation

B) incomplete higher education

D) higher

B) have a scientific degree

12. Where did you work in Ukraine? _____

13. What do you do for a living in the host country? _____

14. Which social benefits do you have in the country, which you emigrated?

A) a completefull package of social security for me and family

B) medical service and social insurance

B) pensions, medical service

D) social insurance, pensions

B) have no social protection.

15. Do you plan to return to Ukraine? If so, under what conditions?

A) No

B) Yes _____

First Name, Last Name of interviewer_____

First Name, Last Name and residence of respondent_____

Date completing the questionnaire_____

Materials collected from a survey of students by the 2013-2014 biennium. Archived by Department of Ethnology and Local History.

These materials allow to draw generalized picture of modern Ukrainian emigration prospects of young people and the possibility of their return to Ukraine.

Current state of affairs in Ukraine is prompting more young people to travel to other countries. The average age of the respondents at the time of departure from Ukraine, regardless of current age is 25 years. This indicates that most respondents consider emigration rather as a basis for their work, not as a way out of certain conditions at home. 60% of respondents emigrated to European countries (Germany, Italy, Spain, Sweden, Austria) , 20% - to the US and Australia. . The largest share moved to Germany. In host countries they mostly continue to work on specialty they had before emigration or close to the area. All respondents acquired higher education in Ukraine. Their diplomas are recognized abroad, but some continued their studies, confirming the title of Master degree or getting a doctorate. Today, education in Europe is more than a way to travel than getting a good education, because there are scholarships to study in college, in graduate school master or the

like.

All respondents include «young» immigrants, as they left the Ukraine from one to five years ago. All have legal residence status, i.e. have a residence permit. When choosing the most important factors when choosing countries for emigration were possibility of higher incomes or better jobs and quality of education, confidence in a better future . This is associated with low wages in Ukraine, the desire for self-realization, prospects for employment and stability for themselves and their families, as well as the possibility of free movement within the EU. 40% of respondents have an income less than 600 EUR, in other cases, respondents' income is directly proportional to their seniority and length of stay in the country of emigration.

60% do not have their own homes, but it should be noted that, for example, in Germany owning residential property is not as desirable, as in Ukraine. But at the same time the housing expenditures is sufficiently large share of monthly expenditure. Other high costs are brought by taxes. 80% of respondents spend money on rest and treatment. 60% of respondents have the opportunity to save. Only 20% of respondents supported financially relatives who stayed at home. None of the respondents spend significant funds on education. In contrast to Ukrainian natives, immigrants also have medical insurance and social pensions. Those who work and pay taxes accordingly, have equal rights and social guarantees to all citizens of the host country. Students who live on the scholarship, are limited in their rights, but they have health insurance and social security.

Most of the respondents are satisfied with their lives and its quality in a foreign country, since 80% of respondents do not plan to return home. For the rest of the respondents to return to Ukraine possible only if the improvement of socio-economic and political situation and fighting corruption will happen. Summing up, it should be noted that since Ukraine has no corresponding program to minimize the outflow of human resources, Ukrainian emigration of graduates will increase.

Conclusions. Thus, from the study course «Ethnography of Ukrainian Diaspora» deepens students theoretical knowledge and encourage them to conduct independent scientific ethnological research. Interaction with representatives of the diaspora contribute to the integration of the Ukrainian youth and teaches them to provide their own assessment of the problems of modern Ukrainian Diaspora.

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PLANE GEOMETRICAL ORNAMENTS: TYPES, FEATURES AND APPLICATION

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Beauty starts from form. It is a form filled with substance. In real life as well as in arts beauty has multiple manifestations. Plato indicated how difficult it was to explain why they are beautiful. Attempts to at least approach to some objective 'laws of beauty' have been made by mankind from ancient times: among them Pythagoras mathematical laws in music, Keppler's geometrical model of Universe, system of proportions in architecture, human proportions and geometrical principles of art. And today many scientists believe that 'mathematics is the origin of beauty'.

Ornament is a cellular partition of surface into infinite number of cellules where each check is obtained from any other by means of motion. In everyday life we often encounter ornaments and look at them as works of art. Actually ornaments have geometrical background. Awareness of geometrical background of ornaments enables to successfully resolve a broad range of tasks in such realms as arts and engineering.

Ornament (lat.: ornamentum) is a pattern consisting of regularly ordered elements, serving for decoration of various items (linen, equipment and arms, textile fabrics, furniture, books etc.), architectural building (both in exterior and interior design), works of plastic arts (mainly applied) and in primitive people even for decoration of human body (paint, tattoo). Attached to the surface it decors ornament usually reveals or accentuates the architectonics of the item on which it is layered. It either represents some abstract forms or stylizes real things often encoding them into barely recognizable prints. Georg Weil called ornament art 'the most ancient kind of higher mathematics expressed in implicit form' [Weil, 1952: 46].

The origins of ornament are not still entirely clear. It contains the aesthetical interpretation of human activity that transforms nature in creative but orderly fashion. Beyond doubt one of the sources of ornamental decoration of thins emanated from technological processes: many geometrical prints on the ancient ships could

be reproductions of willow imprints on clay; various interweaving of threads in textile could also lead to creating certain ornamental forms. Of equal importance is also ritual, magic role of ancient ornaments in which diverse signs, symbols and stylized images of magical or religious sense. Ornaments, especially in folk arts where it is applied the most, reflect poetic outlook and worldview. As time went on, ancient ornaments were losing their original functions while preserving decorative and architectonic expressiveness. Great role on genesis and further evolution of ornament played aesthetical needs of society: rhythmical regularity of generalized prints used to be one of earliest way of artistic reflection about the world facilitating realization of order and harmony of reality.

Invention of ornament dates back to ancient epochs, its prototypes can be traced in Paleolithic age. In Neolithic aesthetical culture it acquired a great variety of forms and gained a prominent role. Later with the development of artistic forms in plastic arts this kind of pattern loses its prominence and cognitive function forever but remains an important decorative and ordering feature in plastic arts. Each epoch, each style and each national culture emerging in the world produced their own ornament systems; that's why it is a reliable marker of belonging of an artifact to a particular epoch and particular country. Utmost degree of development ornaments achieve in regions with prevailing relative forms of visual interpretation of reality: in the Ancient East, in pre-Colombian America, in antique and medieval Asian cultures and in Medieval Europe. Folk cultures of pre-modern age establish stable principles and forms of ornament pattern which to a great extent determine national artistic traditions.

Geometrical constructions, combinations and well-formed curves are employed in ornaments from ancient times till nowadays. Using periodic pattern (linear and centric) [Makovicky 2015], mirror symmetry (mirror symmetry and / or rotation), layering several elements (creating a lattice) we obtain extremely marvelous and impressive images. This method is called geometrical construction of ornament that makes possible to view the world in quite different manner.

Geometrical ornament forms linear and spatial compositional systems. It enables to grasp sense of mathematical, rational explanation of the surrounding world. Creating various compositions consisting of centric, square, triangular segments, an artist resorts to basic principles of geometrical ornament construction – mathematical calculation. In its centre lies a number that is multiply repeating in the ornamental composition or reflects proportional correlation of components.

The basis of geometrical ornament is strict sequence and ordering in using one and the same elements. Most often ornamental compositions with geometrical elements are constructed in accordance with symmetry laws. But there are more complicated versions of ornamental combinations saturated with floral, teratological (animalistic) or grotesque motives. As a rule, geometrical patterns recur or alternate establishing a continuous periodic row of similar segments.

Important aspect in study of geometrical ornament is not only detection of its

structure and compositional features but also understanding semantic interpretation of its particular components.

Some researchers state that geometrical ornament emerged in primeval age and embodied a certain abstract idea. Ancient man displayed his ideas about surrounding world by means of signs stamped on different domestic instruments and on walls of the caves.

Ancient ornamental compositions often include images of geometrical figures as symbols: circle symbolized the sun, square – the Earth, triangle – mountains (or forest); spirals reflected the idea of infinity of being, permanent evolution or eternal motion.

In each significant cult system – pagan, Christian, Buddhist, Hindu, Islam or other – there emerged own paradigms determining semantics of geometrical figures in ornamental compositions.

Although many scientists are prone to see in geometrical ornament manifestation of primitive algorithms, each culture had own interpretation of one or another sign.

There are plenty of schemes of geometrical ornament construction and of their classification. For instance, Gerchuk mentions such variants:

1) periodic pattern (linear and centric);

2) mirror symmetry (mirror symmetry and / or rotation);

3) layering several elements (creating a lattice) [Gerchuk 2013].

Well-known French researcher Henry de Morant analyzed peculiarities of element combination in geometrical ornament. He divided geometrical ornaments into simple and complex motivational (compositional) structures [de Morant 1970].

One of the simplest elements de Morant named a point that was actively employed in decorative arts – Iranian Sassanid's art. The next stage became a line as a foundational detail of compositional construction. Principle of linear construction had a wide use in different art forms and was very popular in the Mediterranean as well as in Europe and the Middle East. It should be noted that the line in itself was not in de Morant's view an independent component of ornament but when enriched with alternations and recurrent elements becomes a substantial element.

Next stages of evolution of geometrical ornament the scholar called zigzag, meander, chevron encountered in many ancient cultures. In his book the author didn't singled out but mentioned also such simplest geometrical figures as rhomb, circle, square, triangle, hexagon, octagon etc. Among linear ornaments de Morant marked out wavy line, spiral, twisted rope – artistic techniques of décor often resorted to by medieval masters. To that range can be enlisted also a cross which has a particular meaning for Christian culture and that of some South-Eastern countries. Other variations of ornaments with geometrical elements were more complicated compositional structures.

Ornament patterns are developed on the basis of a set of principles of construction which allow to select from an array of available motives the one that provides for the most appropriate creative effect. A good decorative effect may be produced

through principle of repetition which is often used in border, bands, friezes etc. Alternating repetition of pattern in opposite directions constitutes principle of inversion. Principle of sequencing takes place in alternating vertical and horizontal location of ornament pattern. Principle of symmetry is exhibited in locating two similar patterns on both sides of an axis, the axis being either explicit or implicit [de Morant 1970: 26].

Unlike XX century ornamental compositions, historical ornament was imbued with particular symbolic meaning, let alone universal ideas. The so-called semantics of geometrical ornament resided in how artists understood meaning of those symbolic and what sense put in it.

The main laws of ornament compositional construction include: integrity, harmony, balance, compatibility, subordination, proportionality, commensurability.

Pattern is the key formative element that recurs in an ornament.

Rapport is the basic element of an ornament multiply repeating and filing all the surface. Rapport repetition of the pattern creates different rhythm.

Stylization is formal subordination of artwork to some style or tradition. Stylization is also generalization of artwork's subject, simplification of its form and colour gamma.

The sources of ornaments may emanate from geometry, fauna, flora, contours pf human body or surrounding things. Pattern may consist of one element (simple pattern) or of several plastically conjugated into an integral ornamental composition [Fokina 2005: 3].

With regard to patterns employed ornaments are divided into geometrical – consisting of abstract forms: points, lines, polygonal line, zigzag lines, reticular intersecting lines; circles, rhombs, polyhedrons, stars, crosses, spirals; more complicated specific ornamental patterns – meander (in arts: geometrical ornament in the form of polygonal line or curve with curls); floral imitating leaves, flowers, fruits etc (lotus, papyrus, palmette – ornament resembling palm leaves and items with such ornament) [Wong et al. 1998], acanthus – sculptural decoration of capitals, cornices, vases having the form of this plant's leaves; zoomorphic or animalistic representing figures or parts of figures of real or fantastic animals. Motives for such types of patterns can be found in human figures, architectural fragments, arms, various symbols and emblems (coat of arms). A particular type of ornament constitute stylized inscriptions on architectural buildings (for instance, on Central Asian Medieval mosques) or in books (so called ornate lettering – antique decorative script where letters are linked in a continuous ornament; intertwinement of several letters or whole words into a single complex sign or compact group). Frequently there appear intricate combinations of different patterns (for example, of geometrical and animalistic forms – the so-called teratology or of geometrical and floral – arabesques).

Geometrical ornament is the most widespread pattern of Slavic embroidery, the common feature for all East Slavic nations. Main elements of this ornament

are rhombs with embellishments. According to ancient Slavic belief, those rhombs embodied the goddess of soil and served as a good amulet bringing welfare and fertility. It is because of liaison with fertility that amulet ornaments became widespread in ritual clothes. Women's wear had embroidery on head dressings, chest garments and shoulder straps and in men's wear – on shoulder straps, sleeves and hem of skirts. Together with rhombs geometrical ornament includes also other simple patterns and complex figures combined in horizontal or vertical mode.

Convexities on embroidery can be simple and concentric, mainly with crossing of lines and rays. In ornaments can be found representations of calendar cycles of sun and sun rays, of crosses – simple, double and inscribed into circle etc. Zigzags and spirals on the embroidery symbolized continuity of time, intricate liaison between owner of the embroidery and the whole chain of family traditions. Such geometrical figures as squares, rhombs, and polygons are symbols of soil, fire and stone.

United in a geometrical ornament all these symbols form an exclusive set of ornamental compositions known as a classic Slavic embroidery.

The basis for ornament creation stems from geometrical constructions whatever may be its theme – technical or floral. Among crucial constitutive features of ornament are decorative stylization, two-dimensional plane disposition, organic linkage to the surface on which ornament is placed and which it always organizes often revealing the constructive logic of the item. Not every design can be considered ornament. Thus, embroidery on cloth with infinite rapport, strictly speaking, is not ornamental.

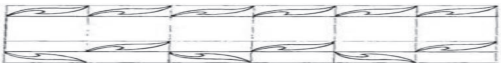
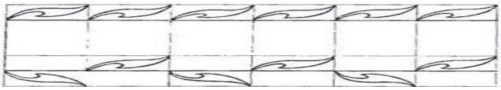
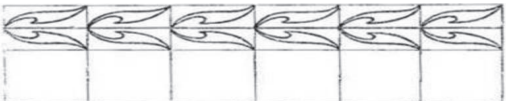
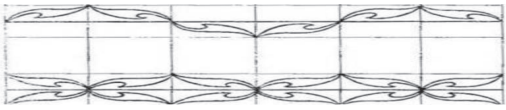
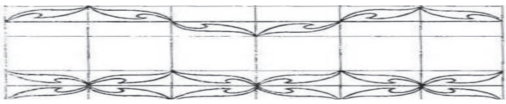
Rapport means minimal area of recurring pattern including distances between the adjacent patterns. Continuous repetition of a rapport along horizontal and vertical lines forms a rapport lattice – constructive basis of an image. Such rapport is called a continuous reticulate or carpeting. It is utilized in production of carpets, clothes, wallpapers etc. In it pattern is inscribed into a rectangular or oblique lattice that is into a rectangle or a rhomb. Often it is necessary to arrange rapport recurrence of a pattern not in both but in one direction. That is so called ribbon rapport: pattern is regularly recurred only in a single direction creating vertical or horizontal ornamental rows. It can be encountered, for instance, on clothes with fringe design, different decorative framings, strips, friezes, panels or tiles.

In most cases pattern is inscribed into rectangle or rhomb; in case of ribbon fringes of complex rectangular or round figures pattern may be inscribed into trapezium. Besides, there is a central ray rosette rapport, where pattern is inscribed in triangle, and inverse or heraldic rapport. Heraldic rapport may be included into all aforementioned types of rapports and form self-sufficient accomplished patterns. It is grounded on symmetry of vertical reflection where pattern of the image is symmetrically transposed in inversed form to another side of the symmetry axis. Pattern may be also inscribed into other geometrical figures.

Apart from rapport, there is also another type of ornamental composition –

artificial closed composition where rapport repetition of similar patterns within equal intervals is substituted by more complex rhythmic mode of reproduction of often dissimilar elements located at different distances one from another, for instance, on headscarves, pictures, tapestries etc. [Fokina 2005: 49].

Schemes of ribbon ornament

1		Repetition of an element along the translation axis. Location is uniform.
2		This type is characterized by presence of area of glide reflection.
3		Motion of a chief figure along a line of translation with interchange of direction on the opposite side of a translation axis.
4		Symmetric basis of each figure; the whole ornament situated on the one side of a translation axis.
5		Motion of a chief figure along a translation axis; location in mirror mode.
6		Interchanging sequence of symmetric figures along a translation axis.
7		Sequence of symmetric elements; on the opposite side of a translation axis being a mirrored image.

With regard to composition character stipulated by the form of decorated item ornament may be ribbon, centric, fringing, heraldic, filling the plane or combining those types in more elaborate combinations.

There are seventeen different types of plane ornaments. The most essential among them are ribbon, netlike and rosette.

Ribbon ornament is a design inscribed in a ribbon – strip with top and down boundaries. Decorative elements set up a rhythmic row with open unidirectional motion. Ornament frames the surface of the item. Patterns here are located along a straight line – a strip. These are fringe, border, frieze.Let's look upon ribbon ornaments – borders. Border is a plane geometrical figure characterized by vectors (where n is a whole number) in which a figure transposes in itself while in other

parallel translations it does not transpose in itself. This is direction vector of a border.

The simplest border is rather easily to construct: it suffices to paint any geometrical figure and conduct parallel translation on a given vector to the right or to the left along the axis. Such 'primitive figure' is called fundamental area of a border. Borders occur in various placed: in wall painting, on the stairways. They can be encountered in casting used in park fences, bridge lattices and quays decoration.

It is proven that there are seven classes of symmetry of border. Let's examine them in detail.

The first one is border with no symmetries except for parallel translations.

The second class represent borders whose fundamental area has point O as a centre of symmetry.

The third and forth classes include borders whose fundamental areas has translation axis parallel to vector or perpendicular to vector .

The fifth class encompasses borders whose fundamental area has one symmetry axis perpendicular to vector and another – parallel to vector .

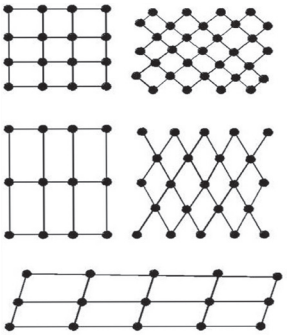
The sixth and seventh classes are border having symmetry axis without fundamental areas. For instance, some fundamental area may have apart from transformation one more symmetry central to point O. But if this figure is consequently transposed on vector , we will obtain border with infinitely great number of symmetry axes perpendicular to vector .

Fundamental area may have axial symmetry. Let's translate this area on vector and then extrapolate it symmetrically along an axis. We will obtain an image with a centre of symmetry. By repeating this operation n times, we will construct a border with n central symmetries.

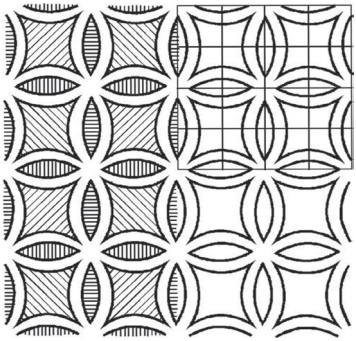
Reticular ornament is called an image whose elements are situated along many translation axes and establish two-directional motion. Reticular ornament usually occupies all the accessible plane. Foundation of an image is a lattice composed of similar figures [de Morant 1970: 6–7]. For constructing such ornament, a plane lattice is designed where similar parts are repeated in certain geometrical sequence. There are singled out five types of plane lattices each of which is defined by two vectors and and the angle between them. The kinds of lattices: square, rectangular, hexagonal, rhombic and skew.

The type of ornament is determined not only by its lattice structure but also by number of its symmetry elements. Knowing geometrical principles of ornamental design, one can construct an interesting ornament by oneself or detect the geometrical transformations in its based on. The more elements of symmetry primary pattern contains, the more interesting and beautiful ornament it will form.

Knots of a lattice correspond to similar fragments in ornament's image. Picture 1, a represents several lattices that can be used in designing different types of ornament. Picture 1, b contains an example of ornament on the square lattice.



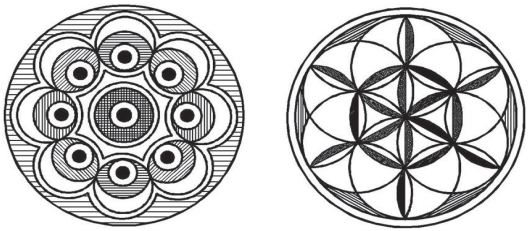
Pic. 1, a



Pic. 1, b

Closed ornament is called an image whose decorative elements are grouped in such mode that create a closed motion. Patterns are located in circle, square, rectangle, triangle and other geometrical forms. Ornament based upon central-axial symmetry when rapport is circumflex around central axis of its composition is called centric.

Ornament inscribed in circle or in regular polygon is called rosette. This ornament is closed and delineated by certain geometrical form (square, rhomb, triangle, circle etc.). In rosette pattern is inscribed into circles (pic. 2, a and b) or in regular polygons (pic. 3). Rosette is an ornament in form of a flower with similar petals or leaves inscribed into a circle.



а) *б)*

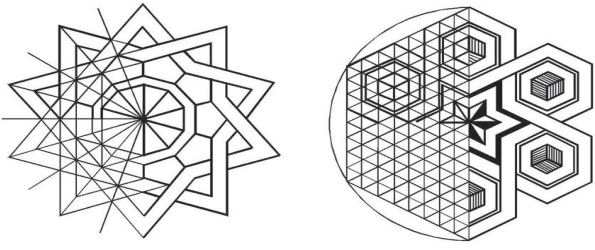
Pic. 2, a, b.

Rosette may have own meaning or become a component of general composition. Rosette construction schemes may be of two kinds: one is founded upon radiation of a circle (pic. 3, a), in another may be used also lattices of parallel lines (pic. 3, b)

Combined ornament is an ornament in which different types of ornaments are combined.

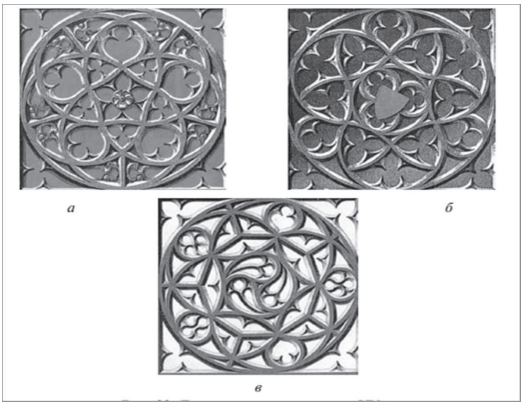
While drawing an ornament on surface one may need to change its size without distorting the whole construction. For altering height it is enough to move the line on the needed height and connect new high points with lower line segments.

Where it is necessary to stretch or narrow the ornament one may employ the way of segment division in given proportions by means of Thales theorem [Ludchenko et al. 2001: 12].



Pic. 3, a, b.

Analyzing some ornaments, we may observe examples of application in them of geometrical constructions (for instance, division of circle into equal parts), combinations with repetitions (pic. 4, a, b, c), cycloids, spirals, parallel lines, asteroids and curls [Jablan 2002: 212–222].



Pic. 4, a, b, c. Gothic windows «rosettes», XV century

Conclusions. The present investigation exposes the linkage of ornaments with geometrical constructions studied in the course of Projective geometry and image methods, indicated the interdisciplinary ties with crystallography, algebra, analytical geometry, projective geometry, image methods, physics, optics, chemistry, arts, architecture, carpet production, parquet tiling and other branches of science and industry.

Geometrical meaning of ornament has paramount importance since without

knowledge about groups of motions it is impossible to construct ornament rightly. However in our article we investigated only plane ornaments while there is a need to research principles of ornamental design in Euclid three-dimensional space.

Due to their inseparable liaison with geometrical constructions plane ornaments are endless source of ideas for new research problems, interesting puzzles and mathematic investigations including elaborating algorithms and software for constructing ornaments and testing them in the course of practical training of students of physics and mathematics specialities in high school.

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PART 3. FORMATION OF SOCIO-ECONOMIC POTENTIAL OF ORGANIZATIONAL CHANGES

INCORPORATION OF THE REGIONAL INNOVATION SYSTEM IN THE SYSTEM OF SOCIO-ECONOMIC AND TECHNOLOGICAL CHANGES IN THE REGION

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The need to accelerate the technological modernisation of the economy and, on this basis, to increase the country's social and economic development, puts forward a solution to the problem associated with the implementation of various schemes for the incorporation of a system of socio-economic and technological changes.

The concept of a system of socio-economic and technological changes could be considered as a set of resources and economic entities that form a single whole (socio-economic structure) to achieve a particular goal. An important element of it is an innovation system.

As is known, the innovation system is a set of interrelated economic entities (production companies, scientific organisations, universities, investment funds, etc.) and institutions (legislative, financial, social) that interact with each other in the production, distribution and use of knowledge and competitive technologies aimed at implementing strategic goals of sustainable development of the economic system. This system functions not only within the national border, but also within the boundaries of the regions.

The institutional conditions for the functioning of the innovation system are to ensure the integration of science, education, production and market infrastructure; increase in the level of innovative orientation of investment processes; strengthening the role of the state in the formation of strategic directions of national importance; expansion of the role of regions and local territorial systems.

The above imperatives of the organization and development of the innovation system extend to the regional innovation system (RIS) as a subsystem of the national innovation system (NIS).

Strengthening in recent years the role of regions in the development of the economy of the Russian Federation allows us to consider the RIS as a scheme for the incorporation of a system of socio-economic and technological changes.

The implementation of the incorporation of the regional innovation system (RIS) into the regional system of socio-economic and technological changes (RSSEaTC)

is becoming a challenge for the management structures of the Federal Government and the government of many regions of the Russian Federation. At the regional level, it is not enough to develop a Strategy for socio-economic and innovative development, to create separate elements of the regional innovation infrastructure, to adopt legislative acts in line with common approaches and directions for the formation of the national innovation system. The main task is the consolidation of federal and regional authorities, organisations of scientific, technical and innovation sphere and business to develop promising elements (institutional forms) of the innovation system, incorporating them into the RSSEaTC.

Under the incorporation in the RSSEaTC in this case, we mean the use of the mechanisms of interaction between the elements (subjects) of the regional innovation system and the system of state and corporate governance in order to increase the level of social and economic development of the region. These mechanisms must be built into the organisational and managerial scheme of development of the region.

In Russian Federation general approaches and directions for the formation of regional innovation systems in the RSSEaTC and planned measures of state support for their creation are presented in the strategic documents of the federal level. This is the Concept of long-term socio-economic development of the Russian Federation until 2020 and the Strategy for the Innovation Development of the Russian Federation until 2020.

The relevance of the problem of the development of RIS, the complexity of its implementation (both in the scientific methodological and organisational and management aspects) is evidenced by numerous discussions held in the scientific environment with the participation of business.

The laws and decrees adopted in the regions show that many regional governments declare the creation (or intensive formation) of innovative systems. However, it may be regarded only as the formation of individual elements and the development of schemes for effective interaction between participants in innovation activity. This includes, in particular, relatively well-off regions with a sufficiently developed innovation infrastructure and significant scientific, educational and innovative potential.

Objective conditions for the formation of an innovation system do not exist in all regions of the Russian Federation. However, in those regions where there is insufficient scientific, educational and innovative potential, it can be the case of the implementation of innovative projects, the stimulation of various innovative processes in various socio-economic spheres, as well as the development of promising institutional forms of innovation (clusters, technological platforms, engineering centers, technology transfer centres, etc.).

An important argument for the development of RIS in the RSSEaTC is that it is within its framework that competitiveness and sustainable development of the region can be ensured through the consolidation of all participants in innovation activity. Another reason for the need for intensive RIS formation is the urgency

of the task facing the Russian economy of spreading systemic innovations (key processes or technologies that have a breakthrough effect on all sectors, markets and production processes).

The specifics of the conditions for the formation of RIS in Russia is associated, first of all, with a significant differentiation of the geographic, spatial, socio-economic position of the regions. This implies the development of such organisational and managerial management mechanisms that take into account the specific features of regional socio-economic systems.

One of the approaches to solving this problem is to use the typology of regional innovation systems as a tool for developing an effective organisational and management mechanism for the formation and development of RIS. Such an approach ultimately allows us to concretize the strategy of socio-economic and technological development of the region on the basis of certain goals and objectives.

The development of the typology of regional innovation systems, as many Russian researchers believe, should be based on an evaluation of the innovation potential and innovative activity of the regions.

In the domestic and foreign economic literature there is a significant number of approaches to assessing the innovation potential and innovative activity of the regions. Many of them are interesting in the methodological aspect, but often require the use of data not provided by official statistics.

From the analytical studies in the field of typology, allowing to reach the methodological aspect of RIS management, it is necessary to single out the work [1]. The authors identified three groups of regions, based on the analysis of the state of the innovation system in the regions of Siberia:

A1 - regions with a high level of innovative potential, characterized by a high share of fundamental sciences;

A2 - regions with a high level of innovative potential with a predominance of engineering sciences;

A3 - regions with a low level of innovative potential.

Taking into account the peculiarities of the development of the Siberian regions, the above-mentioned authors singled out the following elements for the formation of subgroups of regions that characterize their specialization:

B - regions with a developed extractive sector and a high level of natural resource potential;

C - regions with a developed industrial sector, in the part of processing industries, including a developed agricultural complex, excluding an extractive sector.

The presence of the relevant characteristics determines the type of specialisation of the region:

$A_{1,2,3}BC$ - regions with complex specialization;

$A_{1,2,3}B$ - regions of natural resource specialization;

$A_{1,2,3}C$ - regions of industrial specialization.

It should be agreed that such differentiation at the stage of development of

mechanisms for managing regional socio-economic and technological development makes it possible to take into account the interests of all participants in the process as much as possible, to maximise possible effects due to the point impact on problem areas and promotes rational use of resources.

An integrated approach to the assessment of innovation potential and innovation activity, based on official statistical data, is presented in the publication [2]. The authors propose to allocate four thematic areas and a group of indicators corresponding to each direction, according to which the innovativeness of Russian regions should be assessed (Table 1).

Based on the analysis of indicators for assessing the innovation of Russian regions, four types of regions are proposed:

Type 1-regions with a high level of innovative development;

Type 2 - regions that have the potential of innovative development;

Type 3 - regions that have the potential of innovative development but use it isufficiently.

Type 4 - regions with a low level of innovative development.

In our opinion, this approach adequately corresponds to the actual situation of the formation of Russian regional innovation systems. At the same time, it should be emphasized that an important condition for ensuring the incorporation of RIS in the RSSEaTC is the implementation by the regional authorities of an effective policy aimed at stimulating innovative activity in the economy of the regions. To assess the actions of the government of the regions to promote the development of the innovative sector of the economy, it is advisable to use a system of indicators reflecting not only the potential of the regions, but also a wider range of directions.

The main indicators are:

• the share of the consolidated budget of the region, aimed at supporting innovation activities;

• the number of innovative projects implemented by development institutions;

• the share of the new economy in the gross regional product;

• the share of expenditures for innovation within the framework of programmes supporting small and medium-sized businesses;

• the share of high-tech goods exports in the region's total exports;

• the share of organisations implementing technological innovations that evaluated the expansion of foreign markets as one of the results of innovation.

Among the aspects of incorporation in the RSSEaTC should be the formation of clusters as distinctive poles of innovation and technological growth. The mechanism of state support for the development of clusters used in Russia is based on the following provisions:

• timely response to the requirements (needs) of the cluster, taking into account the entrepreneurial, geographical and historical aspects;

• support of various stages of the cluster life cycle;

• providing the necessary infrastructure for cluster development, based on

anticipating the needs of the business, and not on its consequences;

• support for leading companies, which are the core of the cluster.

Table 1

Groups of indicators for integrated assessment of innovativeness in the region

Thematic areas	Indicators	Purpose of indicators
1. Economic development	Gross regional product per one employed in the region's economy, rubles	The economic result of production activities
	Expenditures on technological innovation in industry to the volume of investment in fixed assets,%	Innovative investment capacity in industry
	The number of university students per 10 000 people in the region, pers.	Educational potential of the population
2. The competitiveness of the region's industry	The share of innovative goods in the total volume of shipped goods,%	Contribution of innovation activities of industrial companies to the development of the region's economy
	Expenditures on technological innovations to the total volume of shipped products,%	Intensity of expenditures on technological innovation
3. Scientific and technical potential	Internal expenditures on research and development per researcher, rubles	The level of funding for science
	The share of research and development personnel in the total number of the employed in the region's economy,%	The level of employment in the sphere of scientific and technical activity
	The number of received patent applications for inventions and utility models per 10 000 people of the economically active population of the region, units	Effectiveness of the scientific and technical sphere
4. Innovative activity	The share of organisations implementing technological innovations,%	The degree of participation of the organisation in the implementation of innovation activities in general or of its individual types
	The volume of shipped innovative products to the costs of technological innovation, rubles.	The level of economic efficiency of innovation activities
	The number of advanced technologies created per 10,000 economically active population in the region, units	Effectiveness of innovation and scientific and technical activities

At the federal level, the development of clusters is seen as an effective institutional form of incorporation in the RSSEaTC, which has an impact on the transition to production processes with higher added value. There are about 140 clusters countrywide, covering various spheres of social and economic activity.

Clusters are a group of interconnected companies concentrated in a certain territory. For example, the Innovative Territorial Cluster «Consortium» Scientific and Educational Production Cluster «Ulyanovsk-Avia» unites nine organisations, including a research institute, a design bureau, two manufacturing enterprises [3].

The enterprises of small innovative business have certain preferences when joining the cluster. For them, it provides an opportunity to significantly reduce the barriers to market entry by unifying the requirements within the cluster; rapid response to market needs; attracting highly qualified staff due to constant interaction in the cluster with scientific and educational structures. In addition, access to new technologies is facilitated.

The cluster approach focuses on different types of policies (Table 2), the synergy of which ensures the development of the RSSEaTC.

To implement the practice of forming innovative clusters from the point of view of actual trends in the development of the RSSEaTC, a prerequisite is the existence of cluster development centers in the regions.

Table 2

Influence of the principles of the cluster approach on the key parameters of the RSSEaTC

Policy type	Applied approach	Characteristics of the cluster program
Regional policy of socio-economic development	Creation of competitive territories by combining local participants and assets	The main goal is the elimination of deprived areas. Wide approach to the development objectives of the sectors of the economy, including innovation. Emphasis on the interaction of participants.
Scientific and technical policy	Funding for collaborative research on the basis of communication with industry to commercialise R & D results	Focus on high technologies. Use and strengthening of territorial impacts on investment in research. Promotion of joint research and tools to support commercialisation. Interaction with both large and small companies, possible support for subsidiaries and new projects.
Industrial (technological) policy	Support for companies developing technologies	Selection of one of the following cluster programme approaches: - interaction with companies responsible for national growth; - support for small businesses to overcome barriers to growth and development of technologies; - creation of competitive advantages for attracting investments and creating export brands

It should also be emphasized that the main directions of RIS incorporation in the RSSEaTC involve the following management directions:

• ensuring coordination and information-analytical support of various elements of RIS;

• formation of support institutions and organisation of business environment for the development of various elements of RIS;

• modernisation of infrastructure facilities that ensure sustainable development of existing RIS elements;

• formation of an effective system of training qualified personnel for the needs of various elements of the RIS.

The process of RIS incorporation in the RSSEaTC is based on the implementation of regional development strategies, long-term orientations of socio-economic and technological development in relation to national goals and objectives.

Conclusions. Summarising the overall results, it should be noted that in the Russian Federation in recent years the role of regions and local territorial networks (clusters, technological platforms) has increased in ensuring the sustainability of the development of regional socio-economic systems. For the implementation of RIS incorporation in the RSSEaTC, it is essential to determine the capabilities of the regions to accelerate the processes of technological modernisation. Using for this purpose the typology of regions, based on their level of innovation, becomes an important tool for developing an effective mechanism of incorporation. The availability of information (containing data on the potential of the regions in terms of their types) is the basis for analysing the factors hampering effective innovative development of the regions, and also for working out schemes for effective interaction between innovation agents.

In addition, the use of the typology of regions, based on their level of innovation, makes it possible to determine the role of regions in the overall system of socio-economic and technological changes, and also to specify the strategy for the development of the national economy.

The effectiveness of network structures in the scheme of incorporation, considered on the example of clusters, consists in focusing in the cluster approach of various types of policies (regional socio-economic development, scientific, technical, industrial), the synergy of which ensures the development of the RSSEaTC.

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ANALYSIS OF THE SOURCES OF FINANCING OF SCIENTIFIC, TECHNICAL-SCIENTIFIC AND INNOVATIVE ACTIVITY IN THE COUNTRIES OF THE EURASIAN ECONOMIC UNION

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At this stage of the development of global economy research & innovation policy plays a crucial role in developing and emerging market countries. Promoting innovation is one of the main factors of economic growth of countries, the level of economic well-being and the independence of the subjects of the world economy.

The increase of innovative activity is impossible in the absence of an effective financial mechanism to provide all the participants of the innovation process with the necessary resources. However, one of the reasons constraining innovative susceptibility of the real sector of the domestic economies of the participating countries of the Eurasian Economic Union (EAEU) is the lack of financial resources. Paradoxically, a similar picture is observed practically in all the countries of the (EAEU) on the background of the increase of state subsidies for financing of research and developmental works, the development of legislative and regulatory framework of stimulation of innovative activities etc.

The analysis conducted below determines the sources of financing of scientific, scientific and technical and innovation activities in the countries of the EAEU and identifies positive and negative aspects of the mechanism of financing of these activities.

It should be emphasized that the EAEU has recently managed to achieve significant results in the sphere of innovation and this creates many opportunities to enhance cooperative activities. In order to determine the areas of mutual cooperation in innovation and in general the possibilities of integration of the innovation systems

of the member states of the EAEU, it is necessary, first of all, to assess the level of their individual innovative development.

Thus, the rating of EAEU countries in the Global Innovation Index increased, as a whole, by 3 positions from the 55th in 2012 to the 47th place in 2016. In terms of technological development, the ranking of the EAEU countries improved by 9 positions from the 71st in 2010 to the 62nd place in 2016 (Table 1). However in 2017 the rating has declined, primarily, due to the low level of investment in innovation from businesses as well as insufficient funding from the state.

Table 1

Global Innovative Index (2011–2017)

EAEU Member	Period, year						
	2011	2012	2013	2014	2015	2016	2017
Russia	56	51	62	56	48	43	45
Armenia	69	69	59	65	61	60	59
Kazakhstan	84	82	83	69	82	75	78
Belarus	-	78	77	58	53	79	88
Kyrgyzstan	85	109	117	90	109	103	95

Source: own evaluation on the basis of [1]

** The lower the value of the indicator, the better the situation in the field of innovative development.*

Within 2010–2017, all the EAEU countries were establishing legislative, regulatory and institutional frameworks for innovation. As a result, the need for the formation and introduction of innovations in the economy was recorded in the main strategic documents of these member states.

For example, in the Republic of Belarus, the implementation of the principle of the integration of science, real sector and education, facilitated the adoption of the state scientific and technical programs and measures to stimulate innovative activity in manufacturing and small businesses.

The Republic of Armenia carried out the work on formation of legal field of innovative activity, which allowed to harmonize certain provisions with international law, and to determine medium-term priorities for research and development.

Kazakhstan diverted considerable focus towards the industrial element of the innovative development. Innovation strategy gained new impetus with the adoption of the State program of forced industrial innovative development, which led to the improvement of the performance of the national innovation system.

Kyrgyzstan is only at the beginning of the way towards an innovation type of economy; hence the activities were administerial and were aimed at the creation of favorable conditions for innovative activities. Russia has the most powerful economic and technical-scientific potential among the member states.

The characteristic features of the policies of the EAEU member states indicate different rates and extents of the implementation of the national innovation agenda. Even so, the effect of the implementation of measures of the national innovation policy in all the states remains extremely limited.

The efficiency of national innovation systems (NIS) is largely determined by the financing subsystem, which affects the efficiency of the other segments. Dynamics of the internal costs on research and development in the EAEU are presented in Table 2.

Table 2

Internal costs on Research & Development (in million US dollars)

EAEU Member State	Period, year		
	2013	2014	2015
Armenia	23	26	25
Belarus	487	397	277
Kazakhstan	405	370	313
Kyrgyzstan	11	9	8
Russia	23,564	22,323	15,078
EAEU	24,490	23,125	15,701

*Note – Source: [2] * Calculated at the exchange rates of national (Central) banks for the year:*

For Belarus – at the average weighted Belarusian ruble – US dollar exchange rate,

For Armenia, Kazakhstan, Kyrgyzstan & Russia – at average exchange rates of national currencies against the US dollar.

In terms of internal costs on research and development, EAEU countries lag behind economically developed countries. According to this indicator, Russia is in the lead among the EAEU countries, followed by Kazakhstan and Belarus. The level of research funding in Armenia and Kyrgyzstan is nearly the same. In real terms the funding of the scientific research and development is as follows:

Russian Federation – $ 15078.5 million

Republic of Kazakhstan – $ 312.6 million

Republic of Belarus – $ 276.6 million

Republic of Armenia – $ 25 million

Kyrgyz Republic – $ 7.9 million [2]

Below is given for comparison the R&D costs for some other countries:

Germany – $ 108827.2 million

China – $ 368731.6 million

Singapore – $ 72266.8 million

Austria – $ 12498.0 million

Israel – $ 11376.5 million

Finland – $ 7050.8 million [3]

In general, the research and development investments among the EAEU countries do not exceed 1.2% of GDP, which is below the world average (2.12% of GDP), as well as the level of other integration associations [2].

In 2014–2015 the volumes of research and development expenditures in the EAEU were influenced by negative macroeconomic conditions. As a result, the end of 2015 saw a reduction in proportion of spends towards R&D (to 57.7%), the total R&D funding decreased by a third (32,1%) compared to 2014 (to $15.7 billion). This dynamic forms an overall negative trend for structural changes in national economies associated with the development of knowledge intensive sectors.

There have been no significant changes in the structure of R&D financing in recent years. The share of budget funds makes up the overwhelming share of costs: from 44.7% (Republic of Belarus) to 78.0% (Republic of Armenia) (Table 3).

Table 3

Structure of internal research and development costs based on financing sources, 2015 year, %

Indicators	Own means	Budget resources	Means of extra-budgetary funds	Customer funds	Funds of foreign sources	Other sources
Armenia	1.1	78.0	-	11.7	2.4	6.8
Belarus	19.1	44.7	1.3	22.1	12.7	0.1
Kazakhstan	36.6	58.8	-	-	1.8	2.8
Kyrgyzstan	20.7	70.6	0.8	6.1	1.0	0.8
Russia	12.0	57.9	1.0	-	2.6	26.5
EAEU	12.6	57.7	1.0	0.4	2.8	25.5

Note – Source: based on the data from [2, 4]

The analysis of sources of financing of internal research and development costs according to the sectors of activity (Table 4) shows that in the EAEU countries this structure is displaced towards enterprise/business (Belarus, Russia) and State/public sectors (in Armenia, Kyrgyzstan and Tajikistan). In the sector of the higher education the level of research and development costs is low, with the exception of Kazakhstan.

Indicators from developed countries show that in these countries the main source of research and development financing is the business sector. For example, in Germany the funds of the business sector in research and development financing account for 65.8% of the total amount of financing, in Japan 77.3%, in Sweden, Switzerland and the United States about 61%. In China and South Korea the figure is over 75%. It is noteworthy that in these same countries (with the exception of

Switzerland) there is a low rate of foreign sources as a means of funding [4].

Table 4

Structure of internal research and development costs according to the sectors of activity, 2015 year

Indicators	Public sector	Business sector	Higher education sector	Sector of non-profit organizations
Armenia	83.3	-	16.7	-
Belarus	23.6	65.6	10.8	0.0
Kazakhstan	29.3	40.1	19.5	11.1
Kyrgyzstan	71.8	13.6	14.6	-
Russia	31.1	59.2	9.6	0.1
EAEU	31.0	58.8	9.8	0.4

Source: it is made on the basis of the data [2, 4]

One of the main conditions of functioning of the national innovation system is the availability of highly qualified experts with professional knowledge and skills in research activities. Personnel resources in the scientific sphere in the EAEU countries in recent years have remained unchanged: the number of people employed in R&D in the EAEU was about 794–799 thousand people (2010–2015) or 0.9% of total employment. At the same time, the gap in the supply of scientific personnel for the EAEU member states decreased from 9.0 in 2010 to 6.5 in 2015, which indicates the equalization of scientific potential among the EAEU countries (Table 5).

Table 5

The number of staff, occupied in research and development sphere, as a percentage to the number of economically active population

EAEU Member	Period, year				
	2011	2012	2013	2014	2015
Armenia	0.40	0.39	0.38	0.41	0.38
Belarus	0.66	0.66	0.63	0.59	0.58
Kazakhstan	0.21	0.23	0.26	0.29	0.27
Kyrgyzstan	0.13	0.13	0.17	0.17	0.17
Russia	0.97	0.96	0.96	0.97	0.96
EAEU	0.85	0.84	0.85	0.86	0.85

Source: it is made on the basis of [2, 4]

In the EAEU countries, the tendency of aging of scientific personnel has not been overcome. The scientific sphere is left, first of all, by researchers of the most productive ages: up to 29 years, 30–39 years and 40–49 years. In turn, young people sent to scientific organizations leave science, because there is no proper motivation for choosing a scientific activity as a profession. The decrease in the number of

researchers of the highest qualification of the middle-ages leads to the deterioration of the structural characteristics of the human resources potential of Science; violates the mechanism of continuity of knowledge and experience, the reproduction of scientific personnel.

The problems of innovation development in general and of the financing of innovative projects in the Republic of Belarus, in particular, are set out in the Concept of the State Program for Innovative Development of the Republic of Belarus for 2016–2020. These include:

1. Low level of investment in innovative projects. The target budget financing of innovative projects remains rather low and is characterized by the absence of a unified mechanism of coordination and control over this process.

2. A small share of budgetary funding of science (0.25–0.30%).

3. Inefficiency of individual research and development projects, which is associated with inadequate elaboration of marketing issues, lack of experience in creating project teams, fragmentation of developers, etc.

4. The procedure for financing innovation projects, aimed at mass replication of already well-proven technologies and goods, to the detriment of the introduction and advancement of innovations. So, the bulk of the resources (62%) of the innovation funds are directed to the execution of work on the preparation and mastery of production, which, as a rule, does not involve the introduction of innovations. At the same time, the resources of the innovation funds are not fully developed.

5. Among the organizations of the real sector of the economy of the republic there are low demand for innovative products, weak susceptibility to innovations, and inadequate cooperation with developers of innovations.

6. Low efficiency of subjects of innovative infrastructure in the field of commercialization of scientific and technical-scientific activities.

7. The lack of systematic work on the creation of engineering structures to support scientific projects, integrated technology implementation and the development of innovative projects [conc.].

The analysis of the sources of research and development funding in the EAEU countries made it possible to draw the following conclusions:

– in terms of internal financing of research, the EAEU countries are lagging behind the economically developed countries of the world. Among the EAEU countries, Russia is leading on this indicator, followed by Belarus and Armenia. In Kazakhstan and Kyrgyzstan, the level of R&D funding is approximately the same. In physical terms, the amount of research and development funding is as follows:

Russian Federation - $ 1,578.5.5 million;

The Republic of Kazakhstan - $ 312.6 million,

The Republic of Belarus - $ 276.6 million;

Republic of Armenia - $ 25 million;

The Kyrgyz Republic - $ 7.9 million;

– Budget funds are the main source of research and development funding in all

the EAEU countries. The smallest share of this source of financing is observed in the Republic of Belarus – 44.7%, the highest indicator is in Armenia – 78%. The average value of this indicator for the EAEU countries is 57.7%. In the Republic of Tajikistan state funds are the source of research and development financing – 92.5%. At the same time, the research and development costs in Tajikistan are directed to the public sector (67%) and to the higher education sector (33%). The same situation is in Armenia: 89% – public sector, 10.9% – higher education sector;

– The funds of foreign investors are an insignificant source of research and development financing in all the EEA countries. The exception is Belarus, where this indicator is 12.7% (2015), 16.6% (2016) with an average of 2.8% in the EAEU (2015);

– Own funds are a source of financing in all the EAEU countries; however, their indicators vary significantly. So, own funds in Kazakhstan make up 39.6% (2016), in Belarus – 24.3% (2016) and in Armenia – 1.1% with an average value for the countries of the Unified Energy System – 12.6%;

– Foreign experience shows that in the economically developed countries the business sector is the main source of research and development financing. For example, in Germany, the business sector funds in research and development financing account for 65.8% of the total funding, in Japan – 77.3%, in Sweden, Switzerland and the United States – about 61%. In China and South Korea, this figure is more than 75%. It is noteworthy that in these same countries (with the exception of Switzerland), the indicator of foreign sources as a means of financing is quite low [4].

2. The analysis of sources of research and development financing according to the main type of economic activity, governing bodies, sectors of activity, types of works and the fields of science allows drawing the following conclusions:

– according to the main type of economic activity: In all the EAEU countries such types of economic activity as «research and development» and «education» get the largest amount of research and development financing. Scientific activity in these types of economic activity is financed generally by budgetary funds. In Russia and Belarus it is necessary to allocate «industry» as the type of economic activity, where research and development are financed mainly by own means. The share of internal costs on the type of economic activity of «research and development» grows in all the EAEU countries in recent years (except for Russia);

– According to the sectors of activity: The general tendency demonstrates that the main share of research costs accumulates in the business sector and the sector of the higher education. In the EAEU countries this structure is displaced towards enterprise (Belarus, Russia) and state sectors (in Armenia, Kyrgyzstan and Tajikistan). In the sector of the higher education the level of research costs is quite low (except for Kazakhstan).

The experience of economically developed countries shows that business sector accounts for about 60–85% of internal research and development costs; the

higher education sector accounts for 20–35%; and public sector – up to 15%. To the contrary, the high volume of internal expenses in public sector is inherent in developing countries (for example, Armenia, Tajikistan, Moldova, etc.);

– according to the types of works and the fields of science: The main share of research costs by types of works in the EAEU countries accounts for experimental developments. This tendency is characteristic of all the EAEU countries, except Kazakhstan, where the main share of research costs falls on applied researches. In all the EAEU countries there is the tendency to decrease the financing of fundamental science;

– the number of the organizations and number of the workers who were carrying out research and development tends to decrease in all the EAEU countries. Russia and Belarus are in the lead on the indicator of personnel security in the field;

– in all the EAEU countries there is a low market effectiveness of scientific research and backwardness of the system of commercialization of scientific developments;

– in the field of research and development and of the commercialization of the results, there is a common problem for all the EAEU states – the insufficient level of coordination between three main components – the sector of research and development, the sector of the higher education and the business sector.

Thus, in the EAEU countries the main problems of financing and development of scientific, scientific and technical and innovative activity are the following:

– low level of investment into innovative projects. The target budgetary financing of innovative projects remains rather low and is characterized by the lack of the common mechanism of coordination and control of this process;

– low level of the budgetary funding of science;

– inefficiency of separate research and development projects, that is connected with an insufficient study of marketing issues, lack of experience in creating of design teams, separation of developers, etc.;

– the procedure of financing of innovative projects is directed to mass replication of already well approved technologies and goods to the detriment of the implementation and expansion of innovations. So, the main share of resources (more than 50%) of innovative funds is allocated for the work on preparation and development of production that, as a rule, doesn't assume the implementation of innovations. At the same time, the resources of innovative funds are not fully accustomed;

– among the organizations of the real sector of economy of the EAEU countries a low demand for innovative production, a weak susceptibility to innovations and an insufficient cooperation with developers of innovations take place;

– low efficiency of the subjects of innovative infrastructure in the sphere of commercialization of the results of scientific and scientific and technical activity;

– the lack of system work on creation of engineering structures for the support of scientific projects, complex introduction of technologies and development of

innovative projects [5].

Conclusions. The effectiveness of scientific and technical cooperation and, accordingly, the success of the Eurasian economic integration are directly related to the formation, at the level of the member states of the EAEU, of effective demand for the results of scientific research and technological developments. It should be stimulated both by the state procurement system and the grant mechanism, as well as on the basis of international cooperation in the Eurasian area.

At the same time, there is a need to significantly improve the mechanisms of stimulating innovation, taking into account the interests of the participants in public-private partnerships, protecting innovators, and developing a unified international innovation and investment space of the EAEU. Only carefully coordinated and based on clear objectives, the overall scientific, technical and innovation policy within the framework of the EAEU can become a powerful engine of the national economic restructuring, the increase in labor productivity and the filling of the general market with competitive products.

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STRATEGIC ASPECTS OF FORMING OF ECONOMIC SECURITY OF THE ENTERPRISE

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In the current conditions of an open competitive environment, political and economic instability, business entities have complete independence in making decisions related to the determination of the development strategy, organization of production and selling of products, selection of counterparties and finding sources of financial resources. Therefore, the problems of effective functioning of enterprises and ensuring economic security are of paramount importance. The need for security is the basic one for individuals, enterprises, countries and society as a whole. Despite the fact that the problems of economic security are of particular importance, much of the research characterizes this concept at the state level only. But, if we take into account the fact that the enterprise is the national economy cell, the issues of ensuring economic security at the level of an economic entity still remain relevant. Obviously, ensuring the economic security is a priority task for enterprise operation, the solution of which provides for not only eliminating the threats of emergence of crisis phenomena, but also maintaining sustainable and maximally effective development, and creating an economically safe trajectory for further development of the enterprise.

The issues of ensuring economic security at the enterprise level are relatively new to the intelligence agenda. At the same time, they are considered by a sufficient number of scientists and researchers. In particular, the theoretical framework of the research was formed by the scientific works of the following scientists: E. Baikov, S. Bulanov, V. Vidiapin, V. Gaponenko, S. Glazev, L. Zaporozhtseva, L. Ivanova, N. Manokhina, M. Fedotova, V. Shults, A. Ianioglo and others.

Economic security and its provision from a practical point of view, indeed, has an individual character for the enterprise. Thus, for some enterprises, the problem of protection, implementation and development of its own potential is considered to be an actual one; for another enterprises it is sufficient to provide financial stability mechanisms only. Therefore, empirical research approaches and definitions of economic security give corresponding results when similar accents are used in the activity of particular enterprises [4, 7, 8].

Recent studies have shown that there are at least four approaches (system, situational, functional and process one) to the formation of the concept of economic

security of the enterprise [1-5, 7, 9].

Functional and systemic approaches to ensuring the economic security of the enterprise are the most common, and trying to cover all the functional areas of its activity, the enterprise faces the problem of the lack of specificity in the qualitative certainty of the notion of strategic economic security. At the same time, there is subjectivity of persons who manage the economic security of the enterprise [2, 5, 10].

A situational approach to managing the economic security of an enterprise has been widely used, because of its ability to determine the state of the economy in which the enterprise independently ensures its further sustainable social and economic development and maintains the necessary level of competitiveness. At the same time, the security of any socio-economic system is formed by the adaptability of strategic management, political analysis and other types of rational activity that are directly related to the future, based on the study of past and present periods [5, 10].

According to the process approach, economic security permeates all levels of the organizational structure of the enterprise. The business processes existing at the enterprise and their impact on its economic security are carefully studied. Each process at its own "exit" is focused on achieving the results able to ensure the economic security of the economic activities of the enterprise.

The logic of strategic security provision from the standpoint of situational and process approaches is determined by the need to assess threats and their leveling, with the definition of the enterprise's position on the life-cycle curve, where the points of bifurcation, which determine the symmetry of the enterprise's development, are of particular importance from the point of view of economic security nature.

Taking into account the availability of different approaches to the formation of the economic security of the enterprise in the economic literature, the variability of the bases for diagnosing the degree of their influence on the state of economy, the current problem is the identification of priorities, the formation of conceptual foundations and methods of strategic economic security in order to ensure sustainable development of business entities in the conditions of protection from possible threats.

The modern stage of the functioning of the economy requires a new approach to the management of enterprises, the development of their economic strategies that will enable to maintain its competitive advantages in the long term period. Therefore, it is important to ensure the stable and most efficient functioning of any business entity at present conditions, along with the creation of favourable conditions for the development of its potential and growth in future periods, that is, it means the necessity to ensure the economic security of the enterprise.

However, with all the diversity of scientific publications on the problems of economic security of the enterprise, methods and indicators of its assessment and enhancement, there is still a lack of a clear categorical apparatus for strategic

economic security of the enterprise, an imperfection of the methodological tool for estimation of the components of strategic economic security and the organizational and economic tools for its maintenance [1, 4, 10, 11]. In addition, it is necessary to transform the considered approaches with the purpose of its practical application in the process of monitoring the safe development of the enterprise.

In contrast to economic security, strategic economic security is aimed at securing a sustainable development of the enterprise in the long term period, despite the cyclical laws of its functioning by introducing an effective mechanism to protect against real and potential threats, as a set of interrelated structural elements. Management of strategic economic security is organically part of the overall security management system of the enterprise and is one of its functional subsystems that ensure the implementation of management decisions in the long term period.

Consideration of the strategic economic security of an enterprise, as an object of management, requires the implementation of a certain decomposition of this concept. The levels of decomposition of economic security of the enterprise as a control object are shown in Figure 1.

It should be kept in mind that the number of levels of decomposition of the notion of strategic economic security and their consistency can be adjusted by the enterprise independently, taking into account the specifics of their activity under existing economic conditions.

The methodology for ensuring strategic economic security is explained by the fact that internal threats to the economic security of the enterprise are manifested only with micro-level determinants, while external threats are determined by the determinants of both the micro- and meso- and macroeconomic levels of the economic security.

In order to establish a system of priority economic interests that need to be protected in the process of economic strategic development of an enterprise, it is necessary to determine the totality of components that form strategic economic security of the enterprise. Proceeding from the complex of these components, it is necessary to identify possible external and internal threats to the economic security of the enterprise, and, taking into account their influence, to define concrete measures that can be implemented in the struggle against these threats, and also to substantiate the enterprise development strategy based on the achieved level of its economic security. Thus, it is advisable to organize the systematization of threats to strategic economic security of the enterprise on the basis of grouping them not by sources of occurrence, but by key internal determinants.

This is more expedient from a methodological point of view because of the complexity of the practical application of the traditional classification in order to ensure the strategic economic security of the enterprise (See Table 1), because, first of all, their influence can be both positive (which raises the level of economic security) and negative one (which is related to the threats), secondly, the strength of their impact can be different, which requires the development of a methodology

for their evaluation and subsequent inclusion in the mechanism of a comprehensive assessment of the level of strategic economic security of the enterprise.

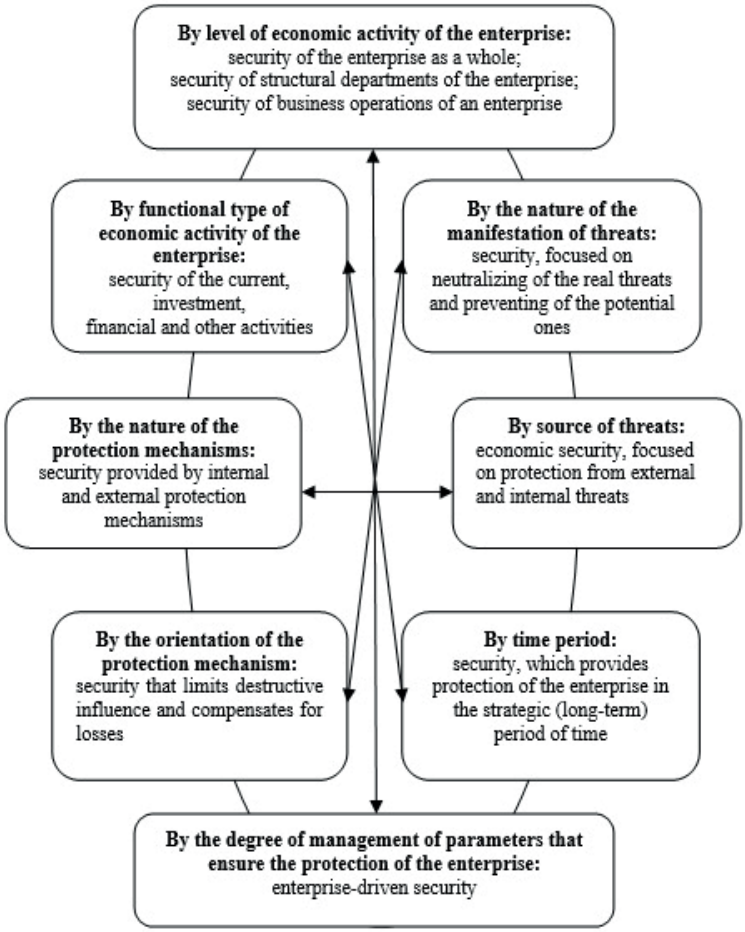

Figure 1. Decomposition of strategic economic security of the enterprise as a management object [developed by the author on the basis of the source: 9]

Threats arising from personnel, the organization of financial processes and the activity of the counterparties are related with the irrational character of organization of business processes of the enterprise in terms of their resource component. Business processes are not excluded from the system of the determinants of the strategic economic security of the enterprise, but are located within the system and can be monitored by monitoring the threats associated with the three above-mentioned functional components.

Table 1

The main threats and internal determinants of the strategic economic security of the enterprise [determined by the author on the basis of the sources: 9, 11]

The internal determinants of economic security	Threats to economic security of the enterprise
Staff	Low level of efficiency of work organization
	Reduction of management effectiveness
	Ineffectiveness of decisions taken by management personnel
	Inefficient motivation system
	Lack of investment in training, retraining and improving the skills of staff
Finance	Debt increase due to slower collection of receivables
	Loss of financial independence of the enterprise
	Decrease in the efficiency of the enterprise, loss of its profitability and self-recoupment, as well as its ability to further development
	Loss of liquidity of the enterprise
	Aging of fixed assets
	Unstable development of the enterprise
	The use of ineffective credit policy in the part of accounts receivable and payable
	Insolvency of the enterprise
	Reduction of the profitability and market value of the enterprise
	Overall destruction of enterprise value
Counterparties	The presence of negative information concerning the liability, truthfulness, seriousness of the counterparty's intentions
	Existence of negative credit history
	Lack of information about credit history
	Involvement of a counterparty in litigation
	The lack of coordination of the positions of the shareholders (owners) of counterparties on the main business issues
	The probability of reorganizing the counterparties in the near future
	The probability of opening in the near future or the actual commencement of bankruptcy and (or) liquidation procedure of the counterparty
	The existing arbitration practice with the counterparty in previous periods
	Low quality of the agreement on cooperation (significant conditions and guarantees are not stipulated, including the terms of debt repayment, penalties for non-observance of the terms of the contract and others)
	Absence of an agreement on cooperation (on purchase and sale, on performance of work, on provision of services, on rent etc.)
	Insolvency of a counterparty
	Investment risks
	Credit risks

The characteristics of a set of strategies are identified and discussed in the scientific literature. Depending on the level of strategic decisions, corporate, competitive and functional strategies are singled out [1, p. 30].To create strategic economic security of the enterprise, it is of fundamental importance to consider the types of business strategies for the enterprise based on determining its level of strategic economic security and combination of its financial security levels, the reliability of counterparties, and the level of development of the management component. In the context of ensuring the economic security of the enterprise, we propose to distinguish four types of strategies depending on the level of its economic security (See Figure 2).

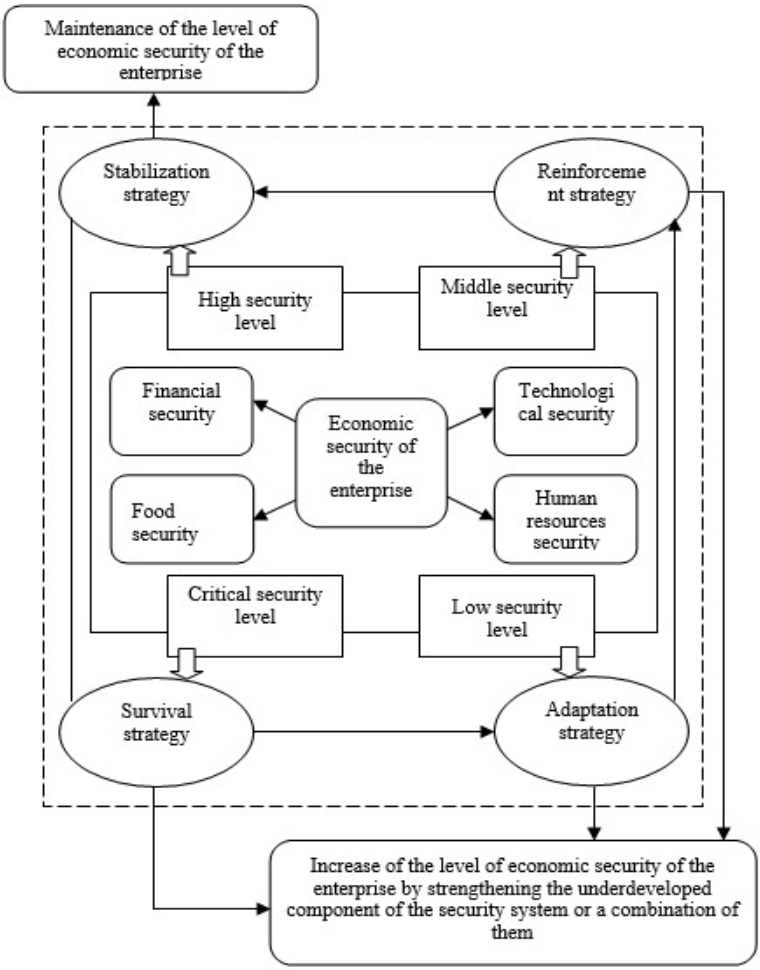

Figure 2. Strategies for ensuring the economic security of an enterprise [developed by the author on the basis of the sources: 1, 4, 9, 11]

The level of economic security of enterprises is determined by the state of its functional components. In the process of building a model for determining the strategy of economic security based on an analysis of the main indicators of the financial and economic activities of the enterprise, four levels of security were identified. With a high level of economic security, the enterprise must carry out its activities within the framework of the developed strategy, according to the adopted development path. If the level of economic security is lower than the high one, the enterprise needs to reconsider the adopted strategy and choose the one that would ensure the transition from the lowest level of economic security to the higher one.

Therefore, in conditions of high economic security, a stabilization strategy should be applied, which is aimed at supporting the existing state, monitoring threats and ensuring further improvement of the enterprise performance indicators and its further development. In the event of deterioration in one of the functional components, the level of economic security of the enterprise is also reduced.

The reinforcement strategy is aimed at improving the indicators of the most vulnerable component of the economic security of the enterprise and increasing its economic potential as a whole. In case of effective application of this strategy, the level of economic security of the enterprise will increase from medium to high level. If management does not take measures to improve economic security, the level of this indicator may remain unchanged, or even significantly decrease.

The adaptation strategy should be applied in conditions of low economic security. It is aimed at adapting the activities of the enterprise to the requirements of the market, optimizing costs, increasing its main indicators of financial and economic activity.

Conclusions. In conditions of critical economic safety, low level of economic activity of the enterprise, a survival strategy should be applied. Such a strategy requires the adoption of prompt, coordinated actions, as well as timely decisions to improve the state of changes in the activities of the enterprise and its withdrawal from the crisis.

To formulate the strategy of economic security it is not enough to use only generally accepted norms and indicators of the functioning of the enterprise. In this regard, it is first advisable to transform the threats to the economic security of an enterprise taking into account not only strategic prospects, but also the structure and key determinants of the economic security.

The success of an enterprise is largely determined by the speed and accuracy of its management response to external and internal factors. Depending on the state of economic security of the enterprise and the influence of the key factors, the top-management of any enterprise can take into account the recommendations on strengthening its economic security in the context of each functional component. These measures can be both preventive and reactive, one depending on the specific situation. Due to using the proposed mechanism for ensuring the economic security of the enterprise, it is possible to achieve its high level of effectiveness.

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FORMATION OF MOTIVATION OF PARTICIPATION OF BUSINESS STRUCTURES IN FINANCING SOCIO-ECONOMIC DEVELOPMENT OF TERRITORIAL COMMUNITIES

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The process of development of local self-government opens previously inaccessible opportunities for members of the territorial community. This social process leads to an increase in the community's requirements regarding the quality of economic activity of entrepreneurs, who carry out their activities in the community. The concept of social entrepreneurship, which for a considerable time has been central to discussions about business and society relations, begins to be implemented.

The transition to market relations, the reform of the power system in Ukraine have led to a situation where there are two forces at the local level opposing each other: entrepreneurs and the rest of the population. A stratum of relatively wealthy people was distinguished in society and a certain confrontation has begun between this link and the bulk of the population. Both sides behave not quite correctly, which causes social tension in society. Entrepreneurs often practice hiding income from taxation, try to act in the shadow, unreasonably overestimate the prices of products and services, hold back wages to hired workers, and so on. Accordingly, this causes a negative reaction of the population.

Within this problem there is a problem of local self-government bodies. On the one hand, businessmen are also voters, and most of them are largely dependent on the normal life of society. On the other hand, due to the destructive activity of a large part of entrepreneurs, there is not enough available tax deductions for the normal work of local authorities to support the infrastructure of the settlement and the necessary social benefits.

Today about two thirds of social infrastructure objects are transferred to the balance of territorial communities. However, the situation arises when local authorities are deprived of the opportunity to independently solve their own problems: some – because of the dependence on subsidies, others – because the extra funds are withdrawn. Local self-government bodies in Ukraine can not provide adequate funding for the social sphere and its employees: teachers, doctors, cultural workers; contribute to the payment of a decent pension for veterans; helping the unemployed, etc.

So, the main source of funds to the local budget is different taxes and fees. Today, local self-government actors in Ukraine often do not have highly profitable commercial enterprises in their communal property. At the same time, there is a disastrous lack of available budget funds, even for the maintenance of the current life of settlements, not to mention stable development.

This means that certain segments of the population are beyond the limits of a fair distribution, and there is little to talk about a real social partnership.

In such circumstances, local authorities should play a key role in establishing a stable and effective relationship between business and the community in solving the social problems of the latter on the basis of voluntariness and mutual benefit.

Thus, the benefits that a business receives from the implementation of the principles of social responsibility are:

- ensuring public reputation of the organization;
- increase of public confidence in the company's activities, its products and services;
- improvement of professionalism and development of personnel potential at the enterprise, ensuring staff loyalty;
- the possibility of forming a safe environment for the company's activities and development through its own corporate policy;
- compliance with norms and standards of the world economic community;
- the possibility of forming partnerships with power structures, the public and the media.

The benefits society receives from respecting the principles of social responsibility:

- the possibility of establishing partnerships between business, government and the public;
- the possibility of providing emergency assistance to citizens who need it;
- improvement and development of social protection of the population;
- possibility of attracting investments in certain social spheres;
- the possibility of supporting public initiatives, innovative projects, development of social and creative activity of the population, preservation and use of the «intellectual resource» for the needs of the country and the region.

The practical implementation of social responsibility is gradually becoming widespread both in Ukraine and in other countries of the world. Regulatory documents and standards regulating social responsibility are being drafted, indicators are developed that analyze the social activity of entrepreneurs. The popularity of the research is devoted to the analysis of the advantages and potential risks of social activity of enterprises and entrepreneurs. The models of social responsibility of business in different countries are studied.

Different countries are characterized by different models of socially responsible business.

In countries with democratic traditions and developed civil society there has

been a solid practice of socially responsible business (England, USA, Germany, Scandinavian countries). Basic models of socially responsible business: Anglo-American, European.

The Anglo-American model assumes that the responsibility of business to society is expressed in creating jobs and ensuring their effective use through flexible payroll mechanisms, as well as in creating healthy working conditions and paying high taxes. Responsible social activity and charity of corporations are encouraged by appropriate tax privileges and offsets, which are enshrined at the legislative level.

In the European model, business pays large taxes, and the state implements social programs for the population for these funds. Western European societies have developed cash assistance systems: their coverage and size varies considerably from country to country, but only in a few countries the system of social services supported by the state which is observed in Scandinavian countries (Sweden, Norway, Denmark, Finland), that is called the Scandinavian model of social responsibility of business.

In Scandinavian models, the state policy is aimed at ensuring full employment and preventing unemployment; increasing equality between different gender, age, class, family, ethnic, religious, regional and other groups.

However, current practice suggests that any model would not take as a basis for territorial communities, social responsibility measures in some cases do not correlate with the benefits that entrepreneurs expect.

Today, the important task is to describe the elements of the entrepreneur's motivation, forming the long-term interest of entrepreneurs in implementing social responsibility measures.

Since the economic effectiveness of social responsibility practices is difficult to measure, and in the short term costs often do not improve the economic performance of enterprises; the question arises as to the clarification of additional incentives that shape the social behavior of the entrepreneur. Traditionally, the system of formal and informal institutions is considered as such incentives. Turning to the history of the development of social responsibility, we can say that Ukraine turned to the study of modern practices of social responsibility only after independence and in the formation of market relations. Although, the first institutes of social responsibility are formed on the territory of modern Ukraine in the XIX century [2].

Thus, since Ukraine gained independence, there was a vacuum, which could not quickly be filled neither by any state that did not have the relevant experience [4], neither by markets, the development of which took time.

During this time, the experience of countries with a developed market economy regarding the social responsibility of business was studied. At this period, entrepreneurs either transferred the experience of developed countries to their activities, or passed the outdated practices of social responsibility.

The process of the newest emergence of social responsibility has several stages listed in Table 1.

Analyzing Table 1, the periodization of the development and spread of social responsibility practices depends on economic and political cycles can be concluded. Changes in periods are determined by factors of a macroeconomic nature, and entrepreneurs at each stage are guided by the achievement of different goals. Social responsibility of both entrepreneurs and enterprises varies depending on the area of entrepreneurship and type of area.

Table 1

Stages of Development of Social Responsibility in Ukraine [1]

Stage and duration	Trends in social responsibility development
I stage (beginning of the mid-1990s. XX century)	Enterprises reduce the number of social infrastructure objects. Costs for the maintenance of social objects did not guarantee the profit in the short term. They were perceived as non-core assets and because in the current economic conditions there was a need for cost optimization, social institutions were transferred to municipalities
II stage (middle 90th - 2000's)	Owners of enterprises gradually switched to the analysis of business prospects. The number of social facilities supported by enterprises decreased, and further reduction was not perceived as a condition for effective enterprise activity. Together with this, the necessary minimum practice of social responsibility was formalized. Gradually improved perceptions of social responsibility. If previously analyzed current costs, then during this period, the business turned to the analysis of the economic effect of social institutions
III stage (2000-2008)	Long-term economic growth was observed, and in these conditions, enterprises have reached that level of stability, which became relevant issues of strengthening competitive positions. The companies considered a number of areas of social responsibility as a competitive advantage in the markets of products and labor. There was also an optimization and coordination of a set of social responsibility measures with the main industrial activities of enterprises
IV stage (since 2008 till now)	Crisis and lack of sustainable economic growth leads to a reduction in the rate of social responsibility. There is a revision of practice in the direction of saving and prevailing image effect

The processes of establishing social entrepreneurship by 2008 can clearly be called positive, which is explained both by economic development and institutional factors. Among the main factors contributing to the spread of social responsibility practices can be called such [6]:

- Changes in social obligations of the state and business (social requirements for enterprises increased: environmental organizations, trade unions, local communities);
- Competition intensifies and social responsibility measures become additional competitive advantages, especially in those cases when it is difficult to compete in other characteristics [5];
- The formation of an attractive corporate image for all enterprises becomes

important. Particular relevance to public perceptions is special for large export-oriented enterprises that cooperate with foreign partners.

The first three stages showed a clear development of social responsibility, the last period from 2008 to 2017 is characterized by reverse trends. This state of affairs indicates that the development of social responsibility depends directly on economic development.

To justify the motivation of entrepreneurs to be socially responsible, it is necessary to investigate these motives. Traditional economic theory describes the complex of motives of a socially responsible entrepreneur.

Traditionally, the explanation of entrepreneurial behavior by the application of the principle of profit maximization, according to which the entrepreneur always compares the result with the expenses and in case of exceeding the profit, makes a decision on the implementation of his activity. Such an explanation has long been over-simplified for practice, so it was refined by many researchers who tried to introduce additional motives in the behavior of entrepreneurs. These motives are described as a system of existing formal and informal social institutions that have a significant impact on overall economic behavior and on the entrepreneur's attitude towards social responsibility.

Identity of an entrepreneur belonging to a local community that is socially responsible, can stimulate his behavior.

The concept of «identity» comes from two components at the same time: Idem (Latin means identical, similar) and Ipse (Latin means self). Therefore, identity means simultaneously the uniqueness of the individual (community), and his (their) affiliation with a particular object of identification - another person, place, territory, ethnic group, denomination, etc. Typically, an identity is formed by an individual or a group in the process of their socialization, and this process is, in the first place, of a natural origin. However, in the formation of identity, in addition to self-identification of an individual or group, an external institution with respect to them may also take part. The deliberate activity of institutions in the direction of constructing, preserving, correcting or transforming identity can be defined as a policy of identity. Such policies include relevant actors, practices, tools and mechanisms. For the formation of identity next resources are needed:

• personal, representing a circle of meaningful persons – parents, relatives, friends, neighbors, teachers, colleagues, fellow countrymen, etc.;

• geographical, representing a list of representations about the localization of the territorial formation and its natural features (relief, climate, flora, fauna);

• cultural, representing a list of representations related to the totality of material and spiritual values created by people within the territorial formation;

• ethnic, including a list of representations of ethnic groups inhabiting this territory;

• historical, including associative representations, associated with the historical process of development of the local community.

Important landowners, who are exemplary for imitation, are important for the identification of entrepreneurs: patrons or sponsors of local development. [3]

But nevertheless, the incentives that form the socially responsible behavior of the entrepreneur are: 1) a direct link between the value of the profits and the implemented social responsibility measures; 2) indirect influence of institutions that may resort to encouragement or sanctions.

Entrepreneurs always choose between investment directions, and in some cases, investments in social responsibility are less effective than investments in other areas of activity. Limited practice of social responsibility of domestic enterprises is usually due to lack of funds. Nevertheless, the study of the experience of a number of companies clearly proves that spending on areas such as the support of sports teams, events of the image nature, are much higher.

According to economic theory, the only way to obtain an economic profit by an entrepreneur is to create a competitive advantage. However, benefits may arise as a result of implementation in the area of social responsibility. Such implementation is a risky way to generate profits, since it requires some costs and does not generate short-term profits. For example, a quick way to make a profit involves the use of unpopular methods from the point of view of society: over-pricing of products, lower wages, etc. However, this method is capable of generating profit immediately after application. For domestic enterprises, implementation in the field of social responsibility is not a priority. This is explained by the fact that in the economy of Ukraine the use of a quick way of making a profit is more effective.

Social responsibility measures carry potential risks for the entrepreneur because they require significant investments that will make it difficult to predict the result over a long period of time. However, the fast way to make a profit can not be used for a long period. Overpricing of products with simultaneous reduction of production costs worsens the reproduction of resources: real wages are reduced, demand for specialists decreases, labor skills are lost. All this prepares the ground for moving to the growing importance of social responsibility.

There is another way of forming socially responsible behavior of entrepreneurs. This is indirect influence of institutions - formal (documented norms and laws) and informal (not articulated). In the case of formal institutions, the state should create norms, rules, laws and supervisory bodies that would encourage entrepreneurs to be socially responsible. In the second case, the impact is on the part of stakeholders who can create positive incentives or resort to sanctions for improper business activity. The positive dynamics of the development of social responsibility of business, which was observed before 2008, is explained both by economic development and institutional factors: public demands for enterprises (ecological organizations, trade unions, local communities) grew; competition intensified and measures of social responsibility were additional competitive advantages (forming an attractive corporate image of the enterprise).

Therefore, the central stimulus remains the maximization of profit, another

group of stimuli performs corrective functions.

A particular incentive can be the identity of the entrepreneur to the community. The spread of socially responsible behavior of local entrepreneurs can be encouraged by diverse social ties with the local community.

Today, the use of entrepreneurs' identity for the introduction of social responsibility is critical: entrepreneurs, especially in rural areas, are not local residents (in some cases); communities are not formed and do not have a significant impact on entrepreneurs; there is insufficient control by the state of compliance with the basic and legally established rules of social responsibility; There are no rooted traditions of social responsibility; weak competition between entrepreneurs (social responsibility is not a competitive advantage); There is no need to create an attractive entrepreneur's image.

Factors influencing the establishment of a connection between the entrepreneur and the community can be called the following: the number of staff from the local population, the ratio of the impact of enterprises and authorities, the provision of the region with certain natural resources; promotion of social responsibility of business by local self-government bodies; availability of procedures for public dialogue on solving social problems. Depending on the place of business, the various factors of the introduction of social responsibility can be considered.

In places where an entrepreneur is working and living for a long time there will be widespread socially responsible activities. This is due to the following reasons: the accumulated experience of coordination of actions of the entrepreneur and the community; refrain from the arrival of new competitors; the deduction of an entrepreneur to the local budget to solve the social problems of the community in which he also resides.

In places of limited development, where an entrepreneur already has the advantages of working in general, the local authorities must play a crucial role in introducing social responsibility of the entrepreneur in relation to the community. Local authorities should limit the requirements for the social responsibility of the entrepreneur. The main part and the initiator of social responsibility are the initiatives of the authorities. Cooperation between the community and business will develop for some time and be sporadic, it will be important to design schemes for cooperation between enterprises and the territorial community, which will gradually give it a systemic character.

Conclusions. Thus, the peculiarities of the places where entrepreneurship is carried out forms the peculiarities of the interaction of the entrepreneur with the territorial community and a certain set of practices of social responsibility. It should be taken into account that business representatives will not initiate the development of social responsibility measures and much work should be done by community members. And an important factor here is the identity of the entrepreneur, as a member of the local community. Such an entrepreneur makes decisions not only for purely rational economic reasons, but also for the perception of himself as a member

of a territorial community. Accordingly, any solution option in addition to purely economic results has a positive or negative value of identity, which depends on the consistency of the chosen solution with the community opinion. The sign and the value of the identity of the utility determines the final decision of the entrepreneur. Consequently, the local business community is one of the non-governmental entities in the financial policy of socio-economic development of the territorial community, on which the effectiveness of its realization depends essentially. In order to justify the mechanism of transformation of local business funds into the financial resources of the territorial community, it is proposed to use a model according to which the entrepreneur's actions are conditioned by economic motives, but the final decision on participation in financing local development is determined taking into account the positive or negative value of identity, sign and value which depends on the coherence of his business interests with the interests of the territorial community: 1) the identity of the entrepreneur as a member of the territorial community ensures the sustainability of the motives for financing social responsibility measures in the territory of business; 2) the process of forming an entrepreneur's identity enables to attract additional financial resources for the development of the territorial community and outlines strategic directions for the development of the relationship between the territorial community and business.

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MODELS OF THE IMPACT OF TRANSACTION COSTS ON THE PROFITABILITY OF ENTERPRISES

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The existence of transaction costs is recognized by all academic economists, still there is no generally accepted answer to the fundamental questions of this economic category, namely:

- what transaction costs are
- why they exist and what forms of existence they have
- how to measure them
- what impact they have on the efficiency of the companies

The representatives of the two approaches, which are the neoclassical and property rights, are making attempts to answer the first question. There are different interpretations of the nature of transaction costs, thus none of them gives a clear statement of this category. Therefore, we suggest the following definition: transaction costs are the costs associated with the establishment, protection and exchange of property rights.

The absence of the generally accepted interpretation of the nature of the transaction costs has lead to the emergence of various theories that explain the causes and forms of their existence. The most common of these are the transaction cost theory, public choice theory, theory of agreements, contract theory of the company and two-factor model of transaction costs. The authors of these theories focus on some extensive (in their view) forms of transaction costs and attempt to explain the reasons for their existence using these forms.

Most frequently the following forms of transaction costs are examined in the economic theory: the costs of information search, the costs of negotiations and agreements, the costs of determining the quality of goods and services, the costs of specification and protection of property rights and the costs of the opportunistic behavior.

The most clear and reasonable classification of transaction costs are based on these forms. It is the classification by O. Williamson, in which transaction costs are divided into those that occur before and after the transaction, classification by S. Arkhiierieiev that develops and complements O. Williamson's classification with due consideration for the economy of Ukraine and the classification by H. de Soto, where transaction costs are divided into subordination to law costs and costs of illegality to economy.

Classification by H. de Soto is the most appropriate to determine the impact of transaction costs on the performance of individual enterprise and explain the choice of the institutional environment (either legal or illegal). The researchers (except S. Arkhiierieiev) point out only negative transaction costs and do not calculate the value of these costs inherent in a particular company and the extent of their impact on the efficiency of its operation.

According to H. de Soto transaction costs comprise two components: subordination to law cost and cost of illegality to economy. It is possible to evaluate the impact of «transactional burden» on the efficiency of the enterprises by using comsubordination to law cost, which consists of the cost of access to the law and the continuation of acting in compliance with the law. The former include the cost of registration of the company (legal entity), obtaining a license, opening a bank account, acquiring legal address and other formalities. The latter costs are associated with the obligation to pay taxes, the observation of the law in the field of employment (working hours, minimum wages, social security), payment of the court costs of in conflict resolution within the legal court system. It is well known that many enterprises and companies, not withstanding the often changing tax and legal pressure, shift to the illegal economy. This is because of the high transaction costs related to acting within the limits of the law.

However, the implementation of the contract in illegal sector is also associated with expenses, 'illegal cost'.

H. De Soto identifies the following elements of the subordination to law cost:

1. Costs associated with the avoidance of legal sanctions. They include fees for the services of tax and financial advisors, income lost as a result of 'double accounting'.

2. Cost related to the transfer of income. All economic actors without exception are subject to pay indirect taxes and inflation tax (first of all, it concerns the use of cash only) accompanying illegal exchanges.Though the transfers are one-sided, so that the illegal agents can not apply to the state seeking protection of the property rights.

3. Costs associated with the avoidance of taxes and charges on salaries. They reduce incentives for substitution of labor by capital and technical upgrading. Cheap labor «depraves» the company. In addition, gains from non-payment of VAT limit the scope of illegal activity only by extreme links of the production chain - retail sales and initial stages of processing raw materials.

4. Costs associated with the lack of legally fixed property rights. It is possible to transfer eligibility of the property right only to a limited number of people, among which there is not necessarily a buyer willing to pay the highest price. Moreover, this capital can not be used as a bail, be invested in, freely sold or sometimes even just passed by inheritance.

5. Costs associated with the inability to use the contract system. The illegal contracting procedure impedes the realization of long-term agreements, in which

a large number of economic actors is involved. Since the belief that in any event the rights of investors are protected stands for a real incentive for investment in a long-term project.

6. Costs associated with two-sided nature of the illegal contract.

7. Cost associated with the access to the illegal procedures of the dispute resolution.

Legal judicial system has a number of substitutes like family and mafia conflict resolution mechanisms. The use of these alternatives is attributed to the cost of maintaining friendly relations with numerous relatives, countrymen and other 'fellow' people taking time and money to provide signs of attraction and services exchange. Request for the services of mafia performing the functions of the judicial and enforcement agencies is caused by the need to pay a particular tax. T h e decision of the economic agent on what institutional environment to choose for their business, either legal or illegal, is defined by the correlation of the subordination to law cost and cost of illegality to economy.

The purpose of the study is to identify the most important components of the subordination to law cost and assessing its impact on profitability of the enterprises.

With the help of the experimental evaluations and statistical calculations the cost of access to the law by the Ukrainian enterprises has been defined, 90 enterprises have been surveyed in Kyiv, Dnipropetrovsk and Zaporizhzhia. Studies show that the expenses associated with registering a limited liability company amount to 240 USD (7-30 days, the cost of registration via intermediary companies is, respectively, 350 to 600 USD (4-15 days). Registration of the closed joint stock company accounts for 1500 to 1900 USD (35 days - 3 months), and 3000-5000 USD through intermediary companies (18-30 days).

According to the research of the World Bank, the average cost of access to the law for Ukrainian entrepreneurs in 2015 amounted to 97.3 USD (including 33 USD as privately paid funds), and part of the cost of continuing operating within the law, assessed as financial losses through inspection activities amounted to an average of 1177.8 USD. Pointing out that payments to the budget reach 40% of the income (and it also constitutes costs associated with the continuation of operating within the law), it becomes clear that, firstly, the cost of the subordination to law is rather high and, and secondly, the lion's share of the 'burden of transaction' accounts for the tax component. Our research shows that essential component of the subordination to law cost in Ukraine is under tax compliance. Thus, the amount of taxes on income ranges from 21 to 35%. This explains the low level of application of the law to ensure the daily functioning of the companies. Almost all the authors examine the impact of one or more taxes on the company's efficiency or its profitability. That is to say, it is reasonable to study the total effects of tax pressure on businesses, because in this case it is possible to explore the synergistic effect of joint influence of taxes.

To assess the impact of the subordination to law cost the methodological

guidelines have been developed.

At the first stage the evaluation of the effectiveness of the company is conducted and subordination to law cost and its components are defined. The purpose of this stage is to gain the information volume to build econometric models and create statistical database for further analysis.

The second stage aims at estimating the significance of the constituents of the subordination to law cost. The purpose of this stage is to build econometric model of the subordination to law cost and determine its most essential components.

At the third stage the impact of the main components of the subordination to law cost to profitability of the businesses is assessed. The purpose of this stage is to build an econometric model to determine the impact of the subordination to law cost.

The methodological guidelines were approved for road sector enterprises. Analysis of the financial condition of these businesses was carried out in terms of their status, profitability, efficiency, solvency and business activity.

The effectiveness estimate has shown that during the study period, all companies were operating in an unsustainable manner.

An econometric model (1) has been built where the subordination to law cost is a dependent factor, while the independent factors include value added tax, income tax, social contributions and administrative costs.

$$TYAGAR = 1{,}015409277\ ADM^{0{,}4326557487} * VAT0{,}^{4821704674} * SOC^{0{,}3058248766} * PROT^{0{,}02457605771}, \quad (1)$$

where TYAGAR stands for subordination to law cost, thous. UAH

PROT stands for the income tax, thous. UAH

SOC stands for social contributions, thous. UAH

VAT stands fort he value added tax, thous. UAH

ADM stands for administrative costs (exclusive of costs which are not transactional), thous. UAH

C stands for the constant, which determines the degree of influence of factors not included into the model

Evaluation of the model adequacy has been carried out by multiple determination coefficients R2 i , F-statistics and standard deviation. High value of coefficients R2 i (R2 = 0,9994, = 0,992), F-statistics (5438,93) and low value of the standard deviation (0,23) confirm the adequacy of the model.

The statistical significance of the components included into the model, has also been confirmed by the tests (standard deviation of the regression coefficient, t-statistics P). This model (1) has made it possible to assess the impact of the component of subordination to law cost and clarify that:

- increase of the administrative costs by 1 % increases subordination to law cost by 0.43 %
- increase of the VAT by 15 % increases subordination to law cost by 0.48%
- increase of the social contributions by 1 % increases subordination to law cost

by 0,31 %

• increase of the income tax by 1% increases subordination to law cost by 0,025 %

The cumulative impact of the factors on the subordination to law cost has been assessed. It has been stated that in case of decrease in the value added tax by 3% and income tax by 5% and a simultaneous increase in administrative costs by 1% and social contributions by 1%, the subordination to law cost rises by 0.8%. The results of the econometric analysis acknowledge that the administrative costs are the most important component of the subordination to law cost, as well as tax component, which includes a value added tax, income tax and other taxes and fees. Therefore, an econometric model has been built at the third stage, through which the influence of the most important constituents of the subordination to law cost on profitability of the enterprises has been investigated.

Model (2) is as follows:

$$NPROF = 3{,}64326 * TAXE^{-1{,}068571} * ADM^{-0{,}754974}, \quad (2)$$

where NPROF stands for the net profit, thous. UAH

TAXE stands for the tax component of subordinate to law cost, thous. UAH

ADM stands for administrative costs, thous. UAH

High coefficients (0,873648), (0,82344) and F-statistics (13,41714), and the low value of the standard deviation (0,31) prove the model adequacy.

Evaluation of the tests of the model parameters proves their statistical significance.

This model (2) has made it possible to conclude that the increase in tax component by a 1%, causes the net profit fall by 1.07%, whereas if the administrative costs increase by 1%, the net profit decreases respectively by 0.75%. Combined effect of the alteration in both factors with reduce the profit to 1.82%.

Conclusions. The developed models can be used by the management experts at various levels to assess the impact of changes in tax legislation and other regulatory measures on the profitability of the enterprises and businesses, as well as for forecasting their profits by changing the underlying tax rate and change of the administrative costs value.

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LEASING AS A PROGRESSIVE FORM OF LENDING

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In the conditions of economic instability, the crisis of payments and the emergence of inflationary processes in enterprises of various forms of ownership, there is an increasing need to raise additional funds for ensuring economic activities and profit-making opportunities. The most common form of raising funds is to obtain a bank loan under a loan agreement. According to the recent official statistics, the volume of loans provided to business entities in the national currency has a stable tendency to decrease, and the issuance of loans in foreign currency is practically non-existent. Nowadays many commercial banks are forced to work in emergency conditions and to seek for new forms of lending, such as leasing, which is the most acceptable for business entities.

In the context of the financial crisis, namely, sharp fluctuations in the stock and currency markets respectively, the rise in the cost of credit, the slowdown in the demand for goods, work and services, the majority of enterprises are very responsive to the choice and determination of the type and amount of the borrowed funds. However, the times of cheap money are coming to an end. Therefore, enterprises (and banks) are trying to find an alternative to a bank loan and are increasingly considering leasing as a more promising form of credit for today.

The growth of the role of the leasing services market in Ukraine is also explained

by the fact that leasing is an effective tool for the process of efficient renewal of fixed assets and technologies of enterprises in all areas of economic activity [1]. In this regard, the problem chosen for research is rather relevant.

The problem of the balanced development of the financial sector and the development of the financial services market was studied by many domestic and foreign scientists and qualified specialists in banking sector of the economy, such as V.D. Bazylevych [2, p. 5-12], A.A. Ibraeva [3], S.V. Shevchenko and M.M. Shevchenko [4, p. 257-260], S. Yu. Shaldokhina [5, p. 157-159], O.I. Honta, A.V. Zhavoronok [6, p. 205-210] and others.

A generalizing indicator of the effect, which combines the economic interests of all parties of a particular lease agreement, is a lease payment. Its size directly depends on several factors that play an important role in strengthening or worsening the financial condition of the borrowing enterprise.

To find a universal method for assessing the effectiveness of leasing is a difficult task because of the need to take into account the specifics of each lease agreement. Against this background, an integrated effect, defined as the difference between the cost estimate of the results and the project implementation costs of the total period, becomes a full and real indicator of the economic efficiency assessment [7, p. 20]. In addition, an important economic result of the enterprise's market activity, given its long-term development perspective, is to obtain the maximum return on invested capital for each party of any lease agreement [8, p. 20]. Consequently, as the output quantitative criteria for measuring the effectiveness of leasing, it is advisable to use the indicators of the income and expenditure expected from the implementation of leasing, as well as the rate of profit.

Since in this context, mainly long-term loans are considered (on average, three years), we consider it expedient to apply dynamic methods in determining the effectiveness of leasing, which will allow to measure the economic efficiency for the entire period of the lease agreement.

Despite a wide range of studies on the development of leasing operations, today there are a number of problems that do not allow expanding the leasing services market in Ukraine. In this paper we will try to find ways to overcome these problems and highlight the most positive aspects in using leasing.

The purpose of this paper is to disclose the economic content of the concept of leasing and methodological approaches to its assessment, as well as to identify the priorities for the development of the financial sector in Ukraine on the principles of alternative lending.

When leasing financing is used with the help of any banking institution, the lessee has the opportunity to significantly save on guarantees for investments, since leasing and credit are considered by the bank as the specific aggregate concepts that differ only in form and price.

The mechanism of leasing relations is directly and indirectly affected by external and internal factors. Among the external factors, we can distinguish, first of all, the

following ones:

- the level of the banking and parabank system development, since it is precisely in the presence of these financial institutions and their resource opportunities in the developed countries that the development of leasing is associated;
- the state of property insurance development – foreign practice shows that leasing operations are insured against possible risks;
- depreciation policy – the possibility of refinancing enterprises depends on the method of depreciation;
- monetary policy which adds a determining value to the level of interest rates for a loan;

In addition, the internal factors, affecting the mechanism of leasing relations, are as follows:

- the term of the lease agreement – directly affects the cost of the transaction: the longer is the period of time, the higher is the price expected;
- the amount of commission to the lessor and the bank for the loan – as the mandatory components of the leasing margin;
- schedule and method of payment repayment. The ability to repay the debt depends on the repayment schedule, while its size greatly depends on the way of repayment. If the agreement is supposed to be the priority of repayment of the total principal debt, and not of interest, the cost of the operation is reduced;
- the loan amount for the acquisition of leased property – in the case of acquisition by the leasing company of equipment at the expense of a loan;
- sources of debt repayment, since at leasing the payment can be carried out not only at the expense of profit;
- the market value of the leasing object is the initial value for calculating the main part of the cost of providing the leasing service.

To get a positive result of the enterprise's activities, two generally known opposite approaches are needed to use: maximizing revenue at certain costs or minimizing costs in order to achieve the desired effect.

Leasing credit, as a means of attracting funds, is not the cheapest one, as it should be taken into account that the commission fee of the bank loan in the implementation of this operation is not predictable and depends on a number of both objective and subjective factors. Therefore, it is impossible to accurately calculate what costs the enterprise will incur in connection with this service.

The amount of leasing payments can be even much higher than the interest rate on loans. But in the context of the recent economic crisis, when there is practically no medium- and long-term lending, leasing can be successfully used to solve the investment issues. This provision is also justified by the provision to the client, in addition to the loan, of real replenishment in the form of machinery and equipment.

The essence of the present value of minimum lease payments for the entire lease period is that it represents the sale price of the leasing asset at the beginning of the lease term. It is calculated taking into account the leasing rate of interest.

Obviously, the leasing rate of interest is the interest rate at which the present value of the minimum lease payments equals the fair value of the leased asset at the beginning of the lease term. This rate is indicated in the contract of financial leasing. If it is not specified in the contract, the interest rate for possible loans of the lessee is applied, which is the interest rate at the beginning of the lease term and which the lessee must pay for such leasing. If this indicator cannot be determined, then the borrowing rate for the acquisition of such an asset is accepted.

It is difficult to define the term "leasing rate" exactly because there are several approaches to its definition within the scientific literature [3]. Some economists understand it as the usual credit rate, which can be 30-35 % per annum. From the point of view of this scientific approach, the leasing rate is an analogue of the credit rate. But there is another point of view where this rate is calculated on the basis of the difference between the actual value of the acquired property and the value that the property of the leasing company (bank) cost as a whole.

Nowadays there is no unambiguous calculation of the leasing rate. That is why some experts include in the formula for its calculation all the possible payments (deposit, prepayment for a loan and commission), while others generally exclude these payments, as a result of which the rate is significantly reduced and the lease agreement becomes much more profitable than a normal bank loan. The author recommends that the lessors in today's economic circumstances should not only refuse to "wind up their incomes", but also should not take into account additional fees and commissions in the formula at all.

The procedure for calculating the present value of the total amount of minimum lease payments ($PV \sum MLP$) that the lessee pays depends on the conditions of a certain lease agreement. For payments paid at the end of each period (for example, a quarter of the year) the following formula should be used (1):

$$PV \sum MLP = MLP \ [(1- \frac{1}{(1+ i)^n}) : i] \qquad (1)$$

where MLP – minimum lease payment paid regularly (annuity);

n – the number of periods;

i – rate of interest for a specified period.

Leasing payments are payments to the lessor, which is performed by the lessee for the right to use the leased property. Lease payments are the mechanism by which the lessor must reimburse his financial expenses for the acquisition of property and make a profit [4, p. 257-260].

Today there are several classifications of types of leasing payments.

By the method of payment, it is necessary to distinguish such types of these payments as: linear (equal parts of leasing payments), progressive (the sizes of leasing payments increase), degressive (the sizes of leasing payments decrease), accelerated and seasonal ones.

By periodicity of payment, leasing payments can be divided into three types: annual, quarterly and monthly payments.

Depending on the composition of the elements that are taken into account when calculating these payments, it is necessary to distinguish the following ones:

- the amount that reimburses at each payment a portion of the value of the leased asset that is depreciated over the period for which the lease payment is made;
- the amount paid to the lessor as a percentage of the loan attracted to them for the acquisition of property under the leasing agreement;
- payment as a reward to the lessor for the property leased;
- reimbursement of insurance payments under the lease agreement of the leased asset, if the object is insured by the lessor;
- other expenses of the lessor provided for by the leasing agreement.

The total amount of leasing payments is not a constant. It depends on the rate of reimbursement of the value of the leasing object: the faster the payback of the value of the leased property is, the less interest is charged on the value of this property that has not yet been paid off.

In accordance with the legislation of Ukraine, the leasing payments are credited to gross production costs of the lessee.

The total amount of minimum lease payments ( ) consists of two main components [9, p. 616-618]:

- the value of the leased asset, for which it was placed on the balance of the lessee (NVA)
- financial expenses of the lessee (FE) during the whole term of the lease agreement (2):

$$\sum MLP = NVA + \sum E \qquad (2)$$

Financial expenses are considered to be a payment for the use of a certain leasing asset. Their total amount ($\sum E$) is equal to the difference between the amount of minimum lease payments and the value of the leasing asset for which it was delivered.

Distribution of financial costs of the lessee for each reporting period is carried out by using the leasing rate of interest on the balance of liabilities at the beginning of the reporting period.

If we calculate the costs of an enterprise for the period of the lease agreement with payments at the end of each half year at a purchase price of a leasing asset, for example, for 1,8 mln UAH for a period of three years with a leasing rate of 30% per annum we will get in total: semi-annual asset payments in the amount of: .

$$E_1 = (1800000 * 0{,}3) : 360 * 180 = 270000\ UAH;$$

$$E_2 = (1800000 - 300000) * 0{,}3 : 360 * 180 = 225000\ UAH;$$

$$E_3 = (1500000 - 300000) * 0,3 : 360 * 180 = 180000\ UAH;$$

$$E_4 = (1200000 - 300000) * 0,3 : 360 * 180 = 135000\ UAH;$$

$$E_5 = (900000 - 300000) * 0,3 : 360 * 180 = 90000\ UAH;$$

$$E_6 = (600000 - 300000) * 0,3 : 360 * 180 = 45000\ UAH.$$

The results of our calculations indicate that:

$$\sum E = 270000 + 225000 + 180000 + 135000 + 90000 + 45000 = 945000\ UAH$$

$$\sum MLP = 1800000 + 945000 = 2745000\ UAH$$

$$MLP = 2745000 : 6 = 457500\ UAH$$

$$PV \sum MLP = 457500[1 - \frac{1}{(1+0,3)^6}) : 0,3] = 1215620\ UAH$$

That is, at the end of the lease agreement, the enterprise's financial expenses will amount to 945 thousand UAH, and the present value of the total amount of leasing payments will be approximately 1 mln 215,62 thousand UAH.

If the lessee intends to purchase the leased asset at a price below its fair value at the acquisition date, the total amount of minimum lease payments consists of the minimum lease payment for the entire lease period and the amount that the lease agreement requires to pay for the acquisition of the leasing asset, which is as follows:

1800000+1215620=3015620 UAH.

This amount is slightly higher than the amount calculated for the case of providing the bank with a standard loan for the same period of time, but the author recommends using this type of lending (leasing), since the company, as the lessee, can benefit from leasing because of a number of advantages.

In this article, the author has attempted to detail the composition of lease payments and to draw a conclusion about the advantages of leasing over other types of traditional lending, despite its higher cost compared to the bank loan.

Summarizing the above mentioned, we can conclude that leasing is more profitable for many reasons:

- there is the possibility of using new, expensive equipment and high technologies

without significant one-time costs, since when leasing production equipment is transferred for use without prior purchase, that is, it is possible to set up production with limited financial (and international leasing-currency) funds;

- leasing assumes 100 percent crediting and, as a rule, does not require immediate commencement of payments; when using a normal bank loan, the enterprise must pay part of the purchase price at its own expenses;

- leasing also allows enterprises to first test the machines, and then purchase them, and equipment in the seasonal industries of the economy to lease the needed equipment only for the period of its actual operation;

- leasing allows the business entity to prevent the total costs associated with the moral aging of machinery and equipment, and encourages the use of new leasing facilities, increases the competitiveness of the lessee;

- lease payments in full are credited to the cost of products (works or services) produced by the lessee, and, accordingly, reduce the taxable profit;

- the property under the lease agreement is not taken into account on the balance sheet of the lessee, which does not increase its assets and exempts property tax; its value is not included in the balance of credit debt, improves the financial performance of the tenant and, accordingly, gives him the opportunity to attract additional credit resources;

- the procedure for making leasing payments is more flexible than under loan agreements (thus, a tenant can calculate revenues and, together with the lessor, to work out a convenient payment scheme;

- leasing is available to small and medium-sized enterprises, while obtaining bank loans on favorable terms is problematic for them all; some banks do not require the lessee any additional guarantees, since the basis of the lease agreement is the equipment only;

- unlike credit, leasing allows creating more reliable business conditions;

- the liquidity of enterprises-lessees increases, while there is an increase in such an important indicator for the market economy as the ability to timely pay for future debts;

- the advantage of leasing is also the possibility of acquiring the equipment by the lessee at a residual value after the completion of the lease agreement;

- when concluding a leasing transaction, the lessee can expect to receive from the lessor not only additional information, but also various advisory and legal services [10, p. 92-100].

In the conditions of market relations leasing gives the chance to survive to small, medium and large enterprises.

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MODERN APPROACHES TO ASSESS THE COMPETITIVENESS OF PRODUCTION

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The modern market is a place of competition for the sale of goods, for consumers; this is a competition for goods and services. Manufacturers and sellers who are familiar with the market know that it is necessary to constantly analyze the properties of products, the degree of consumer preferences, the level of prices in the market, terms of supply and payments, service, etc. [1]. Consumers regard product quality as a natural companion. As a result of product quality improvements, the service life of products increases, cost and labor costs are reduced, the needs of the population are more fully met, and the competitiveness of domestic goods increases. The problem of competitiveness of domestic products today is one of the most important problems not only for the foreign, but also for the domestic trade of the state. With saturation of the Ukrainian market, goods were able to compare imported products with domestic goods. And the choice of Ukrainians is not always in favor of the latter.

In works [2-8] the concepts of quality and competitiveness of products are closely related to each other. Moreover, the authors [2] consider the concept of «competitiveness» a broader notion than «quality of goods» and «technical level of goods». But in [3] it is stated that quality should not be considered as a subordinate category and the notion of competitiveness should be considered as a complex indicator of the quality of an object in a market environment. According to scientists [4], quality should be considered only as one aspect of the competitiveness of goods in the world market.

Rybakov I., Kononenko I., Faskhiev H. and others have not established a single interpretation of the concept (definition) of «competitiveness of goods» [8-10]. Yanovsky A. [6] offers to understand the concept of product competitiveness as its ability, to meet more needs per unit of its value and at a higher level than the product of competitors, and this ability is manifested in the market at the time of the sale of products. The consumer determines the level of competitiveness of the goods.

Competitiveness of a product is a measure of its advantages over the products of the same type by the characteristics that attract the attention of consumers, this property of products, which expresses the possibility of its successful implementation in this market for a certain period of time.

Analyzing different interpretations and approaches to the definition of competitiveness, and, despite some differences in the wording, Magomedov Sh. [7] defined the general features, namely:

- quality analysis, based on normative documentation, that does not allow to assess the competitiveness of products;

- for the consumer, quality is a mandatory, but not sufficient condition for the purchase;

- competitiveness is determined not only by the excellent consumer properties of the product, but also by the attractiveness of the consumer;

- the consumer is not interested in the conditions of design, production, transportation of goods (skins) to the arrival of goods on the market, and only the consumer properties have direct value, no matter what way they were achieved;

- from a position of quality it is possible to compare only homogeneous objects in terms of not only the purpose and application, but also the structural, technological, production features;

- the choice of a sample-standard is a necessary element for determining the level of quality, but it is rather problematic because of the need to compare the parameters of products, which are analyzed and the parameters of a competitor by the level, set by the needs of consumers.

Therefore, Magomedov Sh. in general determines the competitiveness of the product as a measure of its consumer attractiveness. The problem of ensuring competitiveness in the broad sense includes not only analysis and management of price aspects, but also analysis of the management of consumer properties of goods [1]. Proceeding from the aforementioned product competitiveness is a relative characteristic that expresses its distinction from the competitor's product for: the degree of compliance with the same social need - the cost of meeting this demand [6]. The consumer value of a product [7] is the ability of a product to meet a specific need that corresponds to a group of consumers (the consumer segment). In the opinion of Romanov A. [2], the level of the beneficial effect of the product in consumption is a derivative of several factors. One of the most important among them is the quality of products that is a set of properties that determines its ability to meet certain needs of individual spheres of management or consumers. Manufacturers of products are forced to attach great importance to the constant improvement of product quality, since it is impossible to provide the necessary volume of sales of products in a competitive environment without it. In conditions of saturation of the market by a variety of goods, one of the most important factors of their competitiveness is the price of goods corresponding to the quality. The measure of consumer value of a product is the maximum price that the consumer is able to pay for it without regret. The lower the selling price of a product relative to its consumer value, the more profitable the consumer or the higher the competitiveness. Magomedov Sh. [7] notes that the competitiveness of the goods is proportional to the unpaid (or that which got to the consumer for free) part of the consumer value of the goods. For each competitive product, the selling price is lower than consumer value [1].

In the writings of Voyachek I. and Solovyov B. [3, 11] it is stated that the real incarnation in each product of «amount of technology» – from the innovative

principles of technical solution to design and ergonomics, which adapt the product to the conditions of individual consumption – confirms that the provision of product quality level in accordance with modern inquiries consumers and competitiveness largely depends on the successful selection of the list (nomenclature) of consumer properties of the product. A set of indicators of consumer properties that determine the competitiveness of a commodity is relatively stable. At the same time, depending on the conditions prevailing in the market, their significance or importance varies [2].

Solving the problem of assessing the competitiveness of goods directly depends on the chosen method of evaluation. We need to note that the assessment of the ability of a product to compete is carried out by comparing the parameters of the analyzed products with the parameters of the comparison base, because the competitiveness of the product or other object – the concept of relative, that it can only be talked about when comparing with another object.

The application of various methods and methods for determining competitiveness is dedicated to the work of many researchers Azoyev G., Gruzintsev M., Zurabyan K., Kerimoa V., Petrishche F., Selivanov P., Magomedov Sh., Moiseyev N., Svetunkov S., Sitsko V., Yanovskyi, etc. [12-32]. In the work [12] the author suggested all the methods for evaluating the conditionally divided into two groups: analytic and graphic. The first author refers to the methods: the polygon of product competitiveness [19], the model of market desirability – the advantages of competition, the BCG matrix, Porter's matrix [20]. To the second group the author identified the methods: the Rosenberg model [21], the model with the ideal point [22], the assessment of competitiveness on the basis of sales level [23], the integral indicator of competitiveness [24], bench marketing assessment [25-27].

A generalized classification of methods for assessing competitiveness is given in the work of Lifits I. [22]. The signs of classification are defined by the author:

- principle of application (organoleptic, registration, measuring, experimental, estimated, sociological, expert, statistical, analytical, marketing);
- nomenclature of criteria (direct and indirect);
- assessment stages, based on the life cycle of products (at the stages of design, production, and at the stages of implementation and operation);
- data representation form (graphical, matrix, calculated and combined).

In order to ensure the growth of the competitiveness of products while simultaneously reducing costs during its manufacture, advanced forms and methods for its evaluation were used efficiently. These methods include: Standard-Cost, Direct-Costing, JIT, FSA, ABC, SCA, LCC [14]. These methods allow:

- to define and conduct a general analysis of the cost of the processes of creating the finished product;
- carry out a functional analysis related to the establishment and substantiation of the effectiveness of conducting major technological operations in order to ensure the production of high quality products;

- define and analyze basic, additional and unnecessary functional expenses;

- comparative analysis of alternative variants of reduction of expenses in production; an analysis of the improvement of the results obtained.

The main purpose of the application of such methods should be reducing the cost per unit of useful effect, which is achieved by reduction of costs while improving the consumer properties of products; improving product quality while maintaining costs; reduce costs while maintaining a level of quality; reduction of expenses during the justified decrease of technical parameters to their functional-necessary level.

Consumer properties of goods depend on many factors operating in a complex or isolated manner. Studying these factors is one of the most important tasks. Factors that shape the consumer properties of goods; can be divided into three groups:

- directly affect the formation of consumer properties - properties of raw materials and materials, product design, quality of technological processes;

- stimulate consumer properties - expediency and efficiency of production, material interest of employees, sanctions for the production of low quality products;

- ensure the preservation of consumer properties in the course of bringing goods from production to the consumer - the conditions of storage, transportation, sale and exploitation of goods.

Today, packaging and packaging are quite important factors in shaping the competitiveness of the product. In addition to the protective functions, it is also informative. The information function is extremely important, as modern market conditions characterized by high competition require that the packaging provide the buyer with exhaustive information about the product. The main information includes: the official name of the product, the net weight or volume of packaging, the name of the manufacturer, its location or trademark, retail price, perishable goods - the maximum expiry date, for products with a long shelf life - the maximum shelf-life (from 14 days to 3 years), on the packaging of products with a shelf life of more than 3 years, insert «Unlimited shelf life», and inside the wrapper indicate the date of production; storage temperature (for perishable and quick frozen products); number of standard or specifications. Additional information includes information on chemical composition, nutritional and energy value, and others. And now the question arises about the authenticity of the data on the packaging. Some information is suppressed or not brought to the consumer using the disadvantages of the legislation.

Conclusions. Consequently, taking into account the research carried out, in order to assess the competitiveness of the product, particular attention should be paid to the methods related to cost management and product quality, which are widely used both in domestic and foreign practice. Objectivity of the calculation of competitiveness in accordance with modern consumer demands depends primarily on the reasonable choice of the nomenclature of consumer properties of the product.

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DIARY COOPERATIVESAND THEIR INTERACTION WITH OTHER AGRICULTURAL MARKET SUBJECTS

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The most widespread product of households that undergoes industrial processing is milk. As a result of the price pressure of a large number of intermediaries and the absence of direct links between producers and processing enterprises, the rural population suffers heavy losses by dealing milk at lower prices. Thanks to the experience of other countries, the best way to solve the existing problem is to create dairy cooperatives whose activities allow to create the tools to counteract the artificial undercutting of prices for primary raw material - milk. It proves importance of cooperation in resolving problems of development of rural areas. Milk storing up and sale based on cooperation principles creates preconditions for development of animal breeding in the country and offers an alternative to the households in conditions of price pressure created by intermediaries.

Market for milk and dairy products has priority not only in the agro-industrial complex, but also in the national economy of Ukraine. This is due to the fact that in human life this product is indispensable.

State policy should ensure the effective development of the agricultural dairy industry, the solvent demand of the population on its products, the needs of enterprises of the dairy industry in raw materials, the creation of conditions for the effective protection of the domestic market and assistance in the promotion of dairy products to the external market.

Research of the role and place of Ukraine in the world market of dairy products

is up-to-date. The economic state of the dairy product subcomplex of the agro-industrial complex, changes in the level and structure of milk and milk products production, and their consumption stipulate the need for detailed research and analysis, the identification of bottlenecks and the substantiation of the main directions of development of all its components, both in the domestic and world dimensions.

Key words: co-operation, dairy cooperative, milk procurement, processing of dairy raw materials.

Problem statement. One of the key tasks of the implementation of agrarian reform in Ukraine is the development of cooperative associations. However, agricultural co-operation processes in our country are developing at a slow pace, all of which, to a certain extent, is the result of low awareness of business entities regarding the principles of cooperation.

Co-operation benefits the small and medium-sized producers of agricultural products, allows to remove intermediaries who today dictate their pricing policy on the agrarian market. Compliance with the international principles of cooperation will ensure the rehabilitation of inter-sectoral relations on the basis of mutual benefit and will create a mechanism for reproduction of agricultural production.

Analysis of recent research and publications. The theoretical and experimental basis of the development of cooperation was formed by the works of such well-known figures as O. Chayanov, M. Tugan-Baranovsky, I. Vitanovich, S. Borodayevsky, B. Martos, O. Mytsuk. In the works of the abovementioned scientists the principles of cooperation are substantiated and the significant advantage of cooperative formations over others is proved.

Organizational and economic aspects of the development of integration during production and sale of milk and products of its processing are disclosed in the works of V.G. Andriychuk, V.I. Boyko, S.V. Vasilchak, Zinovchuk, MM Ilchuk, M.Y. Malik. M.S. Shynkarenko research is devoted to the development of accounting in agricultural cooperatives.

Problems of financial support for the development of milk processing enterprises are disclosed in the publications of I.O. Kryukova. However, the slow adoption of the practice of agricultural co-operation mechanisms determines the need for further research on the raised issues, which is also relevant in connection with the active work of the government and public organizations over the updating of the Law of Ukraine «On Agricultural Co-operation».

The objective of the article is to demonstrate feasibility of cooperative management as a factor in which agricultural commodity producers unite against uncontrolled intermediation, in which there is no productive component.

Main material.Co-operation is an effective organizational and economic form of promotion of rural development and represents the social, economic and spatial interaction of the participants, aimed at fulfilling the public functions of agriculture and improving the living standards of the rural population. The effectiveness of the

investigated cooperatives depends on the conscientious fulfillment by members of their duties, defined by the charter and the rules of the internal economic relations in the cooperative [1].

The primary goal of the cooperative is to save its members' money by reducing the cost of material and technical base and providing high quality resources at lower prices by forming a certain volume of goods required by members of the cooperative and purchasing it at whole sale prices directly from producers without intermediaries. The Law of Ukraine «On Agricultural Cooperatives» (adopted in 1997) provides for an organizational form that addresses a number of issues that have a risen in the agricultural sector.

At present, thema in problems of the functioning of agricultural service cooperatives in Ukraine should be the rather low level of states up port for their development, the imperfection of professional knowledge among the participants of co-operation in relation to its goals and purpose of creation. It is necessary to continue to work on the formation of an institutional environment for agricultural service cooperatives [2].

First of all, through the media, advisory services, scientific institutions and local authorities, it is necessary to dispel the myth that cooperatives are not collective farms, but modern and profitable associations of agricultural producers, whose counter parts for many decades successfully and effectively operate in European countries and the world.

By the way of informing to reveal to the rural population the whole essence of the cooperative association, its benefits and training to deal with obstacles during work.

The dairy cooperative belongs to service cooperatives. There is a large number of statements regarding the snature of this economic entity. But all of them are reduced to one - a voluntary association of small-scale producers, which is created to assist in the implementation of their economic activities. Unite both private rural and farm enterprises.

Examining agricultural and dairy enterprises, both the purchase price and the quality of milk they have at a relatively equal level. These subjects are provided with milking machines, refrigeration units and milk purification equipment. Therefore, the raw material is classified as the high estand the first quality grade and is sold at a higher price.

If we consider raw materials coming from private households, there are a number of problems. Very often this milk is not cooled properly, which is especially needed in the warm season. In addition, milk may have high acidity and contamination. However, them a in problem of such raw materials is that milk is simply diluted. Accordingly, the quality of such raw material is low because it is impossible to make a qualitative product from it.

The solution to this problem lies in the organization of stock-sale dairy cooperatives. These cooperatives envisage the economic benefit of their participants

milk producers, the creation of their own procurement stations with the necessary equipment for cooling and checking milk for counterfeit, instrumental milk in dairy cooperative, an important factor for successful work is its proper organization.

The most common mistakes in the process of organizing the dairy cooperative must be avoided. First of all, join into the initiative groups, whose members have different production interests and financial position. Second of all, to restrict the goals of the cooperative or to strive for a wide range of activities.

At the bottom of the organization of the dairy cooperative is the formation of its charter and share fund at the expense of membership fees. Consequently, the charter fund is necessary for the registration of a legal entity and the creation of a material and technical base, and the share fund – for the coverage of current expenses. Membership fees should be proportional to their participation in the activities of the cooperative.

The main issue on the first stages of establishing a cooperative is the attraction of investments. At the beginning of the creation of a dairy cooperative, it is necessary to determine with its location and technical and material support.

At the bottom of the cooperative of small-scale producers is the activity of the dairy-collecting station, which must be organized in a room equipped for this purpose with available water supply, sewage, electricity, cooling and milk quality assessment equipment. In rural areas there are premises that are in private or communal ownership and with the assistance of local public authorities can be rented out. A total are of 30 square meters is enough.

The dairy cooperative is a full-fledged subject of the milk and dairy market. Therefore, one of his main tasks is to identify the consumer segment and the level of product preparation for sale. When selling milk to a processing enterprise it is enough to arrange its cooling; in retail - its pasteurization, normalization and packing is preferable.

Therefore, at the beginning and during the activity of the cooperative, it will be necessary to study the price situation on the market and, taking into account production and sales costs, to determine effective sales options for products.

The market for milk and dairy products is characterized by a rather unstable price situation. Throughout the year, purchasing prices for this product have a wide range of fluctuations. Milk is cheaper in spring-summer period and more expensive beginning with autumn. One more market feature is the significant difference between the prices of milk purchases from the population and agricultural enterprises. Prices are based on product quality. A significant part of the raw material entering the milk processing enterprises from large-scale producers is of the highest and the first quality grade; from farms of the population - II quality grade.

The dairy cooperative provides for the sale possibility of milk of higher quality, and therefore has higher revenues from its sale. Thus, when selling milk to a processing enterprise from private households, it is evaluated at the level of the IIquality grade, while through the cooperative - for much higher qualitative

indicators.

The main activity of collecting and selling milk the cooperative can combine with the processing of raw materials and the sale of dairy products. In addition, to provide such services as: veterinary cattle maintenance and provision of veterinary products; material supply; services for artificial insemination of cows. Also, the cooperative can arrange cattle grazing on a collective pasture, handed over to the community, and carry out work to improve these pastures. To accomplish this a household cooperative must be provided with equipment and provide its members with services for mechanization that will allow them to produce feed with their own efforts: prepare the soil, buy seeds, collect and transport the crop, conduct reclamation works, control pests and diseases.

It should not be forgotten that the activity of the cooperative begins with determining the amount of milk delivered, the partners, which it will be sold and the transport routes. Proper management and planning at an early stage ensures the efficient operation of the dairy cooperative.

For the successful work of the dairy cooperative, you need to carefully approach the organization of management, work out a plan of activities both in the short term and on the development prospects of the cooperative. Particular attention deserves compliance with cooperative principles. Cases of non-compliance with the principles of cooperation lead to the sole management and use of resources of the organization until the termination of its functioning.

Particular attention in the work of the cooperative should be given to the analysis of the impact of external and internal threats on its activities, which, under certain circumstances, may lead to crisis phenomena. They are homotypic and specific for the majority of cooperative organizations of Ukraine, namely: complex it of cooperative management; the passivity of some members of the cooperative, their reluctance and inability to work in self-governing organizations on a voluntary basis; suspicion and distrust of one another; a heigh tened sense of risk of investing in mutua lfunds;cases of violations of the rules of internal cooperative relations;the pricing process is not always clear; lack of vertical cooperative organizational structures; the negative influence of intermediaries and other monopolists on the market.

During their work, private rural farms face many problems. However, some of them can be marked as priorities. In particular, the lack of a well-established cheaper sales network for agricultural products, limited access to high-quality material and technical resources at wholesale prices, lack of funds for business development, unacceptable lending terms, limited access to informational and consulting support and maintenance [3].

The main problem that concerns rural farms is the absence of any legal status that prevents economic entities from calculating their length of service, receive corresponding payments, and, consequently, causes lack of development.

The most common type of household product that is undergoing industrial

processing is milk. At the same time, due to the dominance of the pricing policy of numerous intermediaries and the absence of direct links between producers and processing enterprises, households are suffering considerable losses by dealing milk at lower prices. We see the solution of this problem in the creation of dairy cooperatives, which will allow the development of tools to counteract the artificial undercutting of prices for primary raw material - milk.

The world market provides opportunities for the development of the dairy industry of Ukraine. The main thing is competitive ability. Experts of the dairy industry emphasize that it's possible to improve the competitive ability of domestic milk and dairy products through comprehensive approach, primarily, by producing and supplying high quality raw materials for processing. In order to accomplish this, it is necessary to optimize product safety control systems.

The state should provide a business environment, in particular, to attract investment. It is necessary to make full use of the possibilities to defend the interests of the state in trade disputes with other countries.

The effectiveness of the dairy product subcomplex ensures highly productive dairy cattle breeding. We must create favorable conditions for attracting investment in this field in Ukraine. At the state level, many programs are considered and adopted, but they have declarative nature, and therefore there is no effective reforming. Therefore, the dynamics of changes in the number of cows is negative.

Currently, there is a process of a clearly expressed increase in the amount of raw milk with a decrease in livestock, which became possible due to the constant growth of cows productivity. Trends in reducing milk production suggest that this kind of economic activity has not acquired new qualitative incentives for growth, but forecasts of experts and specialists of agrarian markets in the near future in Ukraine are encouraging.

Significant importance for the productive functioning of the dairy product subcomplex at the national level is the introduction of internal financial stimulation for milk producers and the elimination of price disparities, taking into account the interests of all participants in the milk and dairy markets. When establishing purchasing prices for milk, it is necessary to take into account its quality.

The increase in milk production worldwide is carried out at the expense of countries where for all this there are favorable technical and economic, technological and social conditions. In industrialised countries, where demand for dairy products is almost unchanging, changes mainly concern consumption structure and environmental friendliness of production.

For Ukraine, the establishment of foreign economic relations and participation in international trade as an active and equal partner is of great importance. Conducting an effective and competitive dairy business in world markets is possible for domestic producers on conditions that they constantly monitor the efficiency of the economy management, improve the quality of the products and adapt it to European standards.

Conclusions. Taking into consideration national and global trends, it should be noted that in the current situation, in order to provide its own population with milk and dairy products (in particular, to increase their consumption), if won't increase its own production, Ukraine may become import-dependent.

The state should implement measures of a legal, economic, social, environmental and organizational nature, to formulate policies aimed at overcoming the crisis phenomena in livestock and its development, as well as support for milk processors.

State enterprises of the dairy product subcomplex for increasing the volume of foreign trade carry out modernization and introduce new technologies, increase production capacities, trying to adapt their products to European standards. In order to increase the demand for Ukrainian dairy products by foreign consumers, it is necessary to improve the quality of products, then increasing export volumes.

Dairy processing enterprises of Ukraine because of the low quality of raw materials lose significant amounts when selling dairy products to the western market.

Practice shows that enterprises, having the aim of selling their products on the international market, choose different methods of organizing foreign trade activities. The choice depends on many factors, such as the scale of production and the nature of the products being produced; special features of regional markets where products are sold; the depth of participation of enterprises in the international division of labor; a specific method of selling goods or services on the external market, which is traditional for this product group, etc.

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ANALYSIS OF TRANSFORMATIONS AND CHARACTERISTICS OF A SYSTEM OF ECONOMIC SECURITY AT AN ENTERPRISE: PRINCIPAL DIRECTIONS

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One of highly demanded categories nowadays in economy is economical security. Such category is important of different levels of economic agents and systems – from individual economic security to global one

Provision of economic security of the enterprise is not unchangeable. It depends on some factors and some transformations may arise. That is why system of enterprise economic security as a main subject to provide such economical security should be object of transformation. Transformation processes are an integral part of the development of socio-economic systems of any level – from the national economy to the economy of the individual enterprise. The development, in its turn, is the necessary condition for the functioning of such economic systems in the long run. Transformation processes are inherently the relationship between the economic behavior and the interaction of the micro-level elements and institutional changes in the macro environment. Enterprises, while carrying out their activity, are under the influence of transformation processes, which change the quantitative and qualitative parameters of the system. Understanding of transformation and transformation processes in the system of economic security of the enterprise is the key to the adoption and implementation of a quality management decision (plans, etc.), taking into account unforeseen circumstances. The study of the nature of the transformations in the system of economic security also needs answers to the questions about how such transformations arise, and to what consequences they lead.

In terms of the system approach, the economic security of the enterprise has its own structure, a set of elements, and interaction with the external and internal environment, so has all the signs of systemic nature. A. M. Humenyuk [1] considers that economic security, as a system, is a set of elements, their properties, interrelations and relationships that make up a unified complex and operate in accordance to certain objective laws, which show themselves under the specific historical conditions. This system is characterized by the relative isolation, special structure and links with the environment, specific mechanism of recovery [1, p. 49]. Thus, in terms of the theory of systems, economic security has all the signs of systemic nature.

The system of economic security of the enterprise exists not in the isolation from the enterprise management system; on the contrary, such system, along with other important elements is a part of the enterprise management system as a whole. In fact, there are only two variants of functioning of such system. It is noted [2], that depending of the determinants, the system of economic security of the enterprise can be a subsystem of the enterprise management system or its over-system (Fig. 1, Fig. 2).

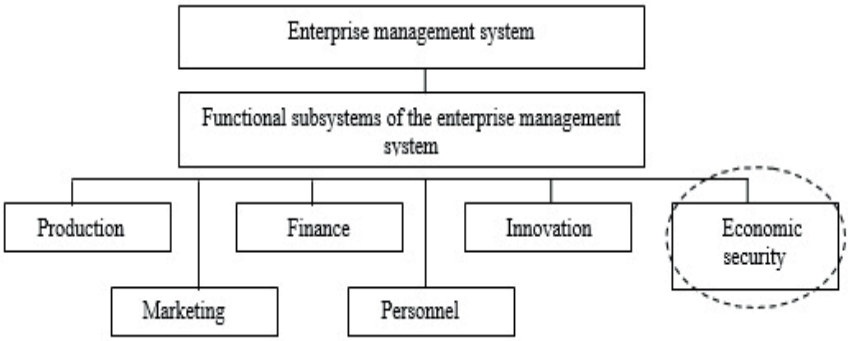

Figure 1. The system of economic security of the enterprise as a subsystem of the enterprise management system

Source: considered by Ye. Ivchenko based on [2]

It is necessary to agree with the stated, as depending on the status and the purpose of the functioning of the system of economic security of the enterprise, its place in the enterprise management system is determined.

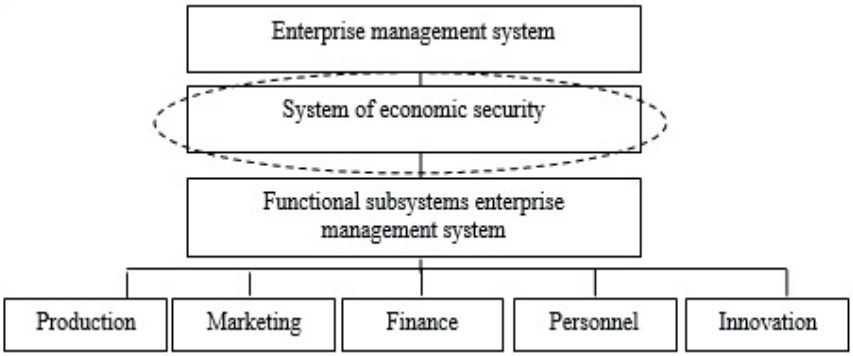

Figure 2.The system of economic security of the enterprise as an over-system of the enterprise management system

Source: considered by Ye. Ivchenko based on [2]

Both variants of status of enterprise economic security system – as an over-system and as subsystem at the enterprise – are able to be chosen, have both advantages and disadvantages (table 1).

Table 1

Advantages and disadvantages of different status of enterprise economic security system at the enterprise managing

Status of enterprise economic security system	Advantages	Disadvantages
System of economic security of the enterprise as over-system in the enterprise	Sufficiency of powers and resources for provision of enterprise economic security. Maximal orientation of all enterprise units and subsystems for provision of enterprise economic security	Redundant prioritization of targets and tasks of providing enterprise economic security Possibility of pathological prioritization of state of economic security at the expense of other results of enterprise activity Possibility of discordance between functions and units in management system of the enterprise Possibility for enterprise economic security system to duplicate or even substitute management system of the enterprise
System of economic security of the enterprise as a subsystem of the enterprise	Functional balance in the management system of the enterprise.	Less power of enterprise economic security system may decrease effectiveness of its activity.

Source: suggested by Y. Pogorelov

By the content transformation leads to certain changes and by consequences its nature is that it affects the state of different systems. An integral relation to the society and socio-economical system as a whole gives to the process of transformation the signs of system-wide. On the other hand, transformation means not only the process of changing, but also the process of formation, transformation of the system of different size, depth, and direction, caused by internal and external factors [1]. The result of the transformation can be not only changes, but also genesis of the new system, new relationships or phenomena. Applying the system approach to the systems of different levels, transformation can be considered as inherent quality of the system, which contains the prerequisites forcontinues changing of the form. This point of view is similar to the understanding of the development in the works of Yu. S. Pogorelov [3] as the ability to changes (in the eventual understanding of such a concept).

Transformations are intended (in the case of their controlled nature) to improve the state of the system, acquire by it new functionalities, perform its main tasks, etc. Therefore, the study of the results calls attention both in the perspective and in descriptive aspects. The results of the transformations in the system of economic

security of the enterprise are proposed to be described using matrix signature analysis, which is proposed to be carried out in two directions. The first one is to consider the whole system of economic security as a separate functional subsystem of the enterprise management system. The second one is to consider the system of economic security as a separate system with its composition, structure and links between the elements (Table 2).

Table 2

Directions of analysis of transformation results in the system of enterprise economic security

Direction	Analyzing system of economic security of the enterprise as a subdivision in the enterprise management system	Analyzing system of economic security of the enterprise as an individual system
Understanding of the system of the economic security of the enterprise	Coherent element is the enterprise management system	Functional subsystem in the enterprise management system in the frameworks of the analysis
Consideration of the system of economic security of the enterprise in the enterprise management system	Functional subsystem, whole entity	Conventionally independent system, elements of which interact with other subsystems of the enterprise and influence on them
Purpose of analysis	To determine the changes of the system of economic security as a part of the enterprise management system, its place, role in management system	To determine changes in the composition and structure of the economic security system in the context of ensuring its capacity
Methods of analysis	Analysis based on signature criterion	Descriptive analysis, set theory

Source: suggested by Ye. Ivchenko

In Table 2, the analysis of the system of economic security of the enterprise as a unit of the enterprise management system, allows us to understand it as an integral element of the enterprise management system. Within the framework of the analysis, as a separate element, the system of economic security should be considered as a functional subsystem in the enterprise management system.

Analysis of the system of economic security as a unit of the enterprise management system requires the determination of the change of the system of economic security as a component of the enterprise management system, its place and role in the management system. In its turn, understanding of the system of economic security as a separate system allows us to determine the changes in the composition and structure of the system of economic security in the context of its capacity ensuring.

Concerning the methods used, it is necessary to note the following. To analyze the results of transformations in the system of economic security as a unit of the

enterprise management system is proposed to use signature analysis. The essence of this method consists in the formation of certain conclusions about the object of the research based on joint consideration of the combination of signs of change (increase or decrease) of its individual characteristics. Signature analysis is widely used in mathematics, for example, in the study of continuous functions on the basis of their derivatives (based on the Weierstrass theorem), and while studying of time series based on analytical statistical tools (chain index dynamics, Wilcoxon rank sum test, etc.) [4]. In economics the usage of the signature analysis is presented in [5]. Analysis of the system of economic security as a separate system is proposed to be carried out based on descriptive analysis and set theory. In this case, the complexity of the object of the research (the system of economic security of the enterprise) requires the transitions from the purely quantitative analysis tools to the instruments that allow operating qualitative assessments, from interval scales to ordinal or nominal ones, etc. However, it is necessary to note, that it does not mean a complete rejection of the quantitative assessments. The emphasis on qualitative assessments in this case should complete, rather than substitute quantitative assessments.

The usage of signature analysis for the research of any object requires specifying of the characteristics, the dynamics of which will be under the study. Describing the system of economic security of the enterprise as a whole entity, as a functional subsystem in the enterprise management system, and aiming to characterize the transformation results of such a system, it is reasonable to consider the signature criterion of its egression and ingression in the enterprise management system as well as the degree of its prioritization and the separation of its units (objectification) that deal with the issues of ensuring of the economic security of the enterprise. The concepts of egression and ingression in this case are considered in the same sense as A. A. Bogdanov in his works devoted to technology proposed to consider [7]. Ingression (according to A. A. Bogdanov) is a universal method of connection of nature and society phenomena and essences, the principle of the universal connection of phenomena [7]. Egression (according to A. A. Bogdanov) is a method of centralism, the method of processes coordination in the systems of any character, a general scheme that is responsible for the integrity of any level.

The choice of the proposed characteristics for assessing of the results of transformations of the system of economic security as whole entity (egression, ingression, prioritization, and objectification) is conditioned by the following:

Firstly, the system of economic security of the enterprise has its structure, the set of elements that are connected with one another and other subsystems of the enterprise management system. Thus, ingression as a method for connection of phenomena and essences for determination of the degree of the connection is an important characteristic for assessment of the results of transformations of the economic security system as a whole entity.

Secondly, processes always follow connections in the system (according to G. P. Shhedrovickij [7]), that are the reason of development and functioning

of the system of economic security. Such processes should be decentralization, localization, concentration, coordination, which allow us to determine the degree of egression and the changes of the system of economic security as a part of the enterprise management system, its place, role in the management system.

Thirdly, security has a subjective conception. Subjective perception of objective quantitative risk assessments and threats, which arise in the internal and external environment of the enterprise, leads to the different level of recognition and prevalence of functions in the enterprise activity. Therefore, prioritization is such characteristic that will allow us to estimate the results of transformations of the system of economic security.

Fourthly, the system of economic security as an abstract system, that has a high level of abstraction requires objectification, that is, practical implementation. Objectification as a characteristic for assessing of the results of transformations of the economic security system allows assessing the degree of separation and the independence of the conventional unit, which deals with the issues of economic security ensuring.

The analysis of the results of transformations in the system of economic security for the system of economic security as a unit of the enterprise management system (Table 1) as well as the analysis of the system of economic security as a separate system because of transformations are of great interest. Such analysis is proposed to be carried out on the basis of four characteristics of the composition and connections of such a system: organizational, substrate, structural and functional. The basis for the distinguishing of such characteristics was given in papers [3,8], in which the corresponding types of the prevailed transformations were singled out (Figure 3).

Terms of ingression and egression are considered in content that was suggested by A. Bogdanov (cited by [7]). Prioritization is considered as measure of recognizing economic security as the core value in the enterprise activity, measure of dominating functions and tasks concerning provision of economic security in enterprise activity comparing with other tasks and objects of management. Objectification is considered as measure of segregation and separation of unit that provides economic security from other units in the enterprise.

Concerning defined characteristics of enterprise economic security system some directions of analysis are interested to be done (table 3)

Obviously, transformations in the system of economic security of the enterprise are not an end in themselves. They are intended (in the case of their controlled nature) to improve the state of the system, acquire by it new functionalities, perform its main tasks. Therefore, it is of interest to study the issue of consequents, the results of transformations in the system of economic security of the enterprise. At the same time, such an issue needs to be considered both in the prescriptive aspect (the study of the expected results of transformations in the system of economic security of the enterprise as a result of undertaken actions) and in descriptive aspect (studying and control the actual results of the transformations).

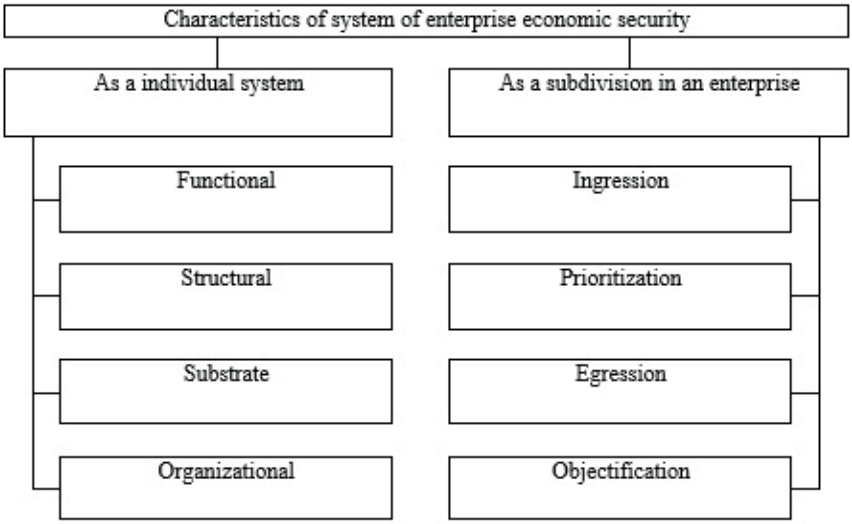

Figure 3. Characteristics of the system of economic security of the enterprise in the context of analysis of its transformation results
Source: suggested by Y. Ivchenko based on [3, 6, 8]

Table 3

Main directions of analysis of characteristics for enterprise economic security system

Characteristic of enterprise economic security system	Main directions of analysis
Ingression	Analysis of optimal measure of ingression that allows maximizing effectiveness of enterprise economic security system. Analysis of impact of factors that define measure of ingression. Analysis of impact of measure of ingression on results of functioning of enterprise economic security system. Quantitative evaluation of ingression at an enterprise.
Prioritization	Evaluating existing measure of prioritization and sufficiency of such measure for enterprise needs.
Egression	Analysis of factors that define measure of existing egression at an enterprise. Quantitative evaluation of egression at the enterprise.
Objectification	Evaluating existing measure of objectification. Defining optimal measure of objectification. Evaluating impact of enterprise economic security system as subdivision in the enterprise on other units.

Source: suggested by Y. Pogorelov

Thus the results of the transformations in the system of economic security of the enterprise are proposed to be described using matrix signature analysis, which is proposed to be carried out in two directions. The first one is to consider the whole

system of economic security as a separate functional subsystem of the enterprise management system. The second one is to consider the system of economic security as a separate system with its composition, structure and links between the elements. The study of transformations in the system of economic security of the enterprise requires further identification of diagnostic tools and modeling of transformation processes.

As direction for further research making specific instruments of analysis may be considered. Such instruments should cover both analysis of transformations in enterprise economic security and analysis of changing indicators and characteristics of such system.

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PART4. FORMATION OF THE MECHANISM OF MANAGEMENT OF CHANGES

METHODOLOGY OF ECONOMIC RESEARCH OF SOCIO-ECONOMIC CHANGES: LATEST RESULTS AND CONNECTION WITH PRACTICE

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The idea of improving the social and economic foundations of society in the conditions of the current technological structure and economic mechanism is receiving new accelerations, for example, by instruments of financial influence [1, 2]. At the same time, the powerful methodological apparatus of economic science, coupled with research tools of management, pedagogy, sociology, jurisprudence, social communications, history, spatial and geographical knowledge, cultural studies, and natural science, attracts to the problems of scientific and methodological support of economic, social, technological subjects. Economic ideas of authors can be embodied in practical life, providing the driving force of socio-economic and technological change.

The development of economic science in the context of the globalization of the world, the informatization of social relations and the commercialization of scientific results achieved is based on a specific tool, allocated to the category «methodology of scientific research». Trivial perception of the methodology as a set of methods and research tools allows you to predetermine the scientific result achieved at the stage of choosing the methods applied to the subject under study. Thus, the largest scientific resource «Scientific electronic library e-LIBRARY.RU» [3] on the search query «methodology of economic research» offers a sample of 6125 sources among the available 26 650 480 (0.023%) Russian-language versions of scientific results.

In diverse discussions about the scientific nature of modern methodology, one can find differentiation of this category in terms of various definitions: economic and normative methodology, knowledge of economic science, activity approach to scientific research, eclecticism of scientific and unscientific in cognition of the world, positive, constructive or destructive, frontal and many others . At the same time, the choice of the method of cognition in the subject of the research does not lose its role among other elements of the methodological system - structure,

principles, functions, target setting, scientific novelty, author's contribution, relevance and others, concentrating the scientific community's attention on developing the paradigm.

The object and subject of the methodology of economic research undergoes permanent changes synchronously with the birth of new economic theories, concepts, tasks of social and economic development. There are many examples of the emergence of successful tools in methodology due to symbiosis with philosophy, history, sociology, natural science, mathematics. The connection with real economic practice (approbation) is achieved today in the short-term or long-term perspectives of social life, and it can be documented by the result of introduction, for example, in the work of business entities, the educational process, the management of municipalities, regions, and other territorial units.

Evolutionary socio-economic formations predetermine the dynamics of economic thought and basic economic theories. So, in a relatively short-sighted retrospective for the methodology of socio-economic research, one can find warnings to scientists from deeper into the actual search process, empty curiosity, inquisitiveness («tickling») of the mind, the publication of spectacular news under the sign of scientific result [4]. The European experience of carrying out socio-economic and technological transformations can be understood through the tools of economic cognition, taking into account regional peculiarities of territories and states. For example, the Slavic-speaking countries of Europe have their own scientific schools of economic research with deep roots and traditions that successfully reflect the territorial specifics.

The methodology of Marxism-Leninism, which prevailed in the USSR, was a scientific system of philosophical, economic and socio-political views, presented as a world view of the working class, considered by society as a science of cognition and revolutionary transformation of the world, specific laws of society, nature and human thinking, the laws of the revolutionary struggle of the working class and the working people for the overthrow of capitalism, with the prospect of building a socialist and communist society as scientific validation result economic theory [5]. Thus, the methodological contribution of V.I. Lenin is considered a materialistic dialectic, and the success of socialist countries in the social and economic sphere, the growth of the international workers' and national liberation movements of the twentieth century served as a confirmation of the vitality of Marxism-Leninism. The methodology of Marxism-Leninism, as applied to the concept of a social state, is set forth, for example, in the Program of the CPSU [6].

At the turn of the millennium, the perception of the methodology of economic research that absorbed the social results achieved, the transformation of the methodological approach by the definition of «socio-economic formation» into new categories of the technological order, the information society, the prevalence of wave or financial and economic approaches, etc., changed [. Under the methodology of the study, the set (system set) of research methods chosen according to the will

of the author or directed to him in a technical task for research work, in a number of cases classified into sections, for example, general (philosophical), general scientific (historical, geographical, logical, mathematical), others [10-16]. There was a contrast between the two methods of economic research - metaphysics and dialectics, and the methodological tools acquired a mosaic character, creating a basis for social contradictions. The powerful levers of society management allow authors of different concepts to implement them in practice.

To the methodology began to relate and approaches: subjective, neopositive-empirical, rationalistic, dialectical-materialistic. Also in methodology began to combine methods and principles of knowledge: system; structural-functional, cybernetic, probabilistic, modeling, formalization, etc. [17]. In this period, along with the concept of a social state, others, for example, the rule of law [18], began to be actively explored, content analysis and correlation analysis of newspaper's publication [19].

For the newest period of development of the methodology of economic research of the foundations of construction, functioning and prospects of the social state, an updated toolkit is offered on the part of scientists, theorists and practitioners. Given the growing problem of the availability of economic information in non-English language versions of scientific publications [20], it becomes important to navigate the variety of proposed methods of economic research, for example, by retrospectively analyzing and grouping in the immediate circle already confirmed results with protected scientific novelty. The most accessible source for solving such a problem are candidate and doctoral dissertations in the field of economic sciences - cipher specialties 08.00.00 in the classification of the Higher Attestation Commission.

For the purposes of this work, a selection of research methods for 2004-2014 was carried out. by a random criterion of the existence of a reference to the scientific result of one author among 23 protected dissertations in the field of socio-economic development of territories with approved conclusions about their scientific novelty that are applicable to solving problems of the social state. The sample includes theses for the degree of Doctor of Economic Sciences (10 units), candidate of economic sciences (22 units), 1 dissertation for the degree of candidate of geographical sciences with an original spatial and economic approach to the subject of research. In total, 119 economic research methods were grouped into the following categories:

- statistical (index, average values, relative quantities, dynamic series);
- general scientific (dialectical, concrete-historical, analysis and synthesis, induction and deduction);
- special;
- on the basis of approaches (complex, program, target, systemic, situational);
- use of objective economic laws of social development;
- Key determinants of socio-economic analysis (target imperatives);

- the ratio of objective and subjective in the economy;
- Neoclassical theories of socio-economic justification;
- Modeling (analytical, conceptual, visual, economic-mathematical, scenario, econometric);
- analytic-heuristic potential of the method;
- logical (analysis, generalization, design, abstraction);
- Interdisciplinary approach (sociological - interviewing, questioning, questioning);
- structural (structural-logical, structural-information);
- analytical (factor, abstract-logical).

All groups of methods are applicable to the study of the foundations and tasks of the development of the social state, have been tested in regional studies, confirming its effectiveness and relevance of the result. The most characteristic can be considered such methods of economic research in the tasks of socialization of social being (grouping by letter «a» in Russian, only 9 units or 7.56% of the sample of this study): abstraction [21]; transition from the abstract to the concrete [22]; abstract-logical [23]; analysis and synthesis [24]; analysis and comparison [25]; analysis of hierarchies [26]; analysis of economic dynamics [27]; analytical; analytical modeling [28]; the questionnaire [29].

A weighty group of modern methodology in economic research are methods based on formal logic and derivative instruments, in particular, the coordinate classification of virtual spaces [30]; logical and structural [31]; logical analysis (logical); logical generalization [32]; logical design [33].

Among the groups of the newest methods that are promising for the methodology of studying the foundations of a social state and the formation of a paradigm among scientific schools, it can be noted: hermeneutic [34]; the Tayle entropy indices [35]; graphic [36]; SERVQUAL SERVPERF [37]; cartographic [38]; detailing and synthesis [39]; a complex-purpose approach [40]; scientific systematization [41]; object-subject analysis [42]; structural groupings [43]; typologies [44]; others [45-56].

At the same time, there are risks of methodological errors related to: - obtaining unreliable, erroneous or directly opposite conclusions between scientific research and reality; - blurred conclusions, especially with a large number of research methods and tools, unclear boundaries of the object, redundancy of research tasks; - the inability to achieve a relative paradigm of research and create a final scientific and technical product (report on research, article, preprint, monograph, etc.); - the introduction into practice of false conclusions, which is harmed, direct economic losses to the interests of the subjects of the social state; - the fall of the authority of scientific schools, of science as a public institution as a whole.

Conclusions. The development of the methodology of economic science reflects social changes in the economy, social sphere, and the technological order. At the same time, it becomes an accelerator of the changes directed by imperious levers

into the set parameters and priorities of the movement of social groups. Instruments of economic science and the efforts of various scientific schools can justify socio-economic and technological changes in a variety of aspects and coordinates. The embodiment of scientific results in the practice and quality of scientific and technical products will depend on the skill of selecting methods and composing their totality to obtain a paradigm for the perception of the subject of research within the framework of the methods of economic research considered, the tasks assigned and the efforts made.

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THE ANALYSIS OF THE ACCOUNTING PRINCIPLES OF A GOING CONCERN THROUGH THE HUNGARIAN MUNICIPAL COMPANIES

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According to the Fundamental Law of Hungary the properties owned and managed by local governments shall be national assets (Lentner, Cs. 2014a). The municipal property solely serves for the performance of the compulsory duties of the local government, meaning that their elements are partially non-marketable and partially restrictedly marketable (Gasparics, E. et al., 2015). The local governments are obligated to maintain their assets and to ever increase the level of services they provide. The local governments can be characterized by a non-profit cost

management, and if we intended to classify these organizations based on their typical form of management and match them to the types described by the professional literature then we would have to establish that due to their special activities the local governments do not belong to any of the basic types (Zéman, Z. 2017). During their operation the local governments cannot produce a loss (Zéman, Z. 2015).

When evaluating the performance of the companies it is important to consider whether an enterprise will be able to maintain its operation in the future. The principle of a going concern is also particularly taken into consideration by standard 1 of the International Accounting Standards (IAS), which is part of the European Union legislation. On top of that the International Standards of Auditing pay serious attention as well to this accounting doctrine, since this provision is meant to support the survival of the enterprises. The objective measurability of the principle's effectiveness is based on the financial reporting of the enterprise, which issues a certificate regarding the enterprise being able to fulfil its obligation to make payments both in the short and long term. These indicators can be derived from the annual reports and operational parameters of the companies through advanced measuring methods with the help of bankruptcy models and via objective analysis. In the case of the enterprises operating in the public sector the principle of a going concern is also important to determine whether they are capable of carrying out their public service duties or not (Lentner, Cs. 2015a). If the budgetary business entities and the companies performing public service activities cease to be a going concern, it could have an adverse effect on strong and direct social interests because they were established to provide public services and to produce public good (Lentner, Cs. 2014b). In the municipal system developed following the end of communism the local authorities were given flexibility in the organizational solutions of how to administer their public obligations. The local governments of towns with county status entrusted their assets and the execution of organizing public services to companies. If the services are provided by their own municipality-owned companies, it is crucial for the local governments that such companies are cost-effective, and in addition they utilize and increase the entrusted assets appropriately and minimize the risks deriving from excessive indebtedness (Hegedűs, Sz. – Széles, Zs. 2014; Sági, J. 2014).

The two main reasons behind establishing municipality-owned companies:

• During the transfer of wealth after the end of communism the asset management right of public utility companies was converted into ownership, which then later was increased by the handover of further public utilities (Vigvári, A. 2007).

• As part of the local governments' obligation to exercise duties – to the impact of the significant public service management theory of our era, the New Public Management paradigm – the local authorities are responsible for the organization of public services and not for directly carrying out a certain public task (Farkas, Sz.– Zsugyel, J. 2014; Vigvári, A. 2009). Several municipality-owned enterprises started their operation due to the delegation of compulsory and voluntarily imposed

duties of the local governments, and not just in the public utilities sector (Kopányi, M. — Hertelendy, Zs. 2004).

In the course of the research we examined the application of the bankruptcy models among the municipality-owned companies. A common feature of all three bankruptcy models is that they use discrimination analysis. The methods of Altman (1968) and Springate (1978) were the first multi-variant models, while in Hungary Professor Miklós Virág (1996) was the first who made such calculations and he did put one of his models into practice. On the basis of experience we conducted the analysis in terms of three years. These years were 2006, 2011 and 2013. They were chosen because 2006 was the last year prior the financial crisis. In the wake of the crisis the risk of excessive indebtedness and becoming inoperative did not just hit the classic profit-oriented companies but the budgetary entities too (Lentner, Cs. 2013). After 2010 a new public financial system was established in Hungary in order to manage the causes of the crisis (Lentner, Cs. 2015b). In 2011 there was an inflection in the municipal corporate world, namely that the drastic rise of the number of companies stopped and as a consequence the asset value was restructured. The full state consolidation of the volume of debt that had been accumulated by the Hungarian local governments between 2002 and 2008 took place between 2011 and 2014 (Lentner, Cs. 2015c; Lentner, Cs. 2014c). In the year 2013 the sector's volume of debt rose record high by crossing 1% of the GDP, and additionally to the transfer of wealth at the water utilities the debt of the companies exercising public tasks was increased by nearly 20 billion HUFs (Hegedűs, Sz. 2016). Moreover, the official price regulation of the public utilities also happened in 2013 (Lentner, Cs. 2015a).

The first table shows the descriptive statistics of the analysis conducted of the three bankruptcy models and of the three years. In 2006 the highest score of the worst-performing municipality-owned companies – that accounted for 10% of the total examined companies – was 0.3422 according to Altman's method, meaning that the companies with the worst Z-score were lower than 0.3422 and therefore they were highly prone to bankruptcy. By 2011 this value had dropped to -0.754 and by 2013 it was down to 0.0038, given that the model accepts the negative Z-scores in extreme situations. On the basis of Altman's bankruptcy model, with regard to the index numbers of the companies in 2006 40% of them fell into the safety zone, whereas in 2011 only 30% of them and in 2013 only 35% of them belonged to the safety category. The Altman model works with two values, between of which is the grey zone that is marked on the diagram with grey. This is where 35% of the corporate sample could be found in 2006, while this ratio was 30% in 2011 and 20% in 2013. It cannot be clearly determined of these companies to which group they belong. However, according to Springate's model, in 2006 10%, in 2011 30% and in 2013 20% of the examined companies could be classified under the bankrupt category. On the other hand the method of Miklós Virág confirms that 30% of the examined statistical population ended up being in the bankrupt zone in two of the years, while the score was higher in 2006. As it is clear from the table, two of the

models verified that the index numbers of the upper 10% of the best-performing companies reached the highest scores in 2011. It can be stated that the three models led to quite different results. It is noticeable that the closest results came from the newer models, the models of Miklós Virág and Springate. The data reveals that under normal market conditions a significant proportion of the companies would be in a situation close to bankruptcy in all the various models. This is because their revenue side highly depends on the municipal resources, and this is especially true in the case of the mainly non-profit enterprises established between 2006 and 2011 for the sake of calling off tenders.

Table 1

Z-scores of the examined bankruptcy models

		Altman 6	Altman 11	Altman 13	Springate 6	Springate 11	Springate 13	Virág /6	Virág /11	Virág /13
N	Available	199	184	342	196	343	361	193	334	345
	Missing	208	223	65	211	64	46	214	73	62
Per-centilis	5	0,00	-1,07	-0,85	-1,42	-2,97	-4,29	0,82	0,15	0,22
	10	0,34	0,00	-0,08	-0,38	-1,06	-1,28	1,39	0,74	0,76
	15	0,59	0,18	0,22	-0,08	-0,64	-0,57	2,03	1,38	1,53
	20	0,82	0,31	0,56	0,11	-0,42	-0,30	2,50	1,85	1,93
	25	1,09	0,55	0,84	0,19	-0,20	-0,05	2,79	2,49	2,59
	30	1,35	0,92	1,03	0,27	-0,07	0,13	3,04	2,90	3,21
	35	1,67	1,24	1,43	0,32	0,17	0,22	3,48	3,41	3,58
	40	1,84	1,37	1,71	0,45	0,27	0,33	3,86	3,83	4,02
	45	2,07	1,59	2,06	0,50	0,38	0,39	4,35	4,46	4,49
	50	2,31	1,92	2,28	0,60	0,49	0,53	4,72	4,77	4,82
	55	2,54	2,24	2,57	0,66	0,63	0,62	5,11	5,27	5,45
	60	3,04	2,61	2,84	0,83	0,83	0,81	5,33	5,75	6,00
	65	3,29	2,87	3,20	0,94	0,96	0,99	6,15	6,26	6,46
	70	3,67	3,11	3,58	1,02	1,18	1,13	6,91	7,33	6,98
	75	4,08	3,65	3,99	1,22	1,37	1,32	7,59	8,26	7,61
	80	4,35	4,01	4,47	1,38	1,56	1,50	8,52	9,79	9,31
	85	5,08	4,48	5,51	1,53	1,82	1,67	9,87	13,97	10,94
	90	6,37	5,23	7,12	1,84	2,42	2,16	11,86	17,98	16,72
	95	9,11	6,19	10,71	2,85	3,39	2,89	22,45	31,93	23,80

Source: Own research, 2017

In the second part of the article we introduce the differences between municipality categories (town with county status, capital and district).

Figure 1 highlights how many companies got themselves into the bankrupt, grey and safety zones in the three examined years, considering the municipality

categories.

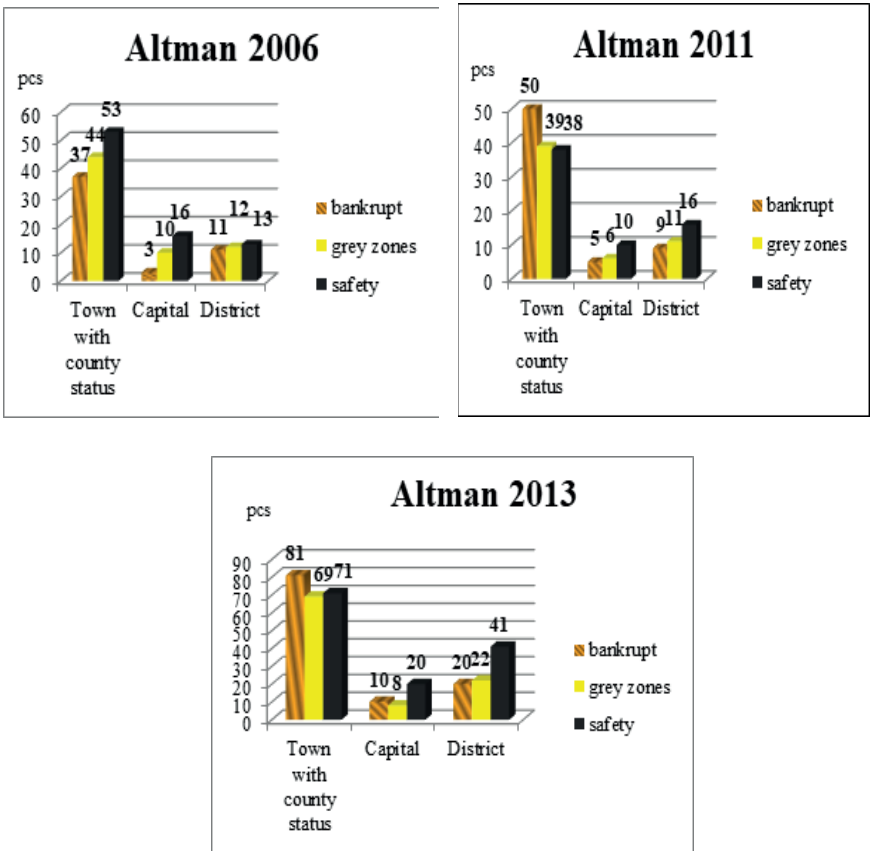

Figure 1: Companies belonging to the bankrupt, safety and grey zones with respect to the municipality categories, based on Altman's model (data in pcs)
Source: Own research

If we take a look at the municipality-owned companies of the towns with county status we can see that in 2011 and 2013 the number of the bankrupt enterprises grew, while in the case of the enterprises operated by the Municipality of Budapest we cannot discover any substantial changes in relative terms. On the other hand the number of the district municipalities' companies falling into the safety category increased in 2013. If we examine the three years then we can establish that the municipality-owned companies of the towns with county status were mostly placed into the bankrupt category or into the grey zone on the basis of Altman's method, and the number of companies in these two categories was significantly higher than the number of companies in the safety category.

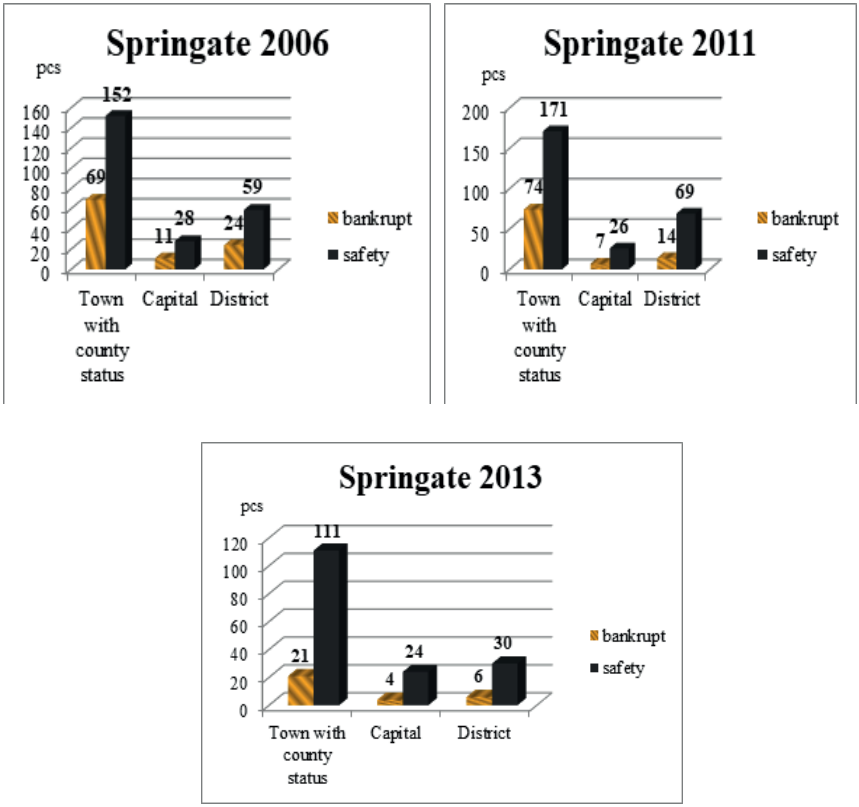

Figure 2: Companies belonging to the bankrupt, safety zones with respect to the municipality categories, based on Springate's model (data in pcs)
Source: Own research

Looking at the variables under the Springate method (Figure 2.) we can see that it shows a considerably more optimistic picture than Altman's method. By 2013 the number of the bankrupt municipality-owned companies of the towns with county status had dropped substantially. While based on the Altman method in all three years more enterprises belonged to the bankrupt and grey zones than to the safety category, according to Springate's model in 2006 more than 68%, in 2011 more than 69% and in 2013 more than 84% of the examined municipal companies of the towns with county status could be placed into the safety zone.

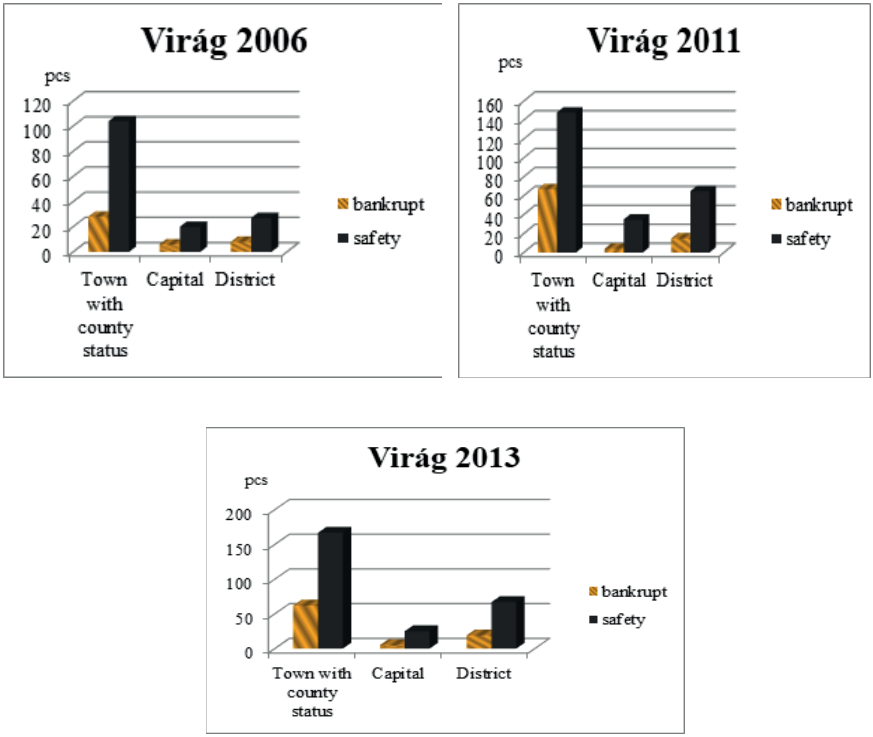

Figure 3: Companies belonging to the bankrupt, safety zones with respect to the municipality categories, based on Miklós Virág's model (data in pcs)
Source: Own research

On the basis of Figure 3 it can be stated that the method of Miklós Virág also supports the Springate model. Although by 2013 the number of bankrupt enterprises had risen among the municipal companies of the towns with county status, but the number of companies in the safety zone was significantly higher. According to Altman's method the number of companies belonging to the bankrupt and grey zones was quasi equal to the number of companies in the safety zone in the cases of enterprises owned by the Municipality of Budapest or the district municipalities. However, it can be asserted that this has not been confirmed by the methods of either Springate or Miklós Virág (1990). The safe enterprises had a higher percentage among all the examined enterprises in the case of both the companies owned by the Municipality of Budapest and the companies owned by the district municipalities.

Conclusions. The three models showed fairly different results during the descriptive statistical analysis. The closest results to each other came from the more recent models – the ones of Miklós Virág and Springate. On the basis of Altman's method it has been determined that under normal market conditions a considerably

high percentage of the companies would be in a situation close to bankruptcy in the various models. The reason for this is that their revenue side highly depended on the municipal resources, and it was especially true at the mainly non-profit enterprises established between 2006 and 2011 for the sake of calling off tenders. When examining the classification by municipality categories, it can be observed that Altman's method painted the most pessimistic picture, while the methods of Springate and Miklós Virág showed nearly the same results in relative terms. While based on Altman's method the municipality-owned companies of the towns with county status were typically placed into the bankrupt or grey zones, according to the methods of Springate and Virág in all three municipality categories the proportion of the safe municipal companies exceeded the percentage of the bankrupt enterprises. Nevertheless, the bankruptcy models don't always predict the future, since the state and the local governments do not let their enterprises engaged in public service duties to go bankrupt.

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IMPACT OF COMMUNICATIVE COMPETENCE ON TRANSFORMATION OF BUSINESS ENTITIES' POTENTIAL

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In modern conditions of client-oriented nature of the industrial enterprises realization of the objectives of all stakeholders is becoming increasingly important, which is achieved by strengthening the relationships between all participants of entrepreneurial activity, ie the role of communication processes in the management of enterprises is significantly growing. The effectiveness of communication and information processes, communication climate result in a strong impact on both establishing of a long-term partnership between economic players in the market, increasing competitiveness and efficiency of economic entities in general. Consequently, the well-timed analysis of communication processes makes it

possible to reveal informal relationships between management and their direct reports; to assess the degree of the each unit autonomy; to determine the efficiency of communication between elements of the management structure; to establish the effectiveness of communication and information processes within the enterprise, etc, in order to build a long-term partnership with customers, and therefore increase the efficiency of business activities.

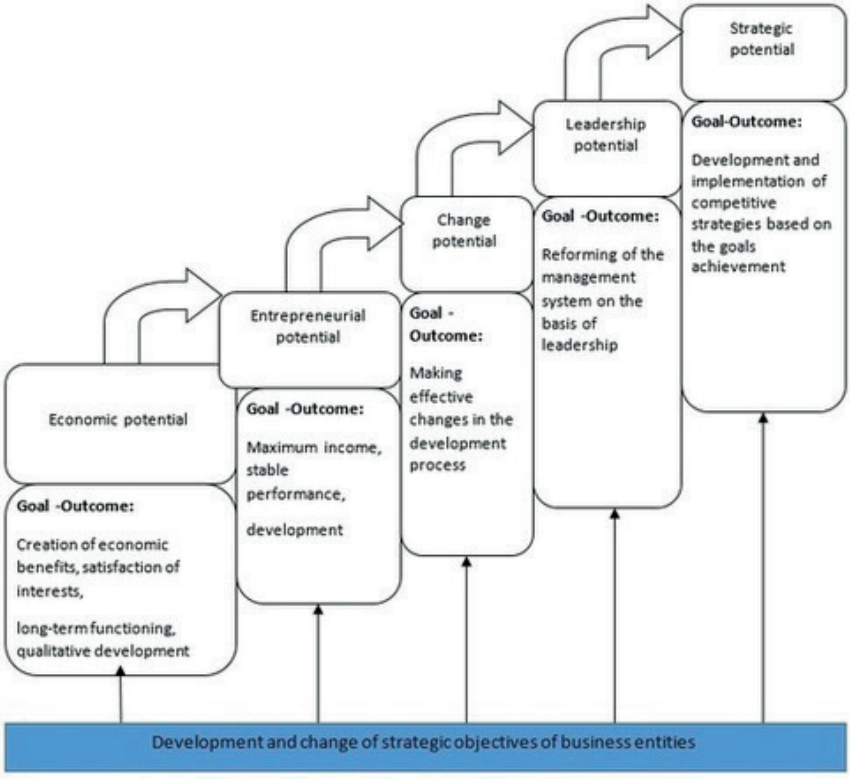

Fig.1 Evolution of the enterprise potential

We believe that the implementation of an appropriate for Ukraine model of formation, increase and rational use of strategic capacity which takes into account national peculiarities, available resources and reserves and corresponds to the national economic interests and the state's role in the global labor allocation will favor the overall recovery and regeneration of the national economy acquiring new quality characteristics of system stability. To solve the issues of competitive advantages support it is necessary to accomplish a number of specific functions.

Potential as an economic category today has no unambiguous interpretation.

In economic science the following multifunctional definitions of business entities potentials are used: production, economic, strategic, competitive, leadership, etc. The considered list and ranking of concepts is not accidental and characterizes the dynamics of the concept of «potential», the which generalization, in our opinion, results in the term of «strategic potential» (Fig. 1).

Upon the comprehensive analysis of the original approaches to understanding the concept of «strategic capacity» as a system formation [4-5] the authors offered the more complex definition of the concept. Thus, the strategic potential of a socioeconomic system is understood as the aggregate of the resource, technological, organizational, economic, social and communication capabilities, as well as the reserves that are linked due to intensification of strategic management technologies and used to harmonize and achieve certain goals in order to ensure economic security. Unlike the single-line, concise and unambiguous structuring of economic or productive capacity, the proposed approaches lean on the theoretical basis for systematic and comprehensive, resource-functional and object-oriented approaches combining economic, political, technological, resource, and communication potentials without which the analysis of the prospects of any object of research would not be possible.

Obviously, the interpretation of the structure of the competitive potential depends on the r scientific research and the above example of the integration of potential components underscores the interdependence and synergistic effect of structural elements of the potential.

Accordingly, the structure of the potential should have the same characteristics as steadfastness, competitiveness, flexibility, stability, balance, etc. The elements of a business entity potential structure under the influence of external and internal factors are presented in the tabl.1.

It should be mentioned here that the factors of the enterprise functional potential include the components of production, financial, marketing, personnel, innovation, management, energy and environmental potentials (Table 1).

Factors for the enterprise potential development consist mainly incorporate the elements of management, innovation, financial potential, level of the resources utilization within the production potential, leadership and communication potentials.

Multiline and multi-level approach to understanding the strategic capacity provides a much more complex set of potentials and potentially factor characteristics. The dynamic emergence of new forms of socioeconomic relations in various regional economies, both at national and intersectoral level forces to abandon purely technocratic vision of economic processes. The modern world has entered the era of globalization, which, in its broad sense, is the process of making one world [6]. One of the most visible manifestations of the global communications system is the unified assessment of market economy benefits, in other words, achievement of a «global identity of views» [7], which results in the elimination of geographic, political and economic barriers.

Table 1.

Features of a business unity's potential structuring under the influence of external and internal factors

Potential	External factors				Internal factors			
	Macroeconomic				Enterprise			
		Regional				Devision		
			Sectoral				Working place (employee)	
				Market				
Marketing potential	- the level of competition in the commodity market - correlation between demand and supply in the market - level of market infrastructure and intermediary network; - the size of the market - stock of competitors - the attractiveness of a particular enterprise - state regulation				- level of for new products marketing - marketing measures to maintain a positive image of the product and the enterprise - level of perception of marketing philosophy of business - level of implementation of marketing competitive strategies			
Production potential	- duration of the economic cycle - the attractiveness of the industry - the state of the life cycle in the industry and the degree of its state of affairs - availability of resource supply, availability of different groups of suppliers - dynamics of technological processes in the industry				- compliance with production norms and standards - level of organization of production units - capacity of the enterprise - duration of technological processes - efficiency of the use of factors of production - an efficient system of working capital valuation			
Innovation potential	- the level of scientific and technical potential - dynamics of R&D in the sector				- modern technics and technologies - scientific and technical personnel - the level of R&D implementation			
Financial potential	- availability of investment programs, permanent investors and creditors - favorable investment climate - availability of financial and industrial groups - inflation rate - state of the budget - changes in legislation				- owned capital - the ability to raise capital - profitability of capital use - an effective financial management system - a potential investment reputation			
Managerial potential	- availability and development of information dissemination channels - availability of information and analytical materials - ability to use the potential consumers of information				- the organizational structure - management methods - organizational and technical conditions - availability of information databases and their level of support - quality of strategic decisions			

Personnel potential	- state social policy - the number and structure of the population - the standard of living and education of the population - moral and psychological aspects	- complex personnel policy - education and qualifications of employees - motivation of the personnel - corporate culture - management ethics
Energy potential	- availability of energy in the country and region - energy prices - the level of energy saving technologies use in the country, region, industry	- availability of energy for the enterprise - level of energy saving technologies use at the enterprise
Ecological potential	- the ecological status of the territory, the region - natural factors, minerals	- working conditions
Communicative potential	- system of social relations, causal relationships, sociocultural and ethnopsychological contexts of communication	- Potential communicative abilities, communicative forces of a manager that can be involved and used in management; - psychological properties and capabilities of the personality of the manager, acquired in managerial communication and interaction with other people; - communicative possibilities of professional development, self-development of the personality of the manager; - development of communicative qualities and abilities of the manager, increased requirements for the use of internal communicative reserves, transferring them from the potential to the actual.
Leadership potential	- leadership potential of society - national traditions - educational level - the level of professional requirements - internationalization of outcomes	- professional competence - autonomy - the result orientation - will - responsibility

Therefore, nowadays leadership and communicative potential deserves special attention as one of the most significant elements in the structure of potentials that ensure the effectiveness of management processes. The problem of awareness and formation of leadership potential in society is very relevant. But it should be pointed out that the leader's potential as an essence is in constant development. To date, investigating the leadership potential of managers, most scholars define it as a socio-psychological profile of the individual, which simultaneously reflects both situationally conditioned, and cross-situational ability of the individual to successful leadership. [5]. But the results of the youth survey show that leadership

understanding is quite subjective. [4] According to U-reporters, the youth leader is, first and foremost, the one who is able to lead, to set the course of action and development (19%). Of course, such a narrow understanding of leadership will not enable the formation of an effective leadership potential of both society and the subject of economic activity. 70% of U-reporters (73% male respondents vs 69% of female respondents respectively) believe they have a leadership potential. The older U-reporters are the bigger the share of the leadership potential is: 67% among the 14-17-year-olds, 70% among 18-19-year-olds, and 73-74% among those over the age of 20. On top of that the majority of the respondents are aware of the need to learn leadership. 72% of U-reporters would like to take additional training on leadership. 76% of responders who positively evaluate their leadership potential are willing to study leadership as well as 53% among those who believe that they lack leadership capacity and 69% among those who have not been able to assess their own leadership abilities. At the same time, the share of those who want to develop leadership qualities is slightly higher among women - 76% (among men - 68%); among the 14-17-year-olds and 20-24-year-olds - 75%; among representatives of other age groups groups - 70-71%), among the residents of the South of Ukraine - 78%, compared to the responses of U-reporters of other regions 71-74 %) [4].

The study of the peculiarities of the formation of leadership potential proves that communicative potential plays an important role. It is the communicative potential that ensures the implementation of professional competence in leadership capacity.

The research of a society development features in correlation with foreign languages training shows that one of the factors for the economy communication potential creation is mastering the language of international communication (lingua franca). A lingua franca in terms of the social economies internationalization

The European Commission «Effects on the European Economy of Shortages of Foreign Language Skills in Enterprise (ELAN) was established in December 2006, by the Directorate General for Education and Culture of the European Commission with the support of the Chartered Institute of Logistics and transport - CILT), the UK National Centre for Languages in collaboration with the Inter Act international and an international team of researchers [8]. In particular, the Commission was to collect and analyze information on the practical use of foreign languages in SMEs and their impact on the business process. For this purpose, about 2,000 medium-sized exporters from 29 European countries (EU, EEA countries - candidates for EU membership) we investigated. The results of the study are as follows:

- Quarter of export companies in Turkey and 25% of SMEs in Romania took heavy losses because of the problems with foreign language communication;

- Scandinavian Companies (Finland, Iceland, Sweden, Denmark) announced potential losses. In addition, several countries declared either direct or potential loss of 11% of contracts: Spain, Norway, Czech Republic, France and the Netherlands;

- 11% of medium-sized enterprises suffered from the loss of contracts that amounts to € 8,100,015 - € 13,500,004. Potential losses amount to 16,400,026 € -

25,300,010 €. [8]

There are also data on the number of companies that faced with the language barrier, which resulted in loss of business: 19% of companies in Spain; 13% - in France; 10% - in Germany; 21% - in England and Wales; 8% - in Portugal. On the average, the loss of business for three years amounted to 325,000 €. In general the European economy annually loses up to 100 billion € resulted from the problems with foreign language communication in the medium business sector [8].

Evidently the losses are huge. So the importance of linguistic factor in the modern globalized economy is quite obvious even without the analysis of other data submitted by the Commission.

It should also be noted that European companies amended the situation. According to the above stated study results, more than 48% of companies declared readiness for personnel foreign language training. However most of medium-sized and large companies prefer to attract employees who are initially proficient in foreign languages avoiding direct investment in personnel training.

Analysis of the UN and the World Bank's data also shows the interdependence between the economic development of a country and the level of lingua franca proficiency of its population. In particular, companies in the USA and the UK consider both the level of education and English proficiency of local population as the second of the most important factors for the business outsourcing.

Developing countries, including BRICS countries recognize that the most reliable guarantor to expand their service export-oriented economy is to train a large number of graduates able to communicate in English as the lingua franca. Many of these countries are trying to reorient their economy, which plays the role of the production base and a source of raw materials, to outsourcing for the companies from developed countries. The interdependence between services trade and English proficiency motivates these countries. [8]

For example, according to the Government of Brazil, 55% of the population belong to the middle class. In 2005 this figure was only 34%. The growth of the middle class in Brazil led to an increase in investments in private English lessons. According to the report of the World Economic Forum on Global Competitiveness Brazil was deservedly named as the leader among the countries on business internationalization. Since 2007 the flow of direct foreign investment from the country has exceeded the incoming flow by 10 mln. USD. However, the labor market needs more qualified English-speaking specialists to fill international vacancies. Thereupon, the government initiated the launch of the program «English without Borders», which gave the access for 5 million students to online English courses and stipulated allocation of funds to cover 500 thousand TOEFL exams. Brazil strengthens ties in education with the USA. Each year 1,080 teachers are sent to the US to carry on their education. [10]

The population of all export-oriented countries speaks English. The communicative competence in English promotes innovation, facilitates

communication with suppliers and customers, simplifies recruitment - all this creates a favorable environment for the export activity, which is the fact in evidence according to the EF Education First survey. The company developed and has been publishing the English Proficiency Index (EF EPI) (2011-2013-2015) . The index is designed to determine the level of English proficiency by adult population of various countries. More than 5 million people worldwide have been tested for the English language competence.

Analysis of the survey results revealed the presence of probable interdependence between EPI and index of GDP per capita. The Table. 2 displays countries with different EPI grouped by the same level of English proficiency - from A1 to C1 CEF.

In the Fig. 2 these countries are presented in the form of spheres. The size of a sphere reflects the absolute value of GDP per capita. As shown in the Fig. 1, the countries with more developed economies have the highest EPI. For example, the countries with English proficiency level B2-C1 CEF demonstrate the highest EPI and their average GDP per capita is more than US $50 000. The population of developing countries with the GDP per capita of US $ 20,000 performance EPI of 50-55 and are evaluated at the level A2 - B1 CEF. It should be noted that these countries have a high potential for the economic growth because their absolute GDP is much higher than the figure in developed countries with a high EPI. Based on the above interdependence, we can assume that an increase in the EPI in these countries may result in the growth of their GDP per capita, and therefore the index serve as a factor of economic growth of these countries.

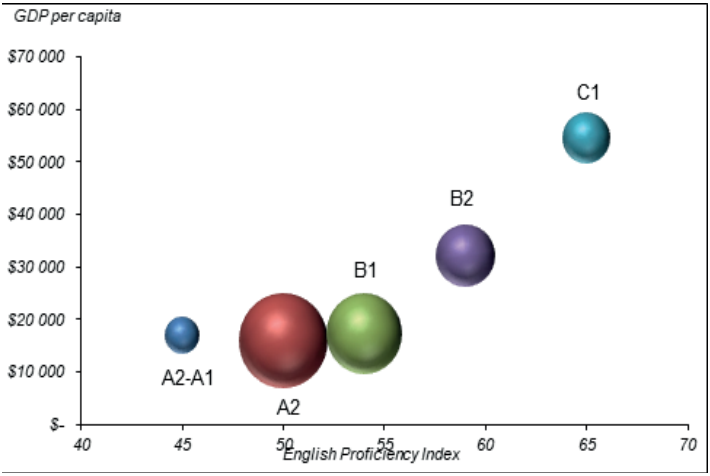

Fig.2 Correlation of English proficiency level with GDP per capita

Table 2

English Proficiency Index in the countries of the world in correlation with GDP per capita

EPL	Country	EPI	GDP per capita $	EPL	Country	EPI	GDP per capita $
A1	Algeria	43.16	5,629.96	B1	Argentina	54.43	11,675.23
	Venezuela	46.44	12,157.48		Vietnam	52.27	1,867.66
	Guatemala	45.72	3,477.38		Hong Kong	53.54	38,035.94
	Ecuador	46.90	5,956.74		India	54.38	1,547.75
	Jordan	46.44	4,630.11		Indonesia	53.44	3,475.26
	Iraq	38.16	6,690.38		Spain	53.51	28,861.10
	Kazakhstan	43.47	13,649.23		South Korea	53.46	26,479.83
	Colombia	47.07	7,805.32		Slovenia	54.58	17,683.77
	Kuwait	46.97	56,917.49		Ukraine	53.09	4,023.66
	Libya	44.65	13,540.04		Czech Republic	54.40	18,880.50
	Morocco	47.71	3,145.76		Japan	53.21	38,459.85
	Panama	43.61	10,535.72	**B1 Average**		**53.66**	**17,362.78**
	Salvador	45.29	3,826.08	B2	Belgium	58.74	45,750.97
	Thailand	44.44	5,778.36		Italy	57.66	15,101.94
	Chile	48.20	15,724.50		Malaysia	58.99	10,513.64
A1 Average		**45.02**	**16,980.48**		Germany	58.47	44,347.01
A2	Brazil	50.07	11,188.90		Poland	62.25	13,542.02
	Egypt	48.89	3,103.69		Portugal	57.52	20,551.22
	Iran	49.30	3,924.65		Singapore	58.92	54,647.75
	Italy	50.97	33,963.05		Slovenia	60.19	22,604.01
	China	50.77	6,799.08		Hungary	60.41	13,083.62
	Costa Rica	50.23	10,283.05		Switzerland	57.59	80,468.50
	Mexico	49.91	10,306.97	**B2 Average**		**59.07**	**32,061.07**
	United Arab Emirates	50.37	43,354.99	C1	Austria	62.66	49,000.43
	Peru	49.96	6,664.88		Denmark	65.15	58,870.03
	Russia	51.08	14,673.09		Estonia	65.55	19,014.50
	Taiwan	50.95	21,063.56		Netherlands	66.19	47,821.32
	Turkey	49.52	10,942.64		Norway	66.60	101,661.04
	Uruguay	51.49	16,351.54		Finland	62.63	47,330.26
	France	50.53	43,986.94		Sweden	68.69	58,290.91
	Sri Lanka	51.47	3,156.90	**C1 Average**		**65.35**	**54,569.78**
A2 Average		**50.37**	**15,984.26**	**Average**		**52.66**	**23,700.36**

It should be also mentioned that the World Bank and International Finance Corporation worked out the Ease of Doing Business Index, which divides countries relative to the degree of favorability of the state policies on doing business. It was proved that the communicative competence in English is an essential condition to create a favorable environment for a business operation. In addition, it was stated that the government and non-government organizations are aware on the link between the level of English proficiency and a strong economy.

Spain, which has been experiencing an economic crisis since 2008, is a vivid example of a country that considers the importance of English proficiency. Many unemployed are attending the English courses to improve their chances for employment. Because of the huge demand and reduction of the domestic budget prices for English courses in 2015 grew by 20% compared to the past years. As part of the European ERASMUS+ program about 40 thousand students went to study abroad in 2012 – 2015. In comparison with 2007 this figure went up by 58%, which is more than in any other country [10].

In much the same way is the situation at the micro level where the English language becomes the main criterion that defines the opportunity for employment. In particular, a study conducted by the analytical department of the Economist showed that 70% of the employers are convinced that in order to implement corporate plans at least 50% of the company employees should master the English language skills.

As far as Ukraine is concerned, the analysis of database of vacancies at the International recruiting portal hh.ua (January - July 2016.) demonstrates the drastic demand on the potential incumbents with the English language communicative competence: in Marketing – 23%, top management - 20%, accounting, finance, audit - 32%, the banking sector - 39%, media, publishing - 20%. Studies show that English proficiency is considered a significant advantage in the eyes of employers and therefore the difference in salaries can vary within 100% depending on the level of English proficiency [11]

Conclusions. The essence of the above stated gives grounds to attribute the level of foreign language proficiency of personnel to a key factor of communication potential of socioeconomic systems. A lingua franca in terms of the internationalization of the economy, which is typical for globalization, integrating in the material production, turns into the potential that gives effect to the strategic capacity and accordingly to the development of the national economy.

Thus, the lingua franca becomes not only a part of multiple personal identity in the era of globalization in the information society, and an integral part of foreign language education, but also the industrial and strategic capacity of business structures.

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MARKET BACKGROUND OF GRAIN DEEP-PROCESSING DEVELOPMENT IN UKRAINE

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Ukraine is amongst the countries usually categorized as "developing", like the majority of post-Soviet Union countries. While Ukrainian economy is diverse and is not as dependent on single sector of economy as some of its neighbors, goods produced and exported from its territory are usually of low added value. Ukraine is the largest exporter of sunflower oil in Europe, amongst world leaders in terms of grain exports. Agricultural commodities also account for 25-30% of total exports. Modernization and economy growth are usually associated with agrarian sector of Ukraine, despite the fact that it accounted only for 9.1% of country's GDP (2013).

These factors are additional risks that have to be accounted for by companies willing to operate in Ukraine. At the same time this is the time for opportunities, as majority of Ukrainian population, including business owners and the government are willing to make new changes in order to get closer to international standards of business conduct, ethics and general operating principles. Parliamentary elections, which took place on October 26, 2014 indicated that Ukrainians are determined to commit to the laws and principles, promoted within the EU. Favorable investment climate, reforms of the tax legislation and many other will result in boost to Ukrainian economy within the next 3-5 years. These changes will occur even faster when the conflict in the East of the country is settled completely.

Agriculture in Ukraine generates attractive and consistent returns for the following reasons [6]:

1. Scalability. Ukraine has the largest arable land bank in Europe – 32.5 million hectares – but only 10% of this area is being used productively. The country has a well-developed infrastructure – including an intensive rail network, irrigation and plentiful storage – as well as a favorable location close to major export markets in Middle East and North Africa.

2. Low operating costs. Ukraine benefits from low cost land leases, agricultural labor and fuel.

3. Yield improvement potential. Ukraine's famous black soil is among the most productive on the planet. Agricultural yields could be tripled by using basic modern farming techniques and improving technology.

4. Global trends. The appetite for food worldwide continues to rise. The Black Sea region is the only area that can meet the marginal demand for wheat and corn. Ukraine overtook Argentina for second place in global corn production – behind the United States – and remains the swing producer for key crops.

Main material. For the last two decades (1990-2014) share of food grain

consumption (mainly of wheat) was comparatively stable. Meanwhile, in weight terms wheat consumption showed a steady downtrend. This is explained by declining Ukrainian population. If in 2010 Ukraine's population totaled 45.8 M, then as early as 2020 it will decrease to 42.9 M, going down to 35 million by 2050 (FAO estimates).

Demand for wheat from Ukrainian milling industry is limited by domestic market. As a rule, Ukraine flour is competitive in the global flour market only in years of wheat crop failures in Kazakhstan and Russia.

As domestic consumption of grain is quite steady in Ukraine, the volume of export shipments directly depends on harvest. During the last 4 years grain exports exceeded 20 MMT owing to grain production ranged between 42 – 57 MMT. Wheat flour exports increased over the last three years. Remarkably, the range of export destinations changed considerably. While Ukraine supplied flour to the former Soviet countries before, now, apart from Moldova, its top buyers include China, Israel, and Syria. China received the first trial parcels of Ukrainian flour in the 2012/13 season and has been monthly purchasing on average some 5 KMT of Ukrainian product since then. Among European countries, minor flour purchases were made by the UK and Spain in 2013/14.

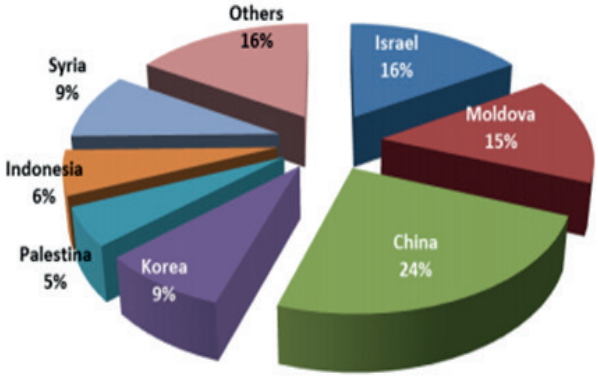

Figure 1. Wheat flour export destinations, MY 2013/14
Source [6]

In the long term, the world's growing population and increasing incomes in developing countries, which are the main consumers of cheap Black Sea grain will promote further increase in exports.

The world wheat markets trends, as well as Ukrainian export potential, promoted taking by Ukraine position of one of the market leaders. Over the last few seasons, Black Sea wheat, in particular Ukrainian one, compete with European, North and South American grain in the main target markets. In the 2013/14 season the share

of Ukrainian wheat and corn in the world's total exports were 5.9% and 16.3%, respectively.

Exports of Ukrainian grain, including wheat, are seasonal. From 50% to 85% of the total export capacity of wheat is shipped abroad during the first half of a season (July- December).

Ukraine is one of the largest suppliers of feed wheat to the world market. The low and medium quality wheat averaged about 50% in the total Ukrainian wheat exports from 1995 to 2013, reaching as high as 75-88% in some years. However, during the 2012/13 and 2013/14 seasons, the share of milling wheat in crop reached 65-75% owing to weather conditions. Consequently, the share of milling grain in wheat exports increased.

Traditionally, Near East, North African and European Union are among the main importers of Ukrainian wheat. Asian and African countries generate demand for Ukrainian mainly milling wheat, whereas European countries give preference to importing feed wheat from Ukraine.

We should note the transformation that has taken place in the geographic component of Ukrainian exports. Ukrainian wheat exports have grown significantly to Asian and African countries over the last ten years. This became especially noticeable in the period of 2008-2012. This was, in the first place, due to increased demand for food wheat of medium quality in these countries. And, in the second place, a considerable reduction in freight costs as a result of the global crisis, giving nice chances for Ukrainian exporters to open up new markets, for instance, those in South-East Asia.

This same period saw reduction in exports to the EU-27 countries. This may be due to the export quotas for low and medium quality wheat, which have been in force in the EU-27 since 2002. Exports to the CIS countries have been insignificant.

The problem of low quality of grain puts the immediate problem of finding ways to improve the efficiency of the grain industry in production and export as for the development of new market segments with a high level of effective demand.

In world, grain-processing development has the following trends, which are considered for the development of efficient industry of grain processing in Ukraine.

First, the raw material for grain processing develops towards optimization, standardization and large-scale. Grain processing development should have rich and high quality raw material first. In some areas where grain processing development level is high and the raw material resources are rich, we can establish some production bases and make them realize standardized planting and large-scale planting. We should build our own raw material structure for grain processing industry, optimize domestic grain planting industry and pay more attention to the grain optimization and specificity.

Second, grain-processing development makes low-cost labor intensive industry have moderate development. Small grains planting belongs to labor intensive industry, which has low yield per unit, and is not conducive to mechanized

production. According to the current situation of our country, grain processing industry still needs the moderate development of labor intensive industry within short period. Only by this, can it reduce the negative effect of small scale caused by shortage of funds and technology.

Third, grain-processing development is also embodied in grain deep-processing products development. It requires us to win the market by quality and excellence. We should make more efforts in grain-deep processing and additive value adding and develop new products and new technology in health care grain food processing.

Fourth, grain-processing development pays more attention to the free-pollution of the grain food production. Meanwhile, in Ukraine, grain does not contain transgenosis ingredient, which the developed countries are generally worried about. This provides good basis for grain processing development.

In the end, grain processing development makes the grain food enterprises gradually establish modern enterprises system. We should establish modern enterprises system and improve our international market competition by introducing advanced technology and management experience and improving our management level and the producers' quality.

The most effective solution in this way is a complex and deep processing of grain, which is to separate the grain on the important parts of the components and their further use. This is due to the fact that because of its chemical composition grains are an excellent raw material within the objectives of deep processing [5].

The technology of deep processing of raw grain is to divide it into three main fractions:

1. The protein fraction;
2. Starch fraction;
3. Cellular tissue or cellulose fraction.

The current technology for the processing of grain directed mainly to the selection of the other main components, and then uses the protein fraction. One of the most significant product release protein fraction of wheat is the gluten (known overseas as the «vital-gluten»). Its value to date on world markets is $ 1,500 per ton.

The use of dry wheat gluten allows adjusting the quality of raw materials, improving product quality, and in many cases, reducing production costs. Gluten was first obtained from wheat kernels in 1845 in England. Currently, the International Association of wheat gluten made about 90% of the total amount of gluten in the world. Natural wheat gluten recognized as safe (GRAS №21 CFR p.184.1322) for use as a protein fortifier flour, natural filler, stabilizer and binder, and is fully compliant with the Code FAO / WHO Committee «Expert on Food Additives,» the World Health Organization. Natural wheat gluten is protected by the Code standards wheat gluten and approved for use by most countries around the world [1].

Main areas of its application:

- Flour milling industry;
- Baking industry,

• Food industry is production of meat, dumpling dough and substitute milk protein;

• Feed mill industry is pet food, fish food (fisheries).

In developing the technologies of deep processing of wheat is not necessary to take into account, that one of the characteristics of wheat starch is split of starch into two classes are A starch and B starch [4].

A starch is 15 - 20% of the total, with granules of 2 - 15 microns, is very dirty pentosans, fiber, lipids (fats) and proteins. This type of starch should be used for the production of ethanol. A starch, with grain size of 20 - 35 microns, much cleaner, its characteristics it is not inferior to the cornstarch, which is considered the high quality. During the processing of these two types of wheat starch obtained separately, and it is clear that they are re-mixing illogical. The most promising is to use starch for manufacturing A sweeteners, primarily glucose-fructose syrup. At the same time, A starch can be used for producing various kinds of innovative products. For example, starch obtained from lactic acid, from which in turn can be obtained a product with high added value, as lactate [2].

Ethyl lactate is a derivative of lactic acid. This environmentally friendly solvent that is not produced in the CIS countries and in some characteristics superior to traditional solvents produced from petroleum. Modern scientific research can produce lactate low cost. Thanks to new technologies lactic acid fermentation, separation and conversion of ethyl lactate production cost dropped to $ 0.6 / kg, at an average cost of solvents $ 1.5 / kg. Lactate can replace conventional solvents in 80% of all applications.

Thus, the grain deep processing opens new frontiers of potential resource providing for food industry.

The development deep grain-processing production in Ukraine is worth of implementation due to the following factors.

• World lysine market totals USD 3,9 bn and annually grows by 7% on average.

• World gluten market totals USD 1,8 bn with annual average growth rate of 4%. World starch imports are USD 3,4 bn.

• Share of lysine in total basic amino acids consumption in the world amounts to 60-70%.

• Lysine is entirely imported by all former Soviet countries, thus building the plant will be import-substituting.

• Capital expenditures for the project may total around USD 175 mn with profitability of 17% and IRR app.15%.

The market background of Ukrainian industry can be described by the following data:

• Demand for lysine in Ukraine in 2012 totaled around 15 thou t (USD 27 mn), gluten – 1,1 thou t (USD 1,7 mn), starch – 10,2 thou t (USD 6,3 mn).

• Imports of lysine in Ukraine in 2013 totaled about 15 thou t (USD 27 mn), gluten – 1,1 thou t (USD 1,7 mn), starch – 10,2 thou t (USD 6,3 mn).

• Demand for lysine in Ukraine is projected to reach 22 thou t by 2018.

Global opportunities of market development characterized by the following indicators:

• Global lysine market totaled USD 3,9 bn in 2013, gluten market – USD 1,8 bn.

• World's starch imports totaled app. USD 3,7 bn in 2013, annual average growth rate was 9,1%.

• Annual average growth rate of global lysine market is 7%, gluten market – 4%.

• World lysine market is projected to reach USD 5,9 bn by 2018 with annual average growth rate of 9,1%.

• World gluten market is projected to reach USD 2,1 bn by 2016 with annual average growth rate of 4%.

• World starch market is projected to reach USD 6,1 bn by 2017 with annual average growth rate of 12,4% [3].

In 2013, the volume of Ukraine's gluten market approximated 1 KMT in natural terms. Market participants estimate that the Ukrainian market can potentially consume up to 40 KMT of gluten a year. The Ukrainian gluten market still features total dependence on imported products that come mostly from Russia and China. The reason is the absence of own production.

The development of the market of deep processing of grains and oilseeds is one of the strategically important priorities of the future agricultural business in Ukraine. Positive results of investing into this sector could be:

• rising demand for products that are in great demand by a number of sectors of the food industry in Ukraine (confectionery, bakery, dairy, compound feed, brewing, etc.), as well as a biopolymer, the paper sector;

• partial shift from exports of raw materials to export of products with high added value;

• the creation of incentives for the development of grain-processing industry, which reached the upper limits of domestic markets of flour and cereals;

• an increase in income of farmers in the face of increasing competition for raw materials.

Conclusions. Ukraine offers high-quality wheat at the most competitive prices in the world. Steadily high production allows planning trade relations on a medium- and long-term basis.

Planted acreage is unlikely to expand. In the medium-term outlook, there is a potential for a rise in wheat yields and, correspondingly, total crops if investment is made in inputs (plant protection, fertilizers, seed etc.). Despite increasing production costs, Ukrainian grain remains highly competitive.

Wheat from Ukraine enjoys persistently strong demand from the world market. The quality of Ukrainian wheat in many respects depends on weather conditions. The global trend towards a warmer climate leads to a larger portion of high-quality wheat in the crop. Lately, dry years are more and more frequent in Ukraine that will contribute to an expanding crop share of highprotein wheat. Wheat with 14%+

protein currently accounts for less than 0.5% in both production and exports.

Possessing a sufficient wheat processing capacity, Ukraine has a high flour export potential. The positive trends of the recent two or three years include an expansion of flour export volumes and destinations.

We are confident in the efficiency and potential of deep processing of grains and oilseeds in Ukraine (starch, wheat gluten, glucose and fructose syrups, lysine, lecithin, glycerin). Investment in this area could be highly effective because of persistently strong demand and the absence of domestic production.

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USING OF THE PRINCIPLES OF HARMONY WHEN PLANNING WORKING HOURS OF THE MANAGER

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The creative nature of administrative work opens great opportunities for self-organization of personnel of management personnel thanks to self-education and acquisition of qualities, necessary for effective activity (self-discipline, concentration of attention, memory, endurance, etc.), for development of individual plans of work for each working day, week, month, year, improvement of the organization of a workplace and so forth. If there is no strictly deliberate plan, activity of the head and expert as response to the signals arriving often has chaotic character, completely submits to the course of external events.

Difficulties of planning of administrative work consists that it is impossible to program in detail in advance all future works as heads and experts daily appear in unusual situations. However, planning allows to systematize work, to carry out conscious and purposeful creation of labor process, to develop a habit of careful attitude to a factor of time, the rational mode of work, in advance to prepare for performance of these or those operations and by that to save time for «entry» into work. Besides, it facilitates control and self-checking of the course of administrative operations, operational assessment of a contribution of each worker to the solution of an objective [1].

The main question connected with job management of the manager is proper management of own time and in order that it is effective to plan, distribute and use it, it is necessary to estimate objectively the opportunities and to accurately represent the purposes which shall be reached. The head, planning the work, shall consider the factors determining effectiveness and rationality of mental work and the principles of management of personal fund of time. It is also necessary to remember that the efficiency of use of personal fund of time depends generally on management style and methods of job management.

Results of researches on the organization of work of modern managers don't leave doubts that the most part of time it is devoted to the activities initiated by line managers [2]. The typical manager works very intensively, but unevenly, carrying out a large number of operational tasks and making spontaneous decisions. However actually it shall function in network of interdependence and also care about the correct relations not only with heads, but also with subordinates and people outside the organization.

At work we carry out nearly a third of the life. Eight hours are it seems and

many, however, an impression is often made that time goes, and what we didn't manage to make becomes more and more. In such situation it is necessary to dissect critically the organization of the work and, perhaps, to review certain habits.

The correct self-management is extremely important as it allows to use rationally time, devoted to professional career and private life irrespective of that function which the person performs in the organization. The productive organization of working hours consists in providing the most useful use of time in working hours.

The rational organization of the working hours is an ability which can be developed through forming at itself certain skills, such as:

- writing of the list «that needs to be made»;
- creation of the schedule and use of a planning;
- determination of priorities and ranging of tasks on importance of accomplishment;
- authority delegations subordinate;
- use of mobile applications, reminders and so forth.

For productive planning of working hours' managers can use the following main methods and rules:

1. Establishment of the purpose. The most important factor of the rational organization of the working hours is establishment of the purpose. Determination of the purpose allows choosing the shortest way of its achievement. Without accurate vision and understanding of the purpose we can perform a set of unnecessary work which only exhausts our resources and doesn't bring closer us to success.

It is important to have answers to the following questions:

- what do we want to reach?
- for what do we want to reach it?
- how to reach it?

We can divide the purposes on different categories:

- official; general; long-term (strategic);
- hidden; detailed; short-term (operating rooms).

Establishment of long-term goals is important for observance of the accepted direction of development, and short-term objectives allow to carry out daily tasks. Analyzing the purpose, we have an opportunity to estimate its appeal, usefulness and necessary resources which we shall have at the order for its achievement.

In case of establishment of the purposes it is recommended to use the principle of SMART. SMART - the abbreviation in English, literally means «intelligent». By this principle organizational goals are correctly formulated shall meet the following requirements:

- specific - to be specific, not general;
- measurable - to be measured;
- acceptable - to be not contradictory, approved, interconnected, corresponding to the strategy of the organization;
- realistic - to be achievable, such which don't exceed opportunities of the

organization;

- timely defined - to be oriented in time.

2. Eisenhower's principle (Eisenhower's matrix)

Dwight David Eisenhower's rule allows to organize own work in the correct order. Daily tasks can be organized according to two criteria: importance and urgency.

The urgency means that time of task performance is limited to specific date in the calendar. These are also things which need to be made quickly, immediately.

Importance of case is a priority in our vital activities, matters for our development, health, the major questions connected with achievement of the objects set by us.

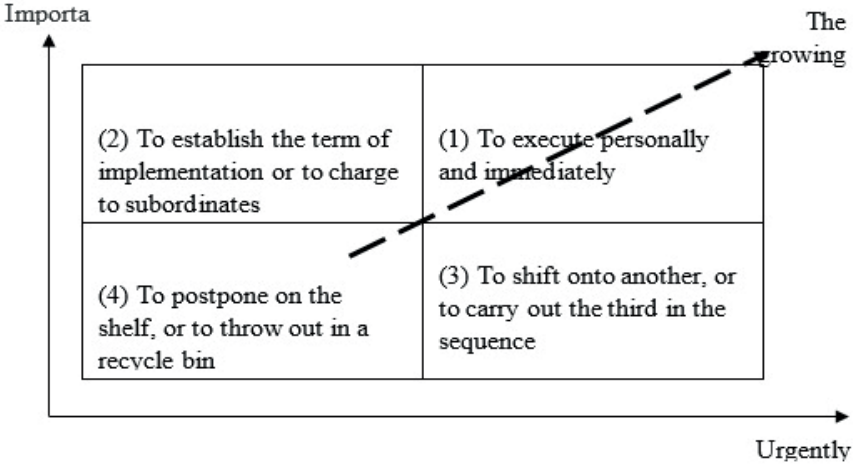

Fig. 1. Eisenhower's matrix

- important and urgent task (1) which should be executed personally and immediately (for example, preparation for tomorrow's performance before a management);

- important, but (2) task which can be delivered to the second in a queue or charge less urgent to assistants (for example, to send the message on a meeting next week);

- tasks unimportant, but urgent (3), it is necessary to shift onto someone another, or to carry out the third in the sequence (for example, adoption of invoices in which the payment due date comes to an end);

- tasks unimportant and not urgent (4) to throw out to the shopping cart for garbage (for example, viewing of the submitted applications which aren't connected directly with tasks of an organization unit).

3. Determination of priorities by means of ABC analysis.

ABC analysis is a group of tasks which face us, on degree of their importance, for the purpose of implementation of those which shall be really executed. It is suitable for planning of activities during the working day though sometimes it is applied also to the long-term period.

- Type A - the major tasks - those which you shall execute - constitute about 15% of all tasks and actions for managers. However, their share in achievement of effective objectives constitutes about 65 %.

- Type B - rather important tasks - those which need to be executed - constitute about 20% of all tasks, their cost also constitutes 20 %.

- Type C - less important tasks - those which you can execute but only after completion A and B – 65 % of all tasks, and their share in achievement of effective objectives constitutes only 15 %.

4. Rule 60:40.

According to this rule, managers shouldn't plan all the time of the working day, they have. Distribution of time shall consist of three blocks:

- about 60 % of time shall be accurately planned;

- for, about, 20 % of working hours the time allowance for unforeseen actions (actions which can't be planned) shall be created

- other 20 % - as a time allowance for spontaneous actions (managerial tasks, time of creative activity).

5. Pareto principle (rule 80:20).

The Pareto principle which is usually called the rule 80:20 is that if to estimate all actions according to their effectiveness, then 80% of result are yielded by 20% of actions whereas the remained 20% of result can be received from 80% of actions.

Most of people are sure that all their actions which they do for achievement of effective objectives are equally important. However, it not so. Not all phone calls are equally important, not all clients are equally valuable to the company, not all workers make an identical contribution to its development.

What does it mean:

- only during 20 % of time spent for a certain type of activity 80 % of results are achieved;

- unlike it, 80 % of the spent time give only 20 % of general effectiveness [3].

6. Parkinson's rule

According to this rule, the event will last so much, what is the time we on it will take away. If we plan that holding a meeting will continue hour, then usually they will end in an hour even if the objectives were achieved earlier. It is because we are inclined to continue actions to make an impression that we manage time. This rule concerns activities for the term of accomplishment of which we have influence.

It is the law which it is equivalent underestimation and revaluation of time for task performance concerns. Accomplishment of tasks continues directly in proportion to time, intended for this task.

7. ALPEN method

It is used at the beginning of every day by preparation of the schedule of day and takes about 15 minutes. ALPEN is an abbreviation of the German words:

1. Aufgaben - constitute the task list, planned for a certain day.

2. Länge schätzen - estimate duration of accomplishment of these tasks and count the general time necessary for their implementation.

3. Pufferzeiten einplanen - plan the sequence of accomplishment of tasks, remembering the rule 60:40, that is leaving time for unforeseen things. Plan only 60 % of the time, or 5:00 from 8-hour working day.

4. Entscheidungen Treffen - establish priorities and delegate accomplishment of tasks, using Eisenhower's rule or ABC analysis. Don't forget to charge to subordinates accomplishment of tasks which aren't strategically important for you.

5. Nachkontrolle - execution control. To this day transfer tasks which didn't manage to be realized next day.

Of course, not directly and not all stated above methods of the organization of own time the manager can implement in the activities, but it is always worth trying them to adapt for certain situations [4].

So, to Lothar Seiwert, the head of Institute of time management in Heidelberg, Germany, the trainer time management offers ten rules of the organization of working hours [5].

Plan wisely. When scheduling per day, write down not only the main, important issues which should be made, but also small which need to be made this day. Estimate, each work what is the time will borrow.

Don't exceed the opportunities. Plan only 60 % of time. Another 20 % obligatory it will be devoted unpredictable by a task, and other 20 % should be allocated for communication and creative thinking. Too firm plan demotivates because directly it becomes clear that some tasks and will remain outstanding. It is better to constitute the realistic plan and to exceed it, than to be irritated because you aren't in time.

Be concentrated on important tasks. In urgent questions only react, and in important - act. Don't come across in a trap of statements that everything is urgent. Be concentrated on the purposes. Organize work according to your priorities and don't spend time for foreign problems. If it is possible, begin with the most important, or unpleasant task. Be concentrated on one task and finish it.

Consider a biological rhythm. Carry out difficult tasks in the period of the greatest psychophysical activity (usually it in the forenoon). The second half of day can be devoted to routine work, or work with documents.

Do pauses. Breaks isn't waste of working hours as they allow to increase performance. Doctors recommend 10 minutes breaks after each working hours.

Concentration time. Every day allocate yourself certain time when you work with completely concentrated - without meetings, without answers to calls or e-mails.

Delegate tasks. During acquaintance with each task check whether other people can execute it.

Observe an occupational health. You shall eat enough with healthy food and care for rest (sports activities, cultural entertainments, time spent for family).

Care for concentration. You can listen to music, walk and do everything that serves achievement of your purposes.

Pay attention to warning signals. When you feel overloads, slows down speed. Resolve simple issues, ask for suggestions colleagues.

Summing up the results, it is necessary to pay attention that different researchers a question of effective job management of the manager, describing the most known methods and rules planning of working hours, suggest to use the main principle of harmonization of systems, or the rule of «golden ratio», allocating 62 % of time for accomplishment of obligatory tasks and 38 % - for unforeseen and spontaneous actions, that is a ratio which was revealed as a result of empirical researches. Certainly, in the provided material they specify more generalized proportions, such as 60 % : 40 %, or 60 % : 20 % : 20 %. Concerning the last ratio, it, bringing closer to harmonious proportions, it is better to write down as follows: 62 % are the time planned for accomplishment of a main type of work, 24 % - time which will be spent on contingencies and 14 % - it is that part of working hours of the manager as it most likely will be able to spend for communication and creativity. Establishment of a ratio between separate elements of system in the proportion close to a proportion of golden ratio is manifestation of action of objective processes which according to neoclassical models of production functions received the name of the principle of automatic self-regulation of economic systems.

The principle of harmony is considered as the main rule of creation (transformation) of difficult systems according to which in the ratio parts of whole the harmonious proportion remains [6; 7; 8; 9].

Conclusions. Content of a harmonious proportion as quantitative measure of harmony of any systems consists in the following: whole it is possible to present the amounts of two unequal parts (0,618 and 0,382) between which ratio is considered harmonious in the form. The procedure of comparison of certain actual parameters with the same parameters, the considering proportions of golden ratio is the cornerstone of the concept of harmonious management.

The paradigm of management of harmonious development provides forming of the mechanism of establishment of proportions of «golden ratio» to the greatest number of interrelations between separate elements and subsystems at various levels of management for the purpose of ensuring the greatest possible stability of system in general. Constructed on the principles of harmonization our further researches will be devoted to identification of the existing parameters of these interrelations and development of methodology of management in various sectors of economy.

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THE ATTITUDE OF SMALL- AND MEDIUM-SIZED ENTERPRISES TOWARDS CREDIT FINANCING IN HUNGARY, BASED ON THE FINDINGS OF QUESTIONNAIRE RESEARCH ENGLISH

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Financing SMEs has been the topic of many a research for a long time. The economic slump made a significant deterioration in the state of affairs, and further complicated the standing of the sector, which wasn't too good to begin with. The relative credit financing volume before the slump also made the SME sector a bit more brave, they turned to credit financing denominated not only in domestic, but foreign currency as well (most notably CHF and EUR), most of which were long-term. The economic complications due to the slump made a huge decrease in currency rates, which in turn caused liquidity problems for enterprises. However, the sector is significantly conservative in terms of foreign financing sources. Based on the experiences in the last few years, the classic bank financing is preferred mainly for investment and current asset financing, and we can see less people touching sources like factoring, forfeiting or leasing.

The reason for this is often found in the lack of knowledge, and the conservative perspective. The importance of trainings and further education can also be stressed here to improve Hungary's financial consciousness (Bárdos et al., 2014). The foreign currency loan boom before the economic slump caused the scepticism towards innovative bank products to be even more pronounced, which further intensified the advantages of classic loan forms. Based on the asset capital they have, we can say that the Hungarian SME sector is lagging behind, which raises the question: are investments necessary? The value of investments is important for economic growth as well, which was correctly perceived by the Hungarian economy management when the Hungarian National Bank piloted their Growth Financing Programme (about GFP: Lentner, 2017). Project financing is excessively useful for financing investments above a certain size, which is scarce in Hungarian enterprises, mainly due to a lack of ideas and support. The goal of this study is to either state or deny the critiques against the Hungarian SME sector, introduce the different attitudes towards foreign capital resources, and the most preferred types of capital, all based on the results of a questionnaire, while stressing the details of sources, based on the type of entrepreneurship and economic data. In the study, we

will look at the importance of project financing in detail as well, seeing its usability in the Hungarian SME sectors' value perception's perspective. Furthermore, we'll also introduce additional, but important source types for financing investments - like leasing, or receivable purchasing.

Literature overview. Small- and medium-sized enterprises are dominant in the enterprise field in any country, including Hungary (Lazányi, 2014b), where SMEs had to face special problems (Lentner and Andrassy, 2006, Pallás-Varga, 2014). Regardless of the SME sector lagging behind huge conglomerates both in productivity and in competitiveness, they produce most of the employment, and the most notable share within the number of enterprises (Lazányi, 2014a; 2015, Li et.al. 2016). One of the usual critiques aimed at the sector is that they're incapable of quick and dynamic growth, and fluctuation is relatively high, which means many entrepreneurships are formed and discontinued in a swift pace. Furthermore, their realised investments are scarce, due to lack of funds - which may be the most important reason as to why they can't realise projects, apart from time constraints, project volume, and relevance of the leader's information (Gábor - Gácsi - Gál - Zéman, 2015).

Many a research proved that the SME sector has less notable financial awareness, when compared to larger conglomerates, but another fact is that the chance they obtain sources is also severely limited. This is most true for formal financial sources (Beck - Demirguc-Kunt, 2006). This all is further supported that their financial knowledge is also often full of holes (Harangozó, 2015), which causes their capital structure to depend heavily on banks. The Hungarian SME sector, more precisely, the various groups within it (f. e. municipality-owned enterprises, agrarian enterprises) were subjected to deep analysis by many (Hegedűs, 2016; Hegedűs-Zéman, 2016, Zéman, 2016, Lentner, 1998., Lentner – Szigeti – Borzan, 2007, Lentner, Cs. 2014). The slow advancement of modern financing forms is important, as the Hungarian SME sector also has long average procurement times and relatively high amounts of receivables, apart from the general lack of capital (Bereczk, 2011; 2013), and managing these more safely can also be done via methods beyond bank financing sources.

Financing SMEs was mostly expansive before the economic slump struck (Balog - Nagy, 2014), which was pushed back after it hit more and more. This situation became even worse in the first half of 2013 (Fábián, 2014).

Due to the sources of financing clogging up, the sector had no other choice than to rely on transport financing, and in case there's a lack of it, short-term loans, however, there are areas and sectors in the economy, where conservative financing still prevails (Baranyai et al., 2012). This situation was improved by the Growth Financing Programme of the Hungarian National Bank, which offered loans to the SME sector - which had endless trouble with financing anyway - with small interest rates. Other literature sources (Antal - Pomázi, 2011) also prove that financing has a crucial role for the restricted growth potential of SMEs - in other words, their

scarce opportunities to obtain sources (Borzán, 2015), and the price paid for it is often high. However, if there's a lack of sources, the sector is incapable of growth , which is completely proven by the years after the slump. The financing of the SME sector was analysed by many a research. They also attempted to evaluate it from the perspective of development and economic growth (Ahmed, 2013; Bumann – Hermes – Lensink, 2013; Liu – Hsu, 2006; Shahbaz – Khan – Tahir, 2013;). These studies looked at the topic from multiple aspects, from the financial opening, liberalisation, to the effects inducing economic growth via the sector's financing.

Financing the enterprises is described in two ways in textbooks and literature sources. On the one hand, we differentiate between inside - meaning those procured from within the enterprise's operation, its existence - sources, and outside - outside the boundary of the enterprise, f. e. the currency and capital markets - sources. On the other hand, between short-term - within the year - sources, and long-term - beyond the year - sources. Integrating these sources into the enterprise's management, finding their rates, these things interest experts dealing in the topic to no end. However, one thing is for sure: there are no declarable ratios for either source pairs which can be explicitly used for all enterprises in the given sector and economic size. Smaller enterprises use different sources, and structures - they don't want to, or can't grow, due to the financial anomalies - and differently aged enterprises also differ in this regard, as their experiences and enterprise connection systems can allow them to obtain different types of sources (Cabra - Mata, 2003).

The Hungarian SME sector was criticised numerous times in the past, and is still criticised due to their dependence on financing. However, we must also mention that apart from financing, their competitiveness and strategic management can also considered to be often low-key (Varga - Csiszárik-Kocsir, 2016) (Lentner, Cs. 2015). The connections of the Hungarian SME sector on the capital market are weak, since that mainly deals with share financing and credit financing. All these have a significant effect on the financing strategy employed (Csiszárik-Kocsir - Varga, 2015, Zéman et.al, 2016). Share financing doesn't come from the capital market, but is assigned to the enterprise during the establishment, meaning it can only be used for financing operations within limits, if at all. Based on the records of the Hungarian National Bank, we can reaffirm what has been said. If we look at the financing of non-financial enterprises from 1995, we can see that it excessively depends on: loan-, share- and other financing forms, like leasing, and factoring, as we can see on the following illustration.

The goal of this study is to introduce the state of financing within the Hungarian small- and medium-sized enterprise sector, its attitude towards sources based on the results of a questionnaire, and to either support or deny its dependence on bank financing.

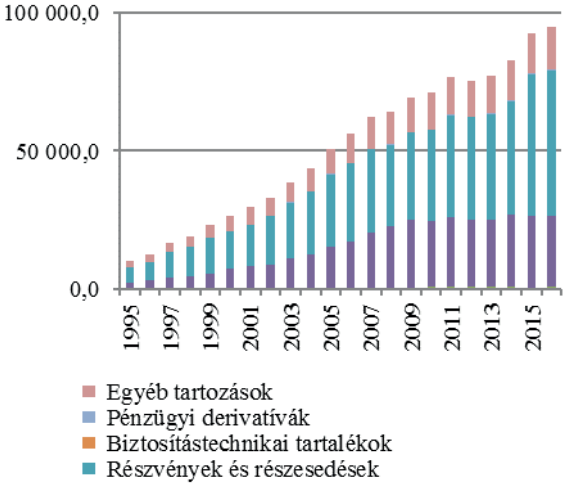

Figure 1: The structure of the Hungarian non-financial entrepreneurship sector's liabilities, non-consolidated, based on year end data
(B: Monetary gold and SDR, G: Securities of credit financing, LB: Shares and Equity investments, V: Financial derivatives, Br: Cash and Deposits, P: Loans, O: Insurance reserves, Pe: Other payables)
Source: self-made, based on HNB data, 2016

Our quantitative research was a national questionnaire, which was conducted between 2013 and 2015. We originally wished to include 500 entrepreneurships (small) in the research, of which we managed to question 491. At the time of the questionnaire returns, 413 were fit for the analysis, in terms of the topic we researched.

We conducted the research using a self-made, pre-tested standardised questionnaire, in written format. The questionnaire didn't include any open questions (where the answerers could describe their answers in their own words), in order to exclude factors influencing the results of the sample for better evaluation rate. Furthermore, we were also not negligent in excluding questions which would reduce, or inhibit the answerers' initiative to answer, and we explicitly strived not to harm their personal rights. We wished to have questions, which were either not, or not completely analysed in daily media answered, which was to build the basis mainly on the personal opinion of our answerers, and their experiences.

In this study, we analysed the part of the questionnaire which deals with the credit financing of entrepreneurships in the sample, most notably the most preferred methods, and the interconnections, which can be seen after analysing the sample ownership, form of establishment, and balance sheet and result data.

We used the SPSS (Statistical Package for Social Sciences) 19.0 and the

Microsoft Office Excel 2007 programs to process the questionnaire. We didn't send the questionnaire to our answerers in printed form, but used Google's online solution. The sample's structure can be seen in the following illustration. The sample mainly consists of entrepreneurships below 50 employees (more than three-quarters), which are Co. Ltd. form, and almost exclusively in domestic ownership.

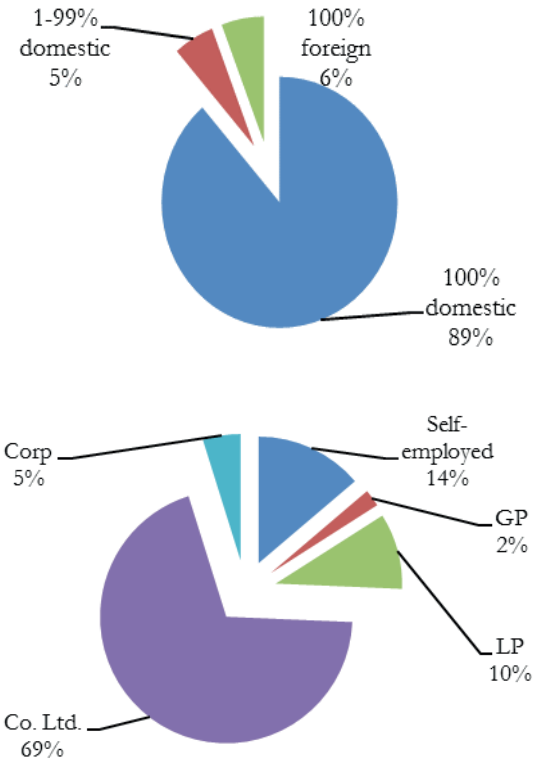

Figure 2: Analysis of the sample, based on ownership and form
Source: self-researched, 2013-2015, N=413

The sample also shows an interesting picture in terms of balance sheet and result data. Most of the sample are made up of entrepreneurships which have less than 50.000.000 HUF income (left), balance sheet total (middle) and earnings after taxes (right), which means our conclusions mainly refer to the SME sector.

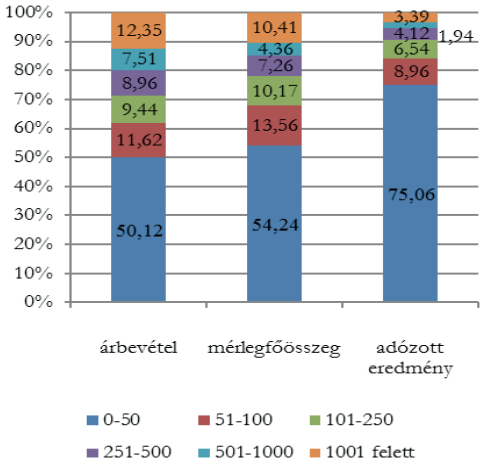

Figure 3: Analysis of the sample based on income (left), balance sheet total (middle) and earnings after taxes (right) (in million HUF)
Source: self-researched, 2013-2015, N = 413

The domestic SME sector is often criticised for its dependence on banks for financing. The actors of the domestic entrepreneurship sector mainly have no active capital market connections, and don't try to issue bonds, as they have no professional and capital market background to do so. This is why corporations and entrepreneurships turn towards banks, and obtain credit financing, turning it into capital when they need sources. In case the bank isn't enough, they even often get trade loans, depending on the agreement they have with the trade partner, but sadly, we can often see the less ethical form of this in practice, which is commonly known as a debt circle.

We can say about the financing of the 413 entrepreneurships in the sample, that it's extremely dependent on bank credit financing. Issuing bonds wasn't used in recent years by 96,1% of the entrepreneurships. Those that did issue bonds at least once before are mainly corporations (wherein four entrepreneurships issued bonds more than six times), and Co. Ltd. entrepreneurships, but only a few. If we take a look at the popularity of bond financing based on form, we can say that 98,9% of domestic ownership entrepreneurships never dabbled in it at all. Entrepreneurships with mixed ownership like bond financing a bit more, 39,1% of them did use it at least once, but even 12,5% of completely foreign owned entrepreneurships did so as well. If we analyse the sample based on income, balance sheet and earnings after taxes, we can see that only the entrepreneurships with the highest values did so.

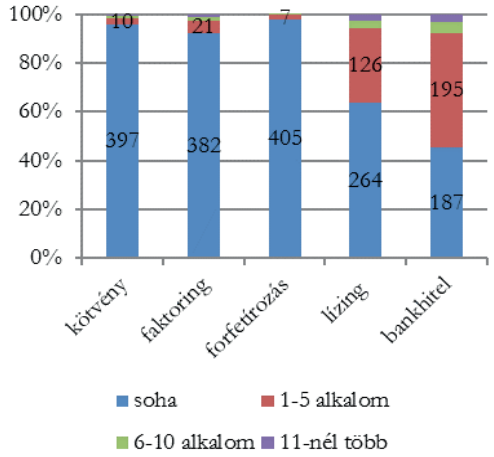

Figure 4: financing forms and their usage frequency for the entrepreneurships in the sample
(L-R: bond, factoring, forfeiting, leasing, bank credit financing)
(B: never, R: 1-5 times, G: 6-10 times, P: more than 11 times)
Source: self-researched, 2013-2015, N = 413

The option of factoring is becoming more and more popular as a financing form, based on known and collected data. However, 92,5% of the entrepreneurships in the sample never tried it, based on their answers. The highest ratio of this form could be seen in the case of corporations (45%), but few of the Co. Ltd. entrepreneurships also used it. If we look at ownership, we can see that it's the most popular for mixed entrepreneurships (26,1%). In the case of purely domestic owned ones, only 9 (5,9%) tried it, but purely foreign entrepreneurships didn't use it much either (16,7%). Based on income, it's obvious that the highest value entrepreneurships use it, similarly to bond issuing (8,7% and 33,3%), and the situation is the same for the balance sheet (17,6% and 29,5%) and earnings after taxes (14,3% and 21,4%).

In the case of forfeiting, the picture is even more pivotal. 98,1% of entrepreneurships never tried this type of financing. It did happen a few times, but it was only more used by corporations (10%), and mixed ownership entrepreneurships (17,4%). In the case of income, balance sheet and earnings after taxes, the picture isn't clear, but we can say that once again, entrepreneurships above 1001 million HUF are the ones that gain capital using this method.

Based on the opinion of the entrepreneurships in the sample, we can see that leasing is a more popular form compared to the other three, since 36,08% of the entrepreneurships used it at least once, but often more than once. The chart below shows the share of entrepreneurships that never tried this method, based on the segmentation factors.

Form		Owned		Income		Balance Sheet		Earnings after taxes	
SE	82,5%	100% domestic	66,4%	0-50	80,6%	0-50	80,9%	0-50	69,9%
GP	44,4%	1-99% domestic	39,1%	51-100	60,9%	51-100	50,0%	51-100	57,1%
LP	77,5%	100% foreign	50,0%	101-250	51,3%	101-250	38,5%	101-250	32,0%
Co. Ltd	62,0%			251-500	40,5%	251-500	51,7%	251-500	62,5%
Co	20,0%			501-1000	54,8%	501-1000	52,9%	501-1000	57,1%
				above 1001	33,3%	above 1001	34,1%	above 1001	35,7%

Chart 1: ratio of entrepreneurships that didn't use leasing
Source: self-researched, 2013-2015, N = 413

Form		Owned		Income		Balance Sheet		Earnings after taxes	
SE	52,6%	100% domestic	47,3%	0-50	60,7%	0-50	60,0%	0-50	51,3%
GP	33,3%	1-99% domestic	26,1%	51-100	37,0%	51-100	34,0%	51-100	48,6%
LP	50,0%	100% foreign	33,3%	101-250	43,6%	101-250	33,3%	101-250	12,0%
Co. Ltd	45,6%			251-500	24,3%	251-500	31,0%	251-500	25,0%
Co	15,0%			501-1000	16,1%	501-1000	11,8%	501-1000	14,3%
				above 1001	25,5%	above 1001	22,7%	above 1001	21,4%

Chart 2: ratio of entrepreneurships that never loaned from banks
Source: self-researched, 2013-2015, N = 413

As we can see on the chart above, leasing is quite the popular form of financing for both corporations and Co. Ltd. entrepreneurships, but surprisingly, GPs also used it often, which can be regarded to their small number in the sample. Based on ownership form, we can see that once again, mixed and foreign entrepreneurships prefer this form. And based on balance sheet and result data, we can see that as income, balance sheet and earnings after taxes increase, the popularity of leasing follows suit.

Based on the chart above, we can clearly see that bank credit financing is the most popular form of financing, which supports the criticism often aimed at the sector's entrepreneurships that the SME sector of Hungary is highly dependent on financing, which causes its financing to also be dependent on banks, not determined by the capital market. Merely 45,3% of entrepreneurships said that they never used this form to obtain capital, which means 54,7% of the sample did so. The chart

below - similarly in the case of leasing - lists the ratios of entrepreneurships that never loaned from banks.

We can clearly see on the chart - bank credit financing is highly popular, no matter the segmentation factor. There are barely any corporations or conglomerates which doesn't have at least one loan. As we can see, non-limited entrepreneurships are a bit more careful, which can be seen for self-employed and corporation entrepreneurships (in the case of GPs, they also have a high amount of entrepreneurships which have a loan, but this is obviously caused by how they're not represented all that much in the sample). We can also see that domestic owned entrepreneurships are also more careful, similarly to those that have an income, balance sheet and earnings after taxes below 50.000.000 HUF, since the segments listed before are usually identical. However, based on the chart, we can say that larger conglomerates, and Co. Ltd.-s are highly dependent on bank credit financing, and often use it as well.

After this, we analysed the loan source structure of the entrepreneurships as well. As we can see on the illustration below, entrepreneurships only have a few preferences in the case of loan source types used. They have more current asset and investment loans, and also use open appropriation. They also obtain development loans to modernise their current assets, but scarcely ever use project financing and revolving credit loans. This all shows that the entrepreneurships in the sample are not open to new forms, and instead favour traditional forms of loans.

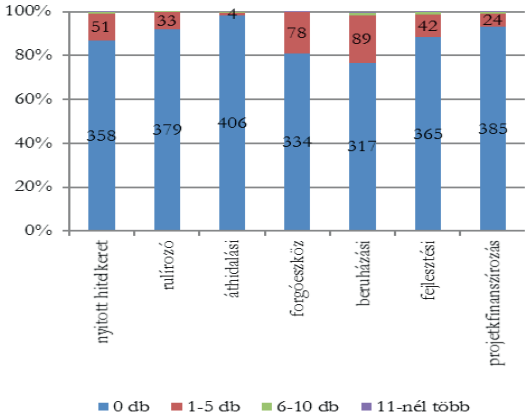

Figure 5: Frequency of using foreign capital for the sample's entrepreneurships (L-R: open appropriation, revolving, bypass, current asset, investment, development, project financing)

Source: self-researched, 2013-2015, N = 413

Conclusions. As we can see from the analysis above, the domestic SME sector's financing was unable to dismiss the criticism formed against it earlier. The sector is gravely dependent on outside sources, and within these sources, loan-type

ones dominate. As alternative solutions, they also use leasing financing as well, but only apply it in a limited fashion. Even within loan sources, they prefer traditional, classic forms, and base on the well-established bank connections.

However, expanding the sector's financing palette is a key question for the dynamism of economic growth. Since SMEs are dominant within their sector, as far as their numbers go, their financing has to catch up as well. We have to make enriching the sector's financial knowledge and culture a main goal for the future - but this needs the partnership of the financial sector. Based on this, the challenge of the future is not to expand personal financial culture, but the corporate financial knowledge as well, which will pose a significant challenge both in Hungary, and around the globe.

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IMPROVEMENT OF THE PUBLIC ADMINISTRATION MECHANISMS IN THE SYSTEM OF FINANCING SOCIAL PROTECTION OF CITIZENS IN UKRAINE UNDER THE CONDITIONS OF THE MARKET ECONOMY

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Social protection of the population is one of the most important indicators of the development and functioning of the state in the modern world. Financing of social events is one of the main items of the budget expenditures of any country, since any transformations are aimed at the formation of a socially-oriented economy. This issue is especially acute in transformational economies, since stable structural economic proportions have not been established, and the sphere of financing of social expenditures is the most unsettled one. But, despite the fact that in recent years there has been a significant increase in attention to the problem of financial provision of the social sphere, and as a result, a large number of scientific and theoretical developments related to this issue have appeared, the problem of finding sources of funding for social projects is not losing its relevance.

The most vulnerable sectors of the population (children, pensioners and people with disabilities, low-income families and the unemployed persons) are directly under the care of the state. The protection of their purchasing power is carried out by periodic pension review and social assistance review, taking into account changes in consumer prices.

Ensuring the realization of the right of poor families to apply for an effective state assistance is one of the ways to solve social problems, increase the welfare of the Ukrainian families and overcome poverty in the country. Obviously, the state of the funding assistance in accordance with the Law of Ukraine "On State Assistance to Families with Children" and the Law of Ukraine "On Amendments to the Law of Ukraine "On State Social Assistance to Low-Income Families", as well as housing subsidies is in the chain of constant attention of the Ministry of Social Policy of

Ukraine [5; 6].

A significant area of assistance to families with children is the growth of their monetary income from the state aid system. One of the most important elements of this system is the Law of Ukraine "On State Assistance to Families with Children", which, in accordance with the Constitution of Ukraine, establishes a state-guaranteed level of material support for families with children by providing state financial assistance, taking into account the composition of the family, its incomes and the age of children, as well as ensures the priority of state aid to families with children in the national system of social protection of the Ukrainian population [7].

The main goal of social policy in Ukraine at the present stage is to halt the decline in the standard of living of the population. It should be less comprehensive, but more selective and targeted one. The state government should guarantee a minimum of social and material benefits through the implementation of multidirectional mechanisms (See Figure 1).

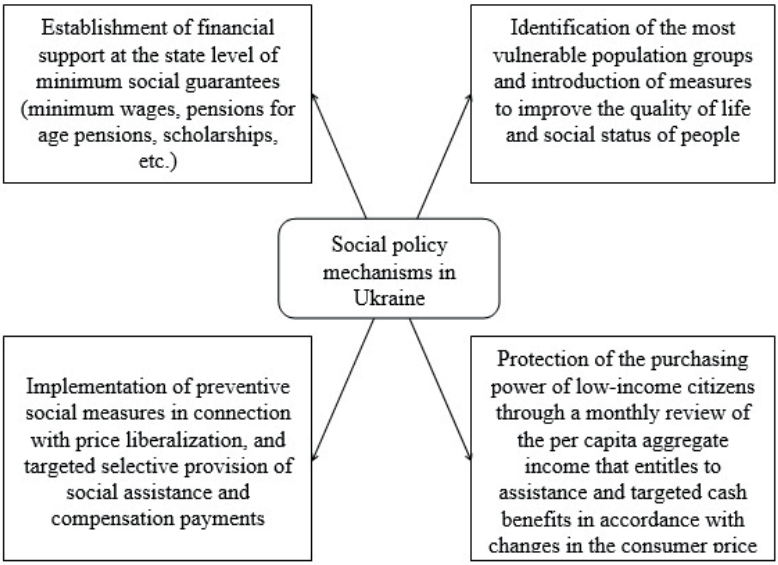

Figure 1. Social mechanisms in Ukraine

Along with the provision of these state guarantees, low-income citizens are provided with other forms of assistance, which are based on the specific conditions and needs of each person. The initiative in resolving this issue should come from local executive bodies, and the financing of activities should be carried out mainly from the local budgets.

The problem of social protection of the population assumes special importance in the conditions of liberalization of rent and utility payments, and gradual increase

in the amount of compensation of actual costs associated with payment for housing and communal services to the population. In this regard, since May 01, 1995, monthly subsidies have been introduced to compensate for these expenditures of the population. For the purpose of assigning and granting subsidies to the population for reimbursing the costs of housing and communal services, special services have been created: grants, benefits and compensation claims.

Every year in Ukraine, the number of single citizens of the elderly and the disabled citizens who have totally or partially lost the ability to work is growing. To provide assistance in the home, as well as medical and social assistance to this category of citizens, appropriate services are created in the social protection bodies of the population in all districts and cities. To implement social guarantees for this category of citizens, it is necessary to expand the network and strengthen the material base of social assistance offices and territorial centers of social services for pensioners and single disabled citizens.

Increasing the level of social services for pensioners, veterans and disabled people requires structural reform of the sphere of social protection of the population.

The existing system that implements state programs of assistance to low-income citizens is in such a state that is not able to meet the growing needs of the population in the social protection system. Today the assistance to pensioners and disabled people, which are considered as the low-income citizens, is provided by social security agencies in Ukraine.

The main aim of replacing the existing benefits system for targeted cash assistance to the population is to implement the principle of targeting social protection, or providing first aid to low-income citizens, eliminating the grounds for netting between executive bodies' budgets and enterprises as service providers, and implementing a balanced size policy of social assistance, taking into account the capabilities of the budget, which ultimately will improve the financial and economic activities of enterprises – service providers, ensure transparency of calculation of budgets of different levels.

Today, benefits to citizens of Ukraine are provided on the basis of 25 laws and other regulations. The system of social benefits was formed during a long period of time, some of them passed with the legislation of the former USSR, while another part was provided by the legislation of the independent Ukrainian state [7, p. 137].

Nowadays, about 31 % of the population of Ukraine has the right to social benefits of social status, while the right to social benefits of professional status has only 14 % of the economically active population of the country. Their value is calculated at almost 22 or 23 billion UAH. Today, a significant part of the population of Ukraine, having the right for the benefits, does not really benefit from them due to the fact that these social services are not provided in certain territories, or because of lack of funding. At the same time, the provision of benefits without taking into account the needs of a particular person and in conditions of the lack of full-fledged funding leads to the fact that enterprises, which are considered as service providers

are forced to provide these services from their own financial resources. These problems determine the urgency of the issues of improving the existing system of social benefits.

The strategy for replacing social benefits with targeted financial assistance is designed to go through separate stages.

The first one, or the preparatory stage, was calculated until 2004. Over this period, a legislative and regulatory framework has been developed, including amendments to the current legislation in order to ensure personalized registration and targeting of benefits. Further, there was a need to develop and approve settlement standards for consumption of housing and communal services, as well as transport services, communication services, and the provision of household fuel, within which targeted assistance and other monetary payments could be provided. The registration of targeted assistance recipients was carried out, which is related to the implementation of personified registration of citizens (eligible for benefits), without which it is impossible to calculate and forecast expenditures and to monitor the targeted use of budget funds provided for these purposes, to ensure the development of a mechanism for citizens' liability for non-payment for the received services. Now there is an exchange of data of the benefits used between the organizations as service providers and the Labor and Social Protection Department in Ukraine.

The second stage for replacing social benefits with targeted financial assistance is related to the spread of targeted money assistance to other services, in particular, for transport and communication services.

At least, at the third stage, the transition to the targeted financial support should be completed in all areas of the activity. The focus is on addressing the problems of people with disabilities, including those with disabilities from childhood and children with disabilities. One of the forms of activity, which involves attracting additional funds for overcoming poverty and supporting citizens who find themselves in difficult life circumstances, is the All-Ukrainian charitable action "Mercy".

In order to popularize the role of the family, it is considered expedient to create permanently functioning social support services for families, which not only provide for the registration of disadvantaged families, but also their constant social support.

The formation of a market economy in our country is accompanied by the formation of a labor market. An effective management of the labor market as a social process requires the diverse information about this process and its problematic aspects, such as unemployment. As a result of the deep economic crisis, the problem of employment of the population remains acute.

At the same time, it is obvious that the preconditions for social ills lie not only in the economically determined causes, but also in the minds of the unemployed persons. Therefore, it is so important to increase the activity of any person, to awaken personal responsibility of the Ukrainian people to form perspective and positively oriented attitudes.

The definition and implementation of the effectiveness of social protection

measures, in particular to promote employment of citizens through the coordination of the public employment service capabilities and the requests of its clients, provides all the necessary sociological information that is characterized by feedback on the following issues: identifying the structure of the unemployed contingents by sex, age, education and duration of being on the register; the determination of the places of occurrence of unemployment through the identification of each person's last place of work, as well as the study of the professional qualification characteristics and reasons for dismissal; an analysis of the attitudes of unemployed persons to a possible way out of the situation through studying various ways of solving the problem of their further employment. First of all, it is necessary to evaluate the activity of people in the search for work, their willingness to participate in public works and to retrain, the core requirements for possible work.

The key task of the Ukrainian government last year was to formulate the arrays of economic maneuvers and actions necessary to ensure the renewal of public finances and to use them exclusively in areas that are of priority for the social sphere of the country [2, p. 65].

Social policy, social sphere of the country received an economic background. Social payments were fully funded.

The standard of living for the majority of citizens is a criterion for assessing the effectiveness of the economic and social policies of the state. The reduction in real wages is practically stopped.

An increase in the monetary incomes of the population, ensuring the right of every citizen to an adequate standard of living should become the most important, strategic priority of the Ukrainian socio-economic policy in 2018.

Reforming the social insurance system is one of the most important directions for increasing the level of social protection of the population.

At the same time, the issue of state support to vulnerable segments of the population in the country through providing targeted social assistance to families with children and low-income families is becoming increasingly important.

In 2017, the system of granting social benefits and subsidies on professional status continues to be financed. It is necessary to make a serious legislative audit of those persons who are paid and who need to provide social assistance.

The development of a program to overcome poverty in the country is fully completed. At the same time, practical measures are being developed to implement this program, which include, first of all, systematic monitoring of the country as a whole and of its regions, for each category of the population. All this, of course, requires special attention from the state government.

Today in Ukraine there are more than 3 million disabled people. And for the first time in recent years, 100 % of the funding for social protection of disabled people, veterans of war and labor was provided, as stipulated in the State Budget.

The creation of a vocational rehabilitation and employment services for disabled people is also determined as one of the Ukrainian government's priorities in the

field of social policy. A comprehensive solution to the issues of rehabilitation and return to work of disabled people began in 2001 due to the creation of the National Center for Labor Rehabilitation of Disabled People and its regional bodies in Kyiv. This action is carried out jointly with the International Labor Organization and public organizations of disabled people [3, p. 25].

In every city and district of the country, favorable conditions are provided for disabled people to access social infrastructure facilities and ease of use of these facilities. Now available for the disabled people are: the Labor and Social Protection Department and the Department of Social Protection. There are also many pharmacies, shops, hairdressers in every city and district of Ukraine, which are equipped with the necessary facilities to make them comfortable and accessible for the disabled people. In our opinion, it is necessary not only to improve the practice of providing targeted assistance to the poor population groups, but also to create a reliable data bank about such families, and gradually, step by step, to use all available opportunities to solve this issue. In particular, in rural areas it can be achieved due to the rent of land, property shares, payment of dividends to shareholders, and any state support for self-employment of the population.

Among the priority tasks that require priority solutions, the Ukrainian Government determined the increase in the population's monetary incomes as the most important strategic goal of the social and economic policy in 2018. Actually, the standard of living for the majority of citizens is the main criterion for the effectiveness of the economic and social policy of the state. One of the most pressing social problems of 2017 was the repayment of arrears on wages in Ukraine. Due to the constant attention of the President of Ukraine, the offensive position of the Government, and the efforts of central and local executive authorities, as well as control and supervisory bodies, it was possible to develop a positive trend of debt reduction.Thus, the reform of social protection should be carried out along with the economic transformations in the country. Taking into account the forecasted indicators of economic development, the proposed measures should be implemented in the following way (Figure 1).

The main work in this direction should be carried out to improve the existing housing subsidy program: in the state budget, the necessary financial resources are to be provided to ensure the program of housing subsidies, the implementation of subsidy targeting, i.e. subsidies should be provided to those persons, who really need them.

Thanks to the increase in business and economic activity and the emergence of positive trends in the real sector of the Ukrainian economy, certain stabilization in the labor market was achieved in 2017. It is necessary to consolidate the trend towards stabilization in the labor market, to create conditions for increasing the employment of the population. It is through the prism of employment that the problem of raising living standards and overcoming poverty in the state should be considered.

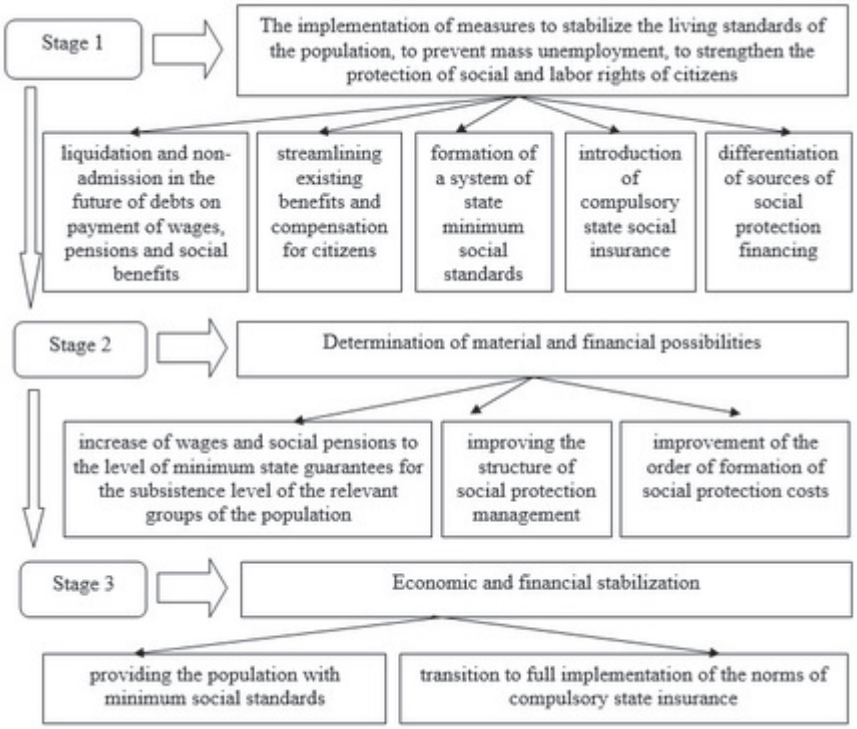

Figure 1. The sequence of stages in the implementation of social protection reform

The need for fundamental changes in ensuring the lives of citizens should be the main issue on the agenda of the President of Ukraine, the Verkhovna Rada of Ukraine and the Government of Ukraine. Social protection in this area is one of the most important spheres of social policy, therefore, the Ministry of Social Policy, its leaders, specialists and collectives of local authorities should deal with general issues on a daily basis.

However, the negative processes of the domestic economy have gone so far that the solution of social problems in society no longer lies on the surface. The nature and extent of social problems in Ukraine have no analogues.

With changes in the economy in Ukraine, there is a development of the system of financing social protection of the population and provision of social guarantees. However, at the same time, in the financing of the social sphere, the features of its imperfection and inconsistency with the contemporary needs of people are manifested.

Cunclusions. Thus, the solution of the problems of financing social protection in Ukraine should be carried out in conjunction with the reform of the existing

social protection system in Ukraine, which will reduce the financial burden of the state and raise the living standards of the population of the country. The above-mentioned directions of reforming the mechanisms of providing public goods and social services at the level of individual administrative-territorial units will help to satisfy the needs of the inhabitants of all territories at the proper level, to overcome poverty and inequality. Further search for sources of financing of the social sphere at the local and regional level and optimization of models for the use of available funds should be ensured through compliance with state support of able-bodied citizens by increasing wages, creating jobs, promoting entrepreneurship, and respecting democratic principles.

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MARKETING RESEARCH OF THE LABOUR MARKET WITH THE USE OF THE METHOD OF FACTOR ANALYSIS

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With the transition to the market economy in Ukraine various problems have arisen in the area of formation and use of the labour potential employed in all sectors of the national economy. On the one hand, the liquidation of the system of public property management led to the curtailment of the organization of centralized management of labour movement processes between industries, territories, enterprises and institutions. On the other hand, the emergence and development of a market-oriented economic system is accompanied by the democratization of social and labour relations (i.e. the freedom of the employee to choose the specific sphere of activity or the freedom of employee to choose his or her employer), but the size of labour remuneration, as a reflection of the mechanism for realizing the labour potential in the form of employment, is greatly influenced by economic laws: supply and demand, competition and profit, which, naturally, affects the socio-economic status of those employed in the national economy and, as a rule, is accompanied by the reductions in wages, as well as the emergence of unemployment in its diverse forms. This contradiction is manifested in a decrease in the effectiveness of the use of the accumulated labour potential of highly qualified specialists who, in search of livelihoods, are forced to accept low-paid jobs, and even to emigrate.

For Ukraine, these processes have a dual significance, since they lead not only to negative consequences in the field of quality of the workforce, but also to aggravation of socio-economic contradictions and the emergence of poverty in the country. After all, imbalance in development leads to the emergence of a shortage of labour resources, idle capacity, and interruptions in the work of transport, environmental degradation and other negative consequences, causing significant losses in production.

A significant contribution to the development of labour market issues was made by such famous scientists as K. Marx, A. Marshall, D. Keynes, M. Friedman, S.V. Ryazantsev, M.F. Tkachenko, T.G. Bodnarchuk, G.Ya. Lukyanenko, V.S. Gerasimchuk, D.B. Bills. The study of the various problems connected with the Ukrainian leabour market development is reflected in the investigations of many scientists. Among them are A. Amosov, S. Bandur, D. Boginya, I. Bondar, V. Vasilchenko, A. Gorelyi and Yu. Nikolenko and others. The main scientific aspects

of the theory and methodology of marketing research are defined in a great number of scientific works written by: G.V. Astratova, G.L. Bagiev, I.K. Belyaevsky, E.L. Borcova, N.G. Zerkalii, E.P. Golubkov, E.V. Isaeva, A.A. Kopchenov, F. Kotler, E.D. Lipkina, P.M. Lukichev, N.K. Malhotr, E.V. Popov, A.L. Pustuev, I.V. Razorvin, N.P. Rebrova, A.N. Semin, L.A. Skorokhodova, G.A. Cherchill.

In the most general terms, an effectively functioning labour market provides the most appropriate use of the labour potential of the society, therefore, the current condition and efficiency of the labour market are the most important macroeconomic factors of the efficiency of the development of society and economy as a whole.

As a result, this determined the purpose of the research, which deals with the main issues of the marketing research of the labour market.

The labour market is the more effective the better it is organized. The level of organization of the labour market directly depends on which elements this market is composed of and how the issues of the functioning of each of these elements are solved. The main components, or elements, of the labour market are as follows: parties to market relations or market entities, market conditions, legal acts, the existing labour market infrastructure, alternative temporary forms of employment, a system of social payments and guarantees, a system of financing employment and the country population [7].

It seems important to pay attention to the fact that the role of marketing in the labour market management system at various levels is determined by the goals and objectives of the economic subjects of the market.

At the national level, the role of marketing lies in the early diagnosis of the prevention of future structural imbalances in employment, so the starting point in the management of the labour market is a marketing research. This kind of research is typically considered to be the collection and analysis of information on problems related to the harmonization of supply and demand of labour, as well as the distribution of labour between regions of the country or industries, and identification of changes in the sector and occupational structure of the workforce according to the dynamics of the various sectors of the economy development and the identification of trends in the formation of labour costs.

At the regional level, the role of marketing in the labour market development is to maintain the supply and demand of labour in the specific conditions of the territory, in the process of solving the following tasks:

formation of labour potential, corresponding to the quantitative and qualitative characteristics of the requirements of the economy of the region or the city, taking into account the mentality of the population;

providing enterprises with the necessary personnel from various sources, including through interregional redistribution;

ensuring effective and dynamic employment of the population (training, retraining, higher employment of “released” workers and unoccupied citizens, which are in need of employment);

maintenance of regional, sectoral and professional skill balance between the structure of labour supply and the existing structure of jobs [5].

On the contrary at the local level, the role of marketing is to strive for an efficient use of the workforce (from the employer's point of view).

Therefore, the management of the certain enterprise, before choosing the best way to organize its human resources management, it is advisable to conduct a comprehensive marketing research that includes both the study of the competitiveness of personnel, the staffing situation, the current situation in the labour market, and an assessment of the firm's opportunities to promote effective employment of workers.

In general, marketing research is the process of collection, processing and analysis of data in order to reduce the uncertainty that accompanies the adoption of marketing decisions. Any marketing research is based on general-scientific method of cognition, as well as analytical and prognostic methods.

Special attention should be paid to the method of factor analysis, which involves the execution of a defined number of consecutive operations:

1. Identification of the controlling factors by which the analysis should be carried out.

2. Systematization of the collected informative database in accordance with the accepted classification of factors.

3. Carrying out a preliminary qualitative analysis of factors in order to identify the most significant ones and to assess the adequacy of the information collected on them.

4. Decision-making on the need for additional information gathering or conducting sociological research that can provide information that is not available for analysis.

5. Synthesis of information for each factor and its further grouping in the form of analytical tables.

6. Construction of dynamic series for each factor on the basis of analytical tables, carrying out quantitative calculations on available indicators.

7. Description of the established relationships, proportions, the identification of the main regularities.

8. The identification of the dominant tendencies in the process of the labour market development, the effect of which is decisive at the present time and whose influence will have a similar or even more increasing effect in the future period of time.

In this context, it is necessary to emphasize that the labour market is subject to change due to the influence on it of a variety of factors [6].

As the key factors affecting the formation of the labour market in the country, we suggest using those that directly influence the supply and demand of labour [3].

1. Factors determining the supply of labour in the country, which include the following:

1.1. Demographic factors that characterize the level of economically active

population [1], among which are: the number of the able-bodied population dynamics in the region, the dynamics of the structure of the able-bodied population by sex criteria, the dynamics of the structure of the able-bodied population by age criteria, the dynamics of the structure of the able-bodied population by level of education criteria, labour migration etc.

In any country, the existing labour market determines the level of social status of the entire population. In Ukraine, based on the recent results of the economic indices of the industry and the ineffective work of government bodies during 2016-2017, the downward trend in production persists. The manifestations and consequences of the crisis are obvious.

Thus, already now we can state the fact that in Ukraine the average monthly number of economically active population aged 15-70 years in the first half of 2017, as compared with the corresponding period of 2016, decreased by 0,6 % and amounted to 17,8 million people, of which 17,2 million people (or 96,2 %) were of working age. Moreover, 16.1 million people, or 90,4 % out of this number of people aged 15-70 years, were engaged in various economic activities, while the remaining 1,7 million people, according to the methodology of the International Labour Organization (ILO), were classified as unemployed.

A study revealed that the total level of economic activity of the population aged 15-70 years decreased from 62,1 % in the first half of 2016, up to 61,9 % in the first half of 2017. The highest level of economic activity was typical for people aged 30-49 years, and the lowest one was typical for young people aged 15-24 years and people aged 60-70 years only. The highest level of economic activity was achieved due to the people with full higher education (76,8 %) and the people with vocational education (69,4 %) in the Ukrainian labour market, while the lowest one was caused by the people with basic education (20,4 %) and the people with primary general education (5,6 %). And, finally, in the distribution of the level of economic activity by sex, men had an advantage in terms of education level.

In the context of our study we identified that the level of economic activity of the country population by sex, age and place of residence are the main reasons for the emergence of the phenomena of demographic situation by each region (place of residence) and pendulum labour migration. The number of urban and rural population is decreasing from year to year, while reducing the labour resources, which are being replenished by labour migrants.

A specific set of factors is determined by the objectives of marketing research, as well as the content of the collected information base. At the same time, factor analysis can cover studies that are limited to certain periods of time by the supply of labour or the demand for labour only. Separate types of analysis that cover only certain factors (for example, the characteristics of the release of unemployment, self-employment of the population and so on) are also permissible.

1.2. Factors for the release of workers employed in various sectors of the region's economy, which consist of the following components: growth of the

technical equipment of production, the implementation of new technologies; reduction of production volumes; turnover of staff; restructuring of production; termination of activities and liquidation of enterprises and institutions; changes in working conditions and level of payment; reduction of investments; change in the organization of production through the use of secondary employment and part-time jobs; intensification of labour; unsatisfactory moral and psychological climate in the team.

1.3. Factors causing a change in the number of unemployed persons, wishing to work. These factors can be determined as follows: an increase in the number of young people who have completed general education and vocational training; change in the number of persons who are dismissed from the army; dynamics of the number of temporarily unemployed (women with young children, persons caring for the elderly, etc.); the dynamics of the number of persons who have returned from places of deprivation of liberty; the dynamics of the number of people who are permanently unemployed.

1.4. Factors causing changes in the number of unemployed persons in the country, among which are: the dynamics of the number of employed people; change in the overall unemployment rate; change in the duration of unemployment; the dynamics of youth unemployment; dynamics of the number of people who lost their status as unemployed.

1.5. Factors causing changes in the supply of labour at the expense of those employed in the sectors of the national economy: maintaining an unchanged level and reducing wages; increase in the intensity of work; change in the prestige of the profession and the attractiveness of work; change in the number of people working part-time; increase of the professional and qualification level of the employed persons; the dynamics of the number of people at risk of unemployment and under threat of dismissal; change in the moral and psychological climate in the work collective of the workers.

2. Factors affecting the demand for labour in the country, which consist of the following ones.

2.1. Change in the number of vacant jobs, including “hard-to-fill” ones. Some among them are: unskilled labour vacation jobs; low-paid jobs; jobs associated with unfavorable working conditions; usually not prestigious jobs; jobs separated from the place of residence, etc.

2.2. Retirement of employees from productive activities, which consist of several important components: dynamics of natural loss of the employed able-bodied population; dynamics of retirements (including early retirement); dynamics of staff turnover.

2.3. Dynamics of labour requirements for new jobs and positions, i.e. the introduction of new jobs through organizational enterprises and institutions, the organization of new jobs at existing production facilities.

2.4. Factors affecting the self-employment of the able-bodied population. In

general, these factors can be listed as follows: the existence of legislation regulating entrepreneurial activity in various spheres of the economy; financial support of the state; legal protection; high competitiveness (properties and qualities of labour force, manufactured goods and services, know-how used, etc.); behavioral orientation of employment preferences in a particular sphere; material and moral support of the person by family members and relatives; strengthening of income differentiation in society as a whole; the amount of costs for the organization of the workplace.

It should be noted that the factors analyzed at any given moment should not include all the factors listed above. Consequently, the above-mentioned factors reflect the potential for the labour market development in the country through factor analysis only.

The presented analysis of the factors influencing the formation of the labour market in any country makes it possible to draw the appropriate conclusions and suggestions.

The negative trend towards a decrease in the number of employed people will progress to the end of this year. If economic growth is not accompanied by the creation of formal jobs, the expansion of employment in the formal economy, the inequality, poverty and vulnerability of workers will continue to be generated.

The economic, psychological and social consequences of high unemployment indicate that this has a negative impact on the state and development of the whole country, because poverty and vulnerability of the unemployed reduces the standards of living in Ukraine as a whole. Thus, according to our studies, the unemployment rate in Ukraine exceeded 10 % for people aged 15 to 70 years, in the first quarter of 2017, this indicator rose to 10,1%, or 1,8 million people, compared with 9,9 % by the end of 2016 (or 1,77 million people) [1].

Through this research we have come to the following conclusions and recommendations. The only way to solve this situation is a creation of clearly regulated mechanism for supply and demand of labour. Only after all the existing problems are solved, the good indicators both in the labour market and in the national economies of the countries in general can be achieved.

Specifically, it is necessary to take into account the experience of European countries in the field of employment. New approaches to the solution of this urgent problem should be aimed at economic growth and contain a mechanism for implementing key directions of anti-crisis state regulation: increasing investment activity and promoting employment as a whole. The introduction of consolidated anti-crisis measures will require maximum publicity, the use of a proactive policy of social dialogue, and the anti-crisis measures themselves should be reasoned, socially weighed and fair, because increasing the number of employed people is a gradual path to stable economic growth in any country.

Conclusions. International experience makes it possible to make sure that unemployment within 5-7 % of the economically active population is not only inevitable, but also quite acceptable, since it is compatible with maintaining normal

social and economic life in the country.

It is necessary to develop specialized state and regional employment programs, which can be formed on the basis of the current situation in the labour market and the forecast of its further development. These programs should be aimed at fulfilling the medium-term objectives of the development of the labour market in Ukraine. At the same time, their main goal is to ensure employment of the population and social guarantees in case of unemployment.

Estimation and forecasting of employment are important tools of state regulation of the labour market, and rethinking their role is a prerequisite for overcoming the consequences of the global economic crisis. Forecasting employment should take a priority place in the search for new ways of forming an effective labour market in the national economy.

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STATE ANTI-CRISIS MANAGEMENT OF REGIONAL DEVELOPMENT

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In the context of crisis processes escalation, the growth of their frequency, the depth of their running and the reduction of control make it necessary to form an effective anti-crisis policy at the national and regional levels.

Current issues of regional development arise (are connected), first of all, with the growing gap in the levels of social and economic development of the administrative and territorial units of Ukraine, urbanization and depopulation of villages, emigration of the labor force, lack of financial resources, noncompliance of the production structure with the post-industrial needs of the domestic and foreign markets, and weak public institutions (public authorities).

There are 64 indicators which are the criteria for the development / depression of the socio-economic status of the regions of Ukraine. These indicators are devided into 12 groups: «Economic and social unity», «Economic efficiency», «Investment and Innovation Development and Foreign Economic Cooperation», «Financial self-sufficiency», «Small and Middle Business Development», «Labor market efficiency», «Infrastructure Development», «Renewable energy and energy efficiency», «Access to education services and their quality», «Access to public health services and their quality», «Social protection and security», «Rational use of natural resources and quality of the environment» [1].

According to the results of the ranking of social and economic development of the regions conducted by the Ministry of Regional Development and Housing and Communal Services of Ukraine, in 2016, as in 2015, the five most developed regions included the city of Kyiv, and Kharkiv, Kyiv, Vinnytsia and Chernivtsi regions. The last five places took Kherson, Chernigov, Sumy, Donetsk and Luhansk regions.

Significant erratical development of territories and the growth of interregional social and economic disproportions lead to regional crisis processes escalation. Regional crises deepen the gap in the indicators of Gross Domestic Product per capita between developed and depressed regions. Crisis phenomena cover all areas of life support of the region and may deepen as a result of ineffective state policies.

The following scientists devoted their scientific papers to the study of spatial

development and its management within national economies: W. Isard, V. Vorotin, Ya. Zhalilo, O. Granberg, P. Krugman, J. Harvey. Anti-crisis approaches to the regional development management are considered in the papers of M. Dolishniy, S. Gazarian, T. Zhelyuk, O. Pokataieva, O. Tyshenko. The abovementioned research is a scientific basis for the formation of an integral system of the state anti-crisis management of regional development taking into account current situation.

Regional anti-crisis policy as a component of the state anti-crisis policy is characterized by certain features that determine peculiarities of regional development and mechanisms of crisis management. Firstly, regional development is closely related to the natural and climatic factor and depends on available raw materials and geopolitical location. Secondly of all, as a rule, regional economy, with the self-reproduction process, has a specialization based on the territorial division of labor and excludes the balance of the production structure that causes economic crises, especially in sector-specific regions. Thirdly, the regional social and economic system has a certain level of autonomy and financial independence and at the same time is a subsystem of the national economy, which requires the implementation of regional policy within the framework of the national strategy for sustainable development.

Obviously, the solution of the problems of the regions of Ukraine, taking into account the peculiarities of their development and the elimination of regional disparities in the conditions of global uncertainty and macroeconomic instability requires effective crisis management.

The objective of the research is to develop the theoretical and practical principles of state crisis management of regional development, which involves the implementation of management decisions, priorities, methods and tools within the framework of the national strategy of the regional development.

The reform of decentralization and local self-government and the reform of regional policy are integral parts of the Strategy for Sustainable Development «Ukraine– 2020» [2]. In the medium-term, the decentralization is going to be carried out, which involves the creation of a modern system of local self-government and territorial organization of governmental authorities taking into account Ukrainian peculiarities and traditions based on European values of the development of local democracy, formation of united territorial communities and ensuring adequate financing of their development [3].

The strategy of regional development of Ukraine for the period up to 2020, along with the increase of competitiveness and territorial social and economic integration and spatial development of regions, the strategic goal of the state regional policy is determined by the effective state administration in the field of regional development [4].

Obstacles to the implementation of the mentioned strategic imperatives of regional development are crisis phenomena and processes that are objectively presented in any social and economic system and, depending on the kind, have a

certain level of controllability [5].

The criterion of depression of member countries of the EU is the value of GDP per capita – below 75%. Ukrainian scientists recommend to implement the mentioned approach to the regions of Ukraine [6]. 16 regions of Ukraine had gross regional product (GRP) per capita below 75% of the average in Ukraine in 2015 (excluding the Crimea and part of the occupied territories) (Fig. 1). Moreover, the ratio between the maximum value of GRP per capita in Kyiv (UAH 451700) and the minimum - Chernivtsi region (UAH 18506) was 24.4 times.

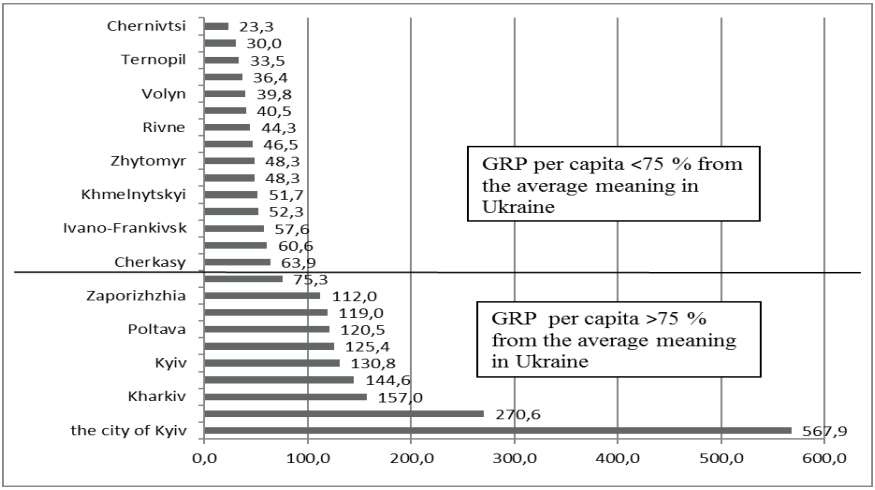

Fig. 1. The ratio of GRP to the average GRP per capita in Ukraine*

** Calculated and built on the data of the State Statistics Service of Ukraine*

The reduction of the gap in the levels of economic growth of the depressed regions of Ukraine is possible to the outperforming growth rates of the GRP and the population's disposable income. In the crisis period, a new background of the preconditions for further economic development is formed, therefore, the depth of the economic downturn and the rate of transition of regions of Ukraine to positive macroeconomic dynamics is one of the basic characteristics of a successful post-crisis recovery of the regional social and economic system.

Ranking of the regions of Ukraine at outperforming economic growth makes it possible to identify regions of Ukraine with a high level of anti-crisis potential and real opportunities to overcome depressive trends. With a general decline of Ukraine's GDP in 2014 by 6.6%, and in 2015 - by 9.8%, Kherson, Zhytomyr, Vinnitsa, Sumy and Odessa regions had the highest outperforming rates, with Kherson and Sumy regions being depressed, as shown in table 1. Instead, developed regions showed the largest decline in economic growth, largely due to the sectoral structure and geographical structure of export.

Table 1

Ranking of the regions of Ukraine considering outperforming growth rates

Regions	The share of the region by GRP per capita in 2015,%	Indexes of the physical volume of the gross regional product (in the previous year prices, %)*			Index GRP per capita (in the previous year prices, %)*		Outperforming growth rates, in percentage points **		Region's ranking in 2015 ***
		2013	2014	2015	2014	2015	2014	2015	
Ukraine	100	100,0	93,4	90,2	93,7	90,6	-	-	
Kherson	1,6	101,1	99,7	98,7	100,2	99,2	6,5	8,6	1
Zhytomyr	1,9	101,9	103,6	98,1	104,1	98,7	10,4	8,1	2
Vinnytsia	3	104,8	104,6	97,1	105,1	97,6	11,4	7,0	3
Sumy	2,1	102,7	100,4	96,7	101,3	97,6	7,6	7,0	4
Odessa	5	105,7	98,3	95,8	98,3	96	4,6	5,4	5
Mykolaiv	2,4	104,4	98,4	95,3	98,7	95,7	5	5,1	6
Cherkasy	2,6	100,7	98,9	95,0	99,6	95,6	5,9	5,0	7
Lviv	4,8	98,8	100,9	95,2	100,9	95,3	7,2	4,7	8
Zaporizhzhia	4,5	99,3	100,4	94,7	101	95,3	7,3	4,7	9
Volyn	1,6	99,3	101,1	95,3	100,9	95,3	7,2	4,7	10
Chernivtsi	0,9	101,5	98,3	94,7	98,1	94,6	4,4	4,0	11
Poltava	4,8	94,4	96,0	93,8	96,6	94,4	2,9	3,8	12
Chernihiv	1,9	95,8	100,5	93,4	101,6	94,4	7,9	3,8	13
Ternopil	1,3	96,6	108,0	93,7	108,3	94,0	14,6	3,4	14
Kyiv	5,2	93,4	99,4	94,0	99,2	93,9	5,5	3,3	15
Zakarpattia	1,5	100,6	102,8	93,5	102,6	93,4	8,9	2,8	16
Rivne	1,8	96,9	102,6	93,4	102,4	93,3	8,7	2,7	17
the city of Kyiv	22,7	106,4	96,1	93,3	95,4	92,7	1,7	2,1	18
Khmelnytskyi	2,1	96,9	102,3	92,2	102,8	92,6	9,1	2,0	19
Kirovohrad	1,9	109,5	100,6	91,7	101,3	92,3	7,6	1,7	20
Ivano-Frankivsk	2,3	97,7	97,6	92,0	97,6	92,0	3,9	1,4	21
Kharkiv	6,3	98,8	97,9	90,9	98,1	91,2	4,4	0,6	22
Dnipropetrovsk	10,8	99,3	95,1	90,3	95,5	90,9	1,8	0,3	23
Donetsk	5,8	94,7	67,1	61,3	67,7	61,9	-26	-28,7	24
Luhansk	1,2	92,2	61,0	47,7	61,5	48,1	-32,2	-42,5	25

* Data from the State Statistics Service of Ukraine.

** Calculated in percentage points as the difference between the GRP growth rates and GDP per capita (in the previous year prices).

*** At the same indicator of outperforming growth rates, considering the size of the region – share of GRP in GDP.

In this regard, the outperforming growth of depressed territories and ensuring sustainable social and economic development of all regions of Ukraine provides for the implementation of an effective system of state crisis management of regional development through the introduction of a set of focused actions of state authorities aimed at preventing crisis situations, and in case of their occurrence – elimination and minimizing the negative consequences for the social and economic system in the region.

The implementation of the state anti-crisis management of regional development is provided according to the purpose and determined on the basis of mutually agreed priorities (Fig. 2).

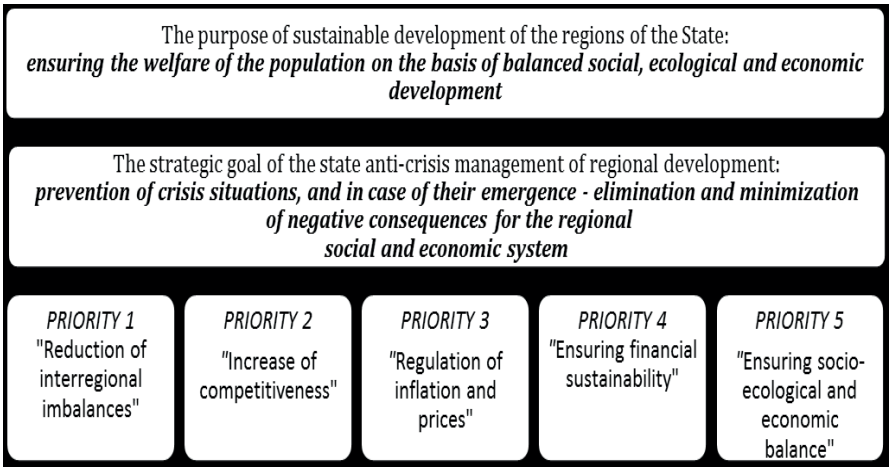

Fig. 2. The purpose and priorities of the state anti-crisis management of regional development

Priority 1: «Reduction of interregional imbalances» provides for an outperforming growth of depressed territories on the basis of state regulatory influence on processes of social and economic development. In this context, it is important to implement the political principle of the European Regional Development Policy, according to which developed regions must ensure solidarity with depressed regions, and low levels of production or high unemployment in poor regions are a loss of potential for the country in general [7].

For Ukraine, in the context of the crisis and post-crisis recovery of the regions' economy, the following areas of policy of reducing interregional imbalance such as deurbanization and revival of rural territories, reduction of labor emigration,

formation of regional clusters, growth of regional investments, employment, production and social and infrastructural support are urgent and important.

Priority 2: «Increase of competitiveness» is implemented within the global trend of formation of a post-industrial information economy, according to which the dynamic development of the digital economy is taking place, while simultaneously increasing the production of agricultural products (due to the world food crisis) and the unprecedented increase in competition for domination in foreign markets.

Providing long-term economic development implies an active regional innovation and industrial policy and includes:

• effective use of local resource potential with the provision of favorable conditions for entrepreneurial activity, as well as the creation of competitive advantages of the regional economy sectors in the territorial division of labor;

• elimination of structural deformations and adaptation of production to the structure of market demand by ensuring an outperforming growth of output of branches of the fifth and sixth technological processes while maintaining the growth rates of other sectors;

• the creation of new and restructuring of existing enterprises in the territory of depressed regions, transfer of some production from places of excessive concentration of production to mono-structural cities and territories with high unemployment [8];

• the revival of innovation and investment activity in industry with the concentration of financial resources in key areas of science-intensive industries on the basis of program-target management method.

Priority 3: «Regulation of inflation and prices» based on the imperatives of state regulation of pricing of the products of social importance.

It's necessary to mention that state regulation of pricing of the products of social importance was cancelled from July 1st, 2017[9]. At the same time, in unstable economies and crisis situations, state regulation of prices for socially-oriented food products is necessary, as the absence of clear price ceilings may lead to the unjustified increase in prices [10]. This is confirmed by the results of empirical studies, which have found that, firstly, prices for different food products of social importance are not the same in the regions. Secondly, in all regions of Ukraine, the permanent uneven rise in prices for most food products of social importance is taking place.

In the conditions of inflation rate increase in Ukraine is above the established inflation target, state regulation of prices for socially important goods will ensure a reduction of basic inflation, an adequate level of food security and the prevention of social tension in the society.

Priority 4: «Ensuring financial sustainability» – is the predominance of financial instruments, including budgetary and fiscal decentralization of the highly centralized mechanism for financing regional development. The implementation of the priority implies, on the one hand, increasing the effectiveness of the participation

of the united territorial communities in the competition for infrastructure projects and the distribution of state subsidies, as well as improving the mechanism of intergovernmental fiscal relations at the state level.

Priority 5: «Ensuring socio-ecological and economic balance» is implemented within the policy of sustainable development through the optimal values of social and economic development in terms of economic efficiency, social protection and safety, environmental management and environmental quality. A special place in the implementation of this priority should be devoted to the introduction of technologies for the processing and use of waste and secondary raw materials as intermediate products, which will increase the efficiency of production and the level of environmental friendliness of the region.

The main imperative of socio-ecological and economic balance is ensuring maximum rates of economic growth while maintaining environmental protection, social protection and achieving high social standards.

Conclusions. The result of effective state anti-crisis management of regional development is the avoidance, reduction of the economy decline, the duration, scale and negative consequences of the crisis and post-crisis depression, increase of the level of anti-crisis potential, and increase the stability of the regional social and economic system to external and internal disturbances.

For social and economic development of the regions of Ukraine, the greatest threat is the risks of social and political instability, the shift of emphasis in the adoption of governmental decisions from the system to the situational approach, the adoption of legislative acts aimed at solving current problems of the economy.

Anti-crisis management should be oriented towards the achievement of strategic goals of sustainable development, which involves the priority of introducing long-term economic growth mechanisms over situational benefits of short-term influence . The priorities of the state anti- crisis management of regional development are the reduction of interregional imbalance, increase of competitiveness, regulation of inflation and prices, ensuring financial sustainability and socio-ecological and economic balance.

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PART 5. INFLUENCE OF INFRASTRUCTURE CHANGES ON THE DEVELOPMENT OF SOCIETY

METHODOLOGICAL PRINCIPLES OF USING INTERNATIONAL INSTRUMENTS FOR LABOR MARKET REGULATION IN UKRAINE

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Ukraine, despite certain internal political contradictions, consistently demonstrated its desire to be involved in global processes during the entire period of its independence. An important event on a world scale was giving up by Ukraine of the third largest in the world nuclear potential and its acquisition of a nuclear-free status.

At the same time, the problem of regulating the labor market of the state is becoming very acute in accordance with new realities: the global economic crisis, an increase in the migration flows of Ukrainian citizens to Europe, Russian aggression in the east, the annexation of the Crimea, the employment of internally displaced people, etc. The study of international experience in labor market regulation will allow Ukraine's national labor market to be adapted to the best global counterparts and reduce the negative impact of crisis phenomena on every citizen of Ukraine.

The fundamental researches in the regulation of the labor market include the works of Kh.V. de Jong, W.Hatton, Z. Bauman, W. Beck, M. Castells, O. Toffler, F. Fukuyama, M. Sommerand others. Domestic authors A. Kotliar [1], P. Aiuchatova, [2], I. Petrova [3], V. Litynska [4], Yu. Marshavina [5], and others have achieved scientific results in the field of study of labor market regulatory processes. However, the modern system of regulating the domestic labor market is rather slow in applying significant European and world achievements in this direction. Therefore, it is necessary to develop modern methodological principles that would allow us to formulate a system of labor market regulation of our state taking into account international experience.

The aim of the study is to develop methodological principles with regard to the adaptation of labor market regulation instruments of the European Union and other countries to Ukraine.

The European integration option of Ukraine is part of the globalization process. It is this globalization factor that will lead to a rapid increase in the need for vocational training, retraining of released personnel, will increase the requirements for operational information and organization support of job search processes, growth

of expenditures from state and local budgets, social security funds with possible simultaneous reduction of inflows and reducing employment of noncompetitive enterprises [6, p. 102-106].

It should be noted that scholars have a different approach to defining models of labor market regulation in Ukraine. V. Onikienko emphasizes the need to consider integration processes in the labor market in the context of building a socially-oriented labor market. He has distinguished the following types of market social and economic models: continental (German), Anglo-Saxon, Mediterranean, Scandinavian [7, p. 56-57]. S. Sushko adds to this list the American and Japanese models [8].

Based on the study of scientific works of domestic and foreign scientists in this direction, three models of labor market regulation have been identified:

1) European;

2) American;

3) Japanese.

The main objective of the regulation of the European labor market was announced at the Lisbon Summit in 2000. The goal of the Lisbon Summit is to provide more and better jobs and social cohesion [9].

European countries are shaping new approaches to regulating national labor markets and employment in the ever-changing global economy. The regulation of the common European labor market is not harsh: each country develops its own employment programs. Coordination of such programs, development of common European employment strategy are implemented at EU level, as well as assistance to certain countries that are not moving well enough to implement the strategy. The common labor market in the EU is regulated by the relevant agreements and provides for the elimination of any discrimination on the basis of nationality of a worker in matters of employment, salary and other conditions of employment; the fight against discrimination based on religious or other beliefs, disability, age or sexual orientation, the right to reside in the country where the citizen settled after being released with a family, which would not lose this right after the death of the individual.

Social protection insures people against the risks that people face when they lose their jobs or working capacity. In the EU, the social package preserves all these opportunities for citizens to a great extent. In general, EU policy is aimed at improving the economy and restoring growth on a new, more qualitative level.

The regulation of the labor market in the new EU countries has its own peculiarities, which are related to the policy of creating new jobs. In Hungary, no minimum investment amount is forecasted to create new jobs. Tax privilege is provided at a rate of 80% depending on the staff and regional characteristics. Subsidies for education are provided in the form of cash funds regardless of the intensity of maximum subsidies. Subsidy may reach from 25 to 90% of tuition costs.

In the Czech Republic, irrecoverable loans for job creation in the most destitute

areas can reach 50,000 Czech crowns (2,000 euros) per employee and/or 35 percent of the cost of training and retraining of specialists. 10-50% of the total tuition cost can be reimbursed by government grants depending on the level of unemployment and the region.

In Poland, the size of such grants can be up to 4 thousand euros, or 50% of the costs of retraining workers. Bulgaria introduced tax incentives for investment projects in regions with high unemployment.

In Croatia, a one-time grant of up to 2,000 euros per future worker is provided. The number of employees cannot be reduced for at least three years. Also, in order to develop measures for the training of employees, the state provides funding of up to 50% of the cost of such measures [3].

The study of researches made by domestic and foreign scientists on the experience of the EU and European countries in the field of labor market regulation allows to recommend application of the following instruments in Ukraine:

1) the policy of creating new jobs. The main instruments of this policy are grants, full or partial reduction of staff training (retraining) expenses, free assistance in finding the right personnel, other benefits from both EU structural funds and local authorities;

2) wage policy. There is a wage regulation in Ukraine, while in European countries salary issues are resolved through collective bargaining or individually, at the enterprise level. As for some European states, and for Ukraine, there is an actual transition from annual sectoral agreements to medium-term social pacts.

3) the policy of labor relations. In most EU countries, there are national tripartite bodies whose role is mainly consultative and advisory, only in some cases they have decision-making powers (Latvia, Lithuania, Poland, Slovakia, Hungary, Czech Republic).The experience of Estonia may be applied where, in addition to official parties (trade union administration - employers), voluntary professional unions, representatives of public organizations, as well as labor inspectorates and judicial authorities are included into the category of participants in the social dialogue.

Unlike the functions of the National Tripartite Social and Economic Council in Ukraine, the countries of the European Union have chosen an extremely broad framework of national social dialogue, which go far beyond the discussion of more traditional issues such as social expenditures, state social standards and wages, development of draft laws and regulations on socio-economic development, etc.

The features of the American labor market model are linked to the decentralization of employment laws and unemployment benefits, which are developed and approved by each state separately. The American model of employment regulation includes three components:

1) state-owned enterprises related to hiring of the workforce;

2) financial and credit policy, which is aimed at regulating demand for labor;

3) regulation of employment through a state system of legislation. Regulatory levers are the implementation of large-scale measures to create new additional jobs,

redistribution of labor loads, and the preservation of jobs [5].

The valuable component of American experience for Ukrainian labor market is decentralization of labor legislation. It is necessary to expand the spheres of influence of local self-government bodies on regulation of territorial labor markets. It is necessary to use the US experience in attracting unemployed people to public works, which allowed to overcome the consequences of the Great Depression of the 1930's.

The Japanese model is characterized by a system of labor relations based on the principle of "lifetime employment", which warranties employment of an employee at an enterprise until he reaches the age of 55-60 years old. The system of "life-long hiring" cannot be implemented in Ukraine, where the age frame of the labor force in demand is usually up to 40 years old. In today's economic crisis, it is necessary to explore the possibility of using the elements of the secondary hire, the "arbaito system", the "system of compulsory recruitment". It would for a while be able to relieve the tension in society, to provide people who have lost hope of getting a job, with a certain kind of earnings.

The main instruments for regulating the labor market in foreign countries with possible allocation of some of them in Ukraine is presented in Table 1. It should be noted that for Ukraine the most acceptable are European instruments, although some components of the American and Japanese models, analyzed above, can also be used in Ukraine, subject to the development of a serious study of the possibilities of their adaptation in the conditions of domestic realities.

Summing up the study of the main trends in labor market regulation in foreign countries, it is possible to single out such problems that prevent Ukraine from ensuring a stable functioning of the labor market: a high level of shadow employment; a significant proportion of the economically inactive population of working age; low employment rate in relation to the whole population; delay in labor quality in relation to the needs of the modern economy; imbalance between demand and supply of labor in all occupational groups; significant youth unemployment; low level of entrepreneurial initiative of citizens; problems of employment of internally displaced persons and ATO participants.

All this indicates the urgent need to solve these problems on the part of the state, whose priority directions should be:

- employment of the unemployed and assistance in vocational guidance, training and retraining of staff;
- promoting the creation of non-standard forms of employment;
- legal provision of labor relations;
- social protection of the population having the status of the unemployed (material assistance, unemployment benefits, unemployment insurance);
- a modern approach to employment in public policy. Employment should not be seen as a purely social phenomenon, but rather much deeper, because the structural crisis of the economy is also a crisis of the employment structure that has developed

in the national economy of the country;

- conducting economic policy in the interests of employment: creating economic conditions for employment through the development and implementation of economic policies aimed at developing of new jobs and maintaining effective workplaces;

- a combination of the investment, credit and monetary, tax, fiscal policy of the state with the employment policy;

- regulation of unemployment: the implementation of a set of active and passive activities aimed at preserving motivation to work by the unemployed and unoccupied citizens and promoting employment. When applied simultaneously, the priority should be given to measures of active direction, while the financial support of the unemployed should be moderate and stimulate them to solve the problem of employment [10, pp. 167-170].

Conclusions. Having examined the international experience of regulating the labor market, it can be argued that in the highly developed countries of the world, including some European countries, the active measures of employment regulation are used. A significant role is played by the creation of new jobs, supported by tax breaks, subsidies and grants.

In order to improve the situation on the domestic labor market, it is necessary, first of all, to promote the development of small and medium-sized businesses, and apply a system of preferential taxation to enterprises that create additional jobs (especially for women, young people and people with disabilities). At the same time, important directions are the organization of advanced vocational training and training of workers who are at risk of dismissal, as well as assistance in attracting investment projects that in the short term can provide attractive new and additional jobs.

The main direction of further research of theoretical and applied approaches to improvement of the labor market regulation should be the definition and justification of the mechanisms of labor market state regulation in conditions of Ukraine's integration into the world economy at the legislative, regulatory, organizational, financial levels.

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REGION AS A DETERMINANT OF INNOVATIVENESS OF COMPANIES – A CASE STUDY OF THE SILESIAN VOIVODESHIP IN POLAND

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Innovations often constitute reaction of companies to the changes occurring in the environment and they decide on the competitive advantage of companies. The ability to react quickly to the needs of the clients, action of the competitors, social-economic transformation, through introducing innovative solutions, is the key factor of a success of the company. On the other hand, innovations constitute the change themselves. Moreover, they initiate processes of further changes and facilitate progress (Kamińska, 2017).

Innovations play the role of a catalyst to the development of companies, and consequently regions and countries. Therefore, it is not surprising that both economic theoreticians and practitioners are interested in innovations. The aim of the publication is to verify the thesis that on the level of a region there exists a number of factors which influence the innovativeness of companies, and the right

stimulation of the factors by self-government authorities may contribute to the improvement of innovativeness of companies.

The terms of innovation and innovativeness. The term innovation (innovatio – renewal) appeared about the year 400 AD in Old Latin in Church Latin and means novelty, a newly introduced thing (Kopaliński, 1983, p.190). The novelty emphasised in definitions may refer to different areas of human activity, functioning of companies, ways of thinking and behaviour of individuals. Hence, innovations are the object of interest in various areas and scientific disciplines, including the areas of social, economic and technical studies.

Joseph A. Schumpater is regarded as the precursor of the theory of innovativeness. According to him innovations cover the following areas: introducing new and improving existing products or technologies, expansion to the new outlets, gaining new sources of supply in raw materials, reorganisation of market structures through applying the new ways of organising industry (Schumpeter, 1960, pp. 104, 120, 141-142). The definition of innovation by J.A. Schumpeter is very capacious and prospective. It includes various aspects of innovativeness of companies and constitutes a starting point to the contemporary wide understanding of innovation and to determining methodological assumptions in innovativeness research.

E. Mansfield, sharing Schumpeter's opinion referred to innovation as the first usage of an invention (Fiedor, 1979, p. 22). It allows for precise determining the difference between an innovation and an invention, which was synthetically phrased by S. Gomułka (1998, p. 17), stating that an invention may never be used by a manufacturer. If it is used, there innovation takes place. A very narrow concept of innovation (innovation in the strict sense) is presented by Ch. Freeman (1982, p. 7), according to whom innovation is the first commercial introducing (using) a new product, process, system or an appliance, and by S. Kuznets (1959, p. 30), who emphasises the importance of knowledge in implementing innovations and defying innovation as new usage of new or old knowledge in the manufacturing process.

P. Drucker (2004, pp. 2-24) emphasises the multidimensional character of innovation manifesting itself not only in differentiating product, process, marketing and organisational innovations, but also in facilitating entrepreneurship and crating new business models. According to P. Drucker innovations are one of the basic driving forces of entrepreneurship, requiring knowledge, creativity and certain predispositions outstanding in the terms people.

M.E. Porter (1990) defies innovation as economically propitious exploitation of new ideas, including simple, new for the company, modifications of existing products, processes and practice, as well as new, not only for companies but for the whole branches, products and processes. According to M.E. Porter product, process and marketing innovations may constitute a category of strategic innovations and be the major source of change in the structure of sectors, facilitating their development through increasing the demand and the economies of scale. Consequently, strategic innovations may make it possible for a company to compete in foreign markets and

lead to the globalisation of the sector.

The vast majority of authors believe that innovation should generate beneficial changes for a company, customers, and more widely for the other interested, which manifests in the social-economic development on the local, regional and national level. Concluding, it may be claimed that contemporary understanding of the concept of innovation has widened significantly, which manifests in defying innovations which exceeds technological innovations, including marketing an organisational innovations and their process character, as well as not limiting innovations to the level of organisation, but referring them to the phenomena largely exceeding organisation.

Contemporary guidelines for the statistic analyses referring to innovation are created by Oslo Manual developed by Organisation for Economic Co-operation and Development (OECD) and the European Statistical System Eurostat. According to Oslo Manual innovation is the implementation of a new or significantly improved product (crafted article or a service), process, new marketing method or a new organisational method in economic practice, workplace organisation or relations with environment (OECD, Eurostat, 2005).

However, innovativeness means ability of companies to engage in innovations in order to implement new products, processes and ideas (Hult, R.F. Hurley, G.A. Knight, 2014) and is conditioned by a number of factors which derive from the surroundings of the company and its interior.

Region as a stimulator of innovativeness of companies – theoretical conceptualisation. Since the 90's of the previous century, there has been the development of concepts emphasising the influence of environment, region on the innovativeness of companies. The territory (region) is the place of occurring not only material resources influencing innovative potential of companies, but also the place of creating non-material resources which result from learning, reciprocal interaction of the actors acting in the area, who using the spacial vicinity, common rules, norms and aims, share their knowledge and participate in implementing the innovations. Nowadays a region becomes the source of information and innovativeness, and the inspiring role of a region in undertaking innovative endeavours by organisations depends vastly on the activity of self-government.

More and more authors believe that the "heart" of innovative processes should be regions, and the regional level should be considered as crucial from the point of view of factual progress. R. Ciborowski (2009, p. 298) points out that regions have already gained significant possibilities in realisation of actions of innovative character. Regional units are the closest to key participants of innovative actions, i.e. companies, universities, research institutes and they have a major role to play in promoting economy based on knowledge. A. Nowakowska (2011, pp. 6,8) emphasises that innovation is a localised and territorially embedded process, and innovative processes are a derivative of resources and regional mechanisms. It is necessary to stimulate innovativeness, and according to E. Stawasz (2009, p. 106)

on the regional level there are the most appropriate conditions and factors to create proper climate for the development of entrepreneurship and creating innovativeness.

Simultaneously, as A.H. Jasiński remarks (2014, p. 69), the mesoeconomic level of managing innovativeness plays important role. However, it is rather underestimated by researchers. The author of the article presents a similar view, claiming that both the world of science and economic practice do not recognise sufficiently the significance of regions in stimulating innovativeness. F. Moulaert and F. Sekia (2003), analysing regional aspects of innovativeness introduced, analogically to R. Rothwell (1990) who ordered specific generations of innovative processes models occurring in organisations, the concept of territorial models of innovation (TMI). They distinguished four generations (traditions) of regional models of innovations:

- first: millieu French innovative model, industrial districts, local systems of production focusing on local institutional endogenicity,
- second: regional systems of innovation, learning regions,
- third: new industrial spaces (Californian school),
- fourth: innovative clusters.

Slightly different division was used by A. Nowakowska (2009) and S. C. Santos Cruz and A. A. C. Teixeira (2007, pp. 4-9), who taking into account the key elements of models and the time of their creation, selected three main categories of theories dealing with regional context of processes of innovation: theories concentrated on resources, concentrated on network relations and concentrated on institutions (system approach). Neoclassical theories of localisation arisen in the times of agricultural and industrial economy were based on resources. In the 70's of the 20th century, concepts based on network relation between subjects developed. The representatives of the current are C. Antonelli and G. Becattini, who examine the phenomenon of Italian industrial districts, as well as the representatives of Californian school – A.J. Scott and M. Storper. In the 90's of the last century, in the times of economy based on knowledge, there occurred intensive rise of interest in the region as a place of creating knowledge and innovation. Numerous researchers, in accordance with the system model of innovative process, emphasise the significance of mutual interaction and connections between individual actors of system, which constitute the expanded network of economic, educational, and scientific subjects. The representatives of the current are P. Aydalot – the creator of the concept of innovative environment, M.E. Porter – regarded as the creator of the concept of clusters, R. Florida (learning regions, creative class), Ph. Cooke and B.T. Asheim analysing regional systems of innovation.

The analysis of territorial models of innovation is helpful in understanding of regional context of innovative processes and the influence of a region onto innovativeness of companies. Despite the diversity of contemporary territorial models of innovation, they have common features. They emphasise the increasing importance of non-material factors in the form of knowledge, experience, social

relation, interactions based on the trust between subjects, which create innovative potential of the region influencing the innovative capabilities of companies. In the system models not only cooperation between companies is analysed, but also a new role of other institutions, scientific-research units and public administration is recognised.

The influence of a region on the innovativeness of companies – results of the author's research.

The review of the subject literature and own experiences and observations give reason to name five main, codependent groups of regional conditions, which have been assigned 27 factors determining innovativeness of enterprises (Kamińska, 2017, pp. 239-241):

I. FINANCIAL SUPPORT OF REGIONAL AGENTS BY LOCAL GOVERNMENT:

- Financial aid for investment in permanent assets
- Subsidising and development of financial institutions, facilitating access of enterprises to capital
- Financial aid for autonomous R&D activities in enterprises
- Financial aid for purchase of consulting services, licenses, patents and so forth
- Financial aid for cooperation with scientific research institutions
- Financing for creation and development of special economic zones
- Financial support for creation and development of scientific research institutions and innovation centres

II. ORGANISATIONAL AND ADVISORY SUPPORT OF REGIONAL ECONOMIC AGENTS BY LOCAL GOVERNMENT:

- Organisational and advisory aid for enterprises (including them in projects, organising conferences and training)
- Engaging innovation centres in pro-innovative activity
- Public procurement of innovative goods and services by local authorities
- Investment in public-private partnership

III. PROMOTING COOPERATION BETWEEN REGIONAL AGENTS BY LOCAL GOVERNMENT:

- Price of services offered by institutions supporting innovation
- Local government aid for interregional and international cooperation (organising fairs, meetings, study visits etc.)
- Facilitating cooperation with training and consultancy centres
- Tailoring the offer of business environment institutions to the needs of companies
- Location of institutions supporting innovativeness
- Facilitating cooperation between enterprises and science
- Facilitating cooperation between enterprises and innovation centres
- Facilitating access to services of research institutions and laboratories
- Local government aid in the functioning of connection networks between

enterprises and pro-innovation institutions, including clusters

IV. CREATION AND AUGMENTATION OF OTHER NON-MATERIAL RESOURCES OF THE REGION:

• Local government aid for development of human capital

• Creation of knowledge centres within the region and providing free access to market analyses, databases, information sources etc.

• Promoting entrepreneurial and innovative attitudes in the region

• Increasing the capability of public administration to handle innovation and improvement of functioning of local administration

V. CREATION AND AUGMENTATION OF OTHER MATERIAL RESOURCES OF THE REGION:

• Development of transport infrastructure

• Development of communications and computing infrastructure

• Making the region more attractive for foreign investment.

Inasmuch as the list cannot be considered complete or exhaustive of the all the possibilities of a region's impact on innovativeness in enterprises, it does provide a toolkit for the identification of the most important conditions and for an assessment of the extent of their influence.

The aim of the research was to determine the impact regional conditions of innovativeness of enterprises have and the links between the level of innovativeness in companies and the assessment of the importance of those factors.

Empirical research has been performed by survey augmented with extended interviews with the management of the enterprises. The research tool for the survey stage was a questionnaire prepared by the author, while the research was conducted by the Centrum Badania Opinii Społecznej (Centre for Public Opinion Research, CBOS). The interviews were conducted according to the CATI (Computer Assisted Telephone Interview) method – a quantitative research method. Like in Eurostat research, company size was accepted as a criterion for assigning the companies in question to groups (of small, medium, or large enterprises). The sample was selected according to the recommendations of the Oslo Manual "that the stratification of random sample innovation surveys should be based on the size and principal activity of the units" (OECD & Eurostat, 2005). Ultimately, empirical research was conducted on a sample that was representative both in terms of size (due to the number of employees) and in terms of sectional activity (as per the Polish Activity Classification – PKD), which included 259 small, medium, and large enterprises in the Silesian Voivodeship. The research was conducted in 2016.

The Silesian Voivodeship belongs to the group of better developed regions in Poland. Taking as a criterion the level of gross domestic product per capita, the Silesian Voivodeship takes the fourth position in the country (GUS, 2017). The same position is taken by Silesian Voivodeship according to the level of innovativeness (RIS, 2017).

Analysing the influence of a region on innovativeness of companies, the

level of innovativeness of the examined companies should be determined. To the most commonly used in practice measurements of the level of innovativeness of companies, the following are included: the number of implemented in the examined period innovations and the level of novelty of an innovation (novelty on the scale of company, region, country, world). The author also used the mentioned above indicators.

Depending on the number and novelty of the innovations introduced between 2013 and 2015, every enterprise was assigned to one of six groups based on their level of innovativeness: "very high," "high," "average," "low," "very low" or "non-innovative." Non-innovative companies, which had not introduced any innovation in product, process, marketing, or organisation in the period surveyed, represent more than 50% of the firms in the survey. Around one in five enterprises (21.2%) introduced between one and three enterprise-level innovations, putting them in the group of companies with a very low innovativeness level. The very high percentage of companies that had introduced no innovations in the researched timespan and of those at a very low level of innovativeness testifies to a low general level of innovativeness in enterprises.

To determine the importance and impact of regional conditions on innovativeness of enterprises, the respondents were asked to evaluate 27 regional variables divided into five groups. They were asked to evaluate their importance on a five-step scale: very large (5), large (4), average (3), small (2), unimportant (1).

Conclusions. Of the five examined regional groups of conditions, in the opinion of entrepreneurs of the Silesian Voivodeship, the largest influence on the level of innovativeness of companies has the forming and strengthening material and non-material resources of the region (position 1. and 2.). The respondents place especially high the significance of self-government's actions in the development of human resources, which signalises the recognition of the role of knowledge in implementation of innovation. Among the material resources, the highest rate was given to the development of transport infrastructure, which has the key importance, especially for manufacturing and trading companies.

The third place is occupied by a group of „promoting cooperation between regional agents by local government" conditions. The most important for the increase of innovativeness of companies factor in this group is the level of prices of services of the institutions supporting innovativeness, which is in accordance with the results of other research (Kamińska, 2013, 2016a) as well as the help of self-government for companies in the development of interregional and international cooperation.

Next position was taken by „organisational and advisory support of regional economic agents by local government" group. Among the examined factors from this group, the entrepreneurs confer the biggest significance to the direct aid towards companies, including engagement in innovative enterprises as well as organising conferences and trainings by self-government authorities.

Because financial limitations constitute one of the greatest obstacles of macro-environment in implementing of innovations (Kamińska, 2016b), it is vastly interesting that this group is placed in the last position among the regional conditions of innovativeness. The only exception are the investments in tangible assets, which according to the respondents are the most important in the group for stimulating innovativeness.

The results of research allowed for confirmation of the theses presenting occurrence, on the regional level, a number of factors influencing the innovativeness of companies, and proper stimulation of the factors by self-government authorities may contribute to the improvement of innovativeness of companies.

The presented above conclusions of the research constitute important information for voivodeship self-governments, which while realising innovative policy, should focus more on the most significant in the opinion of entrepreneurs factors which stimulate innovativeness. The conclusions resulting from the research may also be useful for the companies which aim at increasing the level of innovativeness, as well as for the institutions of business environment which offer servises supporting implementation of innovations and they may contribute to the increase in the innovative potential of companies.

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CREATING EFFECTIVE CONDITIONS FOR IMPLEMENTATION OF IDEALS OF SUSTAINABLE DEVELOPMENT IN MEDICAL SECTOR

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Public administration is the actions of state authorities, aimed at streamlining various processes of social and economic systems development in order to provide conditions for improving the quality of life of the population. Many theorists determine the quality of life on the basis of the indicators of social, spiritual, cultural, psychological and moral aspects of life, that is, as a set of mainly socio-psychological, spiritual, material and moral values of people. The quality of life is determined by the level of the standard of living and is manifested in the growth of the proportions of individual income spent on consumables that are luxuries or close to them, and, finally, on such intangible goods as services, recreation and culture [1].

The ability to consume the above intangible goods, including medical services, depends on two basic conditions. On the one hand, it is the level of the individual income, which is determined by the development of the national economy of the state, and on the other hand, the congruence of the utility of the proposed health care services to the needs of the population, which is determined by the effectiveness of countering the health threats and the degree of the use of the scientific and technological advances in medical practices [2, 3]. Provision of these conditions in a normally functioning national economy is made on the basis of self-regulatory processes.

Crisis conditions for the implementation of public administration are characterized by extreme exacerbation of contradictions in the processes of the socio-economic system development, which leads to a significant reduction in the effectiveness of their self-organization. The anti-crisis mode of public administration is characterized by the implementation of the actions of direct and indirect influence, aimed at creating conditions for increasing the effectiveness of socio-economic systems through maintaining the natural laws of their development.

Based on the foregoing, one can draw the conclusion that the crisis situation in the medical sector results from the inconsistency of the controlling effect on various aspects of human health, often due to a lag between medical practices and scientific and technological progress in the medical sector [4]. Therefore, the concept of the medical service development should reflect role of scientific and technological progress in preventing and overcoming the crisis situations through the coordination of current and future practices to forestall the threat to life and health of the population. Based on the ideals of sustainable development, public

health is a resource for society in shaping progress, which also requires preservation and restoration.

The traditional concept of sustainable development envisages harmonizing and balancing of the economic, social and environmental interests of social systems in the process of their current and prospective reorganization [5, 6]. The features of such a reorganization in the crisis and pre-crisis periods are significant restrictions on financial, labor and other types of resources, as well as the exceptional importance of providing planned performance, which requires a careful search for the sources of synergetic interaction among the components of socially needed production systems.

Under the conditions of the market economy development, the actions of state institutions of society administration should be minimized in order not to distort the functioning of economic mechanisms of balancing the interests of producers and consumers. However, in order to ensure sustainable development of the society it is necessary to have a certain structuring of the components, which is more in line with the effective development of all sectors of the state economy. The functional role of public administration is to streamline the subject-object relations that take place in the healthcare sector with regard to the provision and consumption of health care services upon the principles of objectivity, specificity, scientific quality and efficiency.

Thus, it is possible to formulate an economic strategy for the concept of sustainable development, which comes to the fulfilment of the «starter» organizational functions of the state in order to create conditions for the self-organization of relations between production and consumption of medical services that meet the challenges of the environment.

Nevertheless, in spite of the importance of the effective creating of economic conditions, the key role of optimizing the health care system belongs to environmental factors [7, 8, 9]. It is explained by the specific object of relations - human health, as the natural state of functioning of biological systems of the human body under the current living conditions. The stability of this natural state under normal conditions is achieved through the functioning of mechanisms of adaptation to environmental factors. However, the dynamism of the processes of socio-economic environment, which is characteristic of the modern level of society development, minimizes the efficiency of natural self-adaptation.

Due to the wide computerization of the main aspects of vital activities the information sphere has become an important component of social life, largely determining the directions of socio-political and economic development of the country. At that, we understand the influence of the information sphere as a wide range of processes, from the formation or destruction of certain moral, ideological and political values, including information policy of the state, the system of education and enlightenment, the activities of mass media, events of cultural life, mass phenomena etc.

Revising priorities and accents in interpreting the problem of national security, and transferring them from the interests of the state, perceived in isolation from the wants and needs of a person, to his/her interests made it necessary for science and practice to develop an entirely new aspect of this problem - information and psychological safety, which is an integral part of information security, the specificity of which is that acting as objects to be protected, individual citizens, society and the state are considered as social subjects.

Health care institutions in this case act as subjects of information and psychological impact on an individual (his/her psyche, consciousness, and body). Information and psychological impact can be defined as informational or energy and informational by its nature impact on the human psyche, which influences their perception of the reality, including their behavioral functions, as well as, in some cases, the functioning of organs and systems of the human body.

Inmost biological processes underlie any behavioral act (including psychological and social ones). The change in the parameters of the internal environment (osmotic pressure, glucose concentration, hydrogen ion concentration, temperature, etc.) is the primary, trigger mechanism that stimulates the activity of the brain's motivational centers, causes a specific motivational excitement, which is transformed into a materially perceived goal of activity, and then its concrete realization in life.

Guided by the priorities of ensuring information and psychological safety of public administration, namely through creating a positive information and psychological impact on the activation of the human psyche in order to resolve the creative problems as soon as possible (recovery, overcoming crisis situations with health, etc.), let us consider a simplified model of medical practices of the state health care facilities.

First, it is necessary to determine the terminology by which the author attempted to disclose the model.

The medical process in practice, within the framework of this work, means a combination of therapeutic actions and natural (biological) processes aimed at supporting the health of the population. The organization of the medical process in practice is based on the knowledge about the regularities of changes in the state and functions of the biological systems of the organism in the course of the processes of prescribed therapeutic actions. The period of time during which the medical process is performed (starting with diagnostic actions to treatment) is called therapy.

We will understand the state of health of the patient as a certain set of indicators or his/her k-dimensional vector that determines the sensitivity of the biological systems of the body to the therapeutic actions, which can be integrated into a generalized health indicator.

The medical process of achieving an acceptable level of human health is realized through the technologies of treatment of a specific disease under certain conditions (medical care, epidemiological situation, etc.).

Technology (or practice) for treating the disease will be called a set of therapeutic

techniques, actions, changes in the state of biological systems of the human body, biological and medical materials, organs and tissues that are used at certain points in time, in strict sequence and in compliance with medical norms and tolerances in the process of its treatment.

We distinguish the main and auxiliary therapeutic techniques of technologies (or practices) for the treatment of diseases. The main therapeutic technique is a part of the practice of treating a disease that has an end efficacy with the purpose to alleviate, remove or eliminate the symptoms and manifestations of a disease or injury, a pathological condition or other disorder of vital activities, normalization of impaired processes of life [10]. Auxiliary therapeutic techniques are a complex of medical personnel's activities to ensure the implementation of basic techniques (anesthesia of surgical intervention, diagnostic procedures, etc.).

Having clarified the terminology, let us briefly consider the process of treatment.

The process of treating a patient for the disease continues within the so-called clinical cycle. A clinical cycle, in the simplest sense, is the total duration of the disease. The clinical cycle lasts from the first until the last day of the illness (from the appearance of the first symptom to the disappearance of the last signs of the disease). Of paramount importance for medical practice is the notion of a pathogenic cycle that lasts longer, with the inclusion of the incubation period (from penetration of the pathogen to the appearance of the first symptoms), as well as the period of morphological and functional restoration of organs and tissues.

The process of treatment is a deliberate interference with the functioning of the biological systems of the body to normalize the disturbed processes of vital activities. It occurs with the help of pharmaceutical, surgical and other types of influence to obtain predicted desired reactions of the organism. Since the human body is a self-sufficient system, any attempt to bias the biological balance leads to the emergence of unwanted reactions of different nature. In the simplistic sense, medical intervention can cause unwanted reactions both in the patient's physical condition, manifested in allergic and autoimmune reactions, and in the psychoemotional state, manifested in the development of psychosomatic abnormalities, which in varying degrees reduce the effectiveness of treatment (the usefulness of therapeutic procedures).

Allergic reaction is a manifestation of supersensitivity of the immune system of the body at repeated allergen actions on the organism previously sensitized with this allergen. One of the most dangerous forms of the allergy manifestation is an anaphylactic shock.

One should distinguish an allergy from autoimmune reactions: the autoimmune process starts when the normal body tissues are altered by the action of some harmful factors in such a way that antigenic determinants appear and open in these tissue proteins, and the sensitivity to the acquired autoantigens increases.

Psychosomatic illnesses are now understood as psychogenically occurring, usually reversible (functional or mainly functional) dynamic disorders of the higher nervous activity, which proceed relatively favorably and do not reach the degree

of gross mental and therapeutic disorders (delirium, hallucinations, dementia, etc.). These conditions are characterized mainly by affective disorders caused by the influence of severe psychogens (acute mental traumas) or prolonged negative emotions and other factors contributing to the astenisation of the individual and the reduction of the so-called adaptive threshold (that is, the physiological endurance of the individual in relation to mental influences). Such factors may include surgical interventions, serious side effects of medicines (for example, chemotherapy in the treatment of cancer).

The analysis of the models of modern world practice aimed at solving practical health care problems in the medical sector has shown that the problem of optimization of the health care system, to a very great extent, depends on the factors that affect both the general state of health of a person and his/her psychosomatic state. They are limiting the effectiveness of public health care services. In other words, the general trend is that starting from a certain moment, the following therapeutic actions increase the medical load on the patient's body to the level at which some body systems sharply reduce the response to treatment, often manifesting itself in the form of allergic reactions, malaise, and so on. Other negative effects on the body are also exacerbated. Note also that local models, with all their significance (for example, the results of pharmaceutical research on the action of medicines in treatment of certain types of diseases), cannot take into account the entire sequence of states of the patient's body and, therefore, cannot optimize the health care system in the long run. The task facing management now is to formulate a model of choice, or rather, selection, of an optimal set of medical practices to ensure the health of the population in the country. In doing so, it is necessary to take into account the limitations of the models under consideration and find a way to circumvent and resolve these limitations. The direction providing a solution lies in the concept of medical practice with permissible psychosomatic load.

Every person has unique indicators of health and abilities that determine his/her value in the formation and development of society. These differences are due to different manifestations of genetic predisposition, different reactions to treatment, and some peculiarities of physical and biological processes occurring in the body. Under these conditions a healthcare professional needs to choose the therapy of the treatment of each patient's disease so as to eliminate the symptoms and manifestations of the disease or injury, maintain an acceptable level of psychosomatic health, and possibly improve the processes of vital activity occurring in the body.

Note that the medical process performs two closely related functions: maintaining an acceptable level of physical condition of a person and ensuring the psycho-emotional stability of the individual. Hence, humane technology of treatment or technology with permissible stress loads can be defined as the one which ensures performing the tasks of providing informational and psychological safety.

Humane treatment practice is a way of using therapeutic techniques and medical means at which the psycho-emotional state of a person or the vector of

its change will evolve within the permissible limits. It might seem that such a definition is quite sufficient. However, this is only the case if one-step therapeutic process is considered. If we try to optimize a set of techniques of several steps, the state of psycho-emotional stability of a person can fall below the permissible level, compensating for this decline by a significant level of stability growth at the following steps or during the planned research (the main «problem of averages»).

Hence, it would be more appropriate to determine the sequence of therapeutic actions carried out within the prescribed course of treatment. The sequence of therapeutic techniques, in which the psycho-emotional stability at the final step remains within the permissible limits, will be called a sequence of therapeutically permissible actions or techniques. Thus, in essence, the planning process for the long term is reduced to the definition of therapeutically acceptable by the effectiveness techniques and actions. With such a model, the task of sustainable development, both of the medical process in particular, and the sphere of medical care in general, is formed.

Thus, the urgent problem of the reality, which causes crisis situations in medicine due to the reduction of the effectiveness of the medical process, is the environment of a person (society) critically overloaded with information. Therefore, the strategy of sustainable development of medical practice should be implemented on the basis of providing informational and psychological safety of society.

Proceeding from the proposed model of the medical process, in contrast to the existing opinion regarding the sustainable development of the medical sector, the progress of medical practice should not be limited to resource opportunities, but seek to reduce the stress impact on the body and create informational and psychological stability of the individual.

The functional role of the state should be limited to «starter» functions of creating conditions for the launch of self-regulatory mechanisms for the production and implementation of medical services.

Conclusions. Summarizing the findings, we will form the conceptual core of the crisis management of the medical sector on the basis of the concept of sustainable development. The central mission of the public administration of the medical sector is creating effective conditions for the implementation of the ideals of sustainable development into practice.

The medical sector, as well as most branches of the national economy, absorbs numerous processes of interaction between different economic entities that have their own priorities in achieving economic benefits, obtaining advantages that can be characterized as environmental benefits and ensuring appropriate social accomplishments. The crisis situation in this dimension manifests itself through the imbalance of the priorities of socio-economic development of society and lack of coordination in the process of achieving the goals. The overwhelming focus on the widespread capitalization of resource use creates the preconditions for a significant limitation of social needs, which leads to the impossibility of a complete restoration

of the natural state of biological systems. The reflection of the consequences of this crisis situation in the medical sector is the emergence of a situation with consumers' insolvency for obtaining quality medical services. Therefore, defining the impact of health care on the formation of the solvency of society is the basis for the establishment of scientifically substantiated standards of socio-economic development for the effective state management of the branches of the national economy.

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KEY DIRECTIONS OF INCREASING THE NATIONAL COMPETITIVENESS IN THE CONDITIONS OF GLOBALIZATION

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Significant transformations related to the increasing importance of the concept of competitiveness occur in the context of the globalization of economic relations and the openness of developed economies. The modern development of the world economy, especially in the context of the contemporary globalization processes, along with the interdependence of the national economies and the formation of global commodity and financial markets has led to the significant interest in the problem of increasing international and national competitiveness. The issue of national competitiveness ranks first among the issues of national importance in terms of the relevance level, as they are closely related to the achievement of the country's dynamic economic development and the improvement of the living standards of its population.

For Ukraine the problem of finding ways to increase the competitiveness of all branches of economy in the context of globalization becomes extremely urgent. This problem is widely considered in the economic literature, both by the Ukrainian and foreign scientists. Based on the results of their investigations, it should be mentioned that there is no generally accepted notion of the national competitiveness in the economic theory. There is a wide range of interpretations of the definition of this an important economic category, beginning from the most generalized view of it, and ending with highly specialized and in-depth ones.

National competitiveness is also considered to be a multi-valued term which includes: first of all, the country's ability to achieve high rates of economic growth in the medium term; secondly, the high level of the overall productivity of factors of production in the country; thirdly, the ability of the country's organizations to compete successfully in international markets [10, p. 690].

According to Harvard dictionary "Field Guide to Business Terms", "the basis of competitiveness consists of the goods and services that can compete successfully in global markets" [1]. A more precise definition of this concept was suggested by the Belgian economist F.G. Prades, from the point of view of whom the national competitiveness is "... the country's ability to constantly increase its share in the

world market" [3]. Therefore, the country has some advantages over other countries in costs or quality of products that ultimately allow it to hold strong positions in the competition on the world market.

On the basis of the analysis of scientific works of domestic scientists devoted to the country's competitiveness, as well as the national competitiveness, it is worthwhile to note that Ya. Bazilyuk considers this economic category as one that characterizes the state of public relations in the country [5].

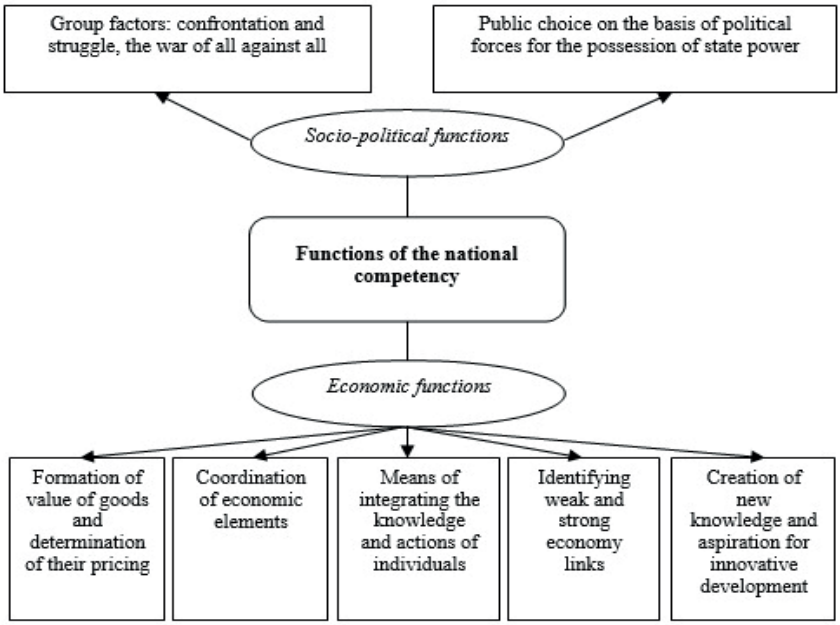

Figure 1. The core functions of the competitiveness of the national economy [grouped by the author on the basis of sources: 6, 9, 11, 12]

At the same time L. Antonyuk came to the conclusion that national competitiveness is a country's ability to occupy and hold stable positions in certain segments of the world market due to the powerful economic potential that provides economic growth on an innovative basis and the developed system of market institutions; possession of the considerable intellectual capital and investment resources; flexible response to changes in the world market and, accordingly, diversification of production, maximally upholding the implementation of national interests for the sake of economic security and reaching high standards of living of the population [4, p. 31].

National competitiveness (or competitiveness of the country) is the ability of the enterprises, organizations and industries to outstrip competitors in winning and

strengthening positions in foreign markets, caused by economic, social, political and other factors in the country [9].

N.I. Gorbal considers the national competitiveness as the ability of the state and society to jointly carry out economic activity in a market economy and provide the economic growth necessary for a stable and dynamic development of society [7, p. 312].

The analysis of the current market processes made it possible to identify the core economic and socio-political functions of the national competitiveness (See Figure 1).

The diversity of approaches to the formulation of the concept of the national competitiveness and the content of interpretations proposed by various authors, points to the volume of this concept and the duality of competition functions that determine the essence of the competition of the national economy.

Moreover, we identified that the model of national competitiveness is an integral system that includes the objects, the subjects, the scope and the features of national competitiveness, as well as its main spheres, sources of competitive advantage, and evaluation of the competitive situation, and can be supplemented by other components (See Figure 2).

In the conditions of the transformational economy, its competitiveness is considered to be a special institution, primarily because of the inability to self-development of the latter.

The competition of the national economy is a continuous process of consolidating some norms of competitiveness and the development of others, and combining of equilibrium and non-equilibrium forms, crucial for the development of aggregate capital. Evolution of this phenomenon includes not only certain conservative features, but also revolutionary and creative trends.

It should be noted that maintaining or expanding the country's share in the world market is an important, but only an external characteristic of national competitiveness. However, it is significant to define the notion of national competitiveness, its functions, components and factors of influence. An analysis of recent studies has revealed the necessity to find solution of the problem of assessing the country's competitiveness [4, 9, 11, 12].

In the modern world, one of the most influential world ratings of national competitiveness is Global Competitiveness Index (GCI), which is a set of relevant indices and indicators of the national competitiveness. This comprehensive index is based on 113 individual indicators, which are used to compute the countries' stages of development. Two-thirds of these indicators consist of the results of a global survey of heads of organizations (to cover a wide range of factors affecting the business climate of countries around the world), and one-third of them are concerned with the public statistics and the results of studies conducted on a regular basis by international organizations. All these above-mentioned indicators are combined into 12 pillars or drivers that determine the national competitiveness: institutions,

infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation. In turn, all the pillars are combined into 3 main sub-indices: basic requirements, efficiency enhancers, innovation and sophistication factors [8].

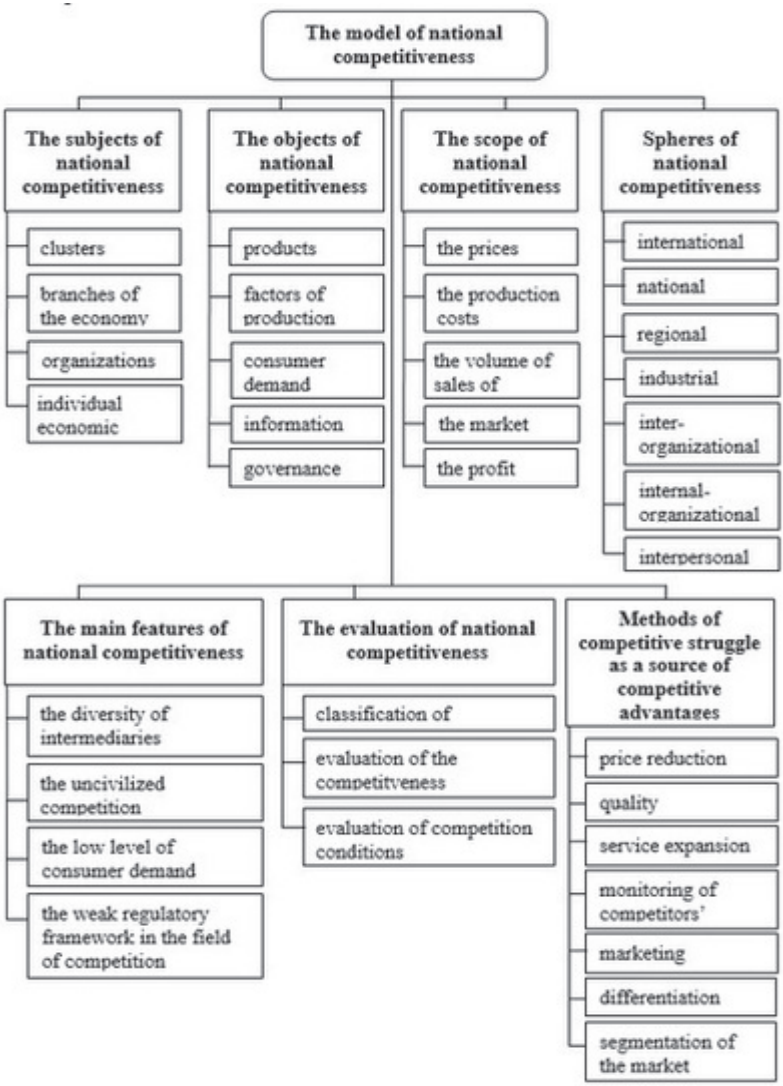

Figure 2. The model of national competitiveness [grouped by the author on the basis of sources: 6, 9, 11]

In general, it is worthwhile to note the unstable trend of the change in this index in Ukraine during 2007-2017 period. All this indicates the instability of the competitiveness of the national economy and the need to determine the factors that led to its decline (See Figure 3).

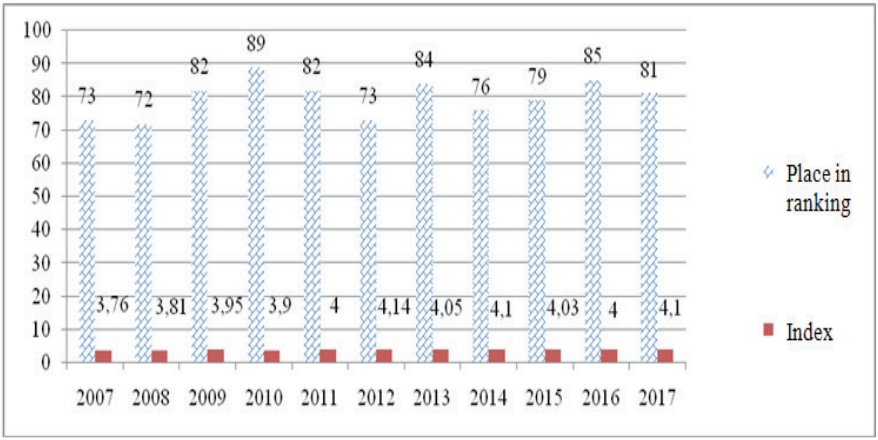

Figure 3. The dynamics of the Global Competitiveness Index (GCI) in 2007-2017 [developed by the author on the basis of sources: 2, 8]

The main reason for the fall in Ukraine's rating in 2017 is explained by low indices in four categories: institutions (the rank is 118 out of 137 countries), macroeconomic environment (121st positing in the ranking), financial market development (120th positing in the ranking) and the goods market efficiency (101st position) (See Table 1).

On the basis of the above-mentioned considerations we have assumed that the decrease in the index of Ukraine in terms of indicators of institutions (1st pillar) is due to low ratings on such indicators as protection of property rights, including minority rights, efficiency of judicial and legal system of the state and its judicial independence, efficiency of government spending and its determinants, corruption in government bodies and political favoritism, police reliability etc.

In addition, the lowest rating among the core indicators of the macroeconomic environment (3rd pillar of the Global Competitiveness Index) is the direct result of a large deficit of Ukraine's state budget, as well as the low level of gross national savings and high sovereign risk.

On the basis of the results obtained on the available data, it seems possible to note that nowadays Ukraine scores 101st position (out of 137 countries ranked) in the terms of good market efficiency (6th pillar), which can be explained by the inefficient taxation system and high level of taxes, lack of effective antimonopoly policy, low level of development of the existing market structures.

Table 1

The main pillars of the Global Competitiveness Index of Ukraine in 2017 [developed by the author on the basis of source: 2]

Global Competitiveness Index	Rank / 137	Score (1-7)
Subindex A: Basic requirements	96	4,2
1st pillar: Institutions	118	3,2
2nd pillar: Infrastructure	78	3,9
3rd pillar: Macroeconomic environment	121	3,5
4th pillar: Health and primary education	53	6,0
Subindex B: Efficiency enhancers	70	4,1
5th pillar: Higher education and training	35	5,1
6th pillar: Goods market efficiency	101	4,0
7th pillar: Labor market efficiency	86	4,0
8th pillar: Financial market development	120	3,1
9th pillar: Technological readiness	81	3,8
10th pillar: Market size	47	4,5
Subindex C: Innovation and sophistication factors	77	3,5
11th pillar: Business sophistication	90	3,7
12th pillar: Innovation	61	3,4

As we can observe from the published Global Competitiveness Index in 2017, the financial market development of Ukraine (so-called 8th pillar) is constrained by the low availability of financial services in the state and the markets for those services, primarily loans, the insecurity of banks, the underdevelopment of the stock market and its inefficient regulation.

At the same time, there is an increase in some individual indicators in Ukraine compared with the average indicators for Eurasia such as: infrastructure, health and primary education, higher education and training, market size and innovation (See Figure 4).

Obviously, in the context of modern economic conditions, the state policy of Ukraine should not be tied to certain theoretical models, but should be based on an analysis of the costs and benefits of any decision that is made on reasonable forecasts, and most importantly, must take into account the factor of the imperfect institutional environment.

By themselves, market advantages will not lead to the formation in Ukraine of an economic structure capable of ensuring the country's competitiveness. Rather, they will contribute to the establishment of the raw material economy in the country, and consequently, and relatively low growth rates of labor productivity in it. On the other hand, traditional industrial policy options (sectoral development priorities,

public investment, high taxes or preferences for individual economic entities) will not only lead to a decline in efficiency, bureaucracy and corruption; they are unsuitable in themselves, because of the significant volatility and uncertainty of growth points in the global economy.

The program of modernization of the national economy as an integral part of the strategy to increase its competitiveness should be aimed at the development of new technologies, and improvement of the quality of life of the population, by increasing labor productivity (See Table 2).

Figure 4. The key pillars of the Global Competitiveness Index of Ukraine comparing with Eurasian economies in 2017 [2]

Table 2

Measures to modernize the Ukrainian economy in order to improve its competitiveness [suggested by the author on the basis of sources: 2, 6, 9, 12]

Competitive disadvantages of the economy	Measures
1	2
1st pillar: Institutions	the formation of a mechanism for creating a state order on the use of new technologies through the introduction of modern standards; strengthening of the protection of the rights of entrepreneurs in the practical work of the law enforcement system, its purification from corruption; increasing the effectiveness of the judicial system of resolving economic disputes, its protection from administrative and criminal pressure; removal of antimonopoly bodies from the structures of the state executive power, ensuring their independence and responsibility for the proper performance of their functions; development of modern transport hubs that can significantly improve the speed and reliability of combined transport; the development of information infrastructure on the basis of the modern satellite communication systems; environmental protection on the basis of the environmentally friendly technologies; ensuring the priority of state support for R & D, conversion of science-intensive industry and stimulating scientific and technical progress, increasing government spending in these areas; subsidizing the costs of protecting intellectual property on domestic inventions and developments abroad.
3rd pillar: Macroeconomic environment	increasing the effectiveness of state control over the use of depreciation charges and accumulation funds at enterprises controlled by the state (including natural monopolies) in order to place orders among manufacturers of domestic equipment; subsidizing imports of advanced modern technologies, scientific and technical information.

Continuation of the Table 2

1	2
6th pillar: Goods market efficiency	drastic changes in the policy of refinancing of commercial banks, continuation of the trend to reduce the discount rate; development of unsecured lending for innovative projects; de-bureaucratization of the banking system, by reducing the transaction costs of obtaining a loan; changing the criteria for granting a bank loan with a simplified form of documents for investment projects; state insurance of risks for commercial banks on large innovative projects and strategically important directions; allowing insurance companies and pension funds to participate in venture projects; the formation of an optimal network of trade and intermediary organizations, a warehouse for the implementation of effective wholesale trade, shredding supply lines, the provision of conservation services, packaging and acquisition of orders and their delivery with minimal loss; creation of transnational corporations with wholesale intermediary activity, as well as a network of warehouses, consignment and customs warehouses; reconstruction and updating of the existing warehouse facilities with simultaneous improvement of technologies for warehouse processing of goods, introduction of new types of equipment, mechanization and automation of warehouse operations; intensification of the development of the infrastructure of exhibition and fair activities.
8th pillar: Financial market development	the creation of a system of depreciation funds, that is, the use of depreciation funds for their economic purpose; ensuring the conditions for the effective functioning of the leasing market as one of the main tools for updating fixed capital of the business entities; implementation of measures to improve the banking market and insurance market in terms of effective investment financing of the real sector of the economy; the formation at the state level of a system of information support, statistical support, and educational programs for timely monitoring of the results of renewal of fixed capital and the delivery of basic principles to the enterprises, the results of activities in this direction; a reduction in the profit tax rates in order to stimulate the mechanism of reinvestment of profits and to revive the amortization policy of enterprises; the establishment of a taxation system in which depreciation charges, which are spent by enterprises on the renewal of fixed capital would be taxed on profits in the general procedure; accounting of all costs of enterprises for R & D, modernization of production and introduction of new technologies as part of production costs, their exemption from taxation; provision of tax benefits of newly acquired property, especially high-tech one; creation of the mechanism of benefits for accelerated depreciation and various additional write-offs categories.

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THE INFLUENCE OF AGRICULTURAL SECTOR ON PROVISION OF FOOD SECURITY IN UKRAINE

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Introduction. Ensuring food security is a strategic problem that any government may face in its effort in carrying out of its domestic and foreign policies. It is quite difficult to talk about any national stability if the state is not able to provide its citizens with a sufficient and full level of consumption of basic food products and cannot conduct an independent foreign policy if the food market in the country depends on import intervention.

Food security is a state of affairs where, on the basis of sustainable functioning of the agricultural sector, an optimal level of physical and economic accessibility to foodstuffs for all layers of the population is created, with respect to volume, assortment and quality at the level of scientifically based recommendations for dietary intake provides an appropriate level of physical activity and psycho-emotional health of each person and the development of the nation as a whole.

Recent studies show, that at present there is no country in the world, which does not deal with food security issues. Ultimately, this concerns the production of food products, their distribution, import / export and consumption of food. However, each country has its own tasks of improving the food supply of its population growth, depending on the level reached in solving this urgent problem [1].

The need to obtain an objective assessment of the current state of the food security situation in the country, as well as the need to maintain this state at an optimal level, suggests the use of a system of special indicators used in world practice. These indicators establish the specific developmental benchmarks that determine the border of the negative processes, giving signals to market participants about possible unfavorable areas, as well as possible reduce of the global level of food security.

Main text. Limit values of indicators characterize the marginal limitations, below or above which, a certain economic (social or ecological) system leaves the state of equilibrium, and after unbalancing it passes into area, dangerous for further functioning and development. Constant ignoring of these limitations can lead to destructive tendencies in the development of the economic, social and environmental spheres, which in the long run will negatively affect the standard of living of the population of the country as a whole. The international reference values of economically developed countries, as well as the best results achieved in the aggregate of regions and countries, various recommendations of international organizations, leading world and domestic experts, own expert estimates, and maximum (minimum) indicators from the whole set of indicators are usually used

as the marginal limitations [2].

According to the Order of the Ministry of Economic Development and Trade of Ukraine No. 1277 of October 29, 2013, "On approval of Methodological recommendations for calculating the level of economic security of Ukraine", it is advisable to use eleven indicators for assessing food security, as well as proposed method of its determination and certain weighting factors [3].

Comparing the indicators defined in regulatory documents, we consider it worthwhile to note that the average daily caloric intake is usually defined as the sum of the products of a unit of a certain mass of individual types of food daily consumed by a person and their energy value, while ensuring the human diet with the main types of products is defined as the ratio between the actual consumption of a particular product and its rational daily food consumption rate (See Table 1). The grain self-sufficiency (which is defined as the ratio between the volume of grain in the state food grain reserve and the volume of domestic consumption of bread and grain products by the population) has a similar interpretation in the above-mentioned normative acts.

Moreover, it should be emphasized that in the Methodological recommendations for calculating the level of economic security of Ukraine, the indicator of providing the human ration with basic products is specified for the relevant food groups.

As we can see from the Table 1, the state of the country's food security is determined by a wide range of indicators that complement each other and require further improvement. We consider it expedient to apply a unified system of food security indicators in Ukraine, which will allow us to really assess the state of the food security of the country in order to timely implement appropriate measures to improve the situation.

It seems important to pay attention to the fact that in September 2011, due to the initiative of Food and Agriculture Organization of the United Nations (FAO), a round table with experts was organized on the theme related to measuring hunger in the world. As a result of this event, a system of indicators to measure the level of national food security was completed. In total it was suggested by the experts to use 26 indicators, which can be grouped into 3 main categories [4]. The first one contains the decisive factors, or determinants only, which characterize the structural conditions of the national food security. For example, deterioration in the state of food security is possible due to the lack of adequate policies for the application of emergency measures. The second group includes indicators or consequences that provoke threats to the food security due to inadequate consumption of products or nutritional anthropometric deficiencies. And, finally, the third group of indicators consists of those that provide information on the rate of vulnerability of food security, based on the observations of past events and their consequences for the national food security [4].

Table 1

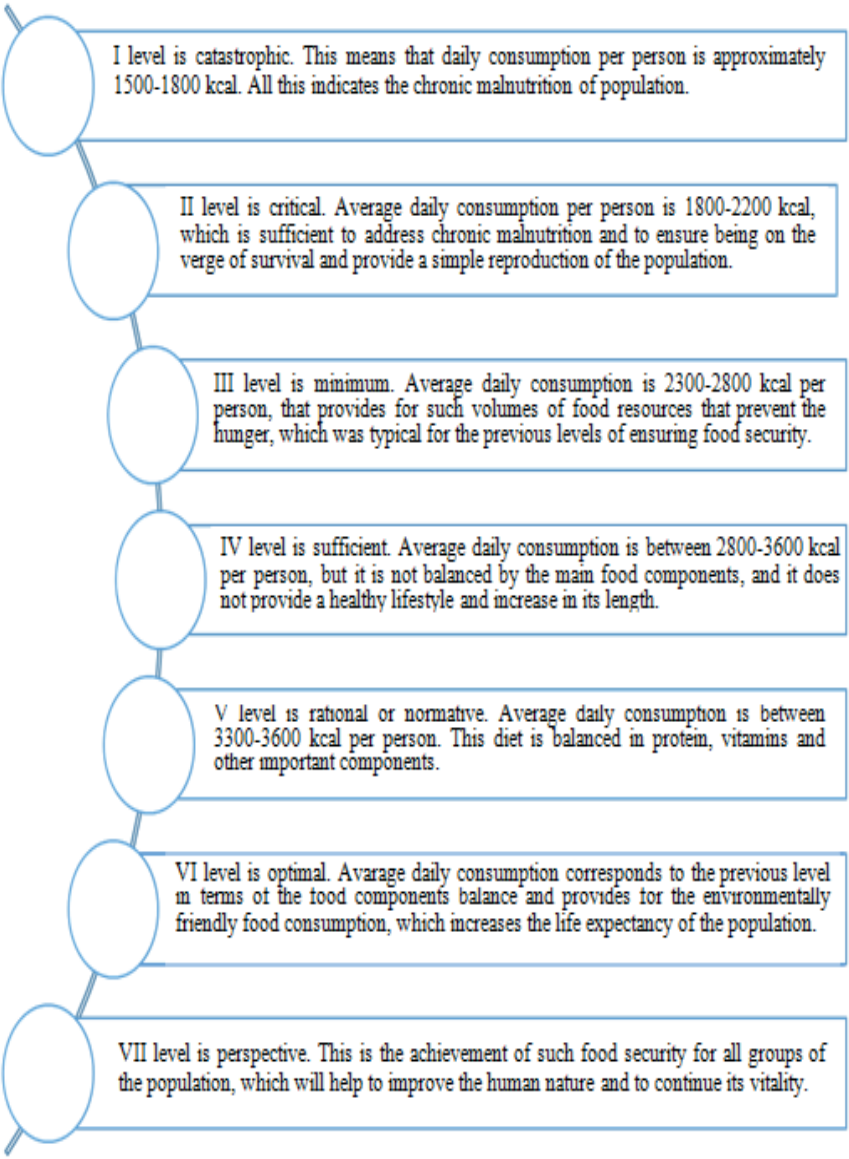
The main indicators of food security adopted in Ukraine

Item	Indicator, unit of measure	Procedure for calculating the indicator	Indicator value
1	Average daily caloric intake, ths. kcal	-	0,0945
	Ratio of production volumes and consumption of meat and meat products per person, percent	The volume of the meat and meat products production, ths. t / the size of available population, mln. people / the consumption fund of meat and meat products, kg per person	0,1048
2	Ratio of production volumes and consumption of milk and milk products per person, percent	The volume of milk and milk products production, ths. t / the size of available population, mln. people / the consumption fund of milk and milk products, kg per person	0,1071
4	Ratio of production volumes and consumption of eggs per person, percent	The volume of eggs production, ths. t / the size of available population, mln. people / the consumption fund of eggs, kg per person	0,0971
5	Ratio of production volumes and consumption of oil per person, percent	The volume of oil production, ths. t / the size of available population, mln. people / the consumption fund of the oil, kg per person	0,0921
6	Ratio of production volumes and consumption of sugar per person, percent	The volume of sugar production, ths. t / the size of available population, mln. people / the consumption fund of the sugar, kg per person	0,0870
7	Ratio of production volumes and consumption of potato per person, percent	The volume of potato production, ths. t / the size of available population, mln. people / the consumption fund of the potato kg per person	0,0958
8	Ratio of production volumes and consumption of vegetables and gourds per person, percent	The volume of vegetables and gourds production, ths. t / the size of available population, mln. people / the consumption fund of the vegetables and gourds, kg per person	0,1021
9	Annual grain production per person, t	The volume of grain production, ths. t / the size of available population, mln. people, тис. осіб	0,0893
10	Volumes of grain stock at the end of the period, percent to consumption	The existing volume of grain stock, ths. t / (total resources of grain and leguminous crops, ths. t – the volume of export of grain and leguminous crops, ths. t) x 100	0,0351
11	Share of imported foodstuff in the total sales of trade networks, percent	100 - share of the sale of food products produced in the territory of Ukraine, through the trade network of enterprises, percent	0,0948

Compiled on the basis of the source: [3]

Analysis of the last scientific works shows that a real picture of the food situation in the country can be obtained through a comparison of the existing level of consumption with the maximum permissible levels of food consumption [5]. To this end, scientists have developed a classification of several levels of food provision for the population, built on the basis of the conformity of food security

with the tasks of increasing the birth rate, preserving health, ensuring active human activity and achieving the maximum possible level of life expectancy under modern economic conditions (See Figure 1).



Built by the author on the basis of the source: [5]

Figure 1. Classification of food security levels of the population

As a system-forming component of the national economy, the agricultural sector of Ukraine plays an important role in preserving sovereignty of the country and ensuring its national food security. The influence of the agricultural sector on the formation of a competitive position of the national economy on the world market is significant, especially given the rather complicated socio-economic and political situation in Ukraine (See Figure 2).

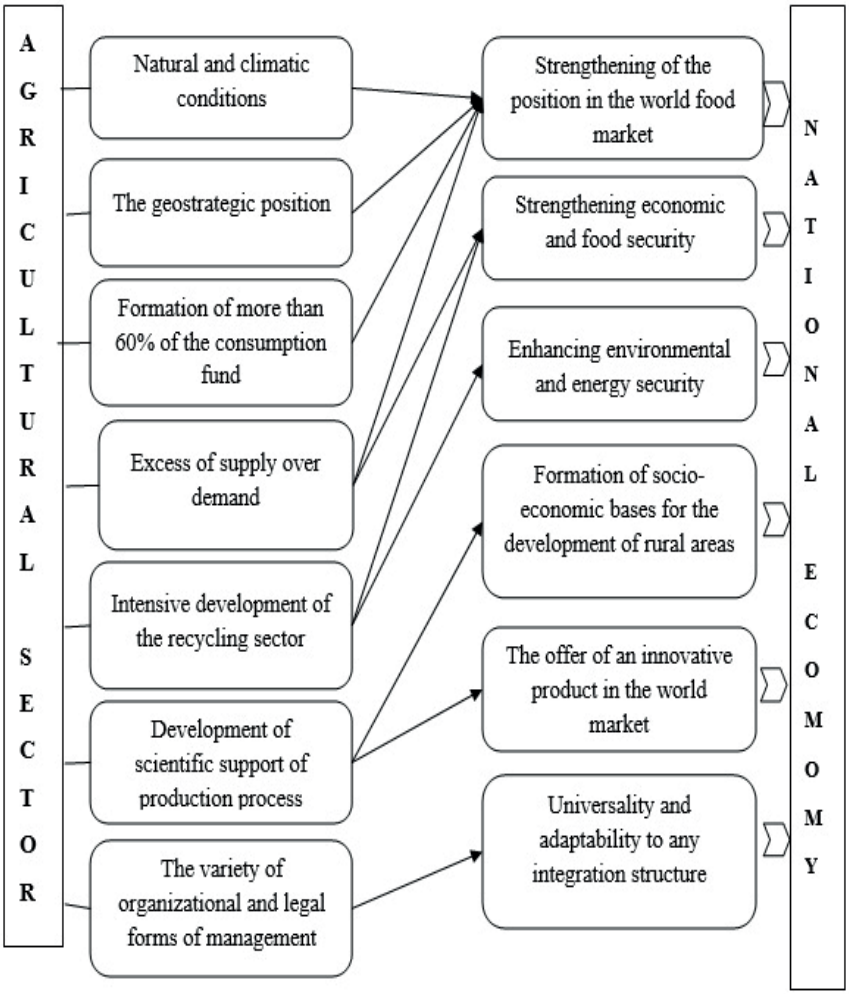


Figure 2. The influence of the agrarian sector on the formation of a competitive position of the national economy in the world market [6]

In this regard it should be mentioned that the expenditures of the state budget

of Ukraine for 2017 amounted to 735,4 billion UAH, which is 374,9 billion UAH higher in comparison with 2012. At the same time, it should be noted that the financing of the agricultural sector of the Ukrainian economy is insignificant and tends to decrease. Thus, for example, overall state budgetary expenditures on the agrarian sector decreased by 3,1 billion UAH in comparison with 2012. The least expenditure on subsidizing the agrarian sector was recorded in 2016 and amounted to 1,6 billion UAH (See Figure 3).

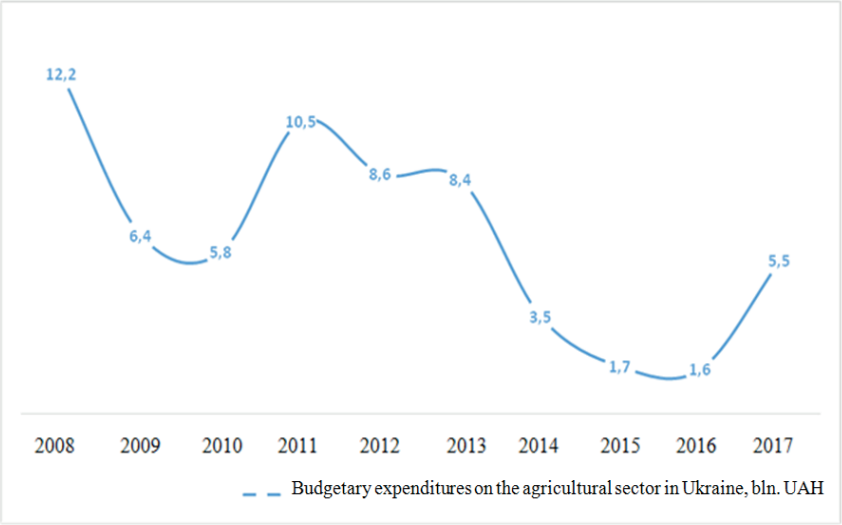


Figure 3. Budgetary expenditures on the agricultural sector in Ukraine

The performed calculations make it possible to ascertain that the share of the overall budgetary expenditures of Ukraine, intended for financing the agricultural sector, is less than 5 % of the state budgetary expenditures established by the Ukrainian legislation. It should be noted that the agrarian sector of the country does not fully ensure food security for its population. In 2016 Ukraine received 55,2 points in the overall ranking by the Global Food Security Index, which encompasses 109 countries, and found itself in 63rd place.

In terms of economic accessibility of food, Ukraine took 58th place in the given ranking of the countries, mainly due to the food consumption indicator, which is considered to be the share of household expenditure on food consumption in total consumption expenditure. In contrast to other countries, Ukraine had one of the highest proportions of household expenditure allocated to food (totally, 37,5 %, which is 12,4 % more than the world average).

Table 2

The results of SWOT analysis of food security ensuring in Ukraine

Strengths	Weaknesses
- the ability of the agricultural sector and related sectors of the economy to ensure the production of the necessary amount of food and food products; - favorable natural and climatic conditions that allow to develop the agrarian potential of the country; - availability of necessary volumes of carryover stocks of grain; - increase of productivity of the main agricultural crops to the world average level; - increase in the level of sales of all types of agricultural products; - the availability of scientific and human resources, the existence of the system of educational and scientific institutions;	- the decline in production and the lack of interest of domestic producers in the production of products; - ineffective regulatory framework regulating food security in the country; - disparity of prices for raw materials, means of production, finished products and services in various fields of economic activity in the country; - discrepancy between the growth rates of prices for goods and services and wage growth, increase of unemployment; - downsizing of enterprises functioning in the agricultural sector of the economy; - extensive model of agricultural sector development; - reduction of the share of products with a high energy content in the diet of the population with a simultaneous increase in the proportion of relatively cheap food;
Opportunities	**Threats**
- the development of an effective pricing mechanism and ensuring of parity prices for agricultural products; - restrictions on imports into the country; - increase of efficiency of functioning of all branches of agricultural production on an innovative basis; - the solution of the problem of raising the standard of living of the rural population and its social protection; - ensuring sustainable growth in livestock production and expanding its accessibility to the population;	- decrease in living standards of the population; - dependence of the national economy on the policy of banking structures; - a significant excess of the growth rates of the population's money income to the growth rates of consumer prices; - legislative and political risks; - tax hurdles; - monoculturization of agriculture and non-observance of crop rotations; - strengthening the dependence of the national economy on agricultural producers and food suppliers; - an increase in the share of food expenditures in the household budget.

Source: systematized by the author

According to the indicator "physical availability of food", Ukraine occupies the 79th place and has the largest number of components that negatively influence the national food security: the amount of government spending on research in the field of agriculture (-13,4%), the state of the agricultural infrastructure (-5,6 %), the level of political instability in the country (-26,8%) and the level of corruption in the economy (-36,5%). In general, the position of Ukraine in the Global Food Security Index is deteriorating year by year: 51st place in 2012, 52nd place in 2013, 53rd place in 2014, 59th place in 2015 and 63rd place in 2016. In terms of quality and safety Ukraine received only the 47th place in the ranking, which is explained by the negative impact of the dietary recommendations (-13,7 %).

In 2016 the USA gained the first place with 86,6 points, followed by Ireland

(84,3 points), Singapore (83,9 points), Australia (82,6 points) and Netherlands (82,6 points) respectively [7].

Food security is not an agrarian problem only. This problem has a complex character and is connected with the macroeconomic development of the country as a whole and its regions in particular. At the same time, in some regions where agricultural sector plays a significant role in the development of the regional economy, the problem of the efficiency of functioning of this sector is considered to be one of the remaining challenges in ensuring food security in the certain territory. The growth of production and the increase in the efficiency of the functioning of the agricultural sector ensures the improvement of macroeconomic dynamics, the incomes of the population increase and, accordingly, the improvement of the quality of nutrition of the population [8].

Conclusions. The problem of food security in the conditions of modern development of the economy is of paramount importance. The results of the analysis carried out and the problems identified are considered to be the basis for SWOT-analysis for ensuring the food security in Ukraine (See Table 2).

Consequently, ensuring the national food security is hardly possible without an effectively functioning agricultural sector of the economy the enterprises of which not only use resource-saving technologies, but also actively implement various innovations in production processes, have a strong material and technical base and carry out the production of competitive products.

It is necessary to clearly define the priority directions for the development of the agricultural sector and to provide sources for its further investment. A well-established mechanism for the functioning of production and economic relations in the agricultural sector is able to increase the rate of self-sufficiency of selected types of products and, as a result, to ensure the country's food security, to develop the infrastructure of rural areas and to preserve the labor potential of the rural territories.

State support for the agricultural sector in Ukraine is implemented with the use of multi-vector approaches, tools and levers, which have an ambiguous impact on the dynamics of this sector development. In particular, the financing of the agricultural sector by the state is rather insignificant and tends to decrease.

Therefore, the development of agricultural production in any country can be achieved through a harmonious combination of organizational, administrative and economic methods of regulation of the agricultural sector of the economy. It is clear that only under such conditions it is possible to achieve social principles and goals of economic development on the basis of market principles in the sphere of agricultural production.

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FORMATION OF THE INFORMATION SECURITY POLICY OF AN ENTERPRISE

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In the context of the globalization challenges, successful business conduct requires a faster availability of information on current market conditions, the financial position of competitors, the newest innovation developments, and the last development trends in specific areas of science and production.

At the same time, despite the many years of experience of various enterprises, they still remain vulnerable to unlawful encroachments of organized crime and individuals acting alone not only for the purpose of abduction of information, but also causing harm to the existing software components, technical-technological provision, and disclosure of commercial secrets. Therefore, ensuring the long-term information security of an enterprise and preserving its competitive advantages over the other organizations that play in the same market place, becomes an important necessity for further functioning of modern business entities.

The problems of construction and functioning of the information security system of the enterprises allowed us to consider in detail the most significant issues related to the construction of an effective information security policy for these business entities, which is especially important in today's processes of globalization and integration, because it is impossible to create favorable conditions for the safe and sustainable development of the enterprises without the application of the effective provisions countering unfair competition and various types of information threats.

The creation of an effective information security system requires the implementation of an integrated approach, the most important element of which is related to the formation and implementation of an information security policy.

Taking into account the results of the study of domestic and foreign scientists and researchers, the etymological and epistemological aspects of the concept of the information security policy of the enterprise can be distinguished.

The term "information security policy", according to the worldwide-known free online encyclopedia, can be defined as a set of requirements, rules, restrictions and recommendations, regulating the order of information activities in an enterprise and aimed at achieving and maintaining of its information security [10].

Yu. Kovalenko proposes to define the enterprise's security policy as a set of guidelines, rules, procedures and practical methods of information security that regulate the process of management, protection and distribution of valuable information in an enterprise [7].

Another group of authors defines the duality of the concept of information security policy of an enterprise. On the one hand, they identify this policy with the

general principles of working with information resources (databases) for each of the categories of users, and on the other, they characterize it as clearly defined rules of such activity [4, p. 76].

A modern enterprise should be able to properly build an information security policy, that is, to develop and effectively implement a set of preventive measures to protect confidential data and information processes. Such a policy, according to L. Vlasova, presupposes appropriate requirements for personnel, managers at all levels and even technical services [3, p. 14].

Foreign scientists often use the term "information security policy" to describe the perfect standard, with the help of which the expediency of costs, as well as the recoupment of these costs, for protecting resources can be determined. Consequently, the head of the enterprise needs to compare benefits with the costs prescribed in the information security policy to determine the effectiveness of spending [4, c. 82].

Security policy (information security policy of an enterprise) can be also considered as a collection of documented rules, procedures, practices or guidelines in the field of information security that guide the organization in its basic activities [6, p. 90].

A more technological approach to the consideration of the essence of information security policy defines it as "a set of rules for the protection of resources, including information assets of distributed computer systems" [9].

In this context, special attention should be given to the definition of the information security policy, which arose as a result of the activity of a wide range of business entities. Thus, the top manager team of the one state-owned enterprise in a specially developed information security program determined the information security policy as a reliable provision of information security of the enterprise and, as a consequence, the prevention of material, physical, moral or other damage in the process of design and technological and information activities.

At the same time, top manager team of another organization considers this concept not only as a systematized presentation of high-level goals and objectives of information protection, which should guide the enterprise in its activities, but also as a set of basic principles, which provide a foundation for designing a management system for its information security, able to prevent business-threatening risks.

Some enterprises use international standards as the basis of the information security policy creation, in particular the US security standard "Trusted Computer System Evaluation Criteria" or "TCSEC standard", better known as the "Orange Book" [5].

Summarizing the above definitions, it is worthwhile to note three main aspects of the information security policy:

- first of all, it is a set of laws, rules, practical recommendations and experience that determine management and design solutions in the field of enterprise information security;

- secondly, effective management, protection and distribution of information in

the system on its basis is carried out;

- thirdly, it should cover all the features of the process of processing and protecting information, determining the behavior of the information system in various situations.

Thus, the term "information security policy" can be used both in a broad and a narrow sense. In a broad sense, the information security policy is defined as a system of documented management decisions to ensure the information security of an enterprise. In the narrowest sense, the information security policy is understood as a local normative document that defines the information security requirements, the system of measures, or the procedure for actions, as well as the responsibility of the organization's employees and the core principles of the existing control mechanisms in business to ensure information security.

All this indicates that an important condition for success in protecting information resources of an enterprise is the creation of an atmosphere in the organization that is conducive to supporting the priority of information security. The information security policy is formed from the "top down": first of all, the enterprise's management determines the version of the information security policy, after which the policy is taken by middle and lower managers, and then by other personnel categories. However, in the considered approaches to the definition of the nature of information security policy, it is considered as a set of rules, norms of behavior, documents, instructions, standards, procedures for protecting information resources of an enterprise.

Nowadays ensuring information security of any enterprise implies the need for an effective information service delivery and management of all means of comprehensive information protection and adequate reflection of the threats to information security. The main objective of measures taken to protect information is to guarantee the integrity, reliability, accessibility and confidentiality of information in all its types and forms, including documents and data that are processed, stored and transmitted in information and computing systems, as well as in the telecommunications systems regardless of the type of these data carriers.

At the same time, the main prerequisite for the development of information security policy of an enterpise is related to the internal and external requirements.

Thus, the internal requirements include: the requirements of the eterprise's management system, ensuring competitiveness, demonstrating the interest of top management in ensuring enterprise information security, involving employees in the process of ensuring enterprise information security, reducing the cost of insurance payments, and economic feasibility of these measures. The external factors should include as follows: the requirements of current legislation and of adopted standards, the requirements of customers and business partners, the necessity for certification, and the requirements of auditors etc. The information security policy is a high-level plan, which describes the goals and objectives of an enterprise's security activities. To create the information security policy of an enterprise, the following areas of

information system protection should be used: protection of information system objects, protection of processes, procedures and programs of information processing, protection of communication channels, suppression of spurious electromagnetic emissions, and protection of system management.

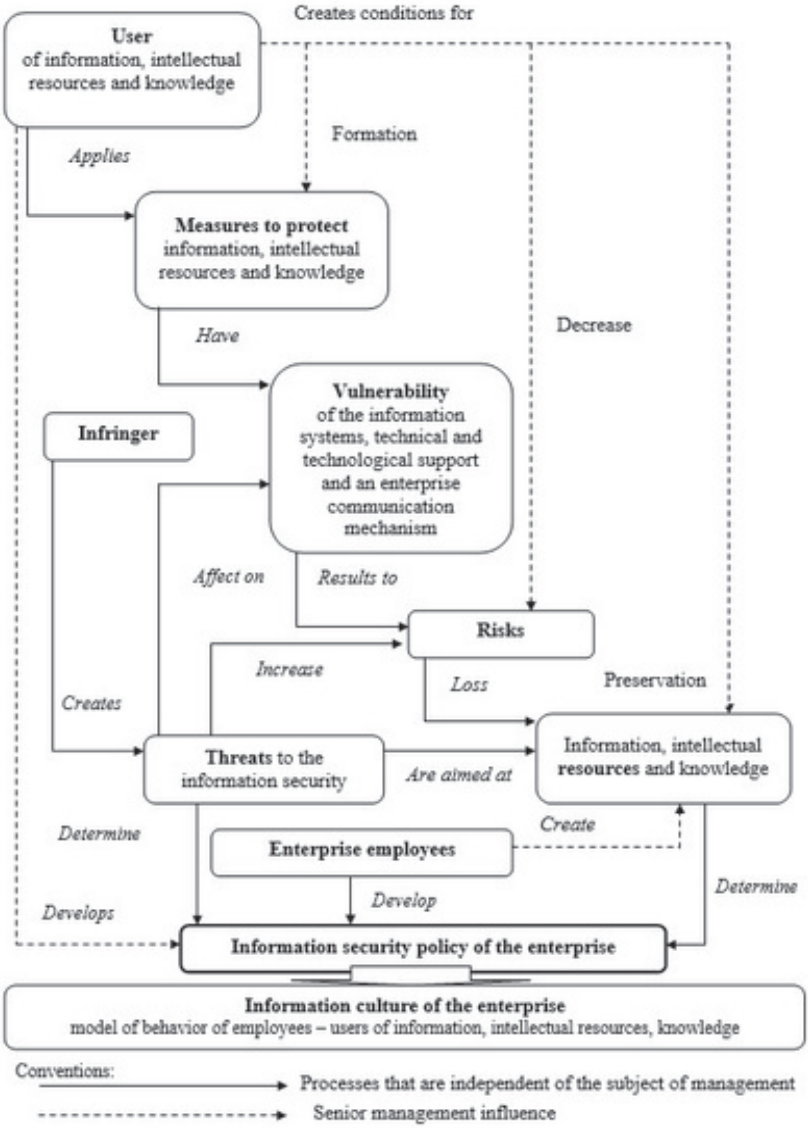

Figure 1. Model of formation of information security policy of an enterprise [developed by the author on the basis of data from: 1; 2; 5; 11]

However, it is suggested to pay attention to the existence of no less significant category requiring management and protection, which is related to intellectual resources and knowledge of employees of an enterprise. Taking into account the mentioned objects of protection, the information security policy of an enterprise requires the use of a new concept of its formation and implementation software, technical and technological support and implementation of the communication process. On the basis of the above considerations, it's reasonable to assume that the information security policy of an enterprise is the concept of the behavior of employees when carrying out various kinds of work with information resources, practical use of software, technical and technological support and implementation of the communication process. Consequently, the information security policy of an enterprise must be considered not only from the position of formalization (i.e. the development of documents, the creation of the information security plans, the establishment of rules and methods), but also from the point of formation of information relationships and the introduction of the user behavior model of the existing enterprise information system.

A proposed model for building an effective enterprise information security policy can be seen from Figure 1. In this context it is worth by saying that the given model is based on the adaptation of the currently valid international standards ISO 15408 and ISO 17799, as well as on the key aspects of the formation of the information culture of the enterprise [1, 2; 5, 11].

This model complies with the special regulatory documents on information security GOST R ISO / IEC 15408, the international standard ISO / IEC 15408 "Information Technology – Methods and Means of a Security – Evaluation Criteria for IT Security" and the international standard ISO / IEC17799 "Information Security Management" [1; 2; 5, 11].

The proposed model for the formation of the information security policy of an enterprise is a certain combination of the objective external and internal factors and their influence on the state of information security of an object and on the preservation of material or information resources on the basis of the formation of information relationships. This model, in contrast to existing ones, involves focusing not only on formalized measures to ensure information security, but also on the imple

This model, according to the proposed methodology, is constructed as follows: the value of the allocated resources is determined, both from the point of view of the possible financial losses associated with them, and from the point of view of the threat to the reputation of the enterprise, the disorganization of its activities, and the intangible damage from disclosure of confidential information.

The next step is to explain the relationship of resources, to define the threats and to assess the likelihood of their implementation.

Further, based on the established relationships, a system of measures for protecting information, intellectual resources and knowledge should be formed.

These measures should be able to reduce the risks to acceptable levels and to ensure a significant socio-economic efficiency. In contrast to the existing information resource protection systems, within the proposed model of information security policy formation, it is advisable to include recommendations on conducting regular inspections of the effectiveness of protection systems (reliability management) and measures to implement the enterprise information culture based on the model of employee behavior with information resources. Ensuring of the increased requirements for information security involves appropriate measures at all stages of the life cycle of information resources (See Figure 2).

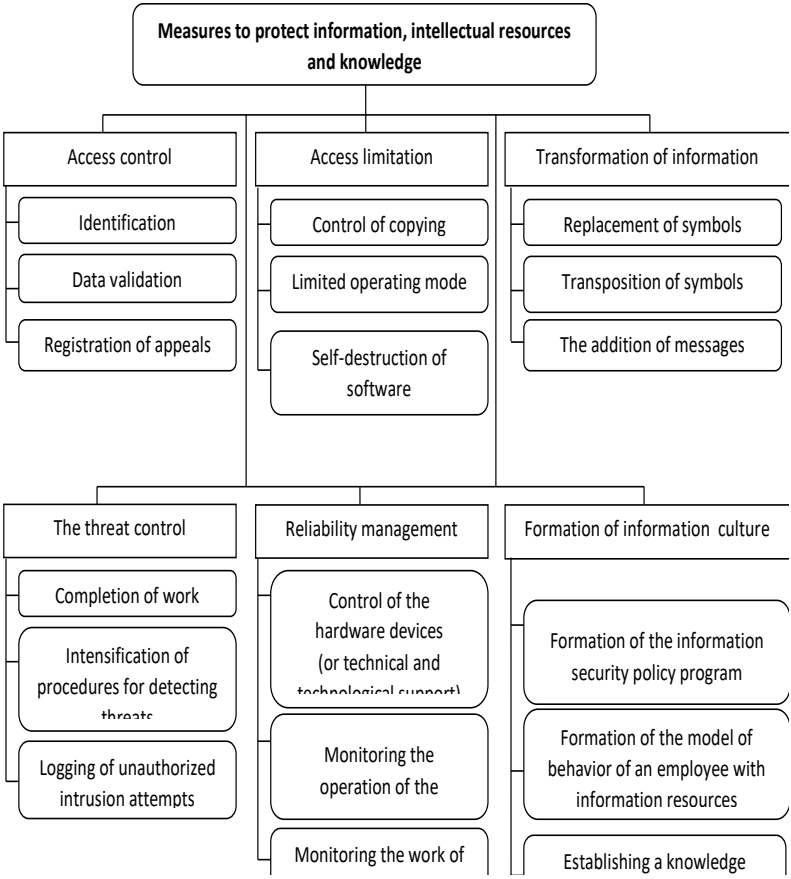

Figure 2. Measures to protect information, intellectual resources and knowledge [developed by the author on the basis of data from: 1; 2; 4; 8]

Planning of these measures is carried out after the completion of the stage of risk analysis and selection of specific activities. The compulsory component of the

model of information security policy formation should be a periodic verification of compliance of the existing information security regime, certification of the information system for compliance with the requirements of a certain security standard. An effectively developed information security policy can also serve as a benchmark that allows for the measurement of the degree of competence, as well as the effectiveness of the assignment and work discipline. In fact, the policy must prescribe high standards of information security in advance, therefore the knowledge and skills of the enterprise personnel must fully comply with these standards. Therefore, the personnel not only must be responsible for the information security of this economic entity, but also for the consequences of various illegal actions.

Conclusions. Foreign and domestic experience in the formation of the information security policy of an enterprise indicates that in order to combat all possible threats related to confidential information, protection of know-how and maintenance of the competitiveness of the business entity, a coherent and purposeful organization of such a counteraction process is needed. In addition, not only employees responsible for a particular line of business should take part in this process, but also highly-qualified specialists in the field of information protection, top manager team of the enterprise and its leading employees. For this purpose it is necessary to develop a concept of the behavior of employees when carrying out various kinds of work with information resources, use of software, technical and technological support and implementation of the communication process.

The purpose of developing the information security policy of a business entity in the field of information security is to determine the effective (from the point of view of the organization) direction of using information, intellectual resources and knowledge of employees, and to develop the procedures that prevent or react to security breaches.

The existence of a scientifically grounded and formalized information security policy is an indispensable condition for the comprehensive protection of a modern enterprise.

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RESEARCH OF THEORETICAL ASPECTS OF COMPETITIVE ABILITY AND SERVICES QUALITY MANAGEMENT IN TOURISTIC COMPANIES

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On the one hand, implementation and development of market mechanisms, environment instability, increasement of crisis processes in economics and fast temps of euro-integration expanded possibilities of accessing international touristic market and expansion of touristic services trade market, but on the other hand it caused aggravation of problems with competitive ability in Ukrainian touristic companies. Solving these problems requires active search of ways and methods to increase competitive ability on the touristic services market.

As long as need to increase competitive ability – is the way to success of touristic product in the market, it means that solving the problem of touristic product quality – is the hardest, it requires coordinated and purposeful work of all departments. So the special business line of touristic companies is development of management directions of competitive ability and touristic product quality.

Researching and solving competitive ability and touristic product quality issues is important not only because of practical significance of issue, but as a result of its not enough scientific processing. Competitive ability of touristic companies is need to be seen as real and potential ability and opportunity to research demand and to develop services.

Research of theoretical aspects of competitive ability and services quality, found reflection in works of Ukrainian and foreign scientists: M.M. Bil, M.P. Bondarenko, S.P. Gavriluk, K.A. Yesipova, V.M. Zaytseva, O.M. Korniyenko, N.N. Kobelchuk, T.V. Lisuk, I.V. Svida, T.O. Skripko, T.I. Tkachenko, T.S. Trusova and another.

Analysis of researching problem's scientific works showed that there theoretical and practical difference in designation of competitive ability and touristic services quality. So researching of this problem is actual.

Specificity of tourism sphere is that its product is new or partially imperceptible.

Service efficiency is rated by consumer in definite emotional conditions that depends on big amount of factors in which there are subjective characteristics of consumer, such as:

-features of education;
-age;
-culture traditions from guests country;
-concepts of comfort;
-habits;
-state of health or psychological status on the moment of visiting;

-physiological features of organism.

The most important parameters in service quality rating is:

- sensitivity – that physical environment in which services provide (interior, staff appearance);
- reliability, completeness and sequence;
- responsibility – staff desire to help the consumer, service guarantee;
- completeness – staff competence;
- accessibility – easiness in making contacts with service organization, convenient time of service providing;
- safeness – lack of risks and mistrusting from consumer;
- sociability – staff ability to talk on understandable for consumer language;
- consumer understanding – sincere interest to consumer, staff ability to enter into consumer level and to estimate his needs.

In competitive ability research rate of environment is important. When doing research of macroenvironment factors it is important to keep in mind 2 points:

- first is that all marketing factors are interdependent and affect each other. It means that their analysis is need to be done not separately but in a system.
- second is that grade of macroenvironment influence on different companies isn't the same and is depended on its size, territorial placement, business features.

Besides that, touristic companies need to identify, what from external factors affects the biggest influence on its functioning. So it is important to find factors that are potential threat for industry. Attention should be paid on external factors, to open additional opportunities for touristic companies.

The most important piece of external environment is competitors that are taking part in rivalry for consumers preferences. Practically no one touristic company can organize a tour alone, provide clients with all necessary transport, provide housing, organize food. To organize this process it is usually used counterparties that supplies missing pieces in complex servicing:

-ways of placement;

-vehicles;

-excursion services with escort and information supply for tourists;

-intermediary touristic enterprises;

-additional service sphere enterprises.

To key rating methods of enterprise competitive ability concern methods which are based on: product(service) life cycle; rating of product competitive ability; part of the market; theory of effective competition; competitive advantage; consumer price e.t.c.

Table 1

Analysis of macroenvironment factors in small business

Macroenvironment sphere	Macroenvironment factors
Economical	This factor gives the opportunity to identify how many and which services for consumers of touristic companies will be in demand. There are many factors that affect solvent demand of the population such as: level of economic development of the country, wage size, inflation and unemployment. High dependence of demand for touristic services on income level is need to be taken into account. So to select certain segment of market for service, touristic company need to proceed from financial situation of their potential clients. It allows to identify, which part of expenses in every group of people goes on touristic service using.
International	International activity takes on special significance for touristic business companies which activity is connected with servicing foreigners. Common feature of all indirect action external factors is that organizations can't affect them in most cases. Reaction on these factors can be adaptation or evasion.
Political	Factors are represented by government departments or competing consignments and groups. State and market are in complex relation that are determined by main system of views on society development, features of state development stages by leaders who implement policy. Wherein it is necessary to learn legislative acts that regulate economic activity in general and touristic business particularly.
Socially-Demographic	This factor is important in analysis of touristic companies market abilities. Issues that concern population and its placement in certain countries and regions, age structure with able-bodied population, students and pensioners. By collecting data in demographic processes we can analyze it's influence on touristic firm activities, identify ways of applying main efforts and forecast results of the future work.
law	Rights establishment, party responsibility and commitments in business relationship (relations between company and society, restriction on certain types of activity, consumers rights, enterprises registration procedure) Learning of the law part of macroenvironment provides studying the content of legal acts.
Ecological	This factor can't but affect on touristic company activity if the issue of rational using of natural resources and environmental protection going into a global size. Besides that ecology - is the most important element of motivating clients to do a trip and tourists engagement in one or another region or the country.
Cultural	The most powerful are standards accepted by society, systems of social rules, spiritual values, human relation with nature, work and each other. For example now in many countries people want to have more time for sport and recreation. It opens new opportunities for tourism sphere development.

To rate competitive ability of touristic companies we can adapt technique that is based on theory of effective competition [3]. Due to this theory the most able to compete are that touristic companies, where work in all departments and structures organized the best. Rating of work efficiency for all departments allows rating of efficiency of using resources by them.

Table 2

Criterias and indicators of competitive ability of touristic companies

Criterias and indicators of competitive ability	Indicators charachteristic
1. Efficiency of companies operative activity	
1.1. Expenses on creating touristic product, UAH	Showing touristic product creation expenses efficiency
1.2. Capital productivity	Characterizes capital using efficiency
1.3. Services profitability , %.	Characterizes production of services profitability degree
1.4. Work productivity, thou. UAH. /Person	Showing organization of producing and using of human resources efficiency
2. Finance resources management efficiency	
2.1. Autonomy coefficient	Charactrerizes company independency from loan sources
2.2. Paying ability coefficient	Showing companies ability to do its financial commitments and measure probability of bankruptcy
2.3. Absolute liquidity coefficient	Showing qualitative composition of methods which are sources of covering current obligations.
2.4. Coefficient of working capital	Characterizes efficiency of working capital using – time through which working capital passes through all stages of producing
3. Efficiency of sales organization and advancement of touristic product	
3.1. Profitability of sales, %.	Characterizes profitability degree of company's work on market and correctness in setting price of touristic product.
3.2. Coefficient of advertising efficiency facilities of sales stimulating	Characterizes economic efficiency of advertising and facilities of sales stimulating.

Source: own development on the base of [3]

First group includes indicators that characterize efficiency of company's operative activity: creating touristic product expenses economy, rationality of main capitals using, perfection of creating touristic product, work organization in touristic companies. There are indicators that show efficiency of finance resources management united in second group: company's independence from external sources of financing, company's ability to pay debts, possibility of stable development in the future.

In the third group included indicators that allows to receive the idea about sales management efficiency and advancement of touristic product on the market by the ways of advertising and stimulating. And in the fourth group we have competitive ability indicators of the touristic product (quality of the touristic product and it's price).

Due to the fact that every of these indicators have different degree of importance for company competitive ability coefficient calculating (CCA), by the expert way there were developed criteria's weights coefficients.

Criteria and company's competitive ability coefficient are carried out according

to the weighted average formula.

Competitive ability coefficient is carried out by the formula:

$$ССА = 0,1ЕВ + 0,24ФП + 0,33ЕG + 0,33КТ \quad (1.1)$$

where ЕВ - signification of company's operative activity efficiency criteria;

ФП – signification of finance resources management efficiency criteria;

EG – signification of sales organization and advancing of touristic product on market efficiency criteria;

КТ – signification of touristic product competitive ability criteria;

0,1; 0,24; 0,33; 0,33 – criteria weight coefficients.

Company's operative activity efficiency criteria (ЕВ) is calculated by formula:

$$ЕВ = 0,51В + 0,05Ф + 0,2РП + 0,15П, \quad (1.2)$$

where В – expenses on touristic product producing coefficient;

Ф – relative indicator of capital productivity; РП – touristic product profitability coefficient; П – work productivity coefficient;

0,51; 0,05; 02; 0,15 - criteria weight coefficients.

Company's activity finance state criteria(ФП) are calculated by formula:

$$ФП = 0,29КА + 0,20КП + 0,36КЛ + 0,15КО, \quad (1.3)$$

where КА – company's autonomy coefficient; КП – company's paying ability coefficient; КЛ – company's liquidity coefficient; КО – working capital turnover coefficient; 0,29; 0,20; 0,36; 0,15 - criteria weight coefficients.

$$EG = 0,57 РН + 0,43КР \quad (1.4)$$

where EG – sales organization and advancing of product efficiency criteria;

РН – sales profitability; КР – advertise and sales stimulating efficiency coefficient;

0,57; 0,43 - criteria weight coefficients.

Besides that, competitive ability rising is possible because of introduction of organizational events such like:

– modern touristic product development technologies introduction;

– touristic product sales rising and bringing of touristic product quality to the international standards; additional (or unpredictable) expenses on touristic servicing reducing;

– activation of advertising activity in touristic company; staff qualification rising on account of professional trainings and qualification rising courses;

– introduction of cumulative motivation system;

– for each developed touristic way, sold tour or satisfied customer, accrue interest to employee salary;

– interest employee in his work qualification rising and in rising work productivity by the way of introduction of immaterial method of introduction.

Tourism today is one of the most profitable spheres of domestic economic, that has potential of development. To achieve high competitive ability by touristic companies it is necessary to introduce recommended organizational events, that in conditions of empowering competitiveness on international touristic markets will

bring them to the leading positions on Ukraine's touristic market.

We can make a conclusion that as a main part of competitive ability of touristic companies system building it is need to be integrated an approach to basic management functions: analysis, planning, organization, motivation, control and regulation. Management of competitive ability on the touristic companies level is a complex of measures to systematically improve touristic product, search of new sales channel and service improvement.

Conclusions. As the management of company's competitive ability we need to understand complex of methods and ways of affecting creating and realization spheres of competitive ability products, entity goals and responsibility that are realized with complex of management methods.

Competitive ability management is on the all levels of touristic business and attracts all employees. So loyalty of touristic product consumers – is a difficult phenomenon that is characterized by many indicators and provides for using different methods of exploration and options of loyalty programs development. Difficulty of this phenomenon requires searching of the most exact marketing tools for hotel business services, complicates process of its searching and option in modern conditions of management.

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TWO WAYS OF WIN-WIN POLICY IN AGRICULTURE LAND-USE

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The territory of Ukraine covers an area of 603,700 km², making it the second largest country in Europe. More than 40 m ha in Ukraine are classified as agricultural land (80% arable), and about 50% of agricultural land consists of rich black soil. The share of agriculture in GDP currently stands at around 10% of the total GDP of Ukraine (206,099 m UAH). Approximately 5.175 m people (25% of the Ukrainian population) are economically active in the agricultural sector. 3 m of these are engaged in so-called informal labour relations, i.e. they are mainly occupied with subsistence farming on their household plots [2].

Vast expanses of Ukraine, as early as last led to extensive use of land. This led to its depletion, ecological pressures on the environment, development of unprecedented erosion processes. Each year, losses of soil constitute about 600 million tons, of water — 16 billion cubic meters. Area of degraded soils year after year increases by 90 thousand ha. Almost every third hectare (30,7 %) is eroded, and the second — deflationary dangerous.

In Ukraine extensive directions of land use have been exhausted, and reserves of land for cultivation are missing. In the world the reserves of land use taken to determine by indicators of possible expansion of land under cultivation to available arable land areas. In USA, Canada, Australia, Brazil it reach 100%, while in Ukraine, according to the experts of UN, — 0%. Besides were plowed the slopes, water protection zones and soils which are not economically profitable to grow crops [10].

A weak agricultural economy is unable to compensate for the intensity of farming technology. To maintaining fertility of eroded soils in Ukraine was spent 30% supply of nitrogen and phosphate fertilizers, and supply of potash were in 7 times lower than needs for compensation of their loss due to erosion. Thus, losses of yield on slightly eroded soils are 20%, medium eroded — 40 and greatly eroded — 60%. More than 15 billion UAH reaches total annual costs of net profit from erosion. This led to the fact that along with the loss of land resources to suffer significant damage to the economic and resource base of agricultural production.

Summarizing the conclusions of a significant amount of research of the current state of agricultural land-use and the causes for such effects, we note that in most disastrous consequences were the result of non-alternative choice between the economy and the environment by business in agriculture. Therefore, the main task of solving the problem of agricultural land use should be to develop a compromise model.

If we want to get businesses and financial institutions to be active participants

in solving problems, it is not sufficient to demonstrate that their participation will be good for the economy or the society as a whole. But, we also have to show that it will improve their balance sheets as well. If financial win-win situations can be created by mobilizing private capital, it is possible to strengthen the case against the argument that companies cannot afford to take environmental action.

There are measures of reduction the soil degradation at zero or negative net economic cost, which are good for the economy. However, it is a matter of disagreement how many opportunities are available, and what percentage of an environmental target can be achieved with no-regrets and win-win options. Supporters of anthropological influence reduction insist that there are plenty opportunities, and that climate change can be mitigated in a cost-effective way without undermining prosperity.

The concept of compromise model can be considered as synonym for the concept of win-win. There are two types of model, respectively win-win outcomes [15]:

1. The first type – economic win-win – is achieved when a problem is mitigated at a negative net economic cost, thus leading to a win for problem solving and a win for the economy.

2. The second type – financial win-win – is achieved when a problem is mitigated at a profit (negative net financial cost), thus leading to a win for problem solving and a win for the particular investor, company or industry.

Economic win-win situations contain activities that lead to positive environmental and developmental change. They do not involve significant trade-offs between the environment and the economy. Economic effects, thereby, can have many different meanings such as GDP, number of jobs created, consumer benefits, business competitiveness or average industry performance, and each researcher will have his or her own preference.

Financial win-win opportunities combine profit and sustainability. In this way, win-win opportunities overcome asymmetrical interests that have often prevented effective problem solving. It is worth distinguishing between real win-win arrangements that involve a net positive pay-off for all stakeholders, and relative win-win arrangements, where some parties may have to pay something, but not as much as under alternative arrangements. The latter is the case when car manufacturers facing a costly carbon tax see a requirement to increase the sales of clean cars.

An important question is how many latent win-win opportunities exist. There is much debate and uncertainty in estimating win-win options. While there is no reliable data to quantify the amount of win-win opportunities in either category, it is analytically pertinent to draw the boundaries around the term 'win-win'. A project can be considered win-win even if there are cheaper alternatives, that is, if opportunities exist, which yield greater net economic/financial benefits relative to cost. For example, if a government provides a grant to organic farming development, the project may be considered 'win-win', as long as the project is financially profitable

and the grant is lower than (a) the cost of subsidies given to generate an equivalent amount of agriculture products using conventional agriculture technologies or (b) the avoided costs of environmental and health damage. If 'win-win' projects included only those that are least costly, there would be considerably fewer win-win opportunities, as only the best projects would qualify.

The win-win policy in agriculture can considered in example of the prospects for the introduction the relevant technologies, resulting in significant economic and environmental benefits: erosion control, minimization of technogenic impact on soils, technological conservation lands etc. Now, there is a need to create a production system that integrates possibilities of ensuring the required qualitative, quantitative, or qualitative-quantitative result with obtaining the economic benefits of production systems. Obviously, contradict the natural phenomena is a very costly undertaking farming, so the principle to follow the natural processes by adaptation of the system is a priority for agribusiness.

This is in accordance with the widely used concept of Conservation Agriculture (CA) which is based on three principles applied simultaneously in practice [11, 5, 6]:

1. Continuous minimum mechanical soil disturbance (no-tillage and direct seeding with minimum soil disturbance).

2. Permanent organic soil cover (retention of adequate levels of crop residues on soil surface including from cover crops to protect and feed the soil, develop surface mulch).

3. Diversification of crop species grown in sequence or association (crop rotations and mixtures to help moderate possible weed, disease and pest problems, generate biomass, fix atmospheric nitrogen and serve as nutrient pumps).

FAO has worked for many years in the promotion of Conservation Agriculture in many countries of the world. Especially working across different language and cultural barriers it is very important to use an agreed terminology, since many of the commonly terms used for tillage operations, have different meanings for different people.

As an effect of CA, the productive potential of soil rises because of improved interactions between the four factors of productivity:

a. physical: better characteristics of porosity for root growth, movement of water and root-respiration gases;

b. chemical: raised CEC gives better capture, release of inherent and applied nutrients: greater control/release of nutrients;

c. biological: more organisms, organic matter and its transformation products;

d. hydrological: more water available.

Machinery and fuel costs are the most important cost item for larger producers and so the impact of CA on these expenditure items is critical. Most analyses suggest that CA reduces the machinery costs. Zero or minimum tillage means that farmers can use a smaller tractor and make fewer passes over the field. This also results in

a lower fuel and repair costs. However, this simple view masks some complexities in making a fair comparison. For example, farmers may see CA as a complement to rather than as a full substitute for their existing practices. If they only partially switch to CA (some fields or in some years), then their machinery costs may rise as they must now provide for two cultivation systems, or they may simply use their existing machinery inefficiently in their CA fields [4].

CA's benefits from ecosystem services derive from improved soil conditions – air-space, water, nutrition – in the soil volume explored by plants' roots. The improvement in the porosity of the soil is effected by the actions of the soil biota – such as microscopic bacteria, fungi, small insects, worms etc. - which are present in greater abundance the soil under CA. The mulch on the surface protects against the compacting and erosive effects of heavy rain, damps-down wide temperature fluctuations, and provides energy and nutrients to the organisms below the soil surface [8].

Society gains from CA on both large and small farms by:

• much-diminished erosion and runoff,

• less downstream sedimentation and flood-damage to infrastructure;

• better recharge of groundwater, more regular stream-flow throughout the year, and the drying of wells and boreholes less frequent.

• cleaner civic water supplies with reduced costs of treatment for urban/domestic use;

• increased stability of food supplies due to greater resilience of crops in the face of climatic drought;

• better nutrition and health of rural populations, with less call on curative health services.

The outstanding characteristic of the concept of Conservation Agriculture is a broad natural distribution of technological practice as a highly effective economic model of agriculture. This model is called as No-tillage, based on the specifics of the organization of manufacturing operations.

No-tillage is defined as a system of planting (seeding) crops into untilled soil by opening a narrow slot, trench or band only of sufficient width and depth to obtain proper seed coverage. No other soil tillage is done. Permanent or continuous no-tillage should be aimed at, rather than not tilling in one season and tilling in the other, or occasionally not tilling the soil. The soil should remain permanently covered with crop residues from previous cash crops or green manure cover crops, and most of these residues will remain undisturbed on the soil surface after seeding. Crop rotation and cover crops are essential elements that need to be applied in the no-till system [14].

In 1973/74 no-tillage was used only on 2.8 million ha world wide and 10 years later in 1983/84 the area under this technology had grown to 6.2 million ha with more than 75% of the total area being applied in the United States. By 1996/97 the area under no-till had grown to 38 million ha with the proportion practiced by

the United States being reduced to 50% of the total [3] and in 2009 the proportion practiced by the US has fallen to 25%. It is estimated that at present no-tillage is practiced on about 111 million hectares worldwide. 46.8% of the technology is practiced in South America, 37.8% is practiced in the United States and Canada, 11.5% in Australia and New Zealand and 3.7% in the rest of the world including Europe, Asia and Africa.

Europe is considered to be a developing continent in terms of the adoption of Conservation Agriculture. Only Africa has a smaller area under Conservation Agriculture/no-till than Europe. According to [1], European and national administrations are still not fully convinced that the concept of Conservation Agriculture is the most promising one to meet the requirements of an environmentally friendly farming, capable to meet the needs of the farmers to lower production costs and increase farm income, and to meet the consumer demands for enough and affordable quality food with a minimum impact on natural, non-renewable resources. The reliance of Conservation Agriculture on the use of herbicides and the alleged increased input of herbicides and other chemicals for disease and pest control are the main constraints for the full acceptance of Conservation Agriculture as sustainable crop production concept. European consumers are more solvent and have special claims to the foods, therefore European farmers prefer to use a model of organic agriculture.

Ukraine is a country where estimates on the adoption of no-tillage vary greatly depending on the source of information. Estimates vary from less than 30,000 ha to more than a million ha. Official government statistics on no-tillage state an adoption of 250,000 ha. Unfortunately, no-tillage systems as understood by the authors of this paper (see definition above), has not progressed as much as some people might wish.

According to Agrosoyuz (a large cooperative farm in Dnipropetrovsk), there are about 1.1 million ha of Direct Seeding technology being practiced in Ukraine. Direct Seeding here is a technique were a specially designed machine seeds directly after the harvest of the previous crop into undisturbed soil. This type of machine, which is very widely used in Ukraine, does a virtually complete disturbance of the soil surface in the whole width of the seeding machine because it uses wide tines and often duck foot openers. For this reason this form of seeding cannot be termed no-tillage and can only be classified as reduced tillage or mulch tillage. AgroSoyuz has organized several no-till conferences in Dnipropetrovsk inviting many renowned international speakers and since then understanding has been growing that only low disturbance systems bring additional benefits, justifying the focusing on no-tillage. As there seems to be a substantial amount of low disturbance no-tillage being practiced in Ukraine the authors of this paper, after carefully balancing information, estimated the area under no-tillage provisionally to be at 100,000 ha.

Farmers, researchers and extensionists need to reflect on the benefits of no-till farming systems [7]:

• 96% less erosion.
• 66% reduction in fuel consumption.
• Reduced CO2 emissions.
• Enhanced water quality.
• Higher biological activity.
• Increased soil fertility.
• Enhanced production stability and yields.
• Incorporation of new areas into production.
• Lower production costs.

Another way of the win-win, unlike CA, allows you to focus on social benefits, removing the advantage by increasing productivity (number of products) of conventional technological chain of agricultural production.

This way is in the concept of Zero Waste. The term Zero Waste has its origins in the highly successful Japanese industrial concept of total quality management (TQM). It is influenced by ideas such as 'zero defects', the extraordinarily successful approach whereby producers like Toshiba have achieved results as low as one defect per million. Transferred to the arena of municipal waste, Zero Waste forces attention onto the whole lifecycle of products.

Zero Waste encompasses producer responsibility, ecodesign, waste reduction, reuse and recycling, all within a single framework. It breaks away from the inflexibility of incinerator-centred systems and offers a new policy framework capable of transforming current linear production and disposal processes into 'smart' systems that utilize the resources in municipal waste and generate jobs and wealth for local economies [13].

The first goal of any waste management system is to maximize the economic benefit from the waste resource and maintain acceptable environmental standards. To be practical, the system must also be affordable and suitable to the operation. If wastes are not properly handled they can pollute surface and groundwater and contribute to air pollution. Most people think of manure first when they think of farm waste. While manure is an important component, farm waste in a livestock operation can also include waste forage, dead stock, silage effluent and milkhouse waste. In horticultural operations, culls, diseased product, wash line sediment and processing plant wastes are common by-products.

Management that puts into practice the principles of the "four Rs" of Reduce, Reuse, Recycle and Recover is the best first option [9]:

• REDUCE the amount of waste product generated;
• REUSE the waste product on the farm or provide it for others to use; and
• After reducing and reusing as much of the waste product as possible, RECYCLE the product either on-farm, such as with land application of manure, or off-farm, such as with plastic recycling programs.
• RECOVER methane gas from manure waste.

A significant source of waste in agriculture land-use that require optimal waste

control are the agricultural crop residues. These arise on farms including straw, maize stover, residues from sugar beet, oilseeds, grass cuttings, and pruning and cutting materials from permanent crops, and in the crop processing sector in the form of olive pits, seed husks, nut shells. By far the largest source of crop residues is the straw and stover from grain crops (wheat, barley and maize). There is a wide range from 0.8 to 2.64 EJ of energy potential from these residues. It can be seen that this source is between four and 12 times larger than the estimated energy value of food waste. These estimates suggest that crop residues could provide between 8 and 27 per cent of total electricity consumption. The wide range is explained by differences in definitions and what is included in the estimation (eg some exclude woody materials), and in particular for straw by the assumed extraction rates. This latter factor is very important as the incorporation of crop residues in the soil is part of maintaining soil fertility and especially soil organic matter (SOM) [12].

There are essentially two challenges to mobilizing these crop residues. Transport costs are high because these residues are highly dispersed and they have high bulk and low value. This limits the range over which they can, economically, be collected for processing and makes it important that processing plants are optimally located. To perform this mobilization requires appropriate investment in machinery and equipment, this may be beyond individual farmers and necessitate cooperative action or specialized contractors. Harvesting costs can also be high in relation to the value of the material. Second, many have existing uses and established practices, particularly for recycling organic materials back to the soil. There is poor awareness of sustainable extraction rates in relation to local conditions. There are therefore real risks that over-extraction could cause detrimental reduction of SOM with knock on effects for wider soil functionality, soil biodiversity and erosion risk.

It is possible, that biorefineries producing higher value products such as platform chemicals could afford to pay higher prices for biomass than bioenergy plants. However, energy sector modelling projects that the EU's agricultural residue potential will remain heavily underutilized up to 2020 and 2030, with only about 11 per cent of the potential being used [12].

Conclusions. The land-use practice will succeed only if sufficient numbers of players are driven by a problem-solving attitude, and if there are farmers or groups of farmers willing to take a leadership role to push the process forward. In the absence of leadership, even well intentioned players remain uncoordinated, which increases the transaction costs and timeframe both of the problem decision as well as of the pilot projects carried out for soil regeneration. If we want to get businesses and financial institutions to be active participants in solving problems, it is not sufficient to demonstrate that their participation will be good for the economy or the society as a whole. But we also have to show that it will improve their balance sheets as well. If financial win-win situations can be created by mobilizing private capital, it is possible to strengthen the case against the argument that companies cannot afford to take environmental action.

The first way of win-win policy in agriculture land-use is in using advantages of Conservation Agriculture practice. The wide recognition of Conservation Agriculture as a truly sustainable farming system should ensure the growth of this technology to areas where adoption is still small as soon as the barriers for its adoption have been overcome. The widespread adoption of no-tillage system shows that this way of farming cannot any longer be considered a temporary fashion. Instead, this farming system has established itself as a technology that can no longer be ignored by politicians, scientists, universities, extension workers, farmers as well as machine manufacturers and other agriculture related industries.

The first way of win-win policy in agriculture land-use is in removing the advantage by increasing productivity (number of products) of conventional technological chain of agricultural production with guided by principles of Zero Waste concept. Zero Waste farm planning highlights opportunities for pursuing both business and environmental objectives at the same time. Waste management will also help farm operators decide what tradeoffs might be effective when business and environmental objectives compete. Understanding the best management practices is an essential part of developing a sustainable farm plan.

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